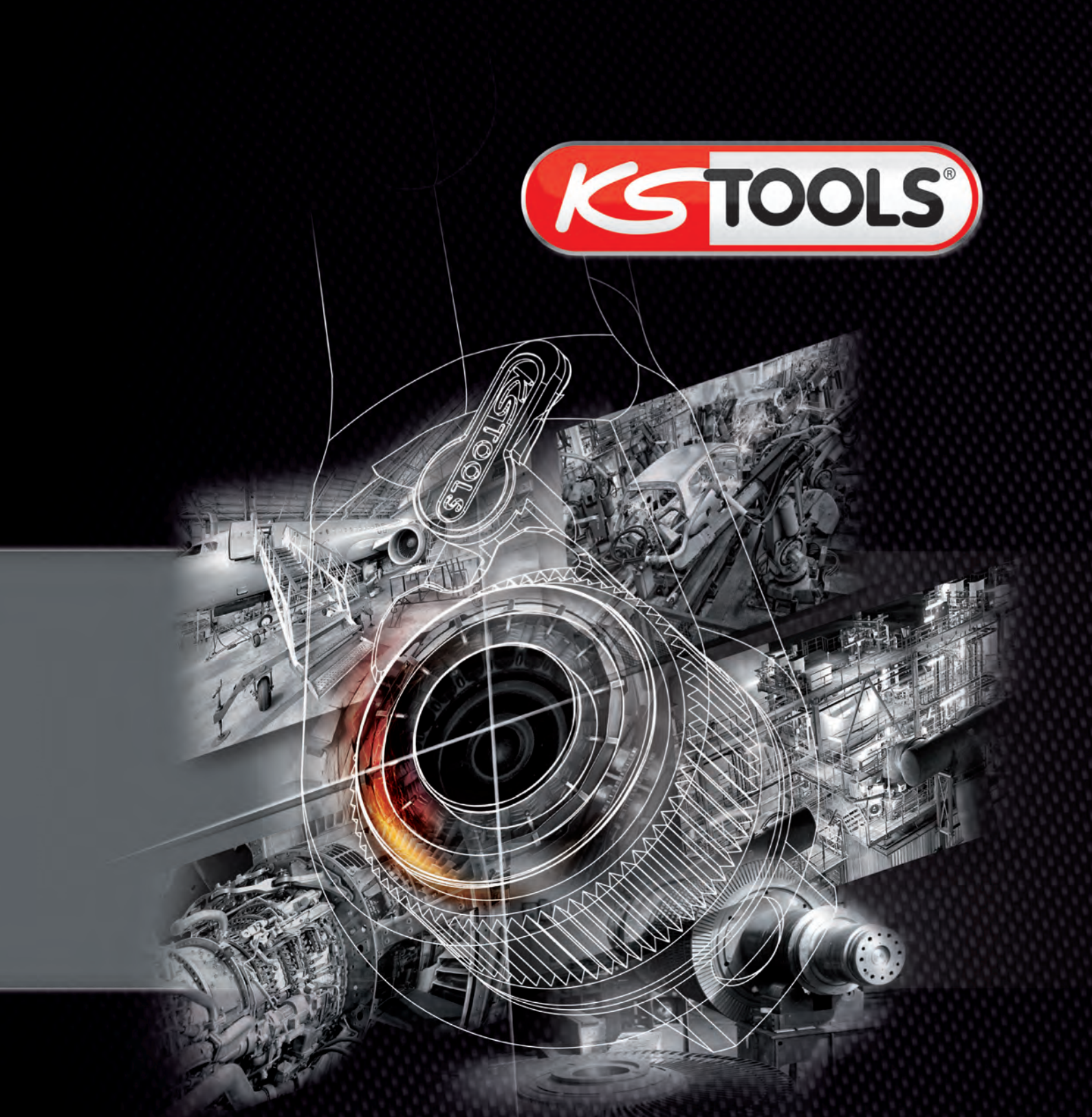
KS TOOLS®



INDUSTRIAL TOOLS

1 SPANNERS
2 SOCKETS AND ACCESSORIES
3 TORQUE TOOLS
4 BITS
5 ALLEN KEYS
6 SCREWDRIVERS
7 PLIERS
8 PRECISION TOOLS
9 NON SPARKING TOOLS
10 NON MAGNETIC TOOLS - STAINLESS STEEL / TITAN
11 VDE INSULATED SAFETY TOOLS AND VARIOUS TOOLS FOR ELECTRICIAN
12 MEASURING AND TESTING EQUIPMENT
13 PULLERS
14 VIDEOSCOPE TECHNOLOGY
15 PNEUMATIC TOOLS
16 CORDLESS BATTERY TOOLS
17 LIGHTING TOOLS
18 WORKSHOP EQUIPMENT
19 TOOL CABINETS / FOAM TOOL ASSORTMENTS
20 MACHINING TOOLS / BRUSHES AND FILES
21 CUTTING AND SCARPING TOOLS
22 HAMMERS
23 STRIKING TOOLS
24 PLUMBING AND INSTALLATION TOOLS
25 CONSTRUCTION TOOLS
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Innovation is
our mission!

PREMIUM QUALITY

WHICH CONVINCES INTERNATIONALLY

We thank the long-term loyalty and satisfaction of our global customers for our fast-paced success story. Now for more than 22 years KS Tools, a modern tool supplier, has been offering solutions to current problems and intelligent tools for the continuously growing challenges in our high-tech everyday lives .

The countless users of our tools appreciate that even when developing our tools we set great store by innovation, ergonomics, high load capacity, long service life and everyday practicality – premium quality at a special price/performance ratio.

With our logistics centre we guarantee the most reliable delivery capability with a global quick service. This means our customers gain time and receive additional benefi s. More than 230 employees now work in our central administration building on 2000 m2 of the most modern offi e space and our high rack logistics centre with more than 9000 m2 warehouse space and ensure every day that our customers are supplied with over 32,000 products from a single source. Currently we employ more than 320 people globally.

The signs of growth continue, more and more specialised trade partners could be gained and now enjoy the benefi s of our comprehensive programme. In the process the range of services is redefined almo t every day. We're precisely where you need us – today we export to more than 70 countries. The global market for professional users of industry is supplied with premium quality tools and workshop solutions via specialised trade. Together with specialised trade we delight discerning customers worldwide. Lasting partnership-based relationships are therefore of special importance to us.

Through our ongoing customer retention we experience more about customer requests and the desired trends of tomorrow today. In order to continue to follow our development we have signifi antly increased the variety of our programme and optimised it in a user-oriented way. We present you with the K15 Industrial Catalogue in a modern design on more than 800 pages and more than 17,000 selected articles from our overall programme of more than 32,000 products from our world of premium tools for the manufacturing and processing industries with a large range of classic, modern and innovative hand tools of all types. Our customers can always rely on the highest level of service and delivery quality.

Our further refined a ticle outline single-handedly takes you even faster to the tool group you're searching for. We have set exceptionally high store by the depth of technical information and descriptions. In this way you will also always find he optimum tool matching your specialist application even in the case of unusual requirements. Also, with the help of the comprehensive subject index in the annex you will find he desired quality tool quickly.

Whilst we are pleased at the rapid development, we do not forget who we need to thank for this success. You, our customers and partners, have encouraged us and our employees to continue to expand our range with your confiden e and your willingness to cooperate as a partner.

We would also like to continue to live up to this confiden e – as according to our motto

KS — competence and service at its best.

KS TOOLS

CENTRAL ADMINISTRATION AND LOGISTICS CENTRE

KSTOOLS®

Innovation is our mission!

three administration buildings with **2000m²** offi e area

9000m²
warehouse and logistics centre

230 highly qualified e ployees

22 apprentices in different occupations

Werkzeuge-Maschinen GmbH
Seligenstädter Grund 10 - 12
D- 63150 Heusenstamm

DEUTSCHLAND

Tel.: +49 6104 4974-0
Fax: +49 6104 4974-11
e-mail: kstools@kstools.de
URL: www.kstools.de

HISTORY / DEVELOPMENT

KS TOOLS®

Innovation is our mission!

1992

KS Tools was founded by Mr. Peter Kühne and Mr. Stephan Schott in Offenbach as a commercial enterprise for quality tools.

1996

KS Tools moves premises to in Obertshausen with 20 employees.

1998

Premises extended with now 38 employees.

2001

New offi e and central warehouse with 62 employees in Heusenstamm.

2006

Following the growth of the business, KS Tools expands to 110 employees, with warehouse space of 5000 m² and offi e space of 1800 m².

2008 / 2009

Extension of our warehouse about 4000 m².
Building of a new training center and extension of the offi e space.

2009

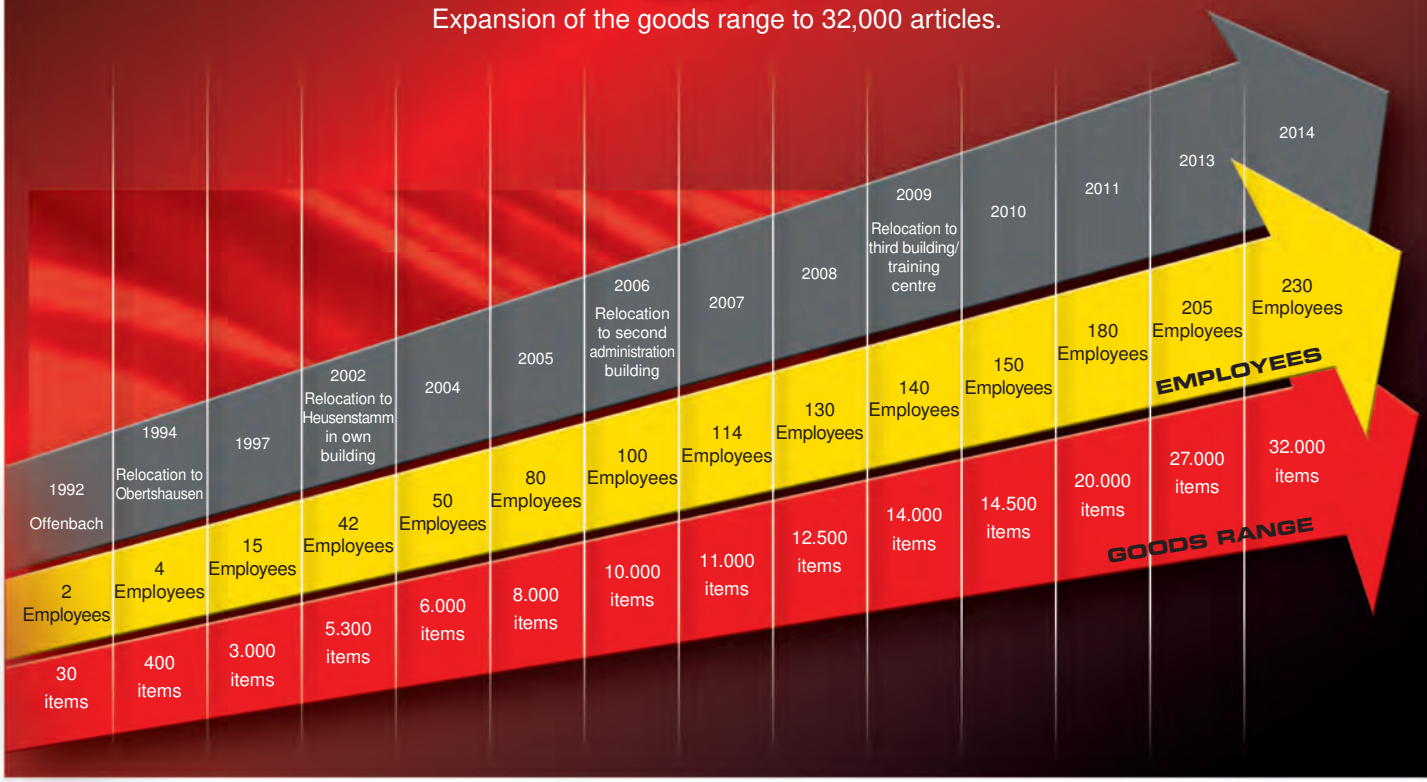
Commissioning of the training centre.

2013

KS Tools is now expanding to 205 employees.

2014

Expansion of the goods range to 32,000 articles.



DESIGN AND BRAND PATENTS

KS TOOLS®

Innovation is our mission!

KS TOOLS®

is known and renowned
worldwide for its innovative strength.
Over the past few years
this has led
to numerous protective rights,
on a national
and a global level.

WE ARE THERE FOR YOU — IF YOU NEED US

KS TOOLS®

Innovation is our mission!

LIGHTNING LOGISTICS — GLOBAL QUICK SERVICE

Gain time and additional benefi s from our reliable shipping logistics.

Warehouse floor area

2001
5.000 m²

2008
4.000 m²

Total:
9.000 m²

Working hours:

24 hours
in
3 shifts

Euro-pallets storage:

8.280

Small parts storage:

8.000

Monthly pick position:

> 85.000
Positions

Monthly shipping capacity:

> 20.000
UPS
packages

> 2.400
Euro-pallets

SALES AND DISTRIBUTION WORLDWIDE

KS TOOLS®

Innovation is our mission!

KS TOOLS®

PREMIUM QUALITY TOOLS

Available in more than 70 countries worldwide.

EXHIBITIONS & FAIRS

KS Tools is present at more than 30 national and international fairs / exhibitions throughout the year. Use the opportunity to visit us and see fi st hand the quality and service which KS Tools has to offer.

KS TOOLS
Innovation is our mission!
Tools and more
BREMSE
BRAKE SYSTEM
ACHSE
AXLE
WALKER
We will be in your area soon and look forward to seeing you!

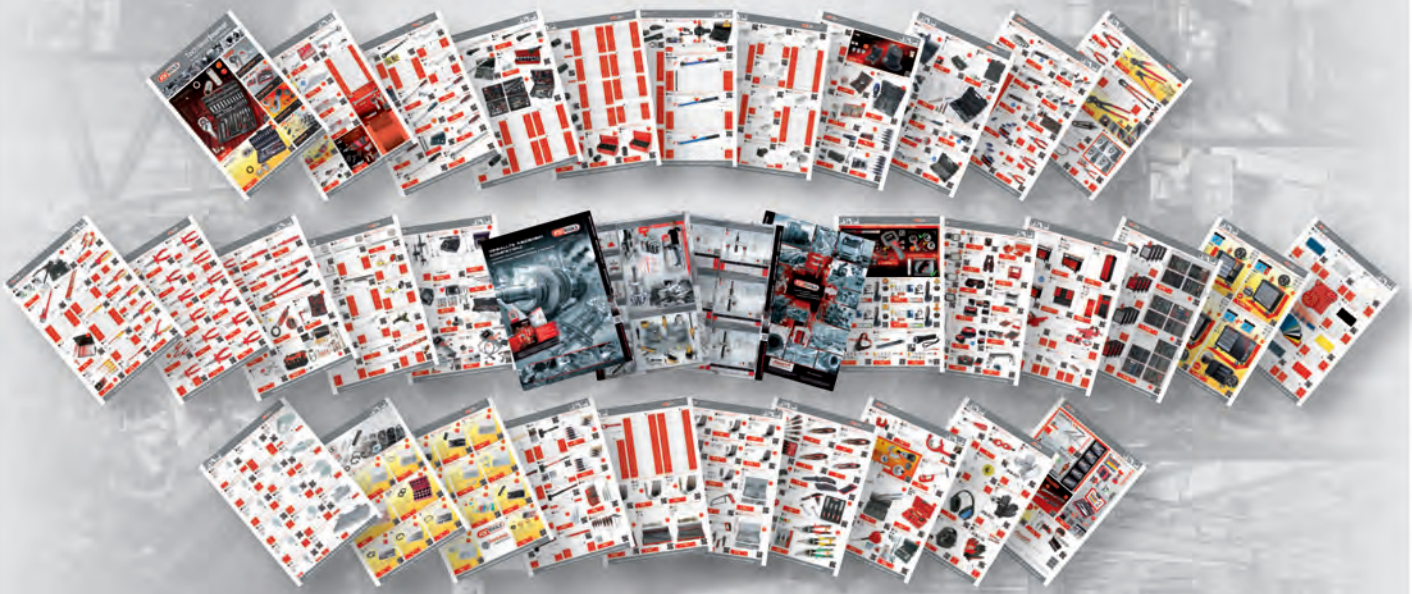
TechnicalTimes

KS TOOLS

Innovation is our mission!

Twice a year we have our special promotion for the manufacturing and processing industries on at least 32 pages with a very large range of classic, modern and innovative hand tools. The technician's periodical contains tools of outstanding quality at a very good price/performance ratio.

Highly topical, problem solving solutions, and valuable usage tips - that is the TechnicalTimes!



Do you know our individual catalogues ...

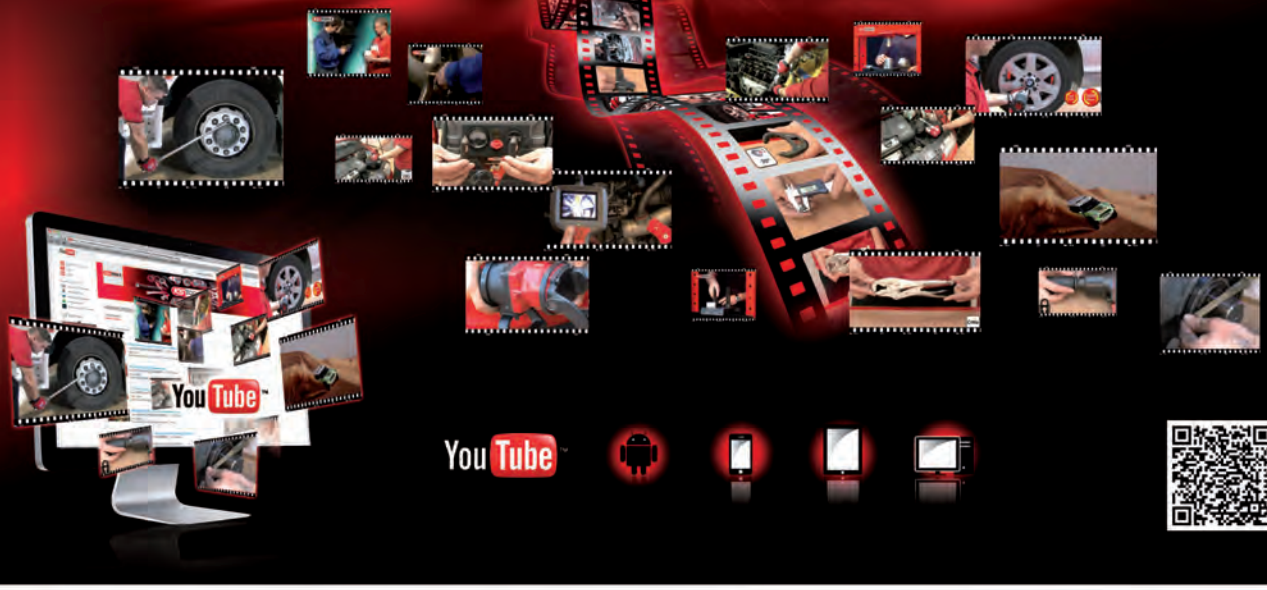
www.toolchannel.com

Moving pictures say more than words ...

KS TOOLS

Innovation is our mission!

TOOL KS TOOLS HDV CHANNEL



www.kstools.com

Herzlich Willkommen
Welcome
Bienvenido!
欢迎！
Witamy
Welkom!
ようこそ！
bem vindos!
Benvenuti !
Välkommen!
добро пожаловать
Velkommen
Bine ați venit
وس هل ًا أهل ًا!
Καλώς ηρθατε!
Bi xêr hatî
Tervetuloa!
добро пошли
Bienvenue
HOŞGELDİNİZ!
Vítáme vás!
bem vindos!

TRAINING CENTRE

Modern, intelligent tool systems require a high technical knowledge in order to communicate the advantages and the problem solving potential of these products to the user.
At the end of August 2009 our new

TECHNICAL TRAINING CENTRE

was handed over to his task.

On over approx. 600 square metres of presentation everything can be found for our customers, distribution partners and colleagues, as we say „all from one hand"

Core areas are

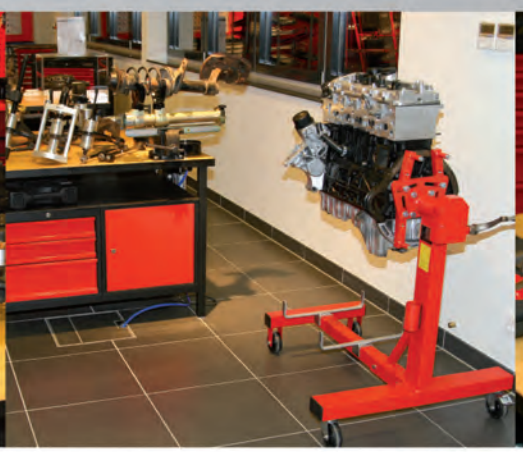
10 product islands.

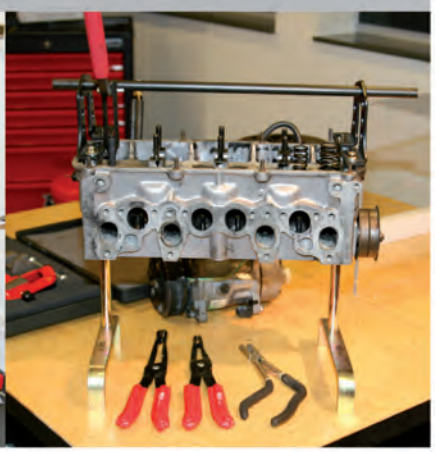
The special tools are available at the same time as the relevant working ares for example chassis, brakes, engine or also the Video-scope program. These give the visitors an overview of all solutions offered by us as well as concepts.

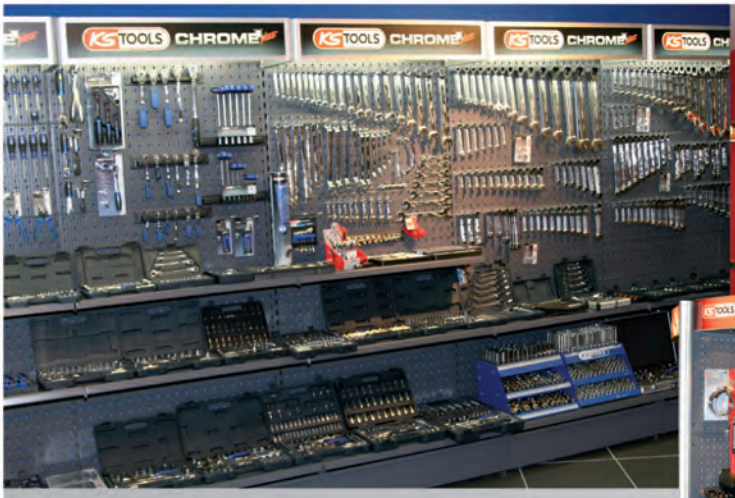
Impressive and practical the use of the KS special tools can be demonstrated on

work station areas

or even can be used by customers.







On **30 m display wall**
all essential product areas are found such as standard tools and special tools, e.g. the torque tool and puller program.

We are especially proud of our modern
conference room
with modern multimedia technology.
It has so much to offer as a place for interesting training and conferences.

Every workstation is equipped with a terminal computer, which enables interactive training and multimedia demonstrations.

Taken into account the permanently changing challenges in our marketplace the training and education of our employees is one of our major duties.
In our own KS-academy many workshops such as for professional business administration, the latest computer applications take place regularly.
The program within the academy has also included two foreign language courses with external instructors which enriches this offer of advanced education.

For our customers and trade partners there are regularly monthly product trainings for all product lines and novelties as well. We look forward to welcome you in our premises.
Simply ask about our training plan.
For larger groups or single firm , we are able to offer tailor made and

individually designed product trainings combined with the use of our meeting facilities.

SERVICE VAN

We optimize your KS Tools - shop presentation!
Our very own team will arrange an appointment to visit our trade partners to set up and decorate display boards, show cases etc. on the spot. On board of the fully equipped service mobile we carry all accessories and items to attractively present KS Tools products.

We have a large catalogue with our presentation systems, whether on small or large area we offer tailor made solution to you in order to increase the attraction of the presentation of our range of tools and machines. Your local area manager will be able to provide more details on the available possibilities.

Twelve highly qualified echnicians are selected to visit

together with our excellent trade partners

automotive repair shops as well as industrial customers. By this way we can not only clarify particular special applications and needs of our customers, but we can also carry out technical training on the various tools available at the same time.

Our mobile information fle t represents a selective cross section over all product lines with a main focus on the automotive sector, since these products require an intensive amount of explanation and demonstration and most of all: the users can try out the products themselves.

In case you are interested in a product demonstration, talk to us! Our regional representatives will more than welcome your request and will assist you.

Needless to mention that this service and opportunity is for free. Arrange an appointment with your regional representative and discover the world of tools and get convinced of this opportunity and the benefi s.

THE FLEET OF INFORMATION VANS

KS TOOLS®

Innovation is our mission!

12 demo vehicles and demo trucks come along our fle t. We are proud to present three 12.5 t event vehicles!

Equipped with 10 fully configu ed tool trolleys, we present on more than 54 m² display space the complete program of special tools for the mechanic. These trucks are extremely desired and supporting as our “Show of Tools” on wheels - unique in Europe.

KS TOOLS
RACING
Innovation is our mission!
2014 DAKAR
ARGENTINA
BOLIVIA
CHILE
KS TOOLS
2009 • 2010 • 2011 • 2012 • 2013 • 2014
DAKAR
Official e
tool suppl
Dakar rally winners 2
KS TOOLS PREMI
RELIABLE UNDER EXTREME
TOTAL
Branca Unico
BMW Diesel Power
MINI
Argentina

PARTNERSHIPS

KS TOOLS®

Innovation is our mission!

KS Tools tools and repair systems can be introduced well in the world of rally sport. Numerous teams use our tools and equipment at events such as the “U.A.E. Desert Challenge” in Dubai or the world famous, legendary “DAKAR” rally. In the hardest motorsport in the world not only the speed of the vehicle and the crew counts to the criteria decisive for success, but above all the reliability of the material and the service equipment.
We pose ourselves this challenge with pride.
The “2drive Racing” team and the “X-Raid” team only use tools and equipment from KS Tools.

The ultimate endurance test!

exclusive
lier to the
012 + 2013 + 2014

UM TOOLS

E OPERATING CONDITIONS!

SERVICE CENTRE

KS TOOLS®

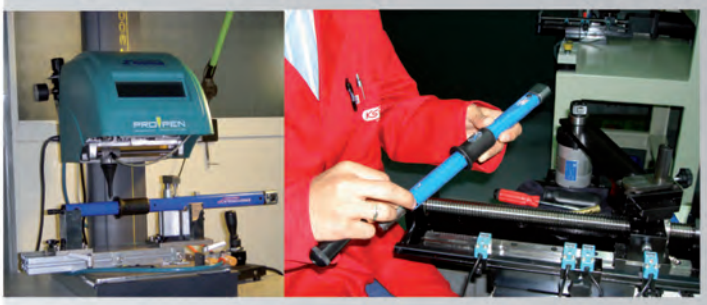
Innovation is our mission!

The KS SERVICE CENTRE is your direct contact and co-ordinator for all kind of service related to all our products.

We guarantee short reaction times and economical repairs in our specially established SERVICE CENTRE.

The KS Service Centre offers the following benefits

- Repair, adjustment, calibration and certifi ation of KS Tools torque wrenches
- Monitoring service for testing tools for torque wrenches
- Our economical calibration service and torque testing laboratory provides certifi ates in accordance to all existing norms and standards as per DIN EN ISO 9000.



PREMIUM SERVICE

When it comes to maintenance or replacement part procurement or even repairs we are always available with advice and support. Our service employees are also available after purchase with our all-round premium service.

Further more we offer examination and economical repairs for our entire catalogue range.

QUALITY / GUARANTEE

Management System
ISO 9001:2008
TÜVRheinland ZERTIFIZIERT
www.tuv.com
ID 9105033220

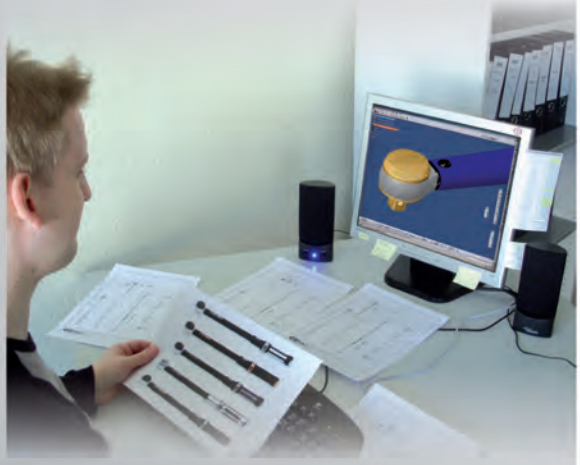
Quality guaranteed through systematic quality assurance in accordance to DIN EN ISO 9001:2008

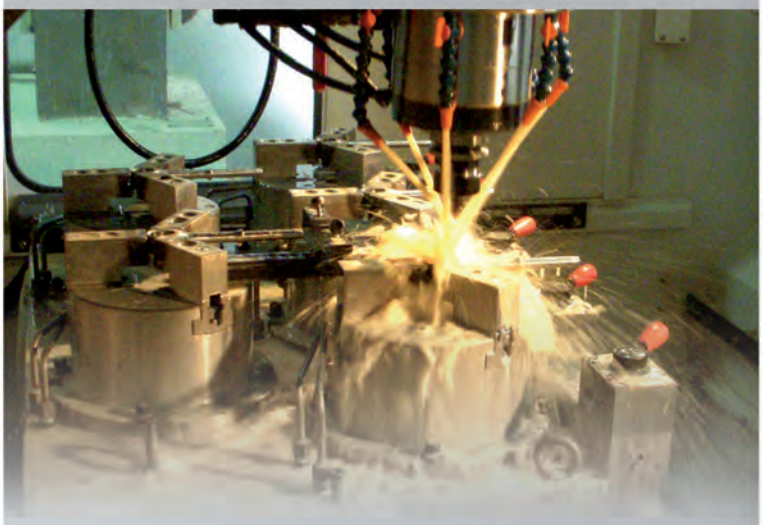
Our company is certified in a cordance to ISO 9001:2008 and is subject to permanent monitoring by TÜV Rheinland GmbH. Our constant drive for innovate products and the increased quality awareness of our customers demand for continuous improvement of the product quality and productivity.

All employees of our company are committed to exercise the maximum possible diligence and permanent controls and checks at all levels in order to ensure the highest level of quality.

This means for our customers:

Guaranteed quality and controlled safety at the highest stage!





Zertifikat

Prüfungsnorm: ISO 9001:2008

Zertifikat-Registrier-Nr.: 01 100 054054

TÜV Rheinland Cert GmbH bescheinigt:

Zertifikatsinhaber: KS TOOLS

Werkzeuge-Maschinen GmbH
Seligenstädter Grund 10-12
D - 63150 Heusenstamm

mit den angeschlossenen Unternehmen gemäß Anlage

Geltungsbereich: Import, Export und Vertrieb von Werkzeugen aller Art

Durch ein Audit, Bericht Nr. 054054, wurde der Nachweis erbracht, dass die Forderungen der ISO 9001:2008 erfüllt sind.

Das Fälligkeitsdatum für Folgeaudits ist der 15. Dezember.

Gültigkeit: Dieses Zertifikat ist gültig vom 16.12.2009 bis zum 08.02.2012.
Erstzertifizierung 2006

Köln, 16.12.2009

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

IAF

TGA-ZM-58-95-00

www.tuv.com

TÜVRheinland®
Genau. Richtig.

KS Tools equipment is manufactured to the highest quality standards and from the very best material.

However if any of our products show a lack of quality due to material failure or manufacturing fault we guarantee free replacement.

That we guarantee!

WE SHOW WHAT WE CAN DO

KS TOOLS

BMW X-RAID

Official exclusive tool supplier to the Dakar rally winners 2012 + 2013 + 2014

KS TOOLS PREMIUM TOOLS

RELIABLE UNDER EXTREME OPERATING CONDITIONS!

KS TOOLS ONLINE

KS TOOLS

Innovation is our mission!

toolchannel.com ks-portal.com kstools.com

Loyalty to specialised trade

Expert advice

Sales support

B2B online shop

PARTNER TO INDUSTRY

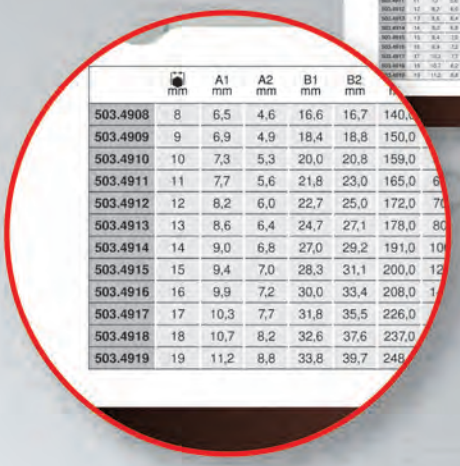
CATALOGUE LAYOUT

Signifi ant product photographs

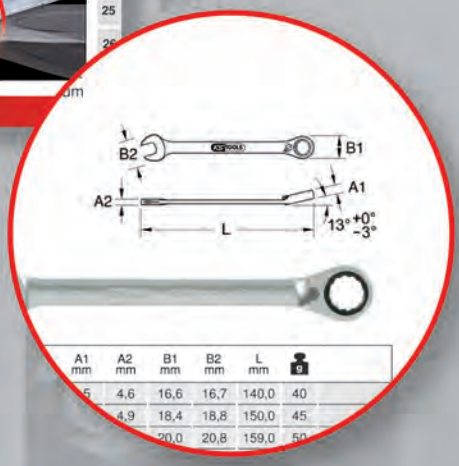
Coloured index for quick navigation

Clear specifi ation of the set contents

Extensive description of the product specifi ations



Tabular clear view of the technical features



Technical drawing with all measurement dimensions

THE INDUSTRIAL CATALOGUE

KS TOOLS®

Innovation is our mission!

27 SECTIONS

725 PRODUCT GROUPS

800 PAGES

17,000 ARTICLES

www.kstools.com

1 SPANNERS

KS TOOLS®

Innovation is our mission!

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SPANNERS

Manufacturing and fabrication steps

Raw material blank cutting

Amti slip ground

Raw material blank cutting

Stamping of the spanner shaft

Forging of the spanner blank

Hardening and tempering

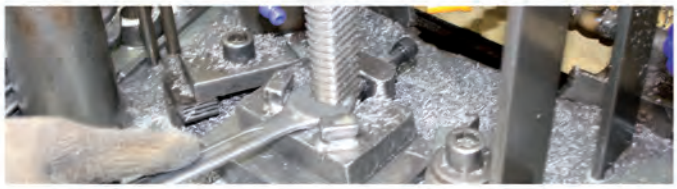
Spanner blank

Galvanizing preprocessing

Jaw head milling

Nickel plating and chromium plating

Ring head broaching

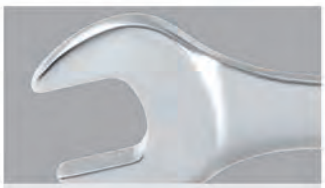


Surfaces

Phosphate

- Phosphating = chemical / electro chemical process
- Dip coating or injection method
- Intention is the generation of phosphate layer, which is immovable on the base metal
- The surface receives a very good absorption capacity for oil and wax.
- Reliable corrosion protection
- Posphated tools require regular oiling

Matt chrome



- Chrome layer is manufactured by electroplating in a electrolytic bath process
- Several steps e.g. degrease / nickel plating and chrome plating
- Matt = matt nickel layer shines through chrome layer - Resulting in matt finis
- Ideal corrosion and wear and tear protection

Chrome plated and mirror polished

- Chrome layer is manufactured by electroplating in an electrolytic bath process
- Several steps e.g. degrease / nickel plating and chrome plating
- Mirror polished = shining nickel layer - Resulting in a mirror polished finish
- Ideal corrosion and wear and tear protection

Very fine ma t satin chrome

- Chrome layer is manufactured by electroplating in an electrolytic bath process
- Several steps e.g. degrease / nickel plating and chrome plating
- Ideal corrosion and wear and tear protection

Spanner-Profil

CLASSIC

- Matt chrome
- Chrome vanadium steel
- High corrosion and wear protection
- FlankTraction 12-point profil

CHROME plus

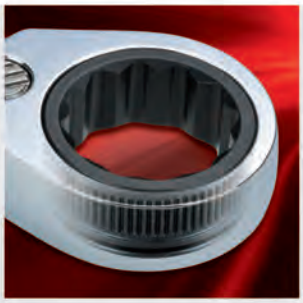
- Chrome plated and mirror polished
- Chrome vanadium steel
- High corrosion and wear protection
- FlankTraction 12-point profil

ULTIMATE PLUS

- Matt satin chrome
- Chrome vanadium steel
- High corrosion and wear protection
- FlankTraction 12-point profil

GEARplus®

- Matt satin chrome
- With fine oothed ratchet ring technique
- Chrome vanadium steel
- High corrosion and wear protection
- FlankTraction 12-point profil



The GEARplus® atchet ring spanner offers all the advantages of a ratchet and much more ...

Design of the ultra slim ring side allows working in the narrowest areas, even where, conventional ratchets and sockets cannot be used.
With a speed not normally possible the spanner allows diffi ult couplings to be loosened and tightened.

Profil

FlankTraction 12 point

- Perfect grip even on screws and nuts which are not true to size or damaged
- Larger contact area for better pressure distribution
- Avoids damage of head of screws
- Perfect torque transfer to the flan s of nuts and bolts

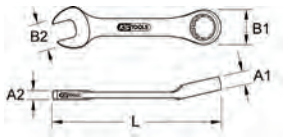
E-TX

- Common profile f om automotive industry
- No cam distortion
- Perfect torque transfer

MINI COMBINATION SPANNERS

CHROME*plus*® combination spanner, stubby

- FlankTraction profile 12 point)
- Jaw 15° offset
- Ring head 15° offset
- Chrome plated and mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0010	10	7.5	5.8	16.1	22.2	95.0	37
518.0011	11	7.8	6.1	17.9	23.9	100.0	45
518.0012	12	7.8	6.6	19.1	25.5	104.0	51
518.0013	13	9.1	7.0	19.9	27.1	109.0	54
518.0014	14	9.4	7.6	21.8	29.2	114.0	71
518.0015	15	9.6	7.8	22.5	30.1	120.0	76
518.0016	16	9.8	7.9	24.1	32.8	124.0	88
518.0017	17	10.8	8.7	26.1	35.8	130.0	115
518.0018	18	11.0	9.1	27.0	36.7	134.0	118
518.0019	19	11.9	9.9	28.6	38.1	140.0	148

CHROME*plus*® combination spanner set, stubby

- FlankTraction profile 12 point)
- Jaw 15° offset
- Ring head 15° offset
- Chrome plated and mirror polished
- Chrome vanadium

			g
518.0040	7 pcs	10 - 11 - 12 - 13 - 14 - 17 - 19 mm	600

GEAR*plus*® combination ratcheting spanner, stubby

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- High quality finis
- Chrome vanadium

	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4631	8	6.5	4.0	16.6	16.7	90.0	30
503.4632	9	6.9	4.4	18.4	18.8	93.0	40
503.4633	10	7.3	4.8	20.0	20.8	95.0	45
503.4634	11	7.7	5.2	21.8	23.0	103.0	50
503.4635	12	8.2	5.5	22.7	25.0	106.0	55
503.4636	13	8.6	5.8	24.7	27.1	108.0	60
503.4637	14	9.0	6.2	27.0	29.2	115.0	70
503.4638	15	9.4	6.5	28.3	31.3	119.0	90
503.4639	16	9.9	6.8	30.0	33.4	123.0	100
503.4640	17	10.3	7.2	31.8	35.5	127.0	110
503.4641	18	10.7	7.7	32.6	37.6	131.0	120
503.4642	19	11.2	8.2	33.8	39.7	139.0	150

GEAR*plus*® combination ratcheting spanner set, stubby

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4652	12 pcs	GEAR*plus*® combination ratcheting spanner set, stubby	1.08
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	

GEAR*plus*® combination ratcheting spanner set, stubby

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- Square drive adaptor to DIN 3120
- - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

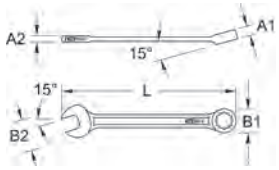
1/4" 3/8" 1/2"

			kg
503.4653	16 pcs	GEAR*plus*® combination ratcheting spanner set, stubby	1.35
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

COMBINATION SPANNERS

CLASSIC combination spanners, offset

- FlankTraction Profil
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finis
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
517.0606	6		4.7	4.0	10.1	15.5	100.0	10
517.0607	7		5.0	4.0	11.5	17.0	110.0	15
517.0608	8		5.5	4.5	12.8	19.2	120.0	20
517.0609	9		5.9	4.5	14.2	21.2	130.0	30
517.0610	10		6.5	5.0	15.6	23.2	140.0	40
517.0611	11		6.9	5.4	16.9	25.3	150.0	50
517.0612	12		7.3	5.5	18.3	27.2	160.0	60
517.0613	13		7.8	5.9	19.7	29.4	170.0	70
517.0614	14		8.3	6.2	21.2	31.5	180.0	80
517.0615	15		8.6	6.4	22.5	33.2	190.0	90
517.0616	16		8.9	6.7	24.0	34.7	200.0	100
517.0617	17		9.3	6.9	25.3	36.5	210.0	130
517.0618	18		9.9	7.2	26.8	38.7	220.0	140
517.0619	19		10.5	7.4	28.1	40.7	230.0	170

	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
517.0620	20		10.9	7.7	29.7	43.1	240.0	190	
517.0621	21		11.3	8.0	31.3	44.5	250.0	210	
517.0622	22		11.5	8.2	32.6	46.9	260.0	230	
517.0623	23		13.5	7.6	33.0	49.5	270.0	245	
517.0624	24		14.0	8.0	35.5	50.4	280.0	270	
517.0625	25		14.5	8.2	36.0	54.5	290.0	340	
517.0626	26		15.0	8.5	37.0	56.5	300.0	350	
517.0627	27		15.5	8.8	39.6	59.5	310.0	420	
517.0628	28		16.0	9.0	40.0	60.0	320.0	440	
517.0629	29		16.5	9.5	41.5	61.5	330.0	470	
517.0630	30		17.0	10.1	43.7	61.8	340.0	500	
517.0632	32		18.0	10.4	46.4	65.8	360.0	530	
517.0634	34		20.0	10.0	49.7	66.0	420.0	735	
517.0636	36		19.5	11.0	51.5	77.0	380.0	690	
517.0638	38		21.5	13.0	56.0	76.0	450.0	1000	
517.0641	41		22.0	11.0	58.5	87.0	440.0	750	
517.0646	46		25.0	15.2	71.5	93.0	506.0	1635	
517.0650	50		26.4	16.4	75.6	102.0	540.0	2100	
517.1901		1/4"	5.0	3.9	9.8	15.7	100.0	15	
517.1902		5/16"	5.9	4.4	12.7	19.0	120.0	25	
517.1903		3/8"	6.4	4.5	14.1	20.9	130.0	30	
517.1904		7/16"	7.4	5.2	16.9	25.4	150.0	45	
517.1951		1/2"	8.4	5.8	19.7	29.3	170.0	70	
517.1906		9/16"	8.9	6.1	21.1	31.2	180.0	75	
517.1907		5/8"	9.8	6.6	24.0	34.5	200.0	95	
517.1908		11/16"	10.3	6.9	25.4	37.3	210.0	120	
517.1909		3/4"	11.1	7.3	28.2	40.4	230.0	155	
517.1911		25/32"	11.4	7.5	29.6	42.3	240.0	185	
517.1912		13/16"	11.7	7.7	31.0	44.2	250.0	190	
517.1913		7/8"	12.0	7.9	32.3	46.6	260.0	220	
517.1914		15/16"	12.7	8.3	35.1	50.1	280.0	280	
517.1952		1"	13.0	8.5	36.5	52.8	290.0	300	
517.1916		1.1/16"	13.6	8.9	39.2	55.9	310.0	375	
517.1917		1.1/8"	13.9	9.1	40.6	57.8	320.0	390	
517.1918		1.3/16"	14.6	9.5	43.4	62.6	340.0	470	
517.1919		1.1/4"	15.2	9.9	46.6	66.9	360.0	555	
517.1921		1.5/16"	15.2	10.0	46.0	66.0	340.0	500	
517.1922		1.3/8"	18.4	13.0	52.0	74.0	390.0	780	
517.1923		1.7/16"	19.0	13.0	52.1	75.0	390.0	780	
517.1924		1.1/2"	19.0	13.0	55.5	75.0	390.0	730	

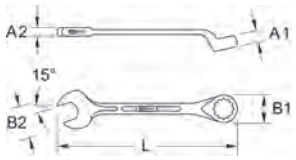
CLASSIC Combination spanners set, offset

- FlankTraction profile 12 point)
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finis
- Chrome vanadium

			kg	
517.0045	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.54	
517.0048	8 pcs	8 - 9 - 10 - 11 - 13 - 14 - 17 - 19 mm	0.55	
517.0080	10 pcs	8 - 10 - 11 -12 - 13 - 14 - 15 - 17 - 19 - 22 mm	0.82	
517.0052	12 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.88	
517.0085	12 pcs	10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 - 24 - 27 - 30 - 32 mm	2.28	
517.0043	21 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	3.80	

CLASSIC combination spanners, offset

- FlankTraction profile 12 point)
- DIN 3113 Form B / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 70° offset
- Ring head 10° angled
- Matt finish
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
517.1606	6		5.5	3.7	11.0	15.5	110.0	0.02
517.1607	7		6.0	3.7	12.5	17.5	120.0	0.02
517.1608	8		6.5	4.3	13.8	20.0	130.0	0.03
517.1609	9		7.0	4.3	15.0	21.5	140.0	0.04
517.1610	10		7.5	4.7	16.5	23.5	150.0	0.04
517.1611	11		8.0	5.1	18.0	25.0	158.0	0.05
517.1612	12		8.5	5.3	19.6	27.0	165.0	0.07
517.1613	13		7.0	5.5	21.2	29.5	175.0	0.08
517.1614	14		9.5	5.7	23.0	31.5	185.0	0.09
517.1615	15		10.0	6.1	24.4	33.5	195.0	0.10
517.1616	16		10.5	6.5	26.0	35.5	210.0	0.12
517.1617	17		11.0	6.9	27.6	37.0	225.0	0.14
517.1618	18		11.5	7.3	28.8	40.0	240.0	0.16
517.1619	19		12.0	7.7	30.5	42.5	255.0	0.18
517.1620	20		12.5	8.1	31.5	44.0	270.0	0.20
517.1621	21		13.0	8.5	33.0	45.5	285.0	0.24
517.1622	22		13.5	8.9	34.5	47.5	300.0	0.28
517.1623	23		14.5	9.5	37.0	52.0	320.0	0.38
517.1624	24		14.5	9.5	37.0	52.0	320.0	0.38
517.1625	25		15.5	10.3	39.0	54.5	350.0	0.44
517.1626	26		15.5	10.3	39.0	54.5	350.0	0.44
517.1627	27		16.5	11.3	42.0	60.5	380.0	0.49
517.1628	28		16.5	11.3	42.0	60.5	380.0	0.49
517.1629	29		17.5	12.5	45.0	64.0	410.0	0.68
517.1630	30		17.5	12.5	45.0	64.0	410.0	0.68
517.1632	32		18.5	12.5	49.0	66.0	430.0	0.72
517.1636	36		22.0	12.5	55.0	77.0	460.0	1.07
517.1638	38		22.0	12.5	55.0	77.0	465.0	1.08
517.1641	41		24.5	13.5	60.0	85.0	510.0	1.26
517.1646	46		25.5	16.0	66.0	93.0	530.0	1.70
517.1650	50		26.5	16.5	74.0	104.0	560.0	2.20
517.1655	55		28.3	19.0	82.0	112.0	570.0	2.90
517.1660	60		31.0	20.0	90.0	123.0	660.0	3.60
517.1665	65		33.0	22.0	98.0	133.0	710.0	4.55
517.1670	70		35.0	24.0	105.0	143.0	760.0	5.80
517.1675	75		38.0	26.0	110.0	153.0	810.0	6.65
517.1680	80		41.0	28.0	119.0	163.0	860.0	8.50
517.2601		1/4"	5.5	3.7	11.0	15.5	110.0	0.02
517.2602		5/16"	6.5	4.3	13.8	20.0	130.0	0.03
517.2603		3/8"	7.5	4.7	16.5	23.5	150.0	0.04
517.2604		7/16"	8.0	5.1	18.0	25.0	158.0	0.05
517.2651		1/2"	9.0	5.5	21.2	29.5	175.0	0.08
517.2606		9/16"	9.5	5.7	23.0	31.5	185.0	0.09
517.2607		5/8"	10.5	6.5	26.0	35.5	210.0	0.12
517.2608		11/16"	11.0	6.9	27.6	37.0	225.0	0.14
517.2609		3/4"	12.0	7.7	30.5	42.5	255.0	0.18
517.2611		25/32"	12.5	8.1	31.5	44.0	270.0	0.20
517.2612		13/16"	13.0	8.5	33.0	45.5	285.0	0.24
517.2613		7/8"	13.5	8.9	34.5	47.5	300.0	0.28
517.2614		15/16"	14.5	9.5	37.0	52.0	320.0	0.38
517.2652		1"	15.5	10.3	39.0	54.5	350.0	0.44
517.2616		1.1/16"	16.5	11.0	42.0	60.5	380.0	0.49
517.2617		1.1/8"	16.5	11.3	42.0	60.5	380.0	0.49
517.2618		1.3/16"	17.5	12.5	45.0	64.0	410.0	0.68
517.2619		1.1/4"	16.5	11.3	42.0	60.5	380.0	0.49
517.2621		1.5/16"	18.5	12.5	49.0	66.0	430.0	0.72
517.2622		1.3/8"	22.0	12.5	55.0	77.0	460.0	1.07
517.2623		1.7/16"	23.0	12.5	55.0	77.0	461.0	1.07
517.2624		1.1/2"	22.0	12.5	55.0	77.0	465.0	1.08
517.2653		1.9/16"	12.5	12.5	55.0	77.0	465.0	1.08
517.2626		1.5/8"	13.5	13.5	60.0	85.0	510.0	1.26
517.2627		1.11/16"	13.5	13.5	60.0	85.0	510.0	1.26
517.2628		1.3/4"	16.0	16.0	66.0	93.0	530.0	1.70
517.2629		1.13/16"	16.0	16.0	66.0	93.0	530.0	1.70
517.2631		1.7/8"	16.0	16.0	66.0	93.0	530.0	1.70

	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg	
517.2632		1.15/16"	16.5	16.5	74.0	104.0	560.0	2.20	
517.2633		2"	16.5	16.5	74.0	104.0	560.0	2.20	
517.2634		2.1/16"	16.5	16.5	74.0	104.0	560.0	2.20	
517.2635		2.1/8"	16.5	16.5	74.0	104.0	560.0	2.20	
517.2636		2.3/16"	19.0	19.0	82.0	112.0	570.0	2.90	
517.2637		2.1/4"	19.0	19.0	82.0	112.0	570.0	2.90	
517.2638		2.5/16"	19.0	19.0	82.0	112.0	570.0	2.90	
517.2639		2.3/8"	20.0	20.0	90.0	123.0	660.0	3.60	
517.2641		2.7/16"	20.0	20.0	90.0	123.0	660.0	3.60	
517.2642		2.1/2"	22.0	22.0	98.0	133.0	710.0	4.55	
517.2643		2.9/16"	22.0	22.0	98.0	133.0	710.0	0.46	
517.2644		2.3/4"	24.0	24.0	105.0	143.0	760.0	5.80	
517.2645		3"	26.0	26.0	110.0	153.0	810.0	6.65	
517.2646		3.1/8"	28.0	28.0	119.0	163.0	860.0	8.50	
517.2647		3.1/4"	28.0	28.0	119.0	163.0	860.0	8.50	

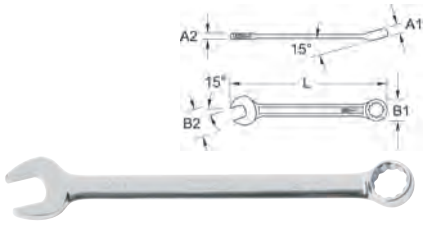
CLASSIC combination spanners set, offset

- FlankTraction profile 12 point)
- DIN 3113 Form B / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 70° offset
- Ring head 10° angled
- Matt finishe
- Chrome vanadium

			kg	
517.0090	8 pcs	8 - 10 - 12 - 13 - 14 - 17 - 19 - 22 mm	0.92	
517.0095	12 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	1.00	
517.0099	25 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21- 22 - 23 - 24 - 25 - 26 - 27 - 28 - 30 - 32 mm	5.96	

CHROME*plus*® Combination spanner, offset

- FlankTraction profile 12 point)
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
518.0606	6		4.6	4.3	10.5	13.7	128.0	21	
518.0607	7		5.1	4.6	11.6	15.2	138.0	25	
518.0608	8		5.7	4.7	12.6	18.9	148.0	32	
518.0609	9		8.1	5.8	15.6	20.6	154.0	46	
518.0610	10		8.3	6.0	16.4	21.5	162.0	48	
518.0611	11		8.5	6.8	17.8	23.0	167.0	62	
518.0612	12		8.6	6.9	18.3	25.6	174.0	70	
518.0613	13		8.8	7.1	20.3	26.3	178.0	71	

	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
518.0614	14		9.6	7.7	22.1	28.9	190.0	95	
518.0615	15		10.7	8.5	24.5	32.6	205.0	124	
518.0616	16		10.7	8.5	24.5	32.6	205.0	124	
518.0617	17		11.0	8.8	26.7	36.3	225.0	159	
518.0618	18		11.2	9.2	28.3	38.6	248.0	176	
518.0619	19		11.2	9.2	28.3	38.6	248.0	176	
518.0620	20		12.4	9.8	30.5	42.5	270.0	233	
518.0621	21		12.4	9.8	30.5	42.5	270.0	233	
518.0622	22		12.9	10.4	33.3	46.5	292.0	335	
518.0624	24		13.9	10.8	35.4	48.5	314.0	395	
518.0627	27		15.4	12.3	38.4	53.5	359.0	512	
518.0630	30		15.8	12.9	43.1	57.2	390.0	662	
518.0632	32		16.4	13.0	45.1	62.0	425.0	800	
518.3001		1/4"	4.6	4.3	10.5	13.7	128.0	21	
518.3002		5/16"	5.7	4.7	12.6	18.9	148.0	32	
518.3003		3/8"	8.1	5.8	15.6	20.6	154.0	46	
518.3004		7/16"	8.5	6.8	17.8	23.0	167.0	62	
518.3005		1/2"	8.8	7.1	20.3	26.3	178.0	71	
518.3006		9/16"	9.6	7.7	22.1	28.9	190.0	95	
518.3007		5/8"	10.7	8.5	24.5	32.6	205.0	124	
518.3008		11/16"	11.0	8.8	26.7	36.3	225.0	155	
518.3009		3/4"	11.2	9.2	28.3	38.6	248.0	176	
518.3010		13/16"	12.4	9.8	30.5	42.5	270.0	233	
518.3011		7/8"	12.9	10.4	33.3	46.5	292.0	287	
518.3012		15/16"	13.9	10.8	35.4	48.5	314.0	332	
518.3013		1"	14.4	11.4	36.5	50.4	336.0	422	
518.3014		1.1/16"	15.4	12.3	38.4	53.5	359.0	512	
518.3015		1.1/8"	15.8	12.9	43.1	57.2	390.0	664	
518.3016		1.1/4"	16.4	13.0	45.1	62.0	425.0	847	

CHROME*plus*® combination spanner set, offset

- FlankTraction profile 12 point)
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Chrome plated and mirror polished
- Chrome vanadium

			g	
518.0640	9 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	930	

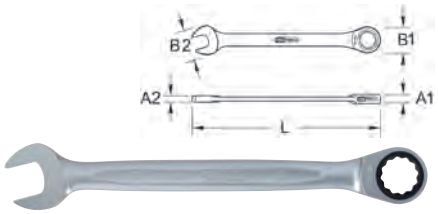
CHROME*plus*® Combination spanner set, offset

- FlankTraction profile 12 point)
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Chrome plated and mirror polished
- Chrome vanadium

			kg	
518.0641	11 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm	1.40	
518.0643	13 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm	1.40	
518.0644	4 pcs	24 - 27 - 30 - 32 mm	2.50	
518.3000	11 pcs	1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"	1.30	
518.3020	7 pcs	3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4"	0.73	

GEAR*plus*® Combination ratcheting spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
503.42055	5,5		6.3	3.9	14.0	15.0	127.5	20	
503.4206	6		6.3	3.9	14.0	15.0	128.0	25	
503.4207	7		6.5	4.0	16.8	16.7	140.0	30	
503.4208	8		6.5	4.0	16.8	16.7	140.0	30	
503.4209	9		6.9	4.4	18.8	18.7	149.0	40	
503.4210	10		7.3	4.8	20.8	20.8	158.0	50	
503.4211	11		7.7	5.2	21.8	23.0	165.0	60	
503.4212	12		8.2	5.5	22.8	24.6	171.0	70	
503.4213	13		8.6	5.8	24.8	26.8	178.0	80	
503.4214	14		9.0	6.2	27.8	29.0	190.0	110	
503.4215	15		9.4	6.5	28.8	31.0	199.0	120	
503.4216	16		9.9	6.8	30.8	33.0	208.0	150	
503.4217	17		10.3	7.2	31.8	35.5	225.0	180	
503.4218	18		10.7	7.7	32.8	37.5	236.0	210	
503.4219	19		11.2	8.2	33.8	39.4	247.0	240	
503.4221	21		13.0	9.0	40.0	45.8	289.0	340	
503.4222	22		13.0	9.0	40.0	45.8	289.0	345	
503.4224	24		14.5	10.0	46.0	51.8	322.0	470	
503.4227	27		15.5	10.5	52.0	56.4	358.0	580	
503.4228	30		17.0	11.4	58.0	62.7	401.0	860	
503.4229	32		17.5	12.5	62.0	66.4	424.0	1060	
503.4230	34		17.5	13.0	62.0	70.0	459.0	1170	
503.4248	41		19.5	16.5	71.0	86.0	565.0	2000	
503.4102		5/16"	6.5	4.0	16.8	16.7	140.0	30	
503.4103		3/8"	7.3	4.8	20.8	20.8	158.0	40	
503.4104		7/16"	7.7	5.2	21.8	23.0	165.0	50	
503.4105		1/2"	8.6	5.8	24.8	26.8	178.0	70	
503.4106		9/16"	9.0	6.2	27.8	29.0	190.0	110	
503.4107		5/8"	9.9	6.8	30.8	33.0	208.0	130	
503.4108		11/16"	10.3	7.2	31.8	35.5	225.0	170	
503.4109		3/4"	11.2	8.2	33.8	39.4	247.0	220	

GEAR*plus*® Combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

			kg	
503.4204	4 pcs	10 - 13 - 17 - 19 mm	0.65	
503.4205	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.69	
503.4270	4 pcs	24 - 27 - 30 - 32 mm	3.07	
503.4202	5 pcs	5/16" - 3/8" - 1/2" - 11/16" - 3/4"	0.69	

GEAR*plus*® ratchet combination spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

			kg	
503.4255	5 pcs	GEAR*plus*® ratchet combination spanner set	0.67	
5 x		8 - 10 - 13 - 17 - 19 mm		

GEAR*plus*® combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

			kg	
503.4259	6 pcs	GEAR*plus*® combination ratcheting spanner set	0.97	
6 x		8 - 10 - 12 - 13 - 17 - 19 mm		

GEARplus® combination ratcheting spanner set

- FlankTraction profil (12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120
- - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4260	10 pcs	GEARplus®combination ratcheting spanner set	1.06
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® combination ratcheting spanner set

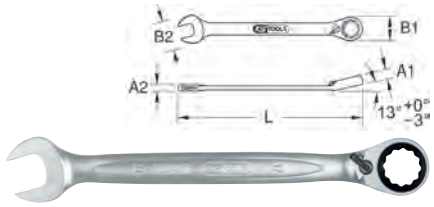
- FlankTraction profil (12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4266	16 pcs	GEARplus®combination ratcheting spanner set	1.73
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® reversing combination ratcheting spanner

- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4606	6		6.3	3.9	14.0	15.0	127.5	30
503.4607	7		6.5	4.6	16.4	16.2	140.0	30
503.4608	8		6.5	4.6	16.4	16.2	140.0	30
503.4609	9		6.9	4.9	18.3	18.2	150.0	40
503.4610	10		7.3	5.3	20.0	20.5	159.0	50
503.4611	11		7.7	5.6	21.4	22.6	166.0	60
503.4612	12		8.2	6.0	22.6	24.6	172.0	70
503.4613	13		8.6	6.4	24.5	26.7	178.0	80
503.4614	14		9.0	6.8	27.0	28.8	191.0	100
503.4615	15		9.4	7.0	28.2	30.8	200.0	120
503.4616	16		9.9	7.2	30.3	33.2	208.0	150
503.4617	17		10.3	7.7	31.6	35.1	225.0	160
503.4618	18		10.7	8.2	32.3	37.2	236.0	190
503.4619	19		11.2	8.8	33.7	39.3	248.0	220
503.4621	21		13.0	9.0	40.1	46.2	290.0	245
503.4622	22		13.0	9.0	40.1	46.2	290.0	360
503.4624	24		14.5	10.0	46.5	51.5	323.0	470
503.4627	27		15.5	10.5	52.5	56.5	357.0	660
503.4628	30		17.0	11.4	58.5	62.7	400.0	860
503.4629	32		17.5	12.5	62.5	66.4	423.0	1050
503.4630	34		17.5	13.0	62.5	70.6	460.0	1200
503.4643	36		18.0	13.4	65.8	79.0	488.0	1300
503.4644	38		18.0	13.4	65.8	79.0	488.0	1400
503.4648	41		19.5	16.5	71.0	86.0	565.0	2000
503.4681		5/16“	6.5	4.0	16.6	16.7	145.0	30
503.4683		3/8“	7.3	4.8	20.0	20.8	159.0	60
503.4684		7/16“	7.7	5.2	21.8	23.0	165.0	70
503.4685		1/2“	8.6	5.8	24.7	27.1	178.0	80
503.4686		9/16“	9.0	6.5	27.0	29.2	190.0	100
503.4687		5/8“	9.9	6.8	30.0	33.4	208.0	140
503.4688		11/16“	10.3	7.2	31.8	35.5	225.0	170
503.4689		3/4“	11.2	8.2	33.8	39.7	248.0	230

GEARplus® combination ratcheting spanner set

- FlankTraction profil (12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

			kg
503.4265	12 pcs	GEARplus®combination ratcheting spanner set	1.88
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 -18 - 19 mm	

GEARplus® combination ratcheting spanner display

- FlankTraction profil (12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4200	70 pcs	GEARplus® combination ratcheting spanner display	2.87
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)	
5 x		1/4“ ; 1/4“ - 3/8“ - 1/2“	
5 x		5/16“ - 10 mm	

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profil (12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium

			kg
503.4604	4 pcs	10 - 13 - 17 - 19 mm	0.65
503.4605	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.70
503.4602	5 pcs	5/16“ - 3/8“ - 1/2“ - 11/16“ - 3/4“	0.60

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- Square drive adaptor to DIN 3120
- - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4650	9 pcs	GEARplus® reversing combination ratcheting spanner set	1.10
5 x		8 - 10 - 13 - 17 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- Square drive adaptor to DIN 3120
- - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4647	10 pcs	GEARplus® reversing combination ratcheting spanner set	1.11
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4666	16 pcs	GEARplus® reversing combination ratcheting spanner set	1.79
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4646	6 pcs	GEARplus® reversing combination ratcheting spanner set	1.04
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4665	12 pcs	GEARplus® reversing combination ratcheting spanner set	1.71
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	

GEAR*plus*® reversing combination ratcheting spanner display

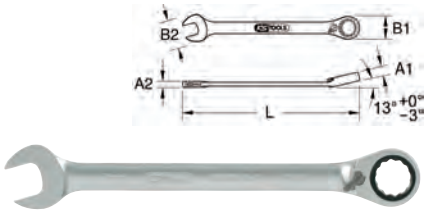
- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4600	70 pcs	GEAR*plus*® reversing combination ratcheting spanner display	2.82
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)	
5 x		1/4“ ; 1/4“ - 3/8“ - 1/2“	
5 x		5/16“ - 10 mm	

GEAR*plus*® reversing combination ratcheting spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- Ring stop fuction
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4908	8	6.5	4.6	16.6	16.7	140.0	40
503.4909	9	6.9	4.9	18.4	18.8	150.0	45
503.4910	10	7.3	5.3	20.0	20.8	159.0	50
503.4911	11	7.7	5.6	21.8	23.0	165.0	60
503.4912	12	8.2	6.0	22.7	25.0	172.0	70
503.4913	13	8.6	6.4	24.7	27.1	178.0	80
503.4914	14	9.0	6.8	27.0	29.2	191.0	100
503.4915	15	9.4	7.0	28.3	31.1	200.0	120
503.4916	16	9.9	7.2	30.0	33.4	208.0	140
503.4917	17	10.3	7.7	31.8	35.5	226.0	170
503.4918	18	10.7	8.2	32.6	37.6	237.0	200
503.4919	19	11.2	8.8	33.8	39.7	248.0	210

GEAR*plus*® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4955	5 pcs	GEAR*plus*® reversing combination ratcheting spanner set	0.66
5 x		8 - 10 - 13 - 17 - 19 mm	

GEAR*plus*® reversing combination ratcheting spanner set

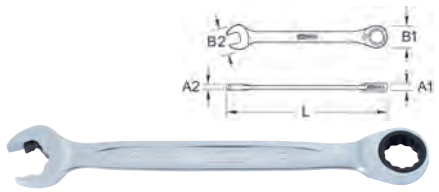
- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- Versatile sockets with go through function
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4960	30 pcs	GEAR*plus*® reversing combination ratcheting spanner set	2.43
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
3 x		1/4“ - 5/16“ - 10 mm	
3 x		1/4“ - 3/8“ - 1/2“	

DUO GEAR*plus*® combination spanner set with ratchet mechanism in ring and open jaw

- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium

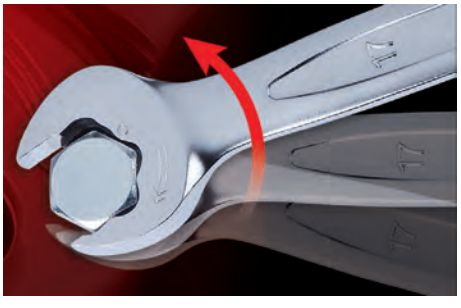


	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Nm	Nm	g
503.5208	8	6.5	4.1	16.4	16.2	140.0	15.0	36.0	30
503.5209	9	6.9	4.3	18.3	18.3	150.0	21.1	48.0	40
503.5210	10	7.3	4.8	20.0	20.0	159.0	31.1	85.2	50
503.5211	11	7.7	5.1	21.4	21.4	166.0	46.1	96.0	60
503.5212	12	8.2	5.3	22.6	22.6	172.0	49.1	109.2	70
503.5213	13	8.6	5.9	24.5	24.5	178.0	62.1	138.0	80
503.5214	14	9.0	6.3	27.0	27.0	191.0	86.0	189.6	110
503.5215	15	9.4	6.6	28.2	28.2	200.0	104.1	240.0	120
503.5216	16	9.9	6.9	30.3	30.3	208.0	124.1	297.6	150
503.5217	17	10.3	7.3	31.6	31.6	225.0	139.1	320.4	170
503.5218	18	10.7	7.8	32.3	32.3	236.0	155.1	364.8	210
503.5219	19	11.2	8.3	33.7	33.7	248.0	186.1	387.6	220
503.5221	21	13.0	8.8	40.1	46.2	290.0	248.1	446.4	340
503.5222	22	13.0	8.8	40.1	46.2	290.0	279.1	489.6	340
503.5224	24	14.5	9.8	46.5	51.5	323.0	341.2	610.8	470
503.5227	27	15.5	10.4	52.9	56.1	352.0	432.0	805.2	650
503.5228	30	17.1	11.2	57.6	62.5	396.0	570.0	954.0	875
503.5229	32	17.6	12.1	61.9	66.2	418.0	650.0	1086.0	1035

DUO GEAR*plus*® combination spanner set with ratchet mechanism in ring and open jaw

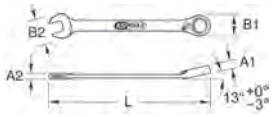
- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium
- In durable plastic holder

			kg
503.5205	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.66



DUO GEAR*plus*® combination spanner with ratchet mechanism in ring and open jaw, reversible

- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- With reverse lever
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Nm	Nm	g
503.5908	8	6.5	4.1	16.4	16.2	140.0	15.0	36.0	40
503.5909	9	6.9	4.3	18.3	18.2	150.0	21.1	48.0	45
503.5910	10	7.3	4.8	20.0	20.5	159.0	31.1	85.2	50
503.5911	11	7.7	5.1	21.4	22.6	166.0	46.1	96.0	60
503.5912	12	8.2	5.3	22.6	24.6	172.0	49.1	109.2	70
503.5913	13	8.6	5.9	24.5	26.7	178.0	62.1	138.0	80
503.5914	14	9.0	6.3	27.0	28.8	191.0	86.0	189.6	100
503.5915	15	9.4	6.6	28.2	30.8	200.0	104.1	240.0	120
503.5916	16	9.9	6.9	30.3	33.2	208.0	124.1	297.6	140
503.5917	17	10.3	7.3	31.6	35.1	225.0	139.1	320.4	170
503.5918	18	10.7	7.8	32.3	37.2	236.0	155.1	364.8	200
503.5919	19	11.2	8.3	33.7	39.3	248.0	186.1	387.6	210
503.5921	21	13.0	8.8	40.1	46.2	290.0	248.1	446.4	340
503.5922	22	13.0	8.8	40.0	46.2	290.0	279.1	489.6	340
503.5924	24	14.5	9.8	46.5	51.5	323.0	341.2	610.8	470
503.5927	27	15.5	10.4	52.9	56.1	352.0	432.0	805.2	650
503.5928	30	17.1	11.2	57.6	62.5	396.0	570.0	954.0	875
503.5929	32	17.6	12.1	61.9	66.2	418.0	650.0	1086.0	1035

DUO GEAR*plus*® combination spanner set with ratchet mechanism in ring and open jaw, reversible

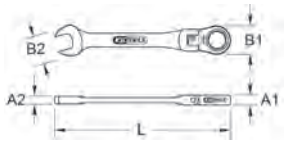
- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- With reverse lever
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium
- In durable plastic holder

			kg
503.5905	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.66

FLEXIBLE COMBINATION SPANNERS

GEAR*plus*® fl xible combination ratcheting spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4708	8	6.5	4.3	16.7	16.2	127.0	30
503.4709	9	6.9	4.6	18.6	18.2	131.5	40
503.4710	10	7.3	5.0	20.0	20.3	136.0	50
503.4711	11	7.7	5.4	21.8	22.5	141.0	60
503.4712	12	8.2	5.8	23.0	24.3	147.5	70
503.4713	13	8.6	6.1	25.2	26.8	154.0	80
503.4714	14	9.0	6.4	26.8	28.3	160.0	100
503.4715	15	9.4	6.9	28.3	29.8	169.0	120
503.4716	16	9.9	7.2	29.8	31.8	179.0	150
503.4717	17	10.3	7.6	31.8	32.8	190.0	160
503.4718	18	10.7	8.0	32.8	37.0	203.0	190
503.4719	19	11.2	8.6	33.9	39.2	215.0	220
503.4721	21	13.0	9.0	40.0	46.0	274.0	400
503.4722	22	13.0	9.0	40.0	46.0	274.0	400
503.4724	24	14.5	10.0	46.0	52.2	296.0	550

GEAR*plus*® fl xible combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4759	6 pcs	GEAR*plus*® fl xible combination ratcheting spanner set	1.90
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	

GEAR*plus*® fl xible combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- Square drive adaptor to DIN 3120-ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4760	10 pcs	GEAR*plus*® fl xible combination ratcheting spanner set	2.00
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

GEAR*plus*® fl xible combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4765	12 pcs	GEAR*plus*® fl xible combination ratcheting spanner set	2.56
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	

GEARplus® fl xible combination ratcheting spanner set

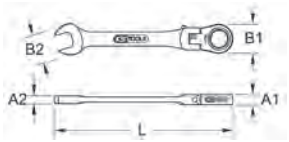
- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- Square drive adaptor to DIN 3120-ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4766	16 pcs	GEARplus® fl xible combination ratcheting spanner set	2.66
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® fl xible locking combination ratcheting spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With fl xible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4808	8	6.5	4.3	16.7	16.2	127.0	30
503.4809	9	6.9	4.6	18.6	18.2	131.5	40
503.4810	10	7.3	5.0	20.0	20.3	136.0	50
503.4811	11	7.7	5.4	21.8	22.5	141.0	60
503.4812	12	8.2	5.8	23.0	24.3	147.5	70
503.4813	13	8.6	6.1	25.2	26.8	154.0	80
503.4814	14	9.0	6.4	26.8	28.7	160.0	100
503.4815	15	9.4	6.9	28.3	30.5	169.0	120
503.4816	16	9.9	7.2	29.8	32.9	179.0	150
503.4817	17	10.3	7.6	31.8	34.5	190.0	160
503.4818	18	10.7	8.0	32.8	37.0	203.0	190
503.4819	19	11.2	8.6	33.9	39.2	215.0	220

GEARplus® fl xible locking combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With fl xible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4867	12 pcs	GEARplus® fl xible locking combination ratcheting spanner set	1.30
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
3 x		1/4“ - 5/16“ - 10 mm	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® fl xible combination ratcheting spanner display

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- High quality finis
- Chrome vanadium

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4700	70 pcs	GEARplus® fl xible combination ratcheting spanner display	2.74
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)	
5 x		1/4“ ; 1/4“ - 3/8“ - 1/2“	
5 x		5/16“ - 10 mm	

GEARplus® fl xible locking combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With fl xible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4859	6 pcs	GEARplus® fl xible locking combination ratcheting spanner set	1.21
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	

GEARplus® fl xible locking combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With fl xible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4865	12 pcs	GEARplus® fl xible locking combination ratcheting spanner set	2.56
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	

GEAR*plus*® fl xible locking combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With fl xible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4868	18 pcs	GEAR*plus*® fl xible locking combination ratcheting spanner set	2.90
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
3 x		1/4“ - 5/16“ - 10 mm	
3 x		1/4“ - 3/8“ - 1/2“	

GEAR*plus*® fl xible locking combination ratcheting spanner display

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With fl xible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium

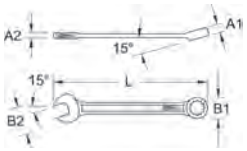
1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4800	70 pcs	GEAR*plus*® fl xible locking combination ratcheting spanner display	2.82
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)	
5 x		1/4“ ; 1/4“ - 3/8“ - 1/2“	
5 x		5/16“ - 10 mm	

COMBINATION SPANNERS, EXTRA LONG

CLASSIC combination spanner, extra long

- FlankTraction Profil
- Jaw 15° offset
- Ring head 15° offset
- Matt finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
517.1508	8	7.5	4.5	13.2	20.3	170.0	45
517.1509	9	8.0	4.5	14.6	22.4	180.0	55
517.1510	10	8.5	5.0	16.0	24.4	190.0	60
517.1511	11	9.0	5.5	17.2	26.4	200.0	75
517.1512	12	9.5	6.0	19.0	28.4	210.0	90
517.1513	13	10.0	6.5	20.0	30.5	225.0	108
517.1514	14	11.0	7.0	21.8	32.5	235.0	120
517.1515	15	12.0	7.5	23.0	34.5	250.0	150
517.1516	16	13.0	8.0	24.5	36.4	265.0	174
517.1517	17	14.0	8.5	26.5	38.4	280.0	206
517.1518	18	15.0	9.0	28.0	40.6	295.0	240
517.1519	19	16.0	9.5	29.5	42.6	310.0	272
517.1520	20	16.0	9.5	29.5	42.0	310.0	265
517.1521	21	17.0	10.0	33.0	46.6	340.0	370
517.1522	22	18.0	11.0	34.5	48.7	350.0	410
517.1523	23	18.0	11.5	34.0	47.0	345.0	400
517.1524	24	19.0	12.0	37.5	52.7	400.0	535
517.1525	25	19.0	12.0	37.0	52.0	395.0	510
517.1526	26	20.0	13.0	41.0	58.0	445.0	700
517.1527	27	20.0	13.0	42.0	58.9	450.0	680
517.1528	28	20.0	13.5	41.0	58.0	445.0	660
517.1530	30	21.0	14.0	47.0	64.8	480.0	870
517.1532	32	22.0	15.0	49.5	67.0	500.0	1000
517.1534	34	23.0	15.0	53.0	70.0	520.0	1100
517.1536	36	24.0	16.0	57.2	73.0	550.0	1320
517.1541	41	26.0	16.0	63.5	86.0	600.0	1700
517.1546	46	27.0	17.5	70.9	96.0	640.0	2230

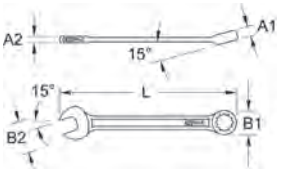
CLASSIC Combination spanner set, extra long

- FlankTraction profil
- Execution similar to DIN 3113
- Jaw 15° offset
- Ring head 15° offset
- Matt finis
- Chrome vanadium

			kg
517.1500	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.70
517.1505	11 pcs	12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm	2.67

CHROME*plus*® combination spanner, extra long

- FlankTraction profile 12 point)
- Jaw 15° offset
- Ring head 15° offset
- Chrome plated and mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
519.0650	10	6.9	5.1	15.8	22.8	189.0	53
519.0651	11	7.0	5.3	17.3	24.6	207.0	62
519.0652	12	7.8	5.6	18.8	27.2	225.0	77
519.0653	13	8.5	5.7	20.4	28.6	243.0	113
519.0654	14	9.1	6.9	21.8	31.4	261.0	128
519.0655	15	9.3	7.0	23.4	33.5	279.0	144
519.0656	16	10.0	7.3	24.8	35.3	297.0	182
519.0657	17	10.1	7.4	26.2	37.6	314.0	197
519.0658	18	11.3	7.8	27.5	39.4	333.0	223
519.0659	19	12.7	8.7	28.7	41.5	349.0	271

CHROME*plus*® combination spanner set, extra long

- FlankTraction profile 12 point)
- Jaw 15° offset
- Ring head 15° offset
- Chrome plated and mirror polished
- Chrome vanadium

			kg
519.0660	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1.73

OPEN ENDED SPANNERS

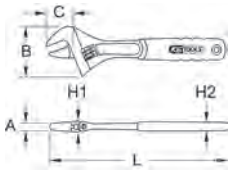
One handed multi function spanner

- Multi function spanner with ratchet function
- For complete screw working
- Adapts itself automatically to the screw size
- No sliping due to the coarse teeth
- Chrome vanadium

	mm	L mm	g
114.0050	8-19	190.0	165
114.0051	14-32	300.0	515

CLASSIC Adjustable spanner

- DIN 3117 Form A
- Jaw 15° offset
- Swedish type design
- With mm scale
- With hanging hole
- Matt finis
- Chrome vanadium



	mm		A mm	B mm	C mm	H1 mm	H2 mm	L mm	L	g
577.0100	13	1/2"	6.4	31.0	10.9	9.5	8.9	100.0	4"	50
577.0150	18	23/32"	7.1	46.0	15.2	11.6	10.7	150.0	6"	130
577.0200	23	29/32"	8.7	57.4	20.6	14.6	11.9	200.0	8"	250
577.0250	28	1.1/8"	11.1	69.8	24.9	16.9	14.5	250.0	10"	450
577.0300	34	1.5/16"	13.5	82.3	29.0	20.5	15.2	300.0	12"	690
577.0375	43	1.11/16"	15.9	104.3	37.1	25.4	17.5	375.0	15"	1240
577.0450	53	2.1/16"	18.2	120.0	45.2	30.9	19.1	450.0	18"	2100

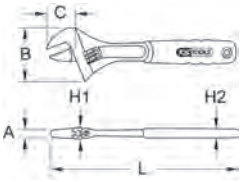
CLASSIC adjustable spanner set

- DIN 3117 Form A
- Jaw 15° offset
- Swedish type design
- With mm scale
- With hanging hole
- Matt finis
- Chrome vanadium

			kg
577.0299	2 pcs	250 - 300 mm	1.14
577.0399	3 pcs	250 - 300 - 375 mm	2.80

CLASSIC adjustable spanner with dual component comfort grip handle

- DIN 3117 Form A
- Jaw 15° offset
- Swedish type design
- With mm scale
- With hanging hole
- Two component handle
- Phosphate finis
- Chrome vanadium



	mm		A mm	B mm	C mm	H1 mm	H2 mm	L mm	L	g
577.0201	23	29/32"	8.7	57.4	20.6	14.6	11.9	200.0	8"	250
577.0251	28	1.1/8"	11.1	69.8	24.9	16.9	14.5	250.0	10"	450
577.0301	34	1.5/16"	13.5	82.3	29.0	20.5	15.2	300.0	12"	690

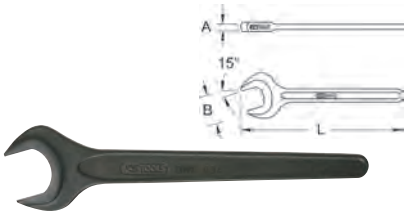
CLASSIC adjustable spanner set with dual component comfort grip handle

- DIN 3117 Form A
- Jaw 15° offset
- Swedish type design
- With mm scale
- With hanging hole
- Two component handle
- Phosphate finis
- Chrome vanadium

			kg
577.0199	3 pcs	200 - 250 - 300 mm	1.39

Single open ended spanner

- DIN 894 / ISO 3380
- Jaw 15° offset
- For heavy duty applications
- Phosphate finis
- Tempered steel



	mm	A mm	B mm	L mm	kg
517.2506	6	3.2	15.5	75.0	0.01
517.2507	7	3.5	17.0	80.0	0.01
517.2508	8	3.5	19.0	95.0	0.02
517.2509	9	4.0	20.0	100.0	0.02
517.2510	10	4.5	22.0	105.0	0.02
517.2511	11	5.0	24.5	115.0	0.03
517.2512	12	5.0	26.5	125.0	0.04
517.2513	13	5.5	28.5	135.0	0.04
517.2514	14	5.5	30.0	140.0	0.04
517.2515	15	5.5	32.0	145.0	0.05
517.2516	16	5.5	33.0	155.0	0.05
517.2517	17	6.0	36.0	150.0	0.07
517.2518	18	6.0	36.0	160.0	0.07
517.2519	19	7.0	40.0	170.0	0.08
517.0522	22	8.0	48.0	193.0	0.17
517.0524	24	9.0	50.0	217.0	0.17
517.0527	27	9.8	56.0	239.0	0.23
517.0530	30	10.8	62.0	263.0	0.29
517.0532	32	11.8	66.0	275.0	0.35
517.0536	36	12.8	74.0	305.0	0.41
517.0538	38	12.8	74.0	305.0	0.41
517.0540	40	13.7	87.0	350.0	0.62
517.0541	41	13.8	87.0	344.0	0.62
517.0542	42	13.5	87.0	350.0	0.70
517.0546	46	19.8	94.0	380.0	0.85
517.0548	48	16.5	99.0	395.0	0.94
517.0550	50	15.8	102.0	413.0	1.02
517.0555	55	16.8	112.0	459.0	1.28
517.0560	60	17.7	122.0	494.0	1.63
517.0565	65	18.7	132.0	528.0	1.71
517.0570	70	19.7	142.0	572.0	2.50
517.0575	75	20.7	152.0	610.0	3.50
517.0580	80	21.7	162.0	645.0	3.70
517.0585	85	23.0	173.0	690.0	4.78
517.0590	90	23.0	173.0	690.0	5.45
517.0595	95	25.0	195.0	847.0	5.59
517.0596	100	25.0	195.0	847.0	5.80
517.2605	105	28.0	217.0	1000.0	8.90
517.2610	110	28.0	217.0	1000.0	9.00
517.2615	115	28.0	220.0	1000.0	9.00
517.2620	120	28.0	220.0	1000.0	9.00
517.2625	125	28.0	220.0	1000.0	8.30
517.2630	130	28.0	225.0	1000.0	8.30
517.0635	135	28.0	225.0	1000.0	8.20

Slogging open end spanner

- DIN 133
- Jaw 15° offset
- Impact area
- For heavy duty applications
- Phosphate finis
- Chrome vanadium

	mm		A mm	B mm	L mm	kg
517.2122	22		16.0	55.0	180.0	0.30
517.0124	24		16.0	55.0	180.0	0.28

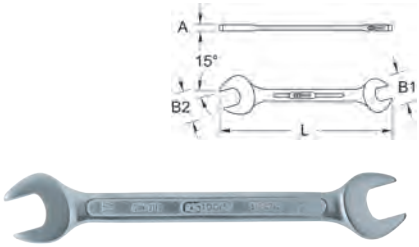
	mm		A mm	B mm	L mm	kg	
517.0127	27		16.3	56.0	181.0	0.39	
517.0130	30		16.7	62.0	188.0	0.53	
517.0132	32		17.2	66.0	196.0	0.53	
517.0136	36		18.2	76.0	211.0	0.76	
517.0141	41		19.2	88.0	227.0	0.92	
517.0146	46		19.7	98.0	256.0	1.31	
517.0150	50		21.2	106.5	281.0	1.57	
517.0155	55		23.6	117.0	310.0	2.31	
517.0160	60		24.1	128.0	321.0	2.31	
517.0165	65		27.6	139.0	351.0	3.30	
517.0170	70		29.6	150.0	370.0	4.56	
517.0175	75		31.0	161.5	390.0	4.46	
517.0180	80		34.0	172.5	406.0	6.12	
517.0185	85		34.0	172.5	406.0	5.74	
517.0190	90		38.4	194.0	456.0	8.04	
517.0195	95		38.4	194.0	456.0	8.16	
517.0196	100		46.0	225.0	500.0	11.80	
517.2105	105		46.3	225.5	500.0	11.20	
517.2110	110		46.3	225.5	500.0	14.00	
517.2115	115		54.2	245.5	525.0	13.80	
517.2120	120		54.2	254.5	525.0	18.00	
517.2125	125		50.0	255.0	545.0	17.80	
517.2130	130		55.0	275.0	575.0	21.00	
517.2135	135		55.0	275.0	575.0	20.40	
517.2140	140		55.0	275.0	575.0	20.00	
517.2145	145		60.0	305.0	640.0	28.50	
517.2150	150		60.0	305.0	640.0	28.30	
517.2155	155		60.0	305.0	640.0	28.00	
517.2160	160		60.0	305.0	640.0	28.40	
517.2165	165		70.0	342.0	715.0	42.00	
517.2170	170		70.0	342.0	715.0	39.00	
517.2175	175		70.0	342.0	715.0	39.00	
517.2180	180		70.0	392.0	715.0	40.00	
517.2185	185		70.0	392.0	715.0	39.50	
517.2190	190		78.0	392.0	800.0	53.00	
517.2195	195		78.0	392.0	800.0	52.00	
517.2200	200		78.0	392.0	800.0	51.00	
517.2205	205		78.0	392.0	800.0	51.00	
517.2210	210		78.0	392.0	800.0	50.50	
517.2220	220		72.0	415.0	800.0	48.00	
517.2251		1.1/16“	16.3	56.0	181.0	0.30	
517.2254		1.1/8“	16.3	56.0	181.0	0.35	
517.2255		1.3/16“	16.7	62.0	188.0	0.40	
517.2253		1.1/4“	16.7	62.0	188.0	0.53	
517.2258		1.5/16“	17.2	66.0	196.0	0.65	
517.2257		1.3/8“	17.2	66.0	196.0	0.76	
517.2260		1.7/16“	18.2	76.0	211.0	1.25	
517.2252		1.1/2“	18.2	76.0	211.0	0.35	
517.2262		1.9/16“	19.2	88.0	227.0	2.05	
517.2259		1.5/8“	19.2	88.0	227.0	0.95	
517.2263		1.11/16“	19.2	88.0	227.0	2.45	
517.2256		1.3/4“	19.2	88.0	227.0	0.48	
517.2264		1.13/16“	19.7	98.0	256.0	1.31	
517.2261		1.7/8“	19.7	98.0	256.0	1.60	
517.2265		1.15/16“	21.2	106.5	281.0	4.25	
517.2266		2“	21.2	106.5	281.0	4.88	
517.2267		2.1/16“	21.2	106.5	281.0	6.10	
517.2270		2.1/8“	21.2	106.0	281.0	7.60	
517.2271		2.3/16“	23.6	117.0	310.0	11.50	
517.2269		2.1/4“	23.6	117.0	310.0	8.25	
517.2274		2.5/16“	23.6	117.0	310.0	13.80	
517.2273		2.3/8“	23.6	128.0	321.0	14.00	
517.2276		2.7/16“	23.6	128.0	321.0	17.80	
517.2268		2.1/2“	23.6	128.0	321.0	5.90	
517.2278		2.9/16“	27.6	139.0	351.0	17.80	
517.2275		2.5/8“	27.6	139.0	351.0	18.00	
517.2272		2.3/4“	29.6	150.0	370.0	11.20	
517.2279		2.13/16“	29.6	150.0	370.0	21.00	
517.2277		2.7/8“	29.6	150.0	370.0	18.00	
517.2280		2.15/16“	31.0	161.5	390.0	20.40	
517.2281		3“	31.0	161.5	390.0	20.00	
517.2284		3.1/8“	34.0	172.5	406.0	28.00	
517.2283		3.1/4“	34.0	172.5	406.0	28.30	
517.2286		3.3/8“	34.0	172.5	406.0	42.00	
517.2282		3.1/2“	38.4	194.0	456.0	28.50	
517.2287		3.5/8“	38.4	194.0	456.0	39.00	
517.2285		3.3/4“	38.4	194.0	456.0	28.40	
517.2288		3.7/8“	46.3	225.5	500.0	39.00	
517.2289		4“	46.3	225.5	500.0	40.00	
517.2292		4.1/8“	46.3	225.5	800.0	52.00	
517.2291		4.1/4“	47.0	235.0	510.0	53.00	
517.2290		4.1/2“	47.0	235.0	510.0	39.50	
517.2293		4.3/4“	50.0	255.0	545.0	51.00	
517.2294		5“	50.0	255.0	545.0	51.00	
517.2296		5.3/8“	55.0	275.0	575.0	48.00	
517.2295		5.3/4“	55.0	275.0	575.0	50.50	
517.2297		6“	60.0	305.0	640.0	47.50	

Intermediate sizes are also available upon request.

DOUBLE OPEN ENDED SPANNERS

CLASSIC Double open ended spanners

- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finis
- Chrome vanadium



	mm		A mm	B1 mm	B2 mm	L mm	g	
517.0738	3,2x5,5		3.0	10.5	12.0	97.0	11	
517.0739	4x5		4.0	14.0	16.0	125.0	21	
517.0745	5,5x7		3.6	15.7	17.7	122.0	17	
517.0701	6x7		3.7	15.5	18.0	122.0	20	
517.0702	8x9		4.0	20.4	22.7	140.0	40	
517.0740	8x10		4.0	18.0	22.0	140.0	30	
517.0747	9x11		4.8	23.9	26.9	156.0	45	
517.0704	10x11		5.0	24.9	27.1	157.0	50	
517.0741	10x12		5.5	22.0	28.0	162.0	60	
517.0706	10x13		5.0	24.9	31.2	157.0	70	
517.0748	10x14		5.3	28.0	31.0	172.0	65	
517.0742	11x13		5.0	25.0	29.0	172.0	69	
517.0749	11x14		5.3	28.0	31.0	172.0	75	
517.0707	12x13		5.0	29.2	31.2	172.0	70	
517.0751	12x14		5.3	28.0	31.0	172.0	75	
517.0743	13x14		6.0	30.0	31.5	188.0	90	
517.0752	13x15		5.7	32.5	34.9	190.0	95	
517.0708	13x17		6.0	31.2	38.9	172.0	120	
517.0709	14x15		5.5	33.3	35.3	190.0	100	
517.0753	14x17		2.9	32.1	38.2	204.0	120	
517.0710	16x17		6.0	37.1	38.9	205.0	130	
517.0744	16x18		6.5	36.0	40.0	220.0	150	
517.0711	17x19		6.5	38.9	42.8	222.0	180	
517.0712	18x19		6.5	40.9	42.8	222.0	180	
517.0714	20x22		7.0	45.5	49.5	236.0	230	
517.0713	19x22		7.0	42.8	49.5	236.0	200	
517.0757	19x24		7.3	42.3	52.5	250.0	250	
517.0715	21x23		7.5	47.0	51.0	250.0	220	
517.0758	21x24		7.3	47.4	51.5	250.0	250	
517.0736	22x24		7.5	49.5	54.5	250.0	260	
517.0761	24x26		7.8	51.6	52.5	265.0	330	
517.0716	24x27		8.0	54.5	61.0	266.0	330	
517.0764	24x30		8.1	52.5	64.8	280.0	395	
517.0737	25x28		8.5	65.0	61.0	280.0	360	
517.0765	27x29		8.1	58.6	64.8	280.0	460	
517.0766	27x30		8.1	58.6	64.4	280.0	475	
517.0767	27x32		8.6	59.7	69.9	302.0	500	
517.0718	30x32		9.0	65.5	69.0	302.0	510	
517.0768	30x34		8.6	64.8	73.0	302.0	540	
517.0769	30x36		9.5	64.8	76.7	326.0	630	
517.0771	32x36		9.5	69.5	76.7	326.0	630	
517.0725	36x41		10.0	77.0	85.0	380.0	950	
517.0726	41x46		10.7	86.5	95.5	400.0	1220	
517.0728	46x50		11.6	97.0	103.0	420.0	1920	
517.0772	55x60		16.5	110.0	120.0	565.0	3000	
517.0781		1/4x5/16“	3.9	17.7	20.8	120.0	25	
517.0782		5/16x3/8“	3.9	20.8	22.9	140.0	35	
517.0783		3/8x7/16“	4.8	23.9	26.9	156.0	45	
517.0784		7/16x1/2“	5.3	28.0	31.0	172.0	85	
517.0785		1/2x9/16“	5.7	32.5	34.9	190.0	95	
517.0786		9/16x5/8“	5.7	32.5	34.9	190.0	103	
517.0787		19/32x11/16“	5.9	36.1	39.2	204.0	132	
517.0788		5/8x11/16“	5.9	36.1	39.2	204.0	132	
517.0789		11/16x3/4“	6.5	40.2	42.3	223.0	155	
517.0791		5/8x3/4“	6.5	40.2	42.3	223.0	155	

	mm		A mm	B1 mm	B2 mm	L mm	g	
517.0792		3/4x25/32“	6.8	44.9	48.4	236.0	230	
517.0793		3/4x7/8“	6.8	44.9	48.8	236.0	230	
517.0794		13/16x7/8“	6.8	44.9	48.8	236.0	230	
517.0795		15/16x1“	7.8	51.6	52.5	265.0	315	
517.0796		1x1.1/8“	8.1	55.2	61.3	280.0	405	
517.0797		1.1/16x1.1/4“	8.6	59.7	69.9	302.0	440	

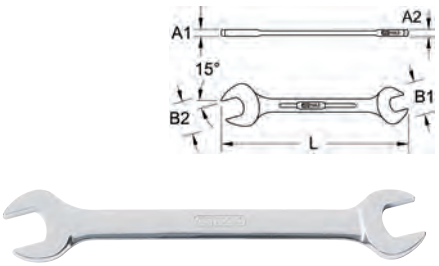
CLASSIC Double open ended spanner set

- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finis
- Chrome vanadium

			kg	
517.0145	5 pcs	8x9 - 10x11 - 12x13 - 16x17 - 18x19 mm	0.47	
517.0148	8 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	0.81	
517.0149	10 pcs	8x10 - 10x12 - 13x17 - 14x15 - 16x18 - 17x19 - 20x22 - 21x23 - 24x27 - 30x32 mm	1.95	
517.0123	11 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm	1.60	
517.0125	12 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 25x28 - 30x32 mm	2.40	

CHROME*plus*® Double open ended spanner

- DIN 3110 / ISO 3318 / ISO 1085 / ISO 10102
- Jaw 15° offset
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
518.0701	6x7		4.5	4.6	14.3	16.1	125.0	27	
518.0702	8x9		5.0	5.5	17.1	19.1	140.0	32	
518.0704	10x11		5.7	5.9	20.5	23.3	157.0	58	
518.0706	10x13		6.6	6.8	26.2	29.7	157.0	93	
518.0707	12x13		6.5	6.8	27.0	29.7	172.0	93	
518.0709	14x15		7.2	7.2	29.2	32.8	190.0	122	
518.0710	16x17		7.4	7.5	33.4	38.6	205.0	170	
518.0719	16x18		7.4	7.4	33.5	38.6	210.0	170	
518.0711	17x19		8.2	8.2	36.2	39.2	220.0	212	
518.0712	18x19		8.2	8.4	36.2	39.2	220.0	212	
518.0714	20x22		8.6	8.6	37.6	43.0	236.0	235	
518.0715	21x23		8.8	8.8	42.6	45.1	250.0	277	
518.0716	24x27		9.8	9.8	49.5	51.6	265.0	410	
518.0718	30x32		12.1	12.1	55.9	66.4	300.0	693	
518.0720	36x41		12.2	12.2	73.8	84.0	380.0	992	
518.3201		1/4“x5/16“	4.5	4.6	14.3	16.1	125.0	27	
518.3202		3/8“x7/16“	5.7	5.9	20.5	23.3	157.0	58	
518.3203		1/2“x9/16“	6.5	6.8	27.0	29.7	172.0	93	
518.3204		9/16“x5/8“	7.2	7.4	29.2	32.8	185.0	122	
518.3205		5/8“x11/16“	7.4	7.5	33.5	38.6	205.0	170	
518.3206		11/16“x3/4“	8.2	8.4	36.2	39.2	220.0	212	
518.3207		3/4“x7/8“	8.6	9.1	37.6	43.0	236.0	235	
518.3208		15/16“x1“	9.8	9.9	49.5	51.6	265.0	410	
518.3209		1.1/8“x1.1/4“	12.1	12.3	55.9	66.4	300.0	693	

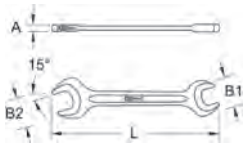
CHROME*plus*® Double open ended spanner set

- DIN 3110 / ISO 3318 / ISO 1085 / ISO 10102
- Jaw 15° offset
- Mirror polished chrome
- Chrome vanadium

			kg	
518.0747	7 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	1.03	
518.0743	3 pcs	21x23 - 24x27 - 30x32 mm	1.42	
518.3220	6 pcs	1/4"x5/16" - 3/8"x7/16" - 1/2"x9/16" - 5/8"x11/16" - 11/16"x3/4" - 3/4"x7/8"	0.80	
518.3200	8 pcs	1/4"x5/16" - 3/8"x7/16" - 1/2"x9/16" - 5/8"x11/16" - 11/16"x3/4" - 3/4"x7/8" - 15/16"x1" - 1.1/8"x1.1/4"	1.90	

Double open ended spanner

- DIN 895 / ISO 3318 / ISO 1085
- Jaw 15° offset
- For heavy duty applications
- Phosphate finis
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	g	
517.1406	6x7	3.2	15.0	17.0	96.0	10	
517.1407	7x8	3.5	17.0	19.0	110.0	20	
517.1408	8x9	3.7	19.0	20.5	108.0	15	
517.2408	8x10	4.2	19.0	22.0	115.0	26	
517.1409	9x10	4.3	18.8	23.3	118.0	30	
517.2409	9x11	5.0	20.5	24.0	125.0	30	
517.1410	10x11	5.0	22.0	24.5	124.0	30	
517.2410	10x12	5.0	22.0	26.8	125.0	34	
517.1411	10x13	5.0	22.0	28.5	128.0	40	
517.2401	10x14	5.0	22.0	30.0	140.0	50	
517.2411	11x13	5.5	24.5	28.5	140.0	45	
517.1412	12x13	5.5	26.5	28.5	140.0	40	
517.2412	12x14	5.5	26.5	30.0	140.0	50	
517.1413	13x14	5.5	28.5	30.0	140.0	40	
517.2413	13x15	5.5	28.5	32.0	150.0	60	
517.1415	13x17	6.0	28.5	36.0	158.0	70	
517.1414	14x15	5.5	30.0	32.0	154.0	60	
517.2414	14x17	6.0	30.0	36.0	160.0	70	
517.1416	16x17	6.0	33.0	36.0	158.0	80	
517.1417	17x19	7.0	36.0	40.0	171.0	100	
517.2417	17x22	8.0	36.0	46.0	190.0	145	
517.1418	18x19	7.0	38.0	40.0	171.0	100	
517.1419	19x22	8.0	40.0	46.0	195.0	135	
517.2419	19x24	9.0	40.0	50.0	215.0	140	
517.1420	20x22	8.0	42.5	46.0	195.0	135	
517.2421	21x23	9.0	44.0	49.0	215.0	180	
517.1422	22x24	9.0	46.0	50.0	221.0	180	
517.2422	22x27	10.0	46.0	56.0	235.0	230	
517.1423	24x27	9.8	50.0	56.0	246.0	270	
517.1425	25x28	9.8	53.0	58.0	246.0	330	
517.1426	27x30	10.8	56.0	62.0	275.0	400	
517.2427	27x32	12.0	56.0	66.0	270.0	370	
517.1430	30x32	11.8	62.0	66.0	278.0	400	
517.2430	30x36	13.0	62.0	74.0	305.0	500	

	mm	A mm	B1 mm	B2 mm	L mm	g	
517.1432	32x36	12.8	66.0	74.0	310.0	520	
517.1436	36x41	13.8	74.0	84.0	347.0	680	
517.1441	41x46	14.8	84.0	94.0	383.0	950	
517.1446	46x50	15.8	94.0	102.0	420.0	1200	
517.1450	50x55	16.5	102.0	112.0	450.0	1400	
517.1455	55x60	18.0	112.0	122.0	480.0	1900	
517.1465	65x70	20.0	132.0	142.0	580.0	2310	
517.1475	75x80	21.0	152.0	162.0	665.0	4480	

Double open ended spanner set

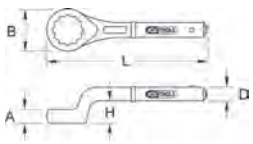
- DIN 895 / ISO 3318 / ISO 1085
- Jaw 15° offset
- For heavy duty applications
- Phosphate finis
- Chrome vanadium

			kg	
517.1490	8 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	0.57	
517.1491	10 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 mm	1.41	

SINGLE RING ENDED SPANNER

CLASSIC offset single ring spanner

- FlankTraction Profil
- Ring head 75° offset
- With shaft for snap-on handle
- With locking pin
- Heavy duty to deliver maximum torque
- Matt finis
- Chrome vanadium



	mm		A mm	B mm	D mm	H mm	L mm	kg	
517.9022	22		17.0	38.0	18.3	29.0	180.0	0.37	
517.9024	24		17.0	38.0	19.0	29.5	180.0	0.35	
517.9027	27		17.0	42.0	19.0	31.5	190.0	0.40	
517.9030	30		18.0	48.0	19.0	33.5	195.0	0.45	
517.9032	32		18.0	49.0	21.8	34.0	200.0	0.55	
517.9036	36		18.0	49.0	21.8	34.0	200.0	0.65	
517.9041	41		20.0	54.0	21.8	35.5	205.0	0.75	
517.9046	46		22.0	62.0	25.0	39.5	265.0	1.05	
517.9050	50		23.0	69.0	25.0	40.0	280.0	1.15	
517.9055	55		25.5	76.0	25.0	42.5	290.0	1.40	
517.9060	60		28.0	81.0	30.0	45.5	300.0	2.10	

	mm		A mm	B mm	D mm	H mm	L mm	kg	
517.9065	65		30.5	90.0	30.0	49.0	345.0	2.30	
517.9070	70		33.0	98.0	30.0	53.0	355.0	2.60	
517.9075	75		35.5	105.0	30.0	55.0	365.0	3.00	
517.9080	80		38.0	110.0	30.0	57.5	375.0	3.45	
517.9085	85		40.5	125.0	30.0	59.0	385.0	3.80	
517.9090	90		45.0	140.0	30.0	63.0	410.0	4.88	
517.9095	95		45.0	140.0	30.0	63.0	410.0	5.67	
517.9100	100		47.0	140.0	30.0	63.0	412.0	6.66	
517.9105	105		47.0	143.0	30.0	63.0	415.0	7.50	
517.9111		1"	17.0	38.0	18.3	29.0	180.0	0.37	
517.9112		1.1/16"	17.0	38.0	18.3	31.5	185.0	0.41	
517.9115		1.1/8"	17.0	38.0	18.3	33.0	185.0	0.41	
517.9116		1.3/16"	18.0	48.0	18.3	33.0	195.0	0.49	
517.9114		1.1/4"	18.0	49.0	21.3	34.0	230.0	0.72	
517.9119		1.5/16"	20.0	54.0	21.3	34.0	240.0	0.72	
517.9118		1.3/8"	20.0	54.0	21.3	35.0	240.0	0.84	
517.9121		1.7/16"	20.0	54.0	21.3	35.0	250.0	0.84	
517.9113		1.1/2"	20.0	54.0	21.3	39.0	240.0	0.84	
517.9123		1.9/16"	23.0	69.0	21.3	39.0	250.0	0.94	
517.9120		1.5/8"	23.0	69.0	21.3	39.0	250.0	0.94	
517.9124		1.11/16"	23.0	69.0	21.3	39.0	250.0	0.94	
517.9117		1.3/4"	22.0	62.0	21.4	40.0	250.0	0.94	
517.9125		1.13/16"	23.0	69.0	24.1	40.0	260.0	1.30	
517.9122		1.7/8"	23.0	69.0	24.1	40.0	260.0	1.30	
517.9126		2"	28.0	81.0	24.1	42.0	270.0	1.45	
517.9127		2.1/16"	28.0	81.0	24.1	42.0	270.0	1.45	
517.9130		2.1/8"	28.0	81.0	24.1	45.0	270.0	1.45	
517.9131		2.3/16"	28.0	81.0	24.1	45.0	270.0	1.50	
517.9129		2.1/4"	28.0	81.0	24.1	45.0	270.0	1.50	
517.9134		2.5/16"	30.5	90.0	29.1	49.0	325.0	2.40	
517.9133		2.3/8"	30.5	90.0	29.1	49.0	325.0	2.40	
517.9135		2.7/16"	30.5	90.0	29.1	49.0	345.0	2.60	
517.9128		2.1/2"	30.5	90.0	29.1	53.0	325.0	2.40	
517.9136		2.9/16"	30.5	90.0	29.1	53.0	345.0	2.60	
517.9132		2.3/4"	30.5	90.0	29.1	55.0	345.0	2.80	
517.9137		2.13/16"	38.0	110.0	29.1	55.0	375.0	3.00	
517.9138		2.15/16"	38.0	110.0	29.1	57.5	375.0	3.00	
517.9139		3"	38.0	110.0	29.1	57.5	375.0	3.00	
517.9142		3.1/8"	40.5	125.0	29.1	59.0	385.0	4.10	
517.9141		3.1/4"	40.5	125.0	29.1	59.0	385.0	4.10	
517.9144		3.3/8"	40.5	125.0	29.1	59.0	385.0	4.10	
517.9140		3.1/2"	40.5	125.0	29.1	63.0	385.0	4.10	
517.9145		3.5/8"	45.0	140.0	29.1	63.0	410.0	4.95	
517.9143		3.3/4"	45.0	140.0	29.1	63.0	410.0	4.95	
517.9146		3.7/8"	45.0	140.0	29.1	63.0	410.0	4.95	
517.9147		4"	45.0	140.0	29.1	63.0	412.0	4.95	
517.9148		4.1/8"	45.0	140.0	29.1	63.0	415.0	4.95	

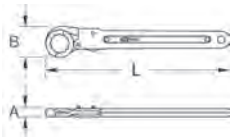
Snap-on handle for single ring spanner

- Four different sizes
- Matt finis
- Chrome vanadium

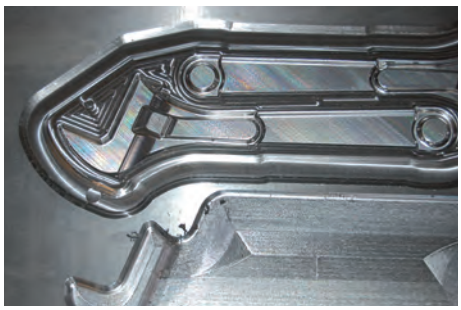
	mm	D mm	L mm	#	kg	
517.9001	24 - 30	19.0	460.0	1	0.75	
517.9002	32 - 41	22.0	610.0	2	1.25	
517.9003	46 - 55	25.0	760.0	3	2.30	
517.9004	60 - 105	30.0	860.0	4	2.80	

Ratchet ring spanner, clamp head

- 12 point
- Straight form
- Hanging hole
- From 27 mm with rubber handle
- Chrome plated handle
- Head phosphate finis
- Chrome vanadium



	mm	A mm	B mm	L mm	g	
500.5007	7	7.0	21.0	137.0	81	
500.5008	8	7.0	21.0	137.0	83	
500.5009	9	7.0	22.0	137.0	83	
500.5010	10	7.0	22.0	137.0	82	
500.5011	11	7.0	24.0	139.0	85	
500.5012	12	7.0	28.0	140.0	88	
500.5013	13	7.0	28.0	140.0	88	
500.5014	14	7.0	28.0	140.0	88	
500.5016	16	9.5	30.0	187.0	145	
500.5017	17	9.5	31.0	187.0	145	
500.5018	18	10.0	34.0	190.0	150	
500.5019	19	10.0	36.0	190.0	157	
500.5022	22	13.0	40.0	234.0	293	
500.5024	24	13.0	43.0	234.0	299	
500.5027	27	13.0	47.0	240.0	313	
500.5030	30	16.0	56.0	325.0	610	
500.5032	32	16.0	59.0	325.0	615	



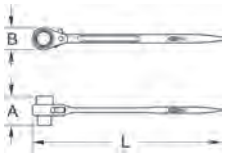
Ratchet ring spanner set, clamp head

- 12 point
- Straight form
- Hanging hole
- From 27 mm with rubber handle
- Chrome plated handle
- Head phosphate finis
- Chrome vanadium

			g	
500.5606	6 pcs	10 - 11 - 13 - 17 - 19 - 22 mm	980	

Scaffold spanner, reversing

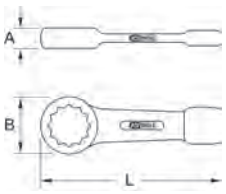
- FlankTraction profile 12 point)
- Exact gearing with 32 teeth
- Centering pin at the handle end
- Extremely substaintial
- Reversible
- Phosphate finis
- Chrome vanadium



	mm	A mm	B mm	L mm	g	
522.1013	10x13	36.5	31.0	240.0	200	
522.1317	13x17	44.2	34.0	280.0	270	
522.1618	16x18	49.0	42.1	315.0	450	
522.1719	17x19	49.3	42.3	315.0	450	
522.1922	19x22	49.5	42.3	315.0	450	
522.1924	19x24	54.0	51.3	360.0	750	
522.2427	24x27	54.0	51.6	360.0	750	
522.2430	24x30	62.2	64.5	450.0	1280	
522.3036	30x36	67.0	65.2	450.0	1300	
522.3236	32x36	67.1	65.4	450.0	1300	

Slogging ring spanner

- FlankTraction profile 12 point)
- DIN 7444
- Impact area
- For heavy duty applications
- Phosphate finis
- Chrome vanadium



	mm		A mm	B mm	L mm	kg	
517.0922	22		15.0	43.0	165.0	0.22	
517.0924	24		15.0	42.5	160.0	0.26	
517.0927	27		15.5	47.0	180.0	0.33	
517.0930	30		16.5	51.5	190.0	0.39	
517.0932	32		16.5	54.0	195.0	0.53	
517.0936	36		19.5	60.0	205.0	0.67	
517.0941	41		20.5	66.0	225.0	0.79	
517.0946	46		22.5	75.0	240.0	1.00	
517.0950	50		23.5	80.0	250.0	1.09	
517.0955	55		25.0	87.5	270.0	1.45	
517.0960	60		26.0	93.5	270.0	1.58	
517.0965	65		29.0	101.0	290.0	2.58	
517.0970	70		32.5	109.5	320.0	2.58	
517.0975	75		34.0	114.5	325.0	3.01	

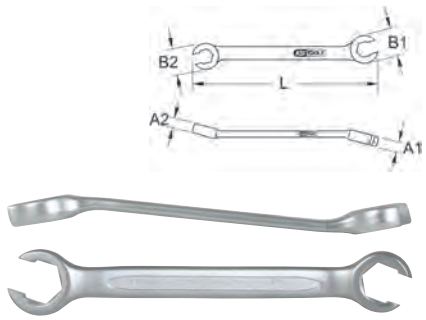
	mm		A mm	B mm	L mm	kg	
517.0980	80		35.0	123.0	345.0	3.52	
517.0985	85		37.0	129.0	360.0	3.90	
517.0990	90		41.5	152.0	400.0	6.37	
517.0995	95		41.5	152.0	400.0	6.29	
517.0996	100		41.5	152.0	400.0	6.03	
517.1905	105		47.5	172.0	435.0	8.66	
517.1910	110		47.5	172.0	435.0	8.44	
517.1915	115		47.5	172.0	435.0	8.16	
517.1920	120		54.0	182.0	480.0	9.86	
517.1925	125		54.0	182.0	480.0	9.67	
517.1930	130		58.0	202.0	520.0	12.30	
517.1935	135		58.0	202.0	520.0	11.79	
517.1940	140		58.0	202.0	520.0	11.96	
517.1945	145		64.0	228.0	580.0	18.55	
517.1950	150		64.0	228.0	580.0	17.98	
517.1955	155		64.0	228.0	580.0	16.94	
517.1960	160		64.0	228.0	580.0	17.89	
517.1965	165		70.0	265.0	650.0	26.66	
517.1970	170		70.0	265.0	650.0	26.31	
517.1975	175		70.0	265.0	650.0	25.92	
517.1980	180		70.0	265.0	650.0	24.60	
517.1985	185		75.0	290.0	700.0	33.00	
517.1990	190		75.0	290.0	700.0	32.60	
517.1995	195		75.0	290.0	700.0	31.80	
517.2900	200		75.0	290.0	700.0	32.00	
517.2905	205		80.0	320.0	750.0	40.50	
517.2910	210		80.0	320.0	750.0	39.50	
517.2915	215		80.0	320.0	750.0	39.00	
517.2920	220		80.0	320.0	750.0	37.40	
517.2930	230		80.0	320.0	750.0	35.40	
517.2951		1.1/16"	15.5	47.0	180.0	0.33	
517.2954		1.1/8"	15.5	47.0	180.0	0.32	
517.2955		1.3/16"	16.5	51.5	190.0	0.39	
517.2953		1.1/4"	16.5	51.5	190.0	0.39	
517.2958		1.5/16"	16.5	53.0	195.0	0.42	
517.2957		1.3/8"	16.5	53.0	195.0	0.41	
517.2960		1.7/16"	19.5	60.0	205.0	0.66	
517.2952		1.1/2"	19.5	60.0	205.0	0.64	
517.2962		1.9/16"	20.5	66.0	225.0	0.70	
517.2959		1.5/8"	20.5	66.0	225.0	0.82	
517.2963		1.11/16"	20.5	66.0	225.0	0.77	
517.2956		1.3/4"	20.5	66.0	225.0	0.77	
517.2964		1.13/16"	22.5	75.0	240.0	0.98	
517.2961		1.7/8"	22.5	75.0	240.0	0.99	
517.2965		1.15/16"	23.5	80.0	250.0	1.10	
517.2966		2"	23.5	80.0	250.0	1.09	
517.2967		2.1/16"	23.5	80.0	250.0	1.08	
517.2970		2.1/8"	23.5	80.0	250.0	1.04	
517.2971		2.3/16"	25.0	87.5	270.0	1.43	
517.2969		2.1/4"	25.0	87.5	270.0	1.40	
517.2974		2.5/16"	26.0	93.5	270.0	1.64	
517.2973		2.3/8"	26.0	93.5	270.0	1.62	
517.2976		2.7/16"	26.0	93.5	270.0	1.53	
517.2968		2.1/2"	29.0	101.0	290.0	1.64	
517.2978		2.9/16"	29.0	101.0	290.0	2.08	
517.2975		2.5/8"	29.0	101.0	290.0	2.04	
517.2972		2.3/4"	32.5	109.5	320.0	2.55	
517.2979		2.13/16"	32.5	109.5	320.0	2.95	
517.2977		2.7/8"	32.5	109.5	320.0	2.95	
517.2980		2.15/16"	34.0	114.5	325.0	2.80	
517.2981		3"	34.0	114.5	325.0	3.01	
517.2984		3.1/8"	35.0	123.0	345.0	3.37	
517.2983		3.1/4"	36.0	126.0	360.0	4.00	
517.2986		3.3/8"	36.0	126.0	360.0	3.79	
517.2982		3.1/2"	40.0	142.0	390.0	5.13	
517.2987		3.5/8"	40.0	142.0	390.0	5.30	
517.2985		3.3/4"	41.5	152.0	400.0	6.13	
517.2988		3.7/8"	45.0	155.0	420.0	6.15	
517.2989		4"	45.0	155.0	420.0	6.43	
517.2992		4.1/8"	45.0	155.0	420.0	6.21	
517.2991		4.1/4"	48.0	170.0	450.0	8.30	
517.2990		4.1/2"	48.0	170.0	450.0	7.48	
517.2993		4.3/4"	54.0	182.0	480.0	9.90	
517.2994		5"	54.0	182.0	480.0	9.50	
517.2995		5.1/8"	58.0	202.0	520.0	12.70	
517.2997		5.3/8"	58.0	202.0	520.0	12.70	
517.2996		5.3/4"	64.0	228.0	580.0	19.30	
517.2998		6"	64.0	228.0	580.0	19.30	

Intermediate sizes are also available upon request.

OPEN DOUBLE RING SPANNERS

CLASSIC Open double ring spanner, offset

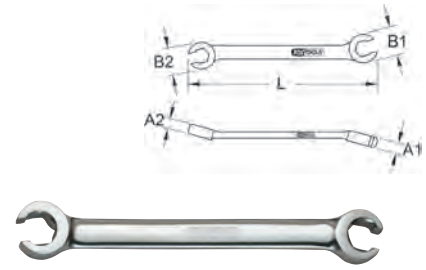
- 6 point
- DIN 3118
- Jaw 15° offset
- Opening 15° cranked
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
517.0252	8x10	6.6	6.7	17.6	19.8	143.0	45	
517.0253	9x11	7.6	7.4	21.3	22.9	152.0	50	
517.0254	10x11	7.6	7.4	21.3	22.9	152.0	60	
517.0255	10x12	7.6	7.4	21.3	22.9	152.0	80	
517.0257	12x13	8.8	9.0	23.1	23.8	156.0	100	
517.0258	12x14	10.0	9.9	25.3	27.6	178.0	110	
517.0260	14x15	11.4	11.5	30.0	32.1	196.0	120	
517.0261	14x17	11.4	11.5	30.0	32.1	196.0	140	
517.0263	16x18	11.4	11.5	30.0	32.1	196.0	160	
517.0264	17x19	11.4	11.5	30.0	32.1	196.0	180	
517.0265	19x21	13.5	13.1	34.1	37.6	207.0	240	
517.0266	19x22	13.5	13.1	34.1	37.6	207.0	240	
517.0267	22x24	13.5	17.0	37.6	46.0	252.0	320	
517.0268	24x27	17.0	16.2	46.0	42.3	264.0	430	
517.0269	30x32	22.4	20.4	46.3	44.8	283.0	700	

CHROME*plus*® Open double ring spanner, offset

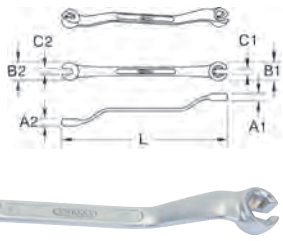
- 6 point
- DIN 3118
- Jaw 15° offset
- Opening 15° cranked
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
518.0511	6x8		6.6	6.7	17.6	19.8	143.0	50	
518.0512	8x12		6.7	7.4	19.8	21.3	147.0	50	
518.0513	9x11		7.6	7.4	21.3	22.9	152.0	60	
518.0523	10x11		7.6	7.4	21.3	22.9	152.0	60	
518.0514	10x12		7.6	7.4	21.3	22.9	152.0	60	
518.0524	12x13		8.8	9.0	23.1	23.8	156.0	80	
518.0515	13x14		10.0	9.9	25.3	25.3	178.0	120	
518.0525	14x15		11.4	11.5	30.0	30.0	196.0	170	
518.0526	14x17		11.4	11.5	30.0	30.0	196.0	170	
518.0516	15x17		11.4	11.5	30.0	30.0	196.0	170	
518.0517	16x18		11.4	11.5	30.0	30.0	196.0	170	
518.0518	17x19		11.4	11.5	30.0	30.0	196.0	170	
518.0519	19x21		13.5	13.1	34.1	34.1	207.0	220	
518.0520	19x22		13.5	13.1	34.1	34.1	207.0	220	
518.0521	24x27		17.0	16.2	46.0	46.0	264.0	360	
518.0522	30x32		22.4	20.4	46.3	46.3	283.0	480	
518.0501		1/4"x5/16"	6.6	6.7	17.6	19.8	143.0	50	
518.0503		3/8"x7/16"	7.6	7.4	21.3	22.9	152.0	60	
518.0506		7/16"x1/2"	8.8	9.0	23.1	23.8	158.0	80	
518.0504		1/2"x9/16"	10.0	9.9	25.3	27.6	178.0	120	
518.0505		5/8"x11/16"	11.4	11.5	30.0	32.1	196.0	170	
518.0507		3/4"x7/8"	13.5	13.1	34.1	37.6	207.0	220	

CHROME*plus*® Open double ring spanner set, offset

- 6 point
- Ring head 30° offset
- Spanner has double sized head
- Heavy duty head
- For brake pipe couplers
- No slippage
- Chrome plated and mirror polished
- Chrome vanadium

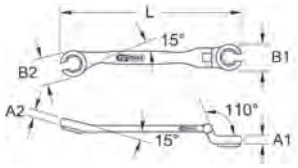


	mm	A1 mm	A2 mm	B1 mm	B2 mm	C1 mm	C2 mm	L mm	g
517.0270	10x11	10.5	11.2	17.8	20.0	6.0	6.1	175.0	80

OPEN DOUBLE RING SPANNERS WITH FLEXIBLE JOINT

CHROME*plus*® open double ring spanner, with flexible joint

- 6 point
- Ring head 15° offset
- Opening 15° cranked
- With flexible head
- Chrome plated and mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
518.0378	8	7.0	7.0	18.0	18.0	128.0	50	
518.0379	9	7.0	7.0	18.0	18.0	128.0	50	
518.0380	10	7.0	7.0	18.0	18.0	128.0	50	
518.0381	11	9.0	9.0	22.0	22.0	148.0	120	
518.0382	12	9.0	9.0	22.0	22.0	148.0	120	
518.0383	13	11.0	11.0	26.0	26.0	175.0	140	
518.0384	14	11.0	11.0	26.0	26.0	175.0	140	
518.0387	17	13.0	13.0	32.0	32.0	190.0	200	
518.0389	19	13.0	13.0	32.0	32.0	190.0	200	

CHROME*plus*® open double ring spanner set, with flexible joint

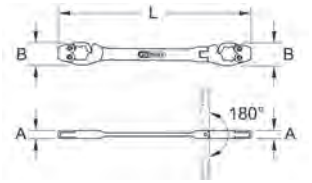
- 6 point
- Ring head 15° offset
- Opening 15° cranked
- With flexible head
- Chrome plated and mirror polished
- Chrome vanadium

			g
518.0350	3 pcs	10 - 11 - 12 mm	220
518.0360	5 pcs	8 - 9 - 10 - 11 - 12 mm	345
518.0370	3 pcs	14 - 17 - 19 mm	610

OPEN RATCHET DOUBLE RING SPANNER SET WITH FLEXIBLE JOINT

CHROME*plus*® ratchet spanner with revolving head

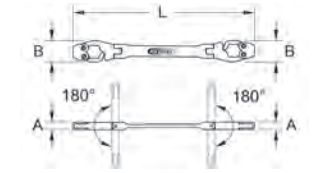
- 6 point
- Straight form
- 180° revolving head
- With ratchet function
- Suitable for force fi applications
- Chrome plated and mirror polished
- Chrome vanadium



	mm	A mm	B mm	L mm	g	
518.0321	11	10.3	19.0	155.0	115	

CHROME*plus*® ratchet spanner with revolving head

- 6 point
- Straight form
- 180° revolving head
- Ratchet function
- Suitable for force fi applications
- Chrome plated and mirror polished
- Chrome vanadium



	mm	A mm	B mm	L mm	g	
518.0332	8x9	8.5	14.8	123.0	56	
518.0334	10x11	10.0	18.4	156.0	116	
518.0336	12x13	11.2	21.1	179.0	170	
518.0338	14x15	12.1	24.6	208.0	240	

CHROME*plus*® ratchet spanner set with revolving head

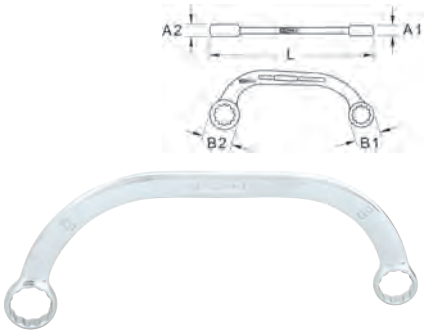
- 6 point
- Straight form
- 180° revolving head
- Ratchet function
- Suitable for force fi applications
- Chrome plated and mirror polished
- Chrome vanadium

			g
518.0330	4 pcs	8x9 - 10x11 - 12x13 - 14x15 mm	600

DOUBLE RING SPANNERS

CHROME*plus*® Starter and block spanner

- FlankTraction profile (12 point
- Especially suitable for narrow hard to access areas
- Chrome plated and mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0852	10x12	6.5	6.6	15.6	17.9	142.0	57
518.0853	11x13	8.0	8.2	17.9	20.7	164.0	90
518.0856	14x17	8.2	9.2	21.4	25.1	190.0	133
518.0857	16x18	8.8	9.6	24.8	27.7	216.0	166
518.0859	19x22	10.0	11.1	27.6	33.0	255.0	244

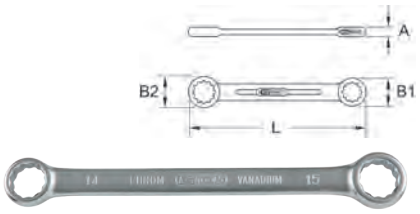
CHROME*plus*® half moon - and manifold spanner set

- FlankTraction profil
- Especially suitable for narrow hard to access areas
- Chrome plated and mirror polished
- Chrome vanadium

			g
518.0850	5 pcs	10x12 - 11x13 - 14x17 - 16x18 - 19x22 mm	890

ULTIMATE*plus* double ring ended spanner

- FlankTraction profile (12 point
- In accordance to DIN / ISO
- Straight form
- Matt finis
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	g
920.0406	6x7	4.5	10.0	11.5	99.0	10
920.0408	8x9	5.2	13.0	11.5	114.0	15
920.0410	10x11	5.8	16.0	17.0	131.0	28
920.0412	12x13	6.4	19.0	20.5	149.0	35
920.0414	14x15	7.2	21.5	23.0	161.0	50
920.0416	16x17	7.8	24.5	25.5	169.0	65
920.0417	17x19	8.5	25.5	28.0	186.0	80
920.0418	18x19	8.5	27.0	28.0	186.0	80
920.0419	19x22	9.4	28.0	32.5	209.0	115
920.0420	20x22	9.4	29.5	32.5	209.0	120
920.0421	21x23	10.0	30.5	33.5	233.0	145
920.0422	22x24	10.0	32.5	35.5	233.0	150
920.0424	24x26	10.8	35.5	38.0	261.0	190
920.0425	24x27	10.8	35.5	39.0	260.0	200
920.0426	25x28	11.6	36.5	41.0	289.0	240
920.0427	27x32	12.6	39.0	46.0	320.0	320
920.0430	30x32	12.6	43.5	46.0	320.0	340

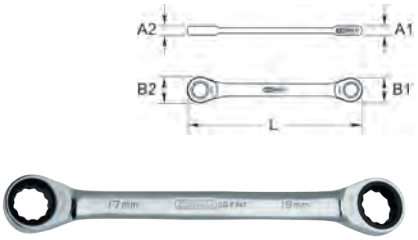
ULTIMATE*plus* straight double open ended spanner set

- FlankTraction profile (12 point
- In accordance to DIN / ISO
- Straight form
- Matt finis
- Chrome vanadium

			kg
920.0448	8 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	0.66
920.0450	12 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 25x28 - 30x32 mm	1.69

GEAR*plus*® Double ratchet ring spanner

- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4502	8x9		6.5	6.9	16.8	20.2	128.0	60
503.4511	8x10		7.3	6.5	20.0	17.0	128.0	40
503.4503	10x11		7.3	7.7	20.2	20.2	150.0	80
503.4512	10x13		7.3	8.6	20.2	20.2	150.0	80
503.4504	12x13		8.2	8.6	23.0	23.0	170.0	100
503.4505	14x15		9.0	9.4	26.5	26.5	190.0	140
503.4506	16x18		9.9	10.7	29.5	29.5	210.0	180
503.4507	17x19		10.3	11.2	31.5	31.5	230.0	220
503.4402		5/16"x3/8"	6.5	7.3	16.8	20.2	128.0	40
503.4403		7/16"x1/2"	7.7	8.6	23.0	24.8	170.0	80
503.4404		9/16"x5/8"	9.0	9.9	26.5	29.5	190.0	125
503.4405		11/16"x3/4"	10.3	11.2	31.5	33.5	230.0	200

GEAR*plus*® double ratchet ring spanner set

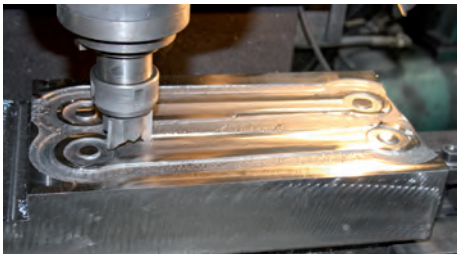
- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

			g
503.4552	2 pcs	10x13 - 17x19 mm	335

GEAR*plus*® double ratchet ring spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- Supplied in a leather pouch

			g
503.4557	6 pcs	8x 9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	900



GEAR*plus*® double ratchet ring spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

			g
503.4556	6 pcs	GEAR*plus*® double ratchet ring spanner set	790
6 x		8x9 - 10x11 - 12x13 - 14x15 - 16x18 17x19 mm	

GEARplus® double ratchet ring spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120- ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4560	10 pcs	GEARplus® double ratchet ring spanner set	1.20
6 x		8x9 - 10x11 - 12x13 - 14x15 - 16x18 17x19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

4 in 1 GEARplus® reversing double ratchet ring spanner

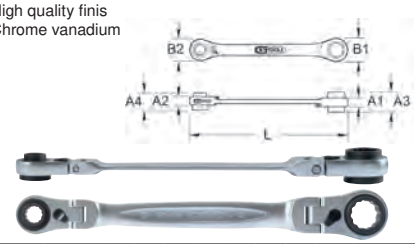
- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Four different sizes on each spanner
- With reverse lever
- High quality finis
- Chrome vanadium

	mm	A1 mm	A2 mm	A3 mm	A4 mm	B1 mm	B2 mm	L mm	g
503.4541	8x11-9x10	7.7	7.3	14.6	13.8	21.8	20.0	150.0	68
503.4656	8x10-12x13	8.6	7.3	16.8	13.8	24.8	16.8	150.0	86
503.4543	12x15-13x14	9.4	9.0	18.0	17.1	29.5	18.0	190.0	147
503.4565	10x19-13x17	11.2	9.0	21.9	17.1	33.6	21.9	190.0	196
503.4546	16x19-17x18	11.2	10.3	21.9	20.2	33.5	21.9	230.0	244
503.4657	14x17-18x19	11.2	10.3	21.9	19.3	33.5	21.9	230.0	245
503.4553	21x27-22x24	16.0	13.0	30.0	26.0	52.0	40.0	275.0	610
503.4554	30x36-32x34	18.0	18.0	36.0	35.0	65.0	62.0	360.0	1400

		A1 mm	A2 mm	A3 mm	A4 mm	B1 mm	B2 mm	L mm	g
503.4586	5/16“x1/2“-3/8“x7/16“	8.6	7.3	16.8	13.8	24.8	20.2	150.0	91
503.4589	9/16“x3/4“-5/8“x11/16“	11.2	10.3	21.9	19.3	33.5	31.5	230.0	238

4 in 1 GEARplus® flexible reversing double ratchet ring spanner

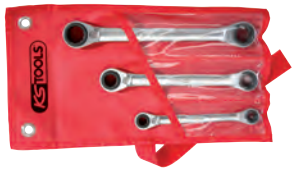
- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- With flexible head
- Four different sizes on each spanner
- With reverse lever
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	A4 mm	B1 mm	B2 mm	L mm	g
503.4745	10x13-17x19	11.2	9.0	22.0	17.1	33.7	27.0	253.0	196

4 in 1 GEARplus® reversing double ratchet ring spanner

- FlankTraction profile (12 point
- Straight form
- Exact gearing with 72 teeth
- Four different sizes on each spanner
- With reverse lever
- High quality finis
- Chrome vanadium

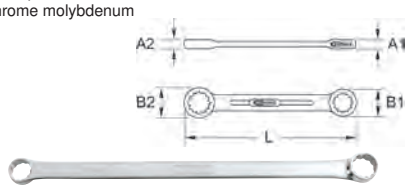


			kg
503.4655	2 pcs	8x10 - 12x13 - 14x17 - 18x19 mm	0.34
503.4550	2 pcs	21x27 - 22x24 - 30x36 - 32x34 mm	2.01
503.4540	3 pcs	8x11 - 9x10 - 12x15 - 13x14 - 16x19 - 17x18 mm	0.55

OPEN DOUBLE RING SPANNERS, EXTRA LONG

CHROMEplus® double ring spanner set, extra long

- FlankTraction profile (12 point
- Thin walled
- Mirror polished chrome
- Chrome molybdenum



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0821	8x10	7.5	8.4	12.5	15.0	235.0	72
518.0822	10x11	8.5	9.5	14.3	17.0	291.0	95
518.0823	12x14	10.4	11.3	17.8	20.3	328.0	157
518.0824	13x15	11.5	13.2	20.2	23.3	386.0	217
518.0825	16x18	13.0	14.8	23.7	26.6	407.0	284
518.0826	17x19	13.0	14.8	23.7	26.6	407.0	284
518.0827	20x21	13.5	15.2	27.5	29.7	415.0	376
518.0828	22x24	15.4	17.7	31.3	34.0	430.0	482

CHROMEplus® double ring spanner set, extra long

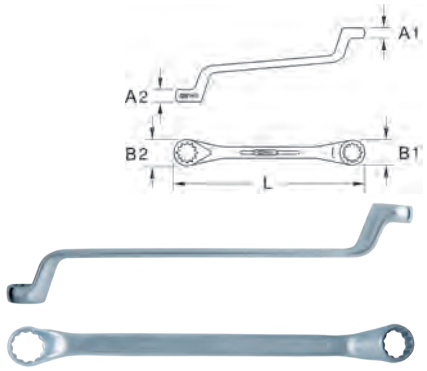
- FlankTraction profile (12 point
- Thin walled
- Chrome plated and mirror polished
- Chrome molybdenum

			kg
518.0800	6 pcs	10x11 - 12x14 - 13x15 - 16x18 - 17x19 - 22x24 mm	2.06

OPEN DOUBLE RING SPANNERS, OFFSET

CLASSIC Double ring spanner, offset

- FlankTraction Profil
- DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Ring head 75° offset
- Thin walled
- Polished heads
- Matt finis
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	kg
517.0836	5,5x7		6.4	5.9	12.0	10.5	0.04
517.0801	6x7		5.2	5.6	10.3	11.8	0.05
517.0802	8x9		6.3	6.4	12.9	14.2	0.07
517.0837	8x10		7.7	6.8	16.6	13.6	0.06
517.0838	9x10		7.7	7.3	16.6	15.0	0.08
517.0839	9x11		8.2	7.3	18.1	15.1	0.06
517.0804	10x11		7.2	7.5	16.0	16.9	0.09
517.0841	10x12		9.2	7.7	21.2	16.7	0.08
517.0806	10x13		7.2	9.0	16.0	20.0	0.12
517.0843	10x14		9.6	7.7	22.6	16.7	0.12
517.0842	11x13		9.2	8.7	21.2	20.0	0.12
517.0844	11x14		9.6	8.7	22.6	20.0	0.12
517.0807	12x13		8.2	9.0	18.5	20.0	0.12
517.0845	12x14		9.6	8.7	22.6	20.0	0.12
517.0846	13x14		9.6	9.2	24.0	21.1	0.12
517.0847	13x15		9.6	9.2	24.0	21.1	0.12
517.0808	13x17		9.0	11.0	20.0	25.2	0.17
517.0809	14x15		9.5	10.0	21.5	22.9	0.15
517.0835	14x17		9.5	11.0	21.5	25.2	0.18
517.0810	16x17		10.3	11.0	24.7	25.2	0.20
517.0848	16x18		11.1	10.5	28.0	25.7	0.20
517.0811	17x19		11.0	11.2	25.2	28.0	0.23
517.0812	18x19		10.6	11.2	26.1	28.0	0.23
517.0814	19x22		11.2	12.5	28.0	32.2	0.30
517.0852	19x24		13.2	19.2	37.3	29.8	0.33
517.0813	20x22		11.7	12.5	30.5	32.2	0.30
517.0815	21x23		12.2	12.5	30.7	33.8	0.32
517.0853	21x24		13.2	12.2	37.3	32.7	0.34
517.0854	22x24		13.2	12.5	37.3	34.3	0.34
517.0856	24x26		14.3	13.2	41.0	37.3	0.42
517.0816	24x27		12.7	13.7	36.0	40.0	0.43
517.0817	24x30		12.7	14.5	36.0	42.5	0.55
517.0857	25x28		14.7	13.6	43.3	37.3	0.46
517.0858	27x29		15.1	14.3	45.4	39.5	0.46
517.0859	27x30		15.1	14.3	45.4	40.8	0.47
517.0819	27x32		13.7	15.1	40.0	46.0	0.64
517.0818	30x32		14.5	15.1	42.5	46.0	0.59
517.0861	30x34		15.0	17.0	45.0	53.0	0.76
517.0862	30x36		15.0	17.0	45.0	53.0	0.74
517.0821	32x36		15.1	17.0	46.0	52.0	0.88
517.0825	36x41		17.7	19.7	53.2	61.1	1.10
517.0826	41x46		20.4	22.2	62.0	75.5	1.60
517.0827	46x50		22.2	23.6	68.9	91.8	2.15
517.0863	55x60		25.0	26.0	86.0	94.0	3.20
517.0864	65x70		27.0	28.0	103.0	110.0	4.70
517.0865	75x80		29.0	30.0	121.0	127.0	7.40
517.0866	85x90		29.0	30.0	121.0	127.0	7.20
517.0881		1/4x5/16“	8.3	6.4	13.5	12.1	0.06
517.0882		5/16x3/8“	7.3	6.8	15.1	12.1	0.06
517.0883		3/8x7/16“	8.2	7.7	18.1	16.6	0.06
517.0884		7/16x1/2“	9.2	8.7	21.2	20.0	0.10
517.0885		1/2x9/16“	9.6	9.2	24.0	21.1	0.12
517.0886		9/16x19/32“	10.1	9.6	25.0	22.4	0.14
517.0887		9/16x5/8“	10.8	10.5	27.5	25.7	0.18
517.0888		19/32x11/16“	10.8	10.5	27.5	25.7	0.20
517.0889		11/16x3/4“	11.4	11.1	30.0	28.0	0.24

	mm		A1 mm	A2 mm	B1 mm	B2 mm	kg	
517.0891		5/8x3/4"	11.4	10.5	30.0	25.7	0.24	
517.0892		3/4x25/32"	11.8	11.4	32.2	30.0	0.24	
517.0893		3/4x7/8"	12.5	11.4	34.3	39.8	0.28	
517.0894		13/16x7/8"	12.5	11.8	34.3	32.0	0.28	
517.0895		15/16x1"	14.3	13.2	41.0	37.3	0.44	
517.0896		1.1/16x1.1/4"	15.5	13.2	45.9	37.3	0.60	

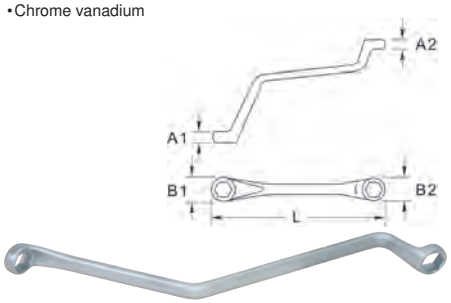
CLASSIC Double ring spanner set, offset

- 12 point
- DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Ring head 75° offset
- Thin walled
- Polished heads
- Matt finis
- Chrome vanadium

			kg	
517.0295	5 pcs	8x9 - 10x11 - 12x13 - 16x17 - 18x19 mm	0.50	
517.0248	8 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	1.12	
517.0222	11 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm	2.80	
517.0250	12 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 25x28 - 30-32 mm	2.88	

CLASSIC Brake bleeding spanner

- 6 point
- Ring head cranked and offset
- For bleeding the brakes without dismantling of the wheels
- Matt finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
518.0307	7	5.3	5.6	12.9	12.1	190.0	60	
518.0308	8	7.5	7.0	16.0	15.8	211.0	130	
518.0309	9	7.4	6.9	16.0	15.9	211.0	130	
518.0310	10	7.3	7.1	17.5	16.9	236.0	135	
518.0311	11	7.2	7.0	17.3	16.9	236.0	135	

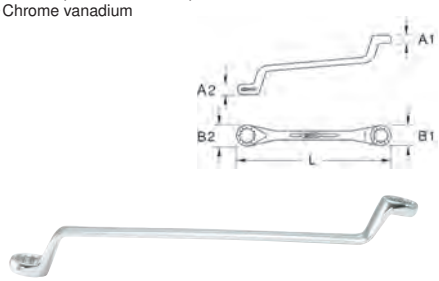
CLASSIC Brake bleeding spanner set

- 6 point
- Ring head cranked and offset
- For bleeding the brakes without dismantling of the wheels
- Matt finis
- Chrome vanadium
- In plastic leather case

			kg	
518.0300	5 pcs	7 - 8 - 9 - 10 - 11 mm	1.20	

CHROME*plus*® Double ring spanner set, offset

- FlankTraction profil
- DIN 838 / ISO 3318 / ISO 1085 / ISO 10104
- Ring head 75° offset
- Thin walled
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0801	6x7		5.9	6.6	10.2	12.5	168.0	52
518.0802	8x9		7.0	7.1	13.7	15.5	183.0	68
518.0804	10x11		7.5	7.5	16.8	18.2	198.0	92
518.0807	12x13		8.3	7.8	19.8	21.6	217.0	139
518.0809	14x15		9.0	9.1	22.7	24.7	239.0	167
518.0810	16x17		9.2	9.5	25.3	26.0	260.0	198
518.0811	17x19		10.3	10.8	28.6	29.8	292.0	263
518.0812	18x19		10.3	10.8	28.6	29.8	292.0	263
518.0814	20x22		10.4	11.4	31.1	34.6	318.0	319
518.0815	21x23		10.8	11.9	32.5	35.6	327.0	352
518.0816	24x27		11.8	13.7	36.5	41.4	339.0	466
518.0818	30x32		13.1	14.6	46.1	49.3	362.0	607
518.3101		1/4"x5/16"	5.4	6.0	10.8	13.1	165.0	40
518.3102		5/16"x3/8"	6.4	7.0	14.7	16.2	170.0	58
518.3103		3/8"x7/16"	6.9	7.6	16.3	18.6	195.0	73
518.3104		1/2"x9/16"	8.6	9.0	19.8	21.0	206.0	116
518.3105		9/16"x5/8"	8.8	9.3	21.4	24.8	232.0	134
518.3106		5/8"x11/16"	10.2	10.4	24.3	26.2	237.0	191
518.3107		11/16"x3/4"	11.1	11.6	27.8	29.3	270.0	269
518.3108		3/4"x7/8"	11.4	12.0	28.7	32.4	292.0	327
518.3109		7/8"x15/16"	11.6	12.3	21.1	34.4	327.0	345
518.3110		13/16"x7/8"	11.6	12.3	21.1	34.4	327.0	345
518.3111		15/16"x1"	14.0	14.1	34.4	36.5	362.0	517
518.3112		1"x1.1/8"	13.7	15.2	39.6	42.1	372.0	625
518.3113		1.1/8"x1.1/4"	17.2	18.6	44.4	48.3	392.0	880

CHROME*plus*® double ring ended spanner set

- FlankTraction profile 12 point)
- DIN 838 / ISO 3318 / ISO 1085 / ISO 10104
- Ring head 75° offset
- Thin walled
- Chrome plated and mirror polished
- Chrome vanadium

			kg	
518.0847	7 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	1.03	
518.0843	3 pcs	21x23 - 24x27 - 30x32 mm	1.51	
518.3120	6 pcs	1/4"x5/16" - 3/8"x7/16" - 1/2"x9/16" - 9/16"x5/8" - 11/16"x3/4" - 13/16"x7/8"	1.10	
518.3100	8 pcs	1/4"x5/16" - 3/8"x7/16" - 1/2"x9/16" - 9/16"x5/8" - 11/16"x3/4" - 13/16"x7/8" - 15/16"x1" - 1.1/8"x1.1/4"	2.46	

GEAR*plus*® reversing double ratchet ring spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium

	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
503.4571	8x9	6.9	6.5	20.2	16.8	128.0	60	
503.4572	8x10	7.4	6.7	20.2	16.7	128.0	65	
503.4573	10x11	7.7	7.3	21.8	20.2	150.0	70	
503.4574	10x13	8.7	7.4	25.4	20.5	150.0	80	
503.4575	12x13	8.6	8.2	24.8	23.0	170.0	100	
503.4576	14x15	9.4	9.0	29.5	26.5	190.0	140	
503.4577	16x18	10.7	9.9	33.5	29.5	210.0	180	
503.4578	17x19	11.2	10.3	33.5	31.5	230.0	220	

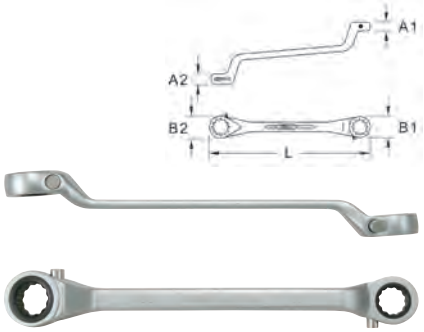
GEAR*plus*® double reversing ratchet ring spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium
- Supplied in a leather pouch

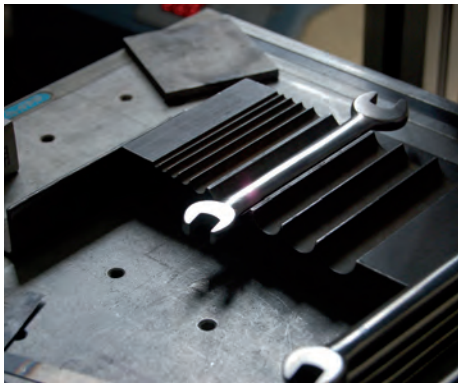
			g	
503.4580	6 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	790	

CLASSIC ratchet ring spanner, reversing

- FlankTraction profile 12 point)
- In accordance to DIN 838 / ISO 1085
- Ring head 75° offset
- Reversible
- Exact gearing with 24 teeth
- Matt finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
520.1011	10x11	11.5	11.7	23.3	25.1	210.0	180	
520.1214	12x14	12.1	12.4	26.4	30.8	245.0	260	
520.1317	13x17	13.2	13.3	31.5	36.3	265.0	360	
520.1516	15x16	14.6	14.7	33.1	34.9	260.0	420	
520.1922	19x22	16.1	16.2	39.8	43.8	325.0	600	
520.2427	24x27	17.7	17.9	47.4	51.6	390.0	800	
520.3032	30x32	19.7	19.9	55.1	57.1	410.0	1300	



CLASSIC ratchet ring spanner set, reversing

- FlankTraction profile (12 point
- In accordance to DIN 838 / ISO 1085
- Ring head 75° offset
- Reversible
- Exact gearing with 72 teeth
- Matt finis
- Chrome vanadium

			kg
520.1000	5 pcs	10x11 - 12x14 - 13x17 - 15x16 - 19x22 mm	1.85
520.1100	7 pcs	10x11 - 12x14 - 13x17 - 15 x 16 - 19x22 - 24x27 - 30x32 mm	4.05

GEAR*plus*® Universal double ratchet ring spanner set

- 6 point
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- Reversible
- With go-through facility
- The collar on each insert prevents slipping
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium
- In durable plastic storage case

			g
503.4625	8 pcs	GEAR*plus*® Universal double ratchet ring spanner set	500
1 x		14 x 19 mm	
7 x		5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16"	

GEAR*plus*® Universal double ratchet ring spanner set

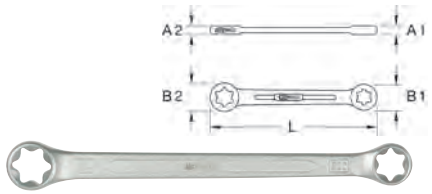
- 6 point
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- Reversible
- With go-through facility
- The collar on each insert prevents slipping
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium
- In durable plastic storage case

			g
503.4645	10 pcs	GEAR*plus*® Universal double ratchet ring spanner set	500
1 x		14 x 19 mm	
9 x		8 - 9 - 10 - 11 - 12 - 13 - 15 - 16 - 17 mm	

DOUBLE RING SPANNERS FOR TX E PROFILE

CLASSIC double ring spanner for TX E-Profil

- TX E profil
- Straight form
- Thin walled
- Matt finis
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
911.0371	E6 x E8	4.2	5.3	7.3	9.7	114.0	20
911.0372	E7 x E11	5.2	7.2	10.8	14.8	130.0	50
911.0373	E10 x E12	6.5	7.7	12.3	15.1	141.0	40
911.0374	E14 x E18	8.2	10.3	17.0	21.1	180.0	90
911.0375	E16 x E22	8.4	11.8	19.7	27.3	205.0	130
911.0376	E20 x E24	11.0	12.6	23.9	27.9	224.0	170

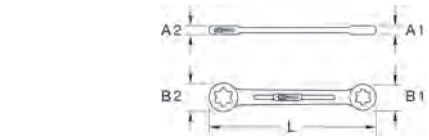
CLASSIC double ring spanner set for TX E-Profil

- TX E profil
- Straight form
- Thin walled
- Matt finis
- Chrome vanadium

			g
911.0370	6 pcs	E6xE8 - E7xE11 - E10xE12 - E14xE18 - E16xE22 - E20xE24	585

CHROME*plus*® Double ring spanner for TX E-Profil

- TX E profil
- Straight form
- Thin walled
- Chrome plated and mirror polished
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0861	E6 x E8	4.2	5.3	7.3	9.7	114.0	17
518.0862	E10 x E12	6.5	7.7	12.3	15.1	141.0	36
518.0863	E14 x E18	8.2	10.3	17.0	21.1	180.0	88
518.0864	E20 x E24	11.0	12.6	23.9	27.9	224.0	165

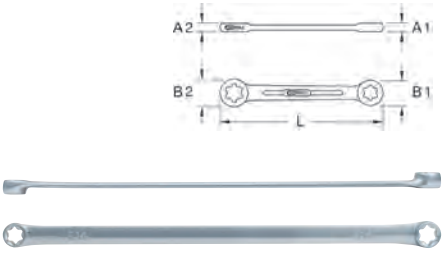
CHROME*plus*® Double ring spanner set for TX E-Profil

- TX E profil
- Straight form
- Thin walled
- Chrome plated and mirror polished
- Chrome vanadium

			g
518.0860	4 pcs	E6xE8 - E10xE12 - E14xE18 - E20xE24	410

CHROME*plus*® Double ring spanner for TX-E profil , extra long

- TX E profil
- Thin walled
- Chrome plated and mirror polished
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0931	E6 x E7	5.8	6.9	9.5	11.0	200.0	42
518.0932	E8 x E10	7.3	8.6	12.0	14.3	240.0	68
518.0933	E11 x E12	9.1	9.9	14.9	16.6	280.0	109
518.0934	E14 x E16	10.3	11.2	18.1	19.8	320.0	161
518.0935	E18 x E20	11.6	12.7	22.8	25.7	360.0	227
518.0936	E22 x E24	13.3	14.0	26.9	29.2	400.0	344

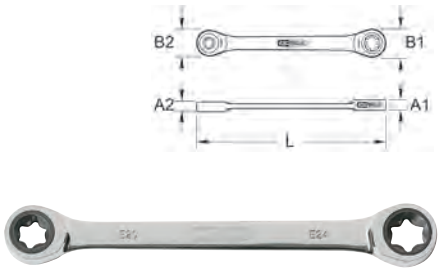
CHROME*plus*® Double ring spanner set for TX-E profil , extra long

- TX E profil
- Thin walled
- Chrome plated and mirror polished
- Chrome vanadium

			kg	
518.0930	6 pcs	E6-E7-E8-E10-E11-E12-E14-E16-E18-E20-E22-E24	1.05	

GEAR*plus*® Double ring ratchet spanner for TX E profil

- TX E profil
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
503.4351	E6 x E8	6.5	6.9	16.8	20.2	128.0	70	
503.4353	E10 x E12	7.3	7.7	20.2	21.8	150.0	60	
503.4355	E14 x E18	9.0	9.9	26.5	29.5	190.0	150	
503.4357	E20 x E24	10.3	11.2	31.5	33.5	230.0	230	

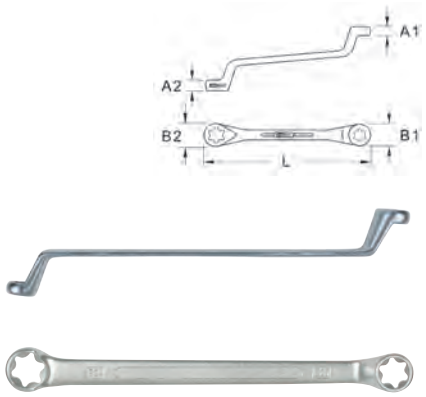
GEAR*plus*® Double ring ratchet spanner set for TX E profil

- TX E profil
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

			g	
503.4364	4 pcs	E6xE8 - E10xE12 - E14xE18 - E20xE24	630	

CLASSIC double ring spanner for TX E profil , offset

- TX E profil
- Ring head 75° offset
- Thin walled
- Matt finis
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
911.0361	E6 x E8	5.5	6.2	10.0	12.3	147.0	32	
911.0362	E7 x E11	5.6	7.0	11.3	14.5	159.0	43	
911.0363	E10 x E12	5.9	6.8	13.5	15.5	175.0	50	
911.0364	E14 x E18	7.7	9.3	17.3	21.7	215.0	108	
911.0365	E16 x E22	8.1	11.6	20.1	27.4	234.0	157	
911.0366	E20 x E24	11.3	13.3	23.5	28.2	262.0	223	

CLASSIC Double ring spanner set for TX E profil , offset

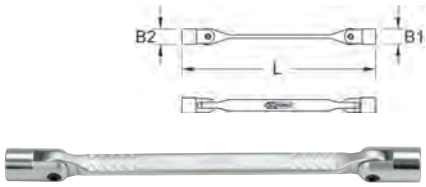
- TX E-Profil
- Ring head 75° offset
- Thin walled
- Matt finis
- Chrome vanadium

			g	
911.0360	6 pcs	E6xE8 - E7xE11 - E10xE12 - E14xE18 - E16xE22 - E20xE24	970	

FLEXIBLE SPANNERS

CLASSIC double revolving head spanner

- FlankTraction profile (12 point
- Revolving head
- Extra large pivoting range
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium



	mm	B1 mm	B2 mm	L mm	g	
517.0300	6x7	10.5	11.2	198.0	90	
517.0301	8x9	12.3	12.7	198.0	91	
517.0302	10x11	14.8	15.7	216.0	118	
517.0303	12x13	18.7	18.9	223.0	172	
517.0304	14x15	20.8	20.9	245.0	214	
517.0305	16x17	22.7	23.8	257.0	282	
517.0306	18x19	25.7	25.8	273.0	359	
517.0307	20x22	27.7	30.0	297.0	486	
517.0308	21x23	27.7	32.0	297.0	492	

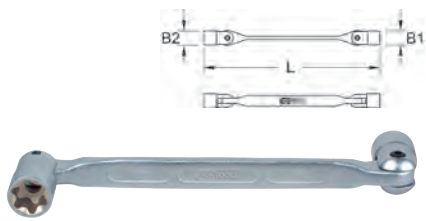
CLASSIC TX E profile double h aded revolving wrench set

- TX E-Profil
- Revolving head
- Extra large pivoting range
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium

			kg	
517.0340	5 pcs	E6xE8 - E10xE12 - E14xE16 - E18xE20 - E22xE24	1.00	

CLASSIC Double revolving head spanner for TX E profil

- TX E profil
- Revolving head
- Extra large pivoting range
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium



		B1 mm	B2 mm	L mm	g	
517.0330	E6 x E8	12.9	12.9	200.0	85	
517.0332	E10 x E12	14.6	16.0	220.0	130	
517.0333	E14 x E16	19.1	20.9	245.0	190	
517.0334	E18 x E20	21.9	22.8	255.0	270	
517.0335	E22 x E24	25.9	25.9	270.0	370	

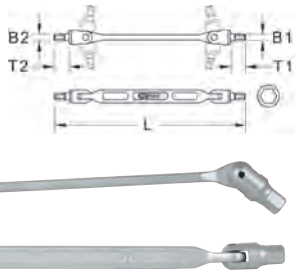
CLASSIC double revolving head spanner set

- FlankTraction profil (12 point)
- Revolving head
- Extra large pivoting range
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium

			kg
517.0310	6 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 mm	1.34

CLASSIC hexagonal double revolving head wrench

- 6 point
- Revolving head
- Extra large pivoting range
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium



	mm	B1 mm	B2 mm	T1 mm	T2 mm	L mm	g
517.0341	3x4	12.0	12.0	5.8	4.5	205.0	90
517.0342	5x6	12.0	12.0	6.7	6.0	218.0	105
517.0343	8x10	15.0	14.9	8.7	10.1	225.0	190

ULTIMATE*plus* double box spanner set, offset

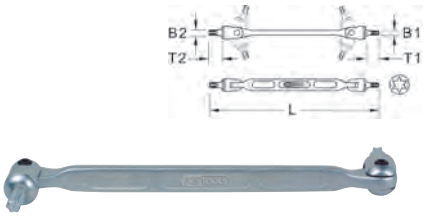
- 6 point
- Ring head 90° offset
- With go through function
- Chrome plated and mirror polished
- Chrome vanadium

			kg
517.0450	9 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	1.55
517.0451	11 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	1.60
517.0452	8 pcs	8 - 10 - 11 - 13 - 17 - 19 - 22 - 24 mm	2.60
517.0453	21 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	8.40
517.0454	26 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm	15.90
517.0455	13 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 24 mm	4.56

BOX SPANNERS

CLASSIC double revolving head spanner for TX

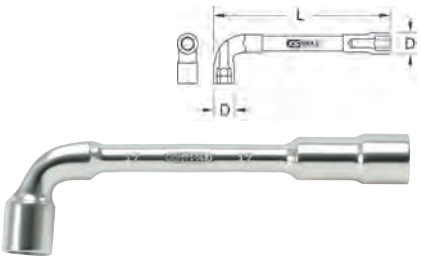
- TX profil
- Revolving head
- Extra large pivoting range
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium



		B1 mm	B2 mm	T1 mm	T2 mm	L mm	g
517.0315	T15 x T20	14.7	14.7	7.9	7.9	225.0	110
517.0316	T25 x T27	15.0	15.0	9.0	9.0	225.0	130
517.0317	T30 x T40	14.8	14.8	8.7	8.7	225.0	150
517.0318	T45 x T50	16.9	16.9	12.4	12.4	245.0	190
517.0319	T55 x T60	17.0	17.0	13.5	13.5	245.0	250

ULTIMATE*plus* double box spanner with go through centre

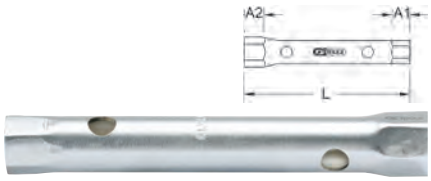
- 6 point
- Ring head 90° offset
- With go through function
- Chrome plated and mirror polished
- Chrome vanadium



	mm	D mm	L mm	g
517.0406	6	10.0	102.0	46
517.0407	7	11.0	106.0	57
517.0408	8	12.5	114.0	65
517.0409	9	13.5	122.0	86
517.0410	10	15.0	129.0	108
517.0411	11	16.5	136.0	133
517.0412	12	18.0	144.0	158
517.0413	13	19.5	152.0	181
517.0414	14	21.0	160.0	229
517.0415	15	22.5	169.0	255
517.0416	16	24.0	178.0	320
517.0417	17	25.5	187.0	349
517.0418	18	26.5	195.0	407
517.0419	19	28.0	204.0	449
517.0420	20	29.5	212.0	513
517.0421	21	30.5	221.0	556
517.0422	22	32.0	230.0	658
517.0423	23	33.5	240.0	764
517.0424	24	34.5	250.0	832
517.0427	27	38.0	296.0	1243
517.0430	30	42.0	330.0	1565
517.0432	32	44.5	350.0	1842
517.0434	34	47.0	340.0	1580
517.0436	36	49.5	380.0	2396

CLASSIC pipe head spanner

- 6 point
- DIN 896 / ISO 2236 / ISO 1085
- With hollow shaft
- Matt finis
- Chrome vanadium



	mm	A1 mm	A2 mm	L mm		g
518.0870	6x7	10.0	11.0	100.0	1,2,3	27
518.0871	8x9	11.0	12.0	110.0	1,2,3	43
518.0872	10x11	12.5	13.0	120.0	1,2,3	63
518.0881	10x13	13.0	14.5	140.0	2,3	80
518.0873	12x13	14.0	14.5	130.0	2,3	96
518.0874	14x15	15.0	16.0	140.0	2,3	132
518.0875	16x17	16.0	17.0	150.0	2,3	155
518.0882	17x19	17.0	20.0	160.0	2,3	160
518.0876	18x19	18.0	20.0	160.0	2,3	187
518.0877	20x22	20.0	21.0	170.0	2,3	275
518.0878	21x23	20.0	20.0	180.0	2,3	310
518.0883	24x26	24.0	26.0	190.0	4	365
518.0879	24x27	24.0	26.0	190.0	4	365
518.0880	30x32	27.0	31.0	220.0	4	610
518.0884	36x41	32.0	35.0	220.0	5	650
518.0885	41x46	35.0	38.0	240.0	5	950
518.0886	46x50	38.0	40.0	240.0	5	1050

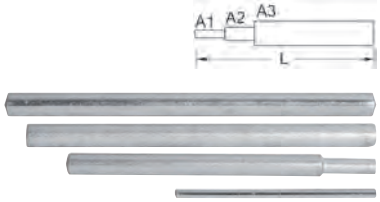
CLASSIC double revolving head spanner set for TX

- TX profil
- Revolving head
- Extra large pivoting range
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium

			g
517.0320	5 pcs	T15xT20 - T25xT27 - T30xT40 - T45xT50 - T55xT60	845

Tommy bar for box spanner

- Hardened
- Matt finis
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	L mm	#	g
518.0865	6x7-10x11	6.0	6.0	6.0	115.0	1	40
518.0866	6x7-21x23	5.8	8.0	9.5	160.0	2	80
518.0868	24x26-30x32	14.0	14.0	14.0	204.0	4	260
518.0869	36x41-46x50	15.6	15.6	15.6	253.0	5	370

CLASSIC box wrench sets

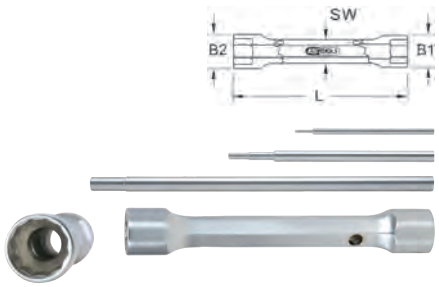
- 6 point
- DIN 896 / ISO 2236 / ISO 1085
- With hollow shaft
- Matt finis
- Chrome vanadium

			g
518.0900	10 pcs	CLASSIC box wrench sets	920

8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm
2 x		6-11 + 10-22 mm

ULTIMATE*plus* Double box spanner

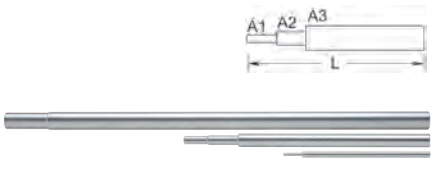
- FlankTraction profile 12 point)
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Can use a combination spanner to drive
- Matt finis
- Chrome vanadium



	mm	B1 mm	B2 mm	mm	L mm		g
518.0406	6x7	9.0	10.0	8,0	100.0	1	27
518.0408	8x9	11.5	12.5	9,0	110.0	1	43
518.0410	10x11	14.0	15.0	11,0	120.0	1	63
518.0412	12x13	16.5	17.5	13,0	130.0	2	96
518.0414	14x15	19.5	20.0	14,0	140.0	2	132
518.0416	16x17	21.0	22.0	16,0	150.0	2	155
518.0418	18x19	23.0	24.0	18,0	160.0	2	187
518.0420	20x22	26.0	28.0	20,0	170.0	2	275
518.0421	21x23	27.0	29.0	21,0	180.0	2	310
518.0424	24x26	30.0	32.0	24,0	190.0	3	365
518.0425	25x28	31.0	34.0	25,0	200.0	3	410
518.0427	27x29	34.0	36.0	27,0	210.0	3	540
518.0430	30x32	37.0	39.0	30,0	220.0	3	610

Tommy bar for double box spanner

- Hardened
- Matt finis
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	L mm	#	g
518.0450	6x7-10x11	2.6	5.0	5.0	100.0	1	10
518.0455	12x13-21x23	5.9	7.0	9.3	170.0	2	80
518.0460	24x26-30x32	11.6	12.5	12.5	290.0	3	280

ULTIMATE*plus* Double box head spanner set

- FlankTraction profile 12 point)
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Can use a ring spanner to drive
- Matt finis
- Chrome vanadium

			kg
518.0405	10 pcs	ULTIMATE*plus* Double box head spanner set	1.16

8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm
2 x		#1 100 mm + #2 170 mm

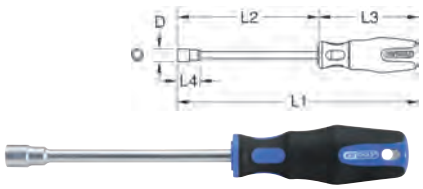
Extended bar HGV wheel nut wrench set

- Two sided serviceable
- Large head depth for projecting bolts
- 1.200 mm extended drive bar
- Loading capacity at 1.000 N•m
- Ideally suited for commercial vehicles
- Matt finis
- Special steel

			kg
518.0840	4 pcs	32x33 mm	3.90

ERGOTORQUE*plus*® socket screwdriver

- 6 point
- Two component handle
- With hanging hole
- Matt finis
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
159.1201	4	6.6	255.0	150.0	105.0	4.3	60
159.1202	5	7.6	255.0	150.0	105.0	4.4	70
159.1203	5,5	8.2	255.0	150.0	105.0	4.8	80
159.1204	6	8.8	255.0	150.0	105.0	5.5	80
159.1205	7	10.0	255.0	150.0	105.0	6.8	110
159.1206	8	11.2	264.0	150.0	114.0	7.0	110
159.1207	9	13.9	264.0	150.0	114.0	9.3	110
159.1208	10	15.0	264.0	150.0	114.0	9.9	120
159.1209	11	16.5	264.0	150.0	114.0	10.3	130
159.1210	12	17.6	264.0	150.0	114.0	11.2	180
159.1211	13	17.6	264.0	150.0	114.0	11.6	180
159.1212	14	18.9	264.0	150.0	114.0	13.0	180

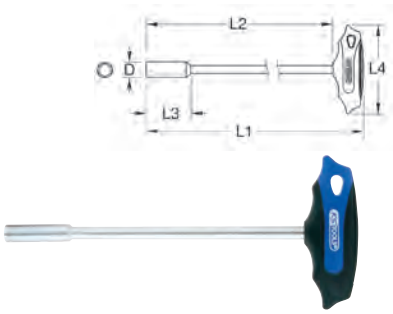
ERGOTORQUE*plus*® socket screwdriver set

- 6 point
- Two component handle
- With hanging hole
- Matt finis
- Chrome vanadium

			g
159.1200	8 pcs	5 - 6 - 7 - 8 - 10 - 11 - 12 - 13	800

CHROME*plus*® T-handle socket screwdriver, long

- 6 point
- Two component handle
- With hanging hole
- Chrome plated and mirror polished
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
158.50055	5,5	9.9	264.0	230.0	10.0	95.0	80
158.5006	6	9.9	264.0	230.0	10.0	95.0	100
158.5007	7	10.1	264.0	230.0	10.0	95.0	120
158.5008	8	12.5	270.0	230.0	14.0	115.0	140
158.5009	9	13.6	270.0	230.0	12.0	115.0	150
158.5010	10	14.5	270.0	230.0	14.0	115.0	160
158.5011	11	15.7	270.0	230.0	15.0	115.0	180
158.5012	12	16.7	270.0	230.0	15.0	115.0	180
158.5013	13	17.6	270.0	230.0	16.0	115.0	180
158.5014	14	19.2	270.0	230.0	15.0	115.0	190

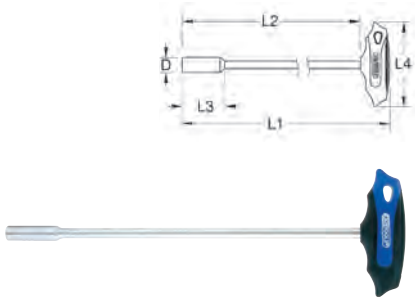
CHROME*plus*® T-handle socket srewdriver set

- 6 point
- Two component handle
- With hanging hole
- Chrome plated and mirror polished
- Chrome vanadium

			kg
158.5000	6 pcs	6 - 8 - 10 - 12 - 13 - 14 mm	1.40

CHROME*plus*® T-handle socket screwdriver, extra long

- 6 point
- Two component handle
- With hanging hole
- Chrome plated and mirror polished
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
158.5408	8	12.6	390.0	350.0	13.0	115.0	180
158.5409	9	13.6	390.0	350.0	14.0	115.0	190
158.5410	10	14.7	390.0	350.0	15.0	115.0	220
158.5413	13	17.7	390.0	350.0	15.0	115.0	230
158.5414	14	19.1	390.0	350.0	16.0	115.0	250

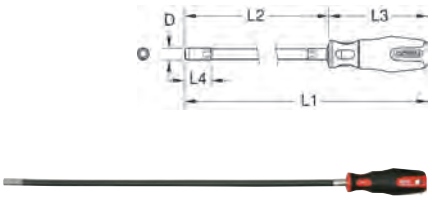
ERGOTORQUE® socket screwdriver

- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- With hanging hole
- Chrome vanadium

	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1126	6	10.8	259.0	150.0	109.0	9.3	155
911.1127	7	11.7	259.0	150.0	109.0	10.0	155
911.1128	8	11.9	259.0	150.0	109.0	10.0	155
911.1125	10	12.5	279.0	170.0	109.0	14.3	170

ERGOTORQUE*plus*® socket screwdriver, extra long

- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Two component handle
- With hanging hole
- Chrome vanadium

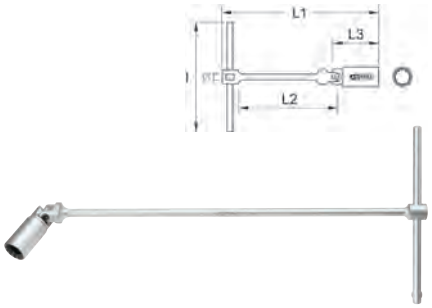


	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1175	5	11.9	614.0	500.0	114.0	8.9	270
911.1176	6	10.9	614.0	500.0	114.0	11.3	280
911.1177	7	11.7	614.0	500.0	114.0	11.3	280
911.1178	8	11.7	614.0	500.0	114.0	11.3	280

T-HANDLE FLEXIBLE WRENCH

CLASSIC T-Handle Spark plug socket

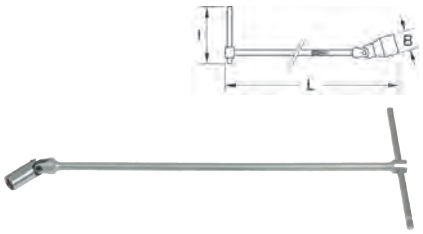
- FlankTraction profil
- Flexible head
- For diffi ult to access areas
- Matt finis
- Chrome vanadium



	mm	l mm	L1 mm	L2 mm	L3 mm	g
517.1131	14,0	200.0	500.0	418.5	81.5	490
517.1132	16,0	200.0	500.0	418.5	81.5	500
517.1133	18,0	200.0	500.0	418.5	81.5	580
517.1134	21,0	200.0	500.0	418.5	81.5	590

CLASSIC T-handle universal wrench, extra long

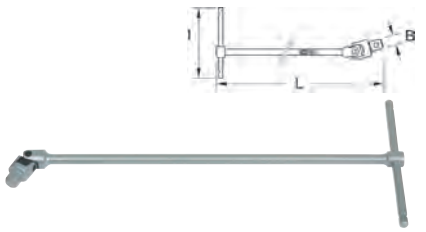
- 6 point
- With fl xible head
- For diffi ult to access areas
- Matt finis
- Chrome vanadium



	mm	B mm	l mm	L mm	g
517.1108	8	12.0	200.0	394.0	400
517.1109	9	14.5	200.0	395.0	420
517.1110	10	15.3	200.0	490.0	460
517.1111	11	17.0	200.0	491.0	470
517.1112	12	18.0	200.0	493.0	485
517.1113	13	18.0	200.0	493.0	485
517.1114	14	20.0	200.0	495.0	480
517.1115	15	22.0	200.0	495.0	480
517.1116	16	22.0	200.0	496.0	490
517.1117	17	24.0	200.0	469.0	495
517.1118	18	26.0	200.0	500.0	500
517.1119	19	28.0	200.0	500.0	520

CLASSIC T-Handle universal wrench for sockets, extra long

- In accordance to DIN 3122 / ISO 3315
- With fl xible head
- For diffi ult to access areas
- Matt finis
- Chrome vanadium

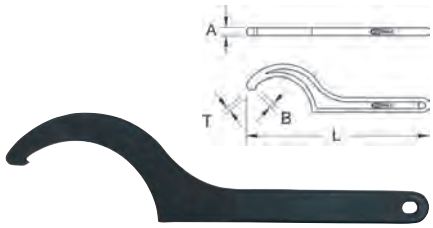


	■	B mm	l mm	L mm	g
517.1125	1/4"	6.3	200.0	490.0	420
517.1126	3/8"	9.5	200.0	495.0	540
517.1127	1/2"	12.6	200.0	500.0	760

HOOK WRENCH

Fixed hook wrench with nose

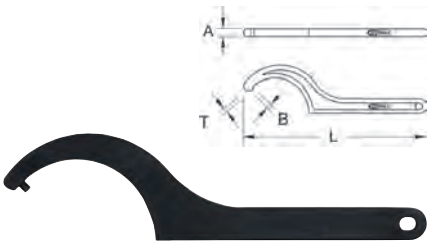
- In accordance to DIN 1810 Form A
- With hanging hole
- For slotted nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1370	12 - 14	2.5	2.0	109.5	1.5	22
517.1371	16 - 20	2.5	2.0	109.5	1.5	22
517.1372	25 - 28	4.0	2.5	135.9	2.0	36
517.1373	30 - 32	4.0	2.5	135.9	2.0	36
517.1374	34 - 36	5.0	3.0	170.2	2.0	82
517.1375	40 - 42	5.0	3.0	170.3	2.0	76
517.1376	45 - 50	6.0	3.5	195.0	2.0	132
517.1377	52 - 55	7.0	3.5	220.0	2.5	176
517.1378	58 - 62	7.0	4.0	240.0	2.5	224
517.1379	68 - 75	7.6	4.0	260.0	3.0	280
517.1380	80 - 90	8.0	5.0	280.0	3.5	368
517.1381	92 - 100	8.0	5.0	280.0	3.5	394
517.1382	110 - 115	9.5	5.0	334.9	4.0	590
517.1383	120 - 130	9.5	5.0	334.9	4.0	540

Fixed hook wrench with pin

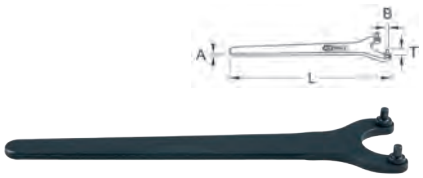
- In accordance to DIN 1810 Form B
- With hanging hole
- For pin type round nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1471	12 - 14	3.0	2.0	110.0	2.0	25
517.1472	16 - 18	3.0	2.5	110.0	2.5	25
517.1473	20 - 22	3.0	2.5	110.0	2.5	25
517.1474	25 - 28	4.0	3.0	136.0	3.0	55
517.1488	30 - 32	5.0	4.0	136.0	3.0	55
517.1476	34 - 36	5.0	4.0	170.0	3.5	100
517.1477	40 - 42	5.0	4.0	170.0	3.5	100
517.1478	45 - 50	6.0	5.0	206.0	4.0	165
517.1479	52 - 55	6.0	5.0	206.0	4.0	165
517.1480	58 - 62	7.0	5.0	240.0	5.0	270
517.1481	68 - 75	7.0	6.0	240.0	5.0	270
517.1482	80 - 90	8.0	6.0	280.0	6.0	410
517.1483	95 - 100	8.0	8.0	280.0	6.0	410
517.1484	110 - 115	8.0	8.0	335.0	8.0	610
517.1485	120 - 130	8.0	8.0	335.0	8.0	610
517.1486	135 - 145	8.0	8.0	380.0	8.0	790
517.1487	155 - 165	8.0	8.0	380.0	8.0	790

Pin-type face wrench

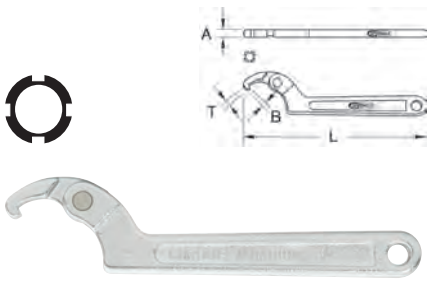
- DIN 3,116 A
- Phosphate
- Special steel



	mm	A mm	B mm	L mm	T mm	g
517.2013	13	3.0	2.5	90.0	3.0	27
517.2015	15	3.0	3.0	90.0	4.0	27
517.2020	20	4.0	3.0	122.0	5.0	50
517.2025	25	4.0	3.0	137.0	4.0	65
517.2030	30	4.0	4.0	164.0	5.0	85
517.2035	35	5.0	5.0	180.0	6.0	120
517.2040	40	5.0	4.0	167.0	5.0	120
517.2045	45	5.0	4.0	187.0	5.0	145
517.2050	50	5.0	5.0	198.0	6.0	175
517.2060	60	6.0	5.0	213.0	6.0	220
517.2075	75	6.0	6.0	243.0	7.0	330
517.2090	90	6.0	7.0	270.0	7.5	410

Hook wrench with nose

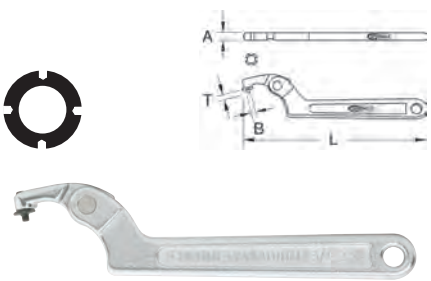
- In accordance to DIN 1810 Form A
- With fl xible head
- With hanging hole
- For slotted nuts
- Matt finis
- Chrome vanadium



	mm		A mm	B mm	L mm	T mm	g
517.1302	19-50	3/4-2"	9.0	3.5	162.0	2.9	100
517.1303	32-76	1.1/4-3"	11.5	4.5	205.0	3.7	210
517.1304	50-120	2-4.3/4"	12.4	6.5	295.0	4.6	420
517.1305	114-158	4.1/2-6.1/4"	12.4	9.8	315.0	8.3	440

Flexible hook wrench with pin

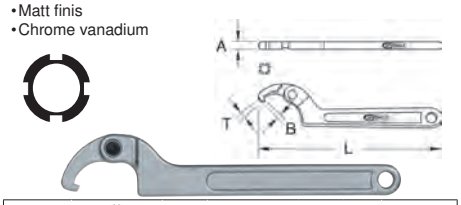
- In accordance to DIN 1810 Form B
- With fl xible head
- With hanging hole
- For pin type round nuts
- Matt finis
- Chrome vanadium



	mm		A mm	B mm	L mm	T mm	g
517.1312	19-50	3/4-2"	9.2	4.0	165.0	4.0	110
517.1313	32-76	1.1/4-3"	11.3	5.0	210.0	4.7	220
517.1314	50-120	2-4.3/4"	12.5	6.0	295.0	5.5	420
517.1315	114-158	4.1/2-6.1/4"	12.6	8.0	320.0	7.6	440

Hook wrench with nose

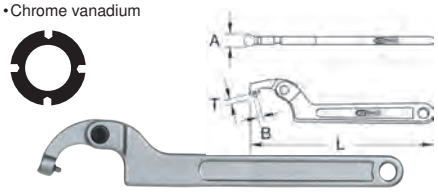
- In accordance to DIN 1810 Form A
- With fl xible head
- With hanging hole
- For slotted nuts
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1316	13 - 35	5.2	3.2	175.0	3.2	80
517.1317	35 - 50	5.9	4.0	202.0	4.2	186
517.1318	50 - 80	7.5	4.9	280.0	5.2	382
517.1319	80 - 120	8.2	5.3	345.0	5.8	642
517.1320	120 - 180	10.8	8.9	465.0	7.8	1286

Flexible hook wrench with pin

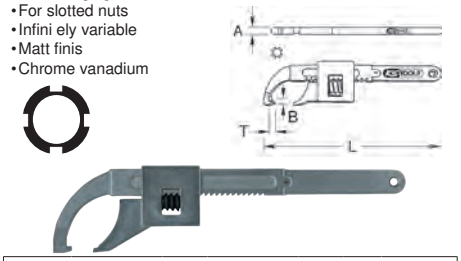
- In accordance to DIN 1810 Form B
- With fl xible head
- With hanging hole
- For pin type round nuts
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1323	15 - 35	9.8	2.8	177.0	2.8	100
517.1324	35 - 50	10.7	3.8	202.0	3.6	186
517.1325	50 - 80	14.0	4.8	280.0	5.0	382
517.1326	80 - 120	17.2	5.8	345.0	7.0	642
517.1327	120 - 180	19.2	7.8	465.0	9.0	1286

Hook wrench with nose

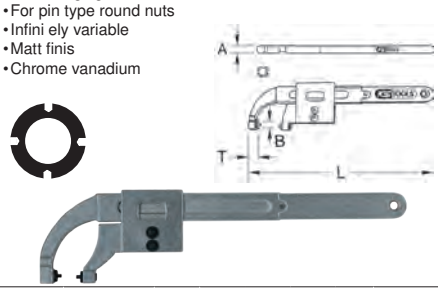
- In accordance to DIN 1810 Form A
- With fl xible head
- With hanging hole
- For slotted nuts
- Infini ely variable
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1397	10 - 50	7.6	4.2	210.0	4.5	380
517.1398	20 - 100	8.2	6.8	360.0	5.5	840
517.1399	30 - 200	10.6	9.4	570.0	7.0	2250

Fexible hook wrench with pin

- In accordance to DIN 1810 Form B
- With fl xible head
- With hanging hole
- For pin type round nuts
- Infini ely variable
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1328	10-50	8.3	2.6	210.0	2.5	380
517.1329	20-100	12.3	4.0	360.0	4.5	840
517.1330	30-200	17.3	5.8	570.0	4.8	2250

SLOGGING SPANNER

Slogging open end spanner

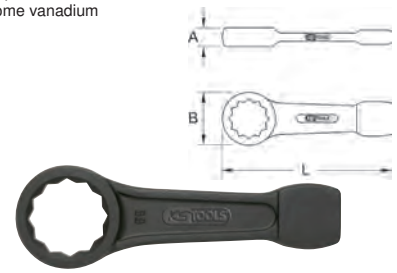
- DIN 133
- Jaw 15° offset
- Impact area
- For heavy duty applications
- Phosphate finis
- Chrome vanadium

	mm		A mm	B mm	L mm	kg
517.2122	22		16.0	55.0	180.0	0.28
517.0124	24		16.0	55.0	180.0	0.28
517.0127	27		16.3	56.0	181.0	0.39
517.0130	30		16.7	62.0	188.0	0.45
517.0132	32		17.2	66.0	196.0	0.55
517.0136	36		18.2	76.0	211.0	0.71
517.0141	41		19.2	88.0	227.0	1.00
517.0146	46		19.7	98.0	256.0	1.26
517.0150	50		21.2	106.5	281.0	1.61
517.0155	55		23.6	117.0	310.0	2.13
517.0160	60		24.1	128.0	321.0	2.48
517.0165	65		27.6	139.0	351.0	3.34
517.0170	70		29.6	150.0	370.0	4.33
517.0175	75		31.0	161.5	390.0	5.11
517.0180	80		34.0	172.5	406.0	6.02
517.0185	85		34.0	172.5	406.0	5.77
517.0190	90		38.4	194.0	456.0	9.81
517.0195	95		38.4	194.0	456.0	8.99
517.0196	100		46.0	225.0	500.0	13.32
517.2105	105		46.3	225.5	500.0	13.22
517.2110	110		46.3	225.5	500.0	13.05
517.2115	115		54.2	245.5	525.0	17.66
517.2120	120		54.2	254.5	525.0	17.61
517.2125	125		50.0	255.0	545.0	16.76
517.2130	130		55.0	275.0	575.0	19.03
517.2135	135		55.0	275.0	575.0	18.88
517.2140	140		55.0	275.0	575.0	17.88
517.2145	145		60.0	305.0	640.0	26.67
517.2150	150		60.0	305.0	640.0	24.66
517.2155	155		60.0	305.0	640.0	24.20
517.2160	160		60.0	305.0	640.0	25.69
517.2165	165		70.0	342.0	715.0	39.56
517.2170	170		70.0	342.0	715.0	37.76
517.2175	175		70.0	342.0	715.0	36.84
517.2180	180		70.0	392.0	715.0	37.00
517.2185	185		70.0	392.0	715.0	36.00
517.2190	190		78.0	392.0	800.0	53.30
517.2195	195		78.0	392.0	800.0	52.90
517.2200	200		78.0	392.0	800.0	52.50
517.2205	205		78.0	392.0	800.0	52.50
517.2210	210		78.0	392.0	800.0	51.70
517.2220	220		72.0	415.0	800.0	51.30
517.2251		1.1/16"	16.3	56.0	181.0	0.39
517.2254		1.1/8"	16.3	56.0	181.0	0.39
517.2255		1.3/16"	16.7	62.0	188.0	0.47
517.2253		1.1/4"	16.7	62.0	188.0	0.46
517.2258		1.5/16"	17.2	66.0	196.0	0.54
517.2257		1.3/8"	17.2	66.0	196.0	0.55
517.2260		1.7/16"	18.2	76.0	211.0	0.71
517.2252		1.1/2"	18.2	76.0	211.0	0.70
517.2262		1.9/16"	19.2	88.0	227.0	1.25
517.2259		1.5/8"	19.2	88.0	227.0	0.98
517.2263		1.11/16"	19.2	88.0	227.0	0.98
517.2256		1.3/4"	19.2	88.0	227.0	0.99
517.2264		1.13/16"	19.7	98.0	256.0	1.27
517.2261		1.7/8"	19.7	98.0	256.0	1.27
517.2265		1.15/16"	21.2	106.5	281.0	1.05
517.2266		2"	21.2	106.5	281.0	1.59
517.2267		2.1/16"	21.2	106.5	281.0	1.64
517.2270		2.1/8"	21.2	106.0	281.0	1.56
517.2271		2.3/16"	23.6	117.0	310.0	2.12

	mm		A mm	B mm	L mm	kg
517.2269		2.1/4"	23.6	117.0	310.0	2.10
517.2274		2.5/16"	23.6	117.0	310.0	1.90
517.2273		2.3/8"	23.6	128.0	321.0	2.47
517.2276		2.7/16"	23.6	128.0	321.0	2.40
517.2268		2.1/2"	23.6	128.0	321.0	2.60
517.2278		2.9/16"	27.6	139.0	351.0	3.49
517.2275		2.5/8"	27.6	139.0	351.0	3.27
517.2272		2.3/4"	29.6	150.0	370.0	4.28
517.2279		2.13/16"	29.6	150.0	370.0	4.20
517.2277		2.7/8"	29.6	150.0	370.0	4.20
517.2280		2.15/16"	31.0	161.5	390.0	4.10
517.2281		3"	31.0	161.5	390.0	4.88
517.2284		3.1/8"	34.0	172.5	406.0	5.95
517.2283		3.1/4"	34.0	172.5	406.0	5.80
517.2286		3.3/8"	34.0	172.5	406.0	5.64
517.2282		3.1/2"	38.4	194.0	456.0	8.91
517.2287		3.5/8"	38.4	194.0	456.0	7.80
517.2285		3.3/4"	38.4	194.0	456.0	8.56
517.2288		3.7/8"	46.3	225.5	500.0	13.47
517.2289		4"	46.3	225.5	500.0	13.64
517.2292		4.1/8"	46.3	225.5	800.0	13.64
517.2291		4.1/4"	47.0	235.0	510.0	14.10
517.2290		4.1/2"	47.0	235.0	510.0	18.98
517.2293		4.3/4"	50.0	255.0	545.0	16.40
517.2294		5"	50.0	255.0	545.0	15.50
517.2296		5.3/8"	55.0	275.0	575.0	19.80
517.2295		5.3/4"	55.0	275.0	575.0	18.90
517.2297		6"	60.0	305.0	640.0	26.70

Slogging ring spanner

- FlankTraction profile (12 point
- DIN 7444
- Impact area
- For heavy duty applications
- Phosphate finis
- Chrome vanadium



	mm		A mm	B mm	L mm	kg
517.0922	22		15.0	43.0	165.0	0.22
517.0924	24		15.0	42.5	160.0	0.26
517.0927	27		15.5	47.0	180.0	0.33
517.0930	30		16.5	51.5	190.0	0.39
517.0932	32		16.5	54.0	195.0	0.53
517.0936	36		19.5	60.0	205.0	0.67
517.0941	41		20.5	66.0	225.0	0.79
517.0946	46		22.5	75.0	240.0	1.00
517.0950	50		23.5	80.0	250.0	1.09
517.0955	55		25.0	87.5	270.0	1.45
517.0960	60		26.0	93.5	270.0	1.58
517.0965	65		29.0	101.0	290.0	2.58
517.0970	70		32.5	109.5	320.0	2.58
517.0975	75		34.0	114.5	325.0	3.01
517.0980	80		35.0	123.0	345.0	3.52
517.0985	85		37.0	129.0	360.0	3.90
517.0990	90		41.5	152.0	400.0	6.37
517.0995	95		41.5	152.0	400.0	6.29
517.0996	100		41.5	152.0	400.0	6.03
517.1905	105		47.5	172.0	435.0	8.66
517.1910	110		47.5	172.0	435.0	8.44
517.1915	115		47.5	172.0	435.0	8.16
517.1920	120		54.0	182.0	480.0	9.86
517.1925	125		54.0	182.0	480.0	9.67
517.1930	130		58.0	202.0	520.0	12.30
517.1935	135		58.0	202.0	520.0	11.79
517.1940	140		58.0	202.0	520.0	11.96
517.1945	145		64.0	228.0	580.0	18.55
517.1950	150		64.0	228.0	580.0	17.98
517.1955	155		64.0	228.0	580.0	16.94
517.1960	160		64.0	228.0	580.0	17.89
517.1965	165		70.0	265.0	650.0	26.66
517.1970	170		70.0	265.0	650.0	26.31
517.1975	175		70.0	265.0	650.0	25.92
517.1980	180		70.0	265.0	650.0	24.60
517.1985	185		75.0	290.0	700.0	33.00
517.1990	190		75.0	290.0	700.0	32.60

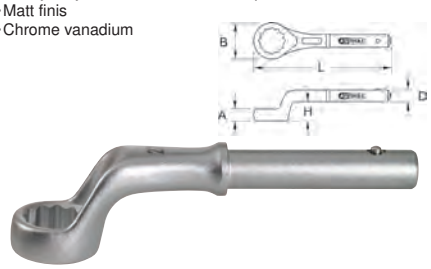
	mm		A mm	B mm	L mm	kg
517.1995	195		75.0	290.0	700.0	31.80
517.2900	200		75.0	290.0	700.0	32.00
517.2905	205		80.0	320.0	750.0	40.50
517.2910	210		80.0	320.0	750.0	39.50
517.2915	215		80.0	320.0	750.0	39.00
517.2920	220		80.0	320.0	750.0	37.40
517.2930	230		80.0	320.0	750.0	35.40
517.2951		1.1/16"	15.5	47.0	180.0	0.33
517.2954		1.1/8"	15.5	47.0	180.0	0.32
517.2955		1.3/16"	16.5	51.5	190.0	0.39
517.2953		1.1/4"	16.5	51.5	190.0	0.39
517.2958		1.5/16"	16.5	53.0	195.0	0.42
517.2957		1.3/8"	16.5	53.0	195.0	0.41
517.2960		1.7/16"	19.5	60.0	205.0	0.66
517.2952		1.1/2"	19.5	60.0	205.0	0.64
517.2962		1.9/16"	20.5	66.0	225.0	0.70
517.2959		1.5/8"	20.5	66.0	225.0	0.82
517.2963		1.11/16"	20.5	66.0	225.0	0.77
517.2956		1.3/4"	20.5	66.0	225.0	0.77
517.2964		1.13/16"	22.5	75.0	240.0	0.98
517.2961		1.7/8"	22.5	75.0	240.0	0.99
517.2965		1.15/16"	23.5	80.0	250.0	1.10
517.2966		2"	23.5	80.0	250.0	1.09
517.2967		2.1/16"	23.5	80.0	250.0	1.08
517.2970		2.1/8"	23.5	80.0	250.0	1.04
517.2971		2.3/16"	25.0	87.5	270.0	1.43
517.2969		2.1/4"	25.0	87.5	270.0	1.40
517.2974		2.5/16"	26.0	93.5	270.0	1.64
517.2973		2.3/8"	26.0	93.5	270.0	1.62
517.2976		2.7/16"	26.0	93.5	270.0	1.53
517.2968		2.1/2"	29.0	101.0	290.0	1.64
517.2978		2.9/16"	29.0	101.0	290.0	2.08
517.2975		2.5/8"	29.0	101.0	290.0	2.04
517.2972		2.3/4"	32.5	109.5	320.0	2.55
517.2979		2.13/16"	32.5	109.5	320.0	2.95
517.2977		2.7/8"	32.5	109.5	320.0	2.95
517.2980		2.15/16"	34.0	114.5	325.0	2.80
517.2981		3"	34.0	114.5	325.0	3.01
517.2984		3.1/8"	35.0	123.0	345.0	3.37
517.2983		3.1/4"	36.0	126.0	360.0	4.00
517.2986		3.3/8"	36.0	126.0	360.0	3.79
517.2982		3.1/2"	40.0	142.0	390.0	5.13
517.2987		3.5/8"	40.0	142.0	390.0	5.30
517.2985		3.3/4"	41.5	152.0	400.0	6.13
517.2988		3.7/8"	45.0	155.0	420.0	6.15
517.2989		4"	45.0	155.0	420.0	6.43
517.2992		4.1/8"	45.0	155.0	420.0	6.21
517.2991		4.1/4"	48.0	170.0	450.0	8.30
517.2990		4.1/2"	48.0	170.0	450.0	7.48
517.2993		4.3/4"	54.0	182.0	480.0	9.90
517.2994		5"	54.0	182.0	480.0	9.50
517.2995		5.1/8"	58.0	202.0	520.0	12.70
517.2997		5.3/8"	58.0	202.0	520.0	12.70
517.2996		5.3/4"	64.0	228.0	580.0	19.30
517.2998		6"	64.0	228.0	580.0	19.30

Intermediate sizes are also available upon request.

SINGLE RING ENDED SPANNER

CLASSIC offset single ring spanner

- FlankTraction Profil
- Ring head 75° offset
- With shaft for snap-on handle
- With locking pin
- Heavy duty to deliver maximum torque
- Matt finis
- Chrome vanadium

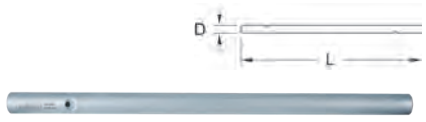


	mm		A mm	B mm	D mm	H mm	L mm	kg
517.9022	22		17.0	38.0	18.3	29.0	180.0	0.37
517.9024	24		17.0	38.0	19.0	29.5	180.0	0.35

	mm		A mm	B mm	D mm	H mm	L mm	kg
517.9027	27		17.0	42.0	19.0	31.5	190.0	0.40
517.9030	30		18.0	48.0	19.0	33.5	195.0	0.45
517.9032	32		18.0	49.0	21.8	34.0	200.0	0.55
517.9036	36		18.0	49.0	21.8	34.0	200.0	0.65
517.9041	41		20.0	54.0	21.8	35.5	205.0	0.75
517.9046	46		22.0	62.0	25.0	39.5	265.0	1.05
517.9050	50		23.0	69.0	25.0	40.0	280.0	1.15
517.9055	55		25.5	76.0	25.0	42.5	290.0	1.40
517.9060	60		28.0	81.0	30.0	45.5	300.0	2.10
517.9065	65		30.5	90.0	30.0	49.0	345.0	2.30
517.9070	70		33.0	98.0	30.0	53.0	355.0	2.60
517.9075	75		35.5	105.0	30.0	55.0	365.0	3.00
517.9080	80		38.0	110.0	30.0	57.5	375.0	3.45
517.9085	85		40.5	125.0	30.0	59.0	385.0	3.80
517.9090	90		45.0	140.0	30.0	63.0	410.0	4.88
517.9095	95		45.0	140.0	30.0	63.0	410.0	5.67
517.9100	100		47.0	140.0	30.0	63.0	412.0	6.66
517.9105	105		47.0	143.0	30.0	63.0	415.0	7.50
517.9111		1"	17.0	38.0	18.3	29.0	180.0	0.37
517.9112		1.1/16"	17.0	38.0	18.3	31.5	185.0	0.41
517.9115		1.1/8"	17.0	38.0	18.3	33.0	185.0	0.41
517.9116		1.3/16"	18.0	48.0	18.3	33.0	195.0	0.49
517.9114		1.1/4"	18.0	49.0	21.3	34.0	230.0	0.72
517.9119		1.5/16"	20.0	54.0	21.3	34.0	240.0	0.72
517.9118		1.3/8"	20.0	54.0	21.3	35.0	240.0	0.84
517.9121		1.7/16"	20.0	54.0	21.3	35.0	250.0	0.84
517.9113		1.1/2"	20.0	54.0	21.3	39.0	240.0	0.84
517.9123		1.9/16"	23.0	69.0	21.3	39.0	250.0	0.94
517.9120		1.5/8"	23.0	69.0	21.3	39.0	250.0	0.94
517.9124		1.11/16"	23.0	69.0	21.3	39.0	250.0	0.94
517.9117		1.3/4"	22.0	62.0	21.4	40.0	250.0	0.94
517.9125		1.13/16"	23.0	69.0	24.1	40.0	260.0	1.30
517.9122		1.7/8"	23.0	69.0	24.1	40.0	260.0	1.30
517.9126		2"	28.0	81.0	24.1	42.0	270.0	1.45
517.9127		2.1/16"	28.0	81.0	24.1	42.0	270.0	1.45
517.9130		2.1/8"	28.0	81.0	24.1	45.0	270.0	1.45
517.9131		2.3/16"	28.0	81.0	24.1	45.0	270.0	1.50
517.9129		2.1/4"	28.0	81.0	24.1	45.0	270.0	1.50
517.9134		2.5/16"	30.5	90.0	29.1	49.0	325.0	2.40
517.9133		2.3/8"	30.5	90.0	29.1	49.0	325.0	2.40
517.9135		2.7/16"	30.5	90.0	29.1	49.0	345.0	2.60
517.9128		2.1/2"	30.5	90.0	29.1	53.0	325.0	2.40
517.9136		2.9/16"	30.5	90.0	29.1	53.0	345.0	2.60
517.9132		2.3/4"	30.5	90.0	29.1	55.0	345.0	2.80
517.9137		2.13/16"	38.0	110.0	29.1	55.0	375.0	3.00
517.9138		2.15/16"	38.0	110.0	29.1	57.5	375.0	3.00
517.9139		3"	38.0	110.0	29.1	57.5	375.0	3.00
517.9142		3.1/8"	40.5	125.0	29.1	59.0	385.0	4.10
517.9141		3.1/4"	40.5	125.0	29.1	59.0	385.0	4.10
517.9144		3.3/8"	40.5	125.0	29.1	59.0	385.0	4.10
517.9140		3.1/2"	40.5	125.0	29.1	63.0	385.0	4.10
517.9145		3.5/8"	45.0	140.0	29.1	63.0	410.0	4.95
517.9143		3.3/4"	45.0	140.0	29.1	63.0	410.0	4.95
517.9146		3.7/8"	45.0	140.0	29.1	63.0	410.0	4.95
517.9147		4"	45.0	140.0	29.1	63.0	412.0	4.95
517.9148		4.1/8"	45.0	140.0	29.1	63.0	415.0	4.95

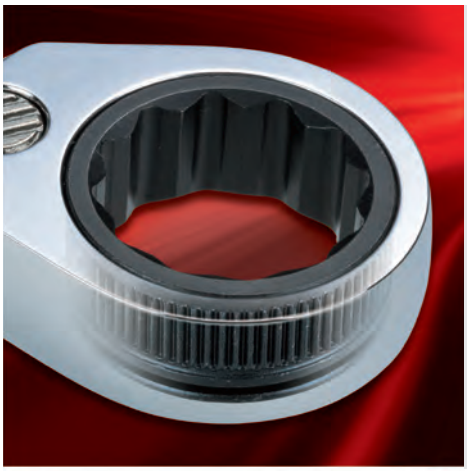
Snap-on handle for single ring spanner

- Four different sizes
- Matt finis
- Chrome vanadium



	mm	D mm	L mm	#	kg
517.9001	24 - 30	19.0	460.0	1	0.75
517.9002	32 - 41	22.0	610.0	2	1.25
517.9003	46 - 55	25.0	760.0	3	2.30
517.9004	60 - 105	30.0	860.0	4	2.80

GEAR*plus*® RATCHETING SPANNER



The GEAR*plus*® ring ratcheting spanner offer all the benefits of a ratchet and much more...

The ultra slimline design of the ring sides allows work in very narrow places, even where normal ratchets and sockets can't be used
Allows very quick loosening or tightening of difficult nuts and bolts.

Further development of the progressive gearing means an increase in the transmission of up to 30% more torque compared to previous ring ratcheting spanners.
The components of the ratchet mechanism are manufactured from special high grade steel.
Thereby the GEARplus® reaches and even surpasses the DIN and ANSI torque standards for standard combination spanners.

The especially robust ratchet mechanism with 72 teeth works with a ratcheting angle of only 5° which makes it possible to work in confined spaces. The future of ratchets.
Standard combination wrenches require a ratcheting angle of at least 30° which means continual re-mounting of the wrench. This awkward process now belongs to the past.

All GEAR*plus*® ratchet ring spanners are of course fitted with the proven FlankTraction system to optimise the torque transmission. This enables 100% power transfer to the faces of the nuts or bolts being worked on.
A further multitude of applications are offered by the valued bit and socket adaptors which can be obtained as seperate accessories.

GEAR
KS TOOLS GEAR plus

GEAR
KS TOOLS GEAR plus

FLEX
KS TOOLS GEAR plus

FLEXLOK
KS TOOLS GEAR plus

REVERSE
KS TOOLS GEAR plus

MINI
KS TOOLS GEAR plus

ADAPTER
KS TOOLS GEAR plus

REVERSE
KS TOOLS GEAR plus

GEAR*plus*® MINI REVERSIBLE COMBINATION SPANNER

GEAR*plus*® combination ratcheting spanner, stubby

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- High quality finis
- Chrome vanadium

	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4631	8	6.5	4.0	16.6	16.7	90.0	30
503.4632	9	6.9	4.4	18.4	18.8	93.0	40
503.4633	10	7.3	4.8	20.0	20.8	95.0	45
503.4634	11	7.7	5.2	21.8	23.0	103.0	50
503.4635	12	8.2	5.5	22.7	25.0	106.0	55
503.4636	13	8.6	5.8	24.7	27.1	108.0	60
503.4637	14	9.0	6.2	27.0	29.2	115.0	70
503.4638	15	9.4	6.5	28.3	31.3	119.0	90
503.4639	16	10.0	6.8	30.0	33.4	123.0	100
503.4640	17	10.3	7.2	31.8	35.5	127.0	110
503.4641	18	10.7	7.7	32.6	37.6	131.0	120
503.4642	19	11.2	8.2	33.8	39.7	139.0	150

GEAR*plus*® combination ratcheting spanner set, stubby

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4652	12 pcs	GEAR*plus*® combination ratcheting spanner set, stubby	1.08
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	

GEAR*plus*® combination ratcheting spanner set, stubby

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

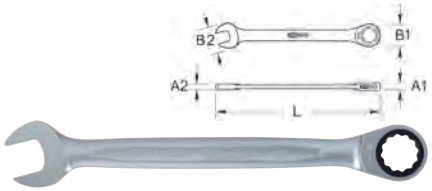
1/4" 3/8" 1/2"

			kg
503.4653	16 pcs	GEAR*plus*® combination ratcheting spanner set, stubby	1.35
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

GEAR*plus*® COMBINATION SPANNER

GEAR*plus*® Combination ratcheting spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.42055	5,5		6.3	3.9	14.0	15.0	127.5	20
503.4206	6		6.3	3.9	14.0	15.0	128.0	25
503.4207	7		6.5	4.0	16.8	16.7	140.0	30
503.4208	8		6.5	4.0	16.8	16.7	140.0	30
503.4209	9		6.9	4.4	18.8	18.7	149.0	40
503.4210	10		7.3	4.8	20.8	20.8	158.0	50
503.4211	11		7.7	5.2	21.8	23.0	165.0	60
503.4212	12		8.2	5.5	22.8	24.6	171.0	70
503.4213	13		8.6	5.8	24.8	26.8	178.0	80
503.4214	14		9.0	6.2	27.8	29.0	190.0	110
503.4215	15		9.4	6.5	28.8	31.0	199.0	120
503.4216	16		9.9	6.8	30.8	33.0	208.0	150
503.4217	17		10.3	7.2	31.8	35.5	225.0	180
503.4218	18		10.7	7.7	32.8	37.5	236.0	210
503.4219	19		11.2	8.2	33.8	39.4	247.0	240
503.4221	21		13.0	9.0	40.0	45.8	289.0	340
503.4222	22		13.0	9.0	40.0	45.8	289.0	345
503.4224	24		14.5	10.0	46.0	51.8	322.0	470
503.4227	27		15.5	10.5	52.0	56.4	358.0	580
503.4228	30		17.0	11.4	58.0	62.7	401.0	860
503.4229	32		17.5	12.5	62.0	66.4	424.0	1060
503.4230	34		17.5	13.0	62.0	70.0	459.0	1170
503.4248	41		19.5	16.5	71.0	86.0	565.0	2000
503.4102		5/16"	6.5	4.0	16.8	16.7	140.0	30
503.4103		3/8"	7.3	4.8	20.8	20.8	158.0	40
503.4104		7/16"	7.7	5.2	21.8	23.0	165.0	50
503.4105		1/2"	8.6	5.8	24.8	26.8	178.0	70
503.4106		9/16"	9.0	6.2	27.8	29.0	190.0	110
503.4107		5/8"	9.9	6.8	30.8	33.0	208.0	130
503.4108		11/16"	10.3	7.2	31.8	35.5	225.0	170
503.4109		3/4"	11.2	8.2	33.8	39.4	247.0	220

GEAR*plus*® Combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

			kg
503.4202	5 pcs	5/16" - 3/8" - 1/2" - 11/16" - 3/4"	0.69
503.4204	4 pcs	10 - 13 - 17 - 19 mm	0.65
503.4205	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.69
503.4270	4 pcs	24 - 27 - 30 - 32 mm	3.07

GEAR*plus*® ratchet combination spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

			g
503.4255	5 pcs	GEAR*plus*® ratchet combination spanner set	670
5 x		8 - 10 - 13 - 17 - 19 mm	

GEARplus® combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

			kg	
503.4259	6 pcs	GEARplus® combination ratcheting spanner set	0.97	
6 x		8 - 10 - 12 - 13 - 17 - 19 mm		

GEARplus® combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

			kg	
503.4265	12 pcs	GEARplus® combination ratcheting spanner set	1.88	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 -18 - 19 mm		

GEARplus® combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg	
503.4260	10 pcs	GEARplus® combination ratcheting spanner set	1.06	
6 x		8 - 10 - 12 - 13 - 17 - 19 mm		
1 x		1/4“		
3 x		1/4“ - 3/8“ - 1/2“		

GEARplus® combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg	
503.4266	16 pcs	GEARplus® combination ratcheting spanner set	1.73	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
1 x		1/4“		
3 x		1/4“ - 3/8“ - 1/2“		

GEARplus® combination ratcheting spanner display

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

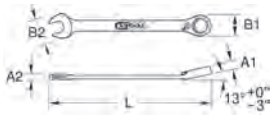
1/4" 3/8" 1/2" 5/16" 10 mm

			kg	
503.4200	70 pcs	GEARplus® combination ratcheting spanner display	2.87	
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)		
5 x		1/4“ ; 1/4“ - 3/8“ - 1/2“		
5 x		5/16“ - 10 mm		

GEAR*plus*® REVERSIBLE COMBINATION SPANNER

GEAR*plus*® reversing combination ratcheting spanner

- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4606	6		6.3	3.9	14.0	15.0	127.5	30
503.4607	7		6.5	4.6	16.4	16.2	140.0	30
503.4608	8		6.5	4.6	16.4	16.2	140.0	30
503.4609	9		6.9	4.9	18.3	18.2	150.0	40
503.4610	10		7.3	5.3	20.0	20.5	159.0	50
503.4611	11		7.7	5.6	21.4	22.6	166.0	60
503.4612	12		8.2	6.0	22.6	24.6	172.0	70
503.4613	13		8.6	6.4	24.5	26.7	178.0	80
503.4614	14		9.0	6.8	27.0	28.8	191.0	100
503.4615	15		9.4	7.0	28.2	30.8	200.0	120
503.4616	16		9.9	7.2	30.3	33.2	208.0	150
503.4617	17		10.3	7.7	31.6	35.1	225.0	160
503.4618	18		10.7	8.2	32.3	37.2	236.0	190
503.4619	19		11.2	8.8	33.7	39.3	248.0	220
503.4621	21		13.0	9.0	40.1	46.2	290.0	245
503.4622	22		13.0	9.0	40.1	46.2	290.0	360
503.4624	24		14.5	10.0	46.5	51.5	323.0	470
503.4627	27		15.5	10.5	52.5	56.5	357.0	660

	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4628	30		17.0	11.4	58.5	62.7	400.0	860
503.4629	32		17.5	12.5	62.5	66.4	423.0	1050
503.4630	34		17.5	13.0	62.5	70.6	460.0	1200
503.4643	36		18.0	13.4	65.8	79.0	488.0	1300
503.4644	38		18.0	13.4	65.8	79.0	488.0	1400
503.4648	41		19.5	16.5	71.0	86.0	565.0	2000
503.4681		5/16"	6.5	4.0	16.6	16.7	145.0	30
503.4683		3/8"	7.3	4.8	20.0	20.8	159.0	60
503.4684		7/16"	7.7	5.2	21.8	23.0	165.0	70
503.4685		1/2"	8.6	5.8	24.7	27.1	178.0	80
503.4686		9/16"	9.0	6.5	27.0	29.2	190.0	100
503.4687		5/8"	9.9	6.8	30.0	33.4	208.0	140
503.4688		11/16"	10.3	7.2	31.8	35.5	225.0	170
503.4689		3/4"	11.2	8.2	33.8	39.7	248.0	230

GEAR*plus*® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium

			g
503.4604	4 pcs	10 - 13 - 17 - 19 mm	650
503.4605	5 pcs	8 - 10 - 13 - 17 - 19 mm	700
503.4602	5 pcs	5/16" - 3/8" - 1/2" - 11/16" - 3/4"	600

GEAR*plus*® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4646	6 pcs	GEAR*plus*® reversing combination ratcheting spanner set	1.04
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	

GEAR*plus*® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4650	9 pcs	GEAR*plus*® reversing combination ratcheting spanner set	1.10
5 x		8 - 10 - 13 - 17 - 19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

GEAR*plus*® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4647	10 pcs	GEAR*plus*® reversing combination ratcheting spanner set	1.11
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg	
503.4666	16 pcs	GEARplus® reversing combination ratcheting spanner set	1.79	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
1 x		1/4“		
3 x		1/4“ - 3/8“ - 1/2“		

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg	
503.4665	12 pcs	GEARplus® reversing combination ratcheting spanner set	1.71	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		

GEARplus® reversing combination ratcheting spanner display

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium

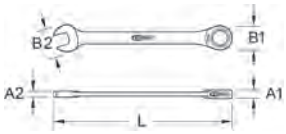
1/4" 3/8" 1/2" 5/16" 10 mm

			kg	
503.4600	70 pcs	GEARplus® reversing combination ratcheting spanner display	2.82	
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)		
5 x		1/4“ ; 1/4“ - 3/8“ - 1/2“		
5 x		5/16“ - 10 mm		

DUO GEARplus® COMBINATION RATCHETING SPANNER

DUO GEARplus® combination spanner set with ratchet mechanism in ring and open jaw

- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Nm	Nm	g
503.5208	8	6.5	4.1	16.4	16.2	140.0	15.0	36.0	30
503.5209	9	6.9	4.3	18.3	18.3	150.0	21.1	48.0	40
503.5210	10	7.3	4.8	20.0	20.0	159.0	31.1	85.2	50
503.5211	11	7.7	5.1	21.4	21.4	166.0	46.1	96.0	60
503.5212	12	8.2	5.3	22.6	22.6	172.0	49.1	109.2	70
503.5213	13	8.6	5.9	24.5	24.5	178.0	62.1	138.0	80
503.5214	14	9.0	6.3	27.0	27.0	191.0	86.0	189.6	110
503.5215	15	9.4	6.6	28.2	28.2	200.0	104.1	240.0	120
503.5216	16	9.9	6.9	30.3	30.3	208.0	124.1	297.6	150
503.5217	17	10.3	7.3	31.6	31.6	225.0	139.1	320.4	170
503.5218	18	10.7	7.8	32.3	32.3	236.0	155.1	364.8	210
503.5219	19	11.2	8.3	33.7	33.7	248.0	186.1	387.6	220
503.5221	21	13.0	8.8	40.1	46.2	290.0	248.1	446.4	340
503.5222	22	13.0	8.8	40.1	46.2	290.0	279.1	489.6	340
503.5224	24	14.5	9.8	46.5	51.5	323.0	341.2	610.8	470
503.5227	27	15.5	10.4	52.9	56.1	352.0	432.0	805.2	650
503.5228	30	17.1	11.2	57.6	62.5	396.0	570.0	954.0	875
503.5229	32	17.6	12.1	61.9	66.2	418.0	650.0	1086.0	1035

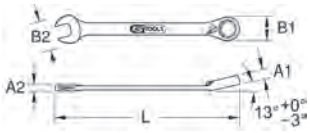
DUO GEARplus® combination spanner with ratchet mechanism in ring and open jaw

- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium
- In durable plastic holder

			kg
503.5205	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.66

DUO GEARplus® combination spanner with ratchet mechanism in ring and open jaw, reversible

- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- With reverse lever
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium

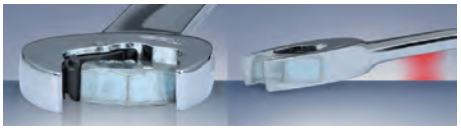


	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Nm	Nm	g
503.5908	8	6.5	4.1	16.4	16.2	140.0	15.0	36.0	40
503.5909	9	6.9	4.3	18.3	18.2	150.0	21.1	48.0	45
503.5910	10	7.3	4.8	20.0	20.5	159.0	31.1	85.2	50
503.5911	11	7.7	5.1	21.4	22.6	166.0	46.1	96.0	60
503.5912	12	8.2	5.3	22.6	24.6	172.0	49.1	109.2	70
503.5913	13	8.6	5.9	24.5	26.7	178.0	62.1	138.0	80
503.5914	14	9.0	6.3	27.0	28.8	191.0	86.0	189.6	100
503.5915	15	9.4	6.6	28.2	30.8	200.0	104.1	240.0	120
503.5916	16	9.9	6.9	30.3	33.2	208.0	124.1	297.6	140
503.5917	17	10.3	7.3	31.6	35.1	225.0	139.1	320.4	170
503.5918	18	10.7	7.8	32.3	37.2	236.0	155.1	364.8	200
503.5919	19	11.2	8.3	33.7	39.3	248.0	186.1	387.6	210
503.5921	21	13.0	8.8	40.1	46.2	290.0	248.1	446.4	340
503.5922	22	13.0	8.8	40.0	46.2	290.0	279.1	489.6	340
503.5924	24	14.5	9.8	46.5	51.5	323.0	341.2	610.8	470
503.5927	27	15.5	10.4	52.9	56.1	352.0	432.0	805.2	650
503.5928	30	17.1	11.2	57.6	62.5	396.0	570.0	954.0	875
503.5929	32	17.6	12.1	61.9	66.2	418.0	650.0	1086.0	1035

DUO GEARplus® combination spanner set with ratchet mechanism in ring and open jaw, reversible

- Open end side with innovative ratchet mechanism
- FlankTraction Profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- With reverse lever
- Exact gearing with 72 teeth
- High quality finis
- Chrome vanadium
- In durable plastic holder

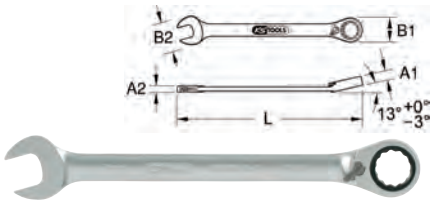
			kg
503.5905	5 pcs	8 - 10 - 13 - 17 - 19 mm	0.66



GEARplus® RING STOP COMBINATION SPANNER

GEARplus® reversing combination ratcheting spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- Ring stop fuction
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
503.4908	8	6.5	4.6	16.6	16.7	140.0	40	
503.4909	9	6.9	4.9	18.4	18.8	150.0	45	
503.4910	10	7.3	5.3	20.0	20.8	159.0	50	
503.4911	11	7.7	5.6	21.8	23.0	165.0	60	
503.4912	12	8.2	6.0	22.7	25.0	172.0	70	
503.4913	13	8.6	6.4	24.7	27.1	178.0	80	
503.4914	14	9.0	6.8	27.0	29.2	191.0	100	
503.4915	15	9.4	7.0	28.3	31.1	200.0	120	
503.4916	16	9.9	7.2	30.0	33.4	208.0	140	
503.4917	17	10.3	7.7	31.8	35.5	226.0	170	
503.4918	18	10.7	8.2	32.6	37.6	237.0	200	
503.4919	19	11.2	8.8	33.8	39.7	248.0	210	

GEARplus® Socket adapter with go through

- FlankTraction profile 12 point)
- With go through function
- Suitable for ring stop spanners
- Chrome plated and mirror polished
- Chrome vanadium

	mm	B mm	L mm	g	
503.4978	8	12.0	19.8	10	
503.4979	9	12.0	21.2	10	
503.4980	10	15.0	22.6	10	
503.4981	11	16.2	22.9	10	
503.4982	12	17.4	24.5	20	
503.4983	13	18.7	25.8	20	
503.4984	14	19.9	26.1	20	
503.4985	15	20.8	28.0	30	
503.4986	16	22.6	29.5	30	
503.4987	17	23.7	30.6	30	
503.4988	18	24.5	32.0	40	
503.4989	19	26.1	33.5	50	

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- High quality finis
- Chrome vanadium
- In durable plastic storage case

		g	
503.4955	5 pcs	8 - 10 - 13 - 17 - 19 mm	660

GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head 15° offset
- With reverse lever
- Versatile sockets with go through function
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

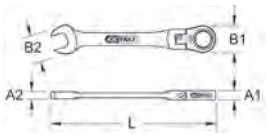
1/4" 3/8" 1/2" 5/16" 10 mm

			kg	
503.4960	30 pcs	GEARplus® reversing combination ratcheting spanner set	2.43	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
3 x		1/4“ - 5/16“ - 10 mm		
3 x		1/4“ - 3/8“ - 1/2“		

GEARplus® FLEXIBLE COMBINATION RATCHETING SPANNER

GEARplus® flexible combination ratcheting spanner

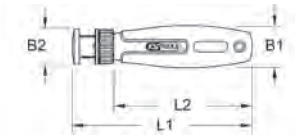
- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With flexible head
- 180° revolving head
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
503.4708	8	6.5	4.3	16.7	16.2	127.0	30	
503.4709	9	6.9	4.6	18.6	18.2	131.5	40	
503.4710	10	7.3	5.0	20.0	20.3	136.0	50	
503.4711	11	7.7	5.4	21.8	22.5	141.0	60	
503.4712	12	8.2	5.8	23.0	24.3	147.5	70	
503.4713	13	8.6	6.1	25.2	26.8	154.0	80	
503.4714	14	9.0	6.4	26.8	28.3	160.0	100	
503.4715	15	9.4	6.9	28.3	29.8	169.0	120	
503.4716	16	9.9	7.2	29.8	31.8	179.0	150	
503.4717	17	10.3	7.6	31.8	32.8	190.0	160	
503.4718	18	10.7	8.0	32.8	37.0	203.0	190	
503.4719	19	11.2	8.6	33.9	39.2	215.0	220	
503.4721	21	13.0	9.0	40.0	46.0	274.0	400	
503.4722	22	13.0	9.0	40.0	46.0	274.0	400	
503.4724	24	14.5	10.0	46.0	52.2	296.0	550	

Handle for flexible combination ratcheting spanner

- Two component handle
- Suitable as a crank handle ratchet
- Mirror polished chrome
- Chrome vanadium

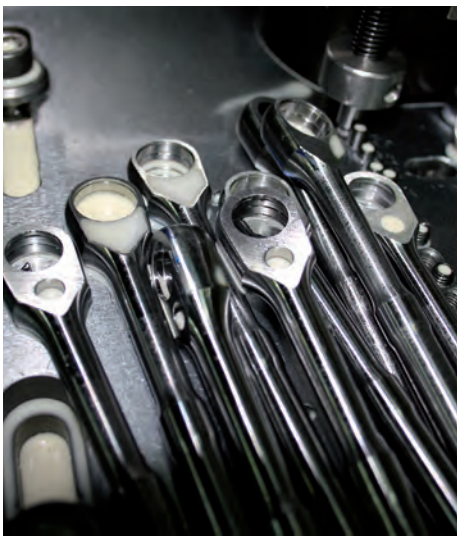


	mm	B1 mm	B2 mm	L1 mm	L2 mm	g	
503.0100	8-19	34.0	28.0	143.0	110.0	160	

GEARplus® flexible combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With flexible head
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg	
503.4759	6 pcs	GEARplus® flexible combination ratcheting spanner set	1.90	
6 x		8 - 10 - 12 - 13 - 17 - 19 mm		



GEARplus® fl xible combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- Square drive adaptor to DIN 3120-ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4760	10 pcs	GEARplus® fl xible combination ratcheting spanner set	2.00
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® fl xible combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- Square drive adaptor to DIN 3120-ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
503.4766	16 pcs	GEARplus® fl xible combination ratcheting spanner set	2.66
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		1/4“	
3 x		1/4“ - 3/8“ - 1/2“	

GEARplus® fl xible combination ratcheting spanner set

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4765	12 pcs	GEARplus® fl xible combination ratcheting spanner set	2.56
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	

GEARplus® fl xible combination ratcheting spanner display

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Jaw 15° offset
- Exact gearing with 72 teeth
- With fl xible head
- 180° revolving head
- High quality finis
- Chrome vanadium

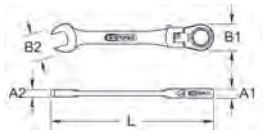
1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4700	70 pcs	GEARplus® fl xible combination ratcheting spanner display	2.74
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)	
5 x		1/4“ ; 1/4“ - 3/8“ - 1/2“	
5 x		5/16“ - 10 mm	

GEARplus® FLEXIBLE LOCKING COMBINATION RATCHETING SPANNER

GEARplus® fl xible locking combination ratcheting spanner

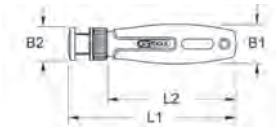
- FlankTraction profile 12 point)
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With fl xible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4808	8	6.5	4.3	16.7	16.2	127.0	30
503.4809	9	6.9	4.6	18.6	18.2	131.5	40
503.4810	10	7.3	5.0	20.0	20.3	136.0	50
503.4811	11	7.7	5.4	21.8	22.5	141.0	60
503.4812	12	8.2	5.8	23.0	24.3	147.5	70
503.4813	13	8.6	6.1	25.2	26.8	154.0	80
503.4814	14	9.0	6.4	26.8	28.7	160.0	100
503.4815	15	9.4	6.9	28.3	30.5	169.0	120
503.4816	16	9.9	7.2	29.8	32.9	179.0	150
503.4817	17	10.3	7.6	31.8	34.5	190.0	160
503.4818	18	10.7	8.0	32.8	37.0	203.0	190
503.4819	19	11.2	8.6	33.9	39.2	215.0	220

Handle for fl xible combination ratcheting spanner

- Two component handle
- Suitable as a crank handle ratchet
- Mirror polished chrome
- Chrome vanadium



	mm	B1 mm	B2 mm	L1 mm	L2 mm	g
503.0100	8-19	34.0	28.0	143.0	110.0	160

GEARplus® flexible locking combination ratcheting spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4859	6 pcs	GEARplus® flexible locking combination ratcheting spanner set	1.21
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	

GEARplus® flexible locking combination ratcheting spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium
- In durable plastic storage case

			kg
503.4865	12 pcs	GEARplus® flexible locking combination ratcheting spanner set	2.56
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	

GEARplus® flexible locking combination ratcheting spanner display

- FlankTraction profile (12 point
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finis
- Chrome vanadium

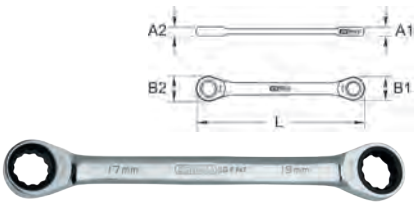
1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4800	70 pcs	GEARplus® flexible locking combination ratcheting spanner display	2.82
60 x		5 x (8 - 9 - 10 - 11- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm)	
5 x		1/4" ; 1/4" - 3/8" - 1/2"	
5 x		5/16" - 10 mm	

GEARplus® DOUBLE RING SPANNER

GEARplus® Double ratchet ring spanner

- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4502	8x9		6.5	6.9	16.8	20.2	128.0	60
503.4511	8x10		7.3	6.5	20.0	17.0	128.0	40
503.4503	10x11		7.3	7.7	20.2	20.2	150.0	80
503.4512	10x13		7.3	8.6	20.2	20.2	150.0	80
503.4504	12x13		8.2	8.6	23.0	23.0	170.0	100
503.4505	14x15		9.0	9.4	26.5	26.5	190.0	140
503.4506	16x18		9.9	10.7	29.5	29.5	210.0	180
503.4507	17x19		10.3	11.2	31.5	31.5	230.0	220
503.4402		5/16"x3/8"	6.5	7.3	16.8	20.2	128.0	40
503.4403		7/16"x1/2"	7.7	8.6	23.0	24.8	170.0	80
503.4404		9/16"x5/8"	9.0	9.9	26.5	29.5	190.0	125
503.4405		11/16"x3/4"	10.3	11.2	31.5	33.5	230.0	200

GEARplus® flexible locking combination ratcheting spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- Square drive adaptor to DIN 3120-ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4867	12 pcs	GEARplus® flexible locking combination ratcheting spanner set	1.30
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
3 x		1/4" - 5/16" - 10 mm	
3 x		1/4" - 3/8" - 1/2"	

GEARplus® flexible locking combination ratcheting spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2" 5/16" 10 mm

			kg
503.4868	18 pcs	GEARplus® flexible locking combination ratcheting spanner set	2.90
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
3 x		1/4" - 5/16" - 10 mm	
3 x		1/4" - 3/8" - 1/2"	

GEARplus® double ratchet ring spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

			g
503.4552	2 pcs	10x13 - 17x19 mm	335

GEARplus® double ratchet ring spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- Supplied in a leather pouch

503.4557	6 pcs	8x 9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	900

GEARplus® double ratchet ring spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

503.4556	6 pcs	GEARplus® double ratchet ring spanner set	790
6 x		8x9 - 10x11 - 12x13 - 14x15 - 16x18 17x19 mm	

GEARplus® double ratchet ring spanner set

- FlankTraction profile (12 point
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120- ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

503.4560	10 pcs	GEARplus® double ratchet ring spanner set	1.20
6 x		8x9 - 10x11 - 12x13 - 14x15 - 16x18 17x19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

GEARplus® 4 IN 1 DOUBLE RING SPANNER

4 in 1 GEARplus® reversing double ratchet ring spanner

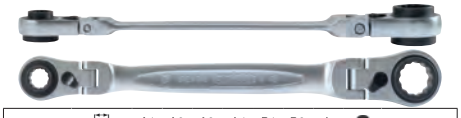
- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Four different sizes on each spanner
- With reverse lever
- High quality finis
- Chrome vanadium

	mm	A1 mm	A2 mm	A3 mm	A4 mm	B1 mm	B2 mm	L mm	g
503.4541	8x11-9x10	7.7	7.3	14.6	13.8	21.8	20.0	150.0	68
503.4656	8x10-12x13	8.6	7.3	16.8	13.8	24.8	16.8	150.0	86
503.4543	12x15-13x14	9.4	9.0	18.0	17.1	29.5	18.0	190.0	147
503.4565	10x19-13x17	11.2	9.0	21.9	17.1	33.6	21.9	190.0	196
503.4546	16x19-17x18	11.2	10.3	21.9	20.2	33.5	21.9	230.0	244
503.4657	14x17-18x19	11.2	10.3	21.9	19.3	33.5	21.9	230.0	245
503.4553	21x27-22x24	16.0	13.0	30.0	26.0	52.0	40.0	275.0	610
503.4554	30x36-32x34	18.0	18.0	36.0	35.0	65.0	62.0	360.0	1400

		A1 mm	A2 mm	A3 mm	A4 mm	B1 mm	B2 mm	L mm	g
503.4586	5/16"x1/2"-3/8"x7/16"	8.6	7.3	16.8	13.8	24.8	20.2	150.0	91
503.4589	9/16"x3/4"-5/8"x11/16"	11.2	10.3	21.9	19.3	33.5	31.5	230.0	238

4 in 1 GEARplus® flexible reversing double ratchet ring spanner

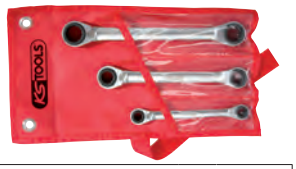
- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- With flexible head
- Four different sizes on each spanner
- With reverse lever
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	A4 mm	B1 mm	B2 mm	L mm	g
503.4745	10x13-17x19	11.2	9.0	22.0	17.1	33.7	27.0	253.0	196

4 in 1 GEARplus® reversing double ratchet ring spanner

- FlankTraction profile (12 point
- Straight form
- Exact gearing with 72 teeth
- Four different sizes on each spanner
- With reverse lever
- High quality finis
- Chrome vanadium

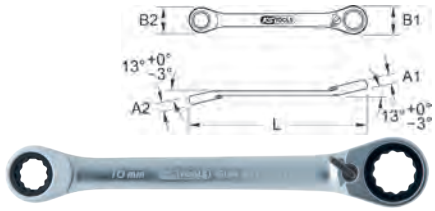


503.4655	2 pcs	8x10 - 12x13 - 14x17 - 18x19 mm	340
503.4550	2 pcs	21x27 - 22x24 - 30x36 - 32x34 mm	2010
503.4540	3 pcs	8x11 - 9x10 - 12x15 - 13x14 - 16x19 - 17x18 mm	550

GEARplus® REVERSIBLE DOUBLE RING SPANNER

GEARplus® reversing double ratchet ring spanner

- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4571	8x9	6.9	6.5	20.2	16.8	128.0	60
503.4572	8x10	7.4	6.7	20.2	16.7	128.0	65
503.4573	10x11	7.7	7.3	21.8	20.2	150.0	70
503.4574	10x13	8.7	7.4	25.4	20.5	150.0	80
503.4575	12x13	8.6	8.2	24.8	23.0	170.0	100
503.4576	14x15	9.4	9.0	29.5	26.5	190.0	140
503.4577	16x18	10.7	9.9	33.5	29.5	210.0	180
503.4578	17x19	11.2	10.3	33.5	31.5	230.0	220

GEARplus® double reversing ratchet ring spanner

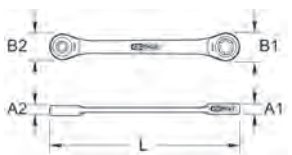
- FlankTraction profile (12 point
- In accordance to DIN 3110 / ISO 3318
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reverse lever
- High quality finis
- Chrome vanadium
- Supplied in a leather pouch

503.4580	6 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	790

GEARplus® TX DOUBLE RING SPANNER

GEARplus® Double ring ratchet spanner for TX E profil

- TX E profil
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4351	E6 x E8	6.5	6.9	16.8	20.2	128.0	70
503.4353	E10 x E12	7.3	7.7	20.2	21.8	150.0	60
503.4355	E14 x E18	9.0	9.9	26.5	29.5	190.0	150
503.4357	E20 x E24	10.3	11.2	31.5	33.5	230.0	230

GEARplus® Double ring ratchet spanner set for TX E profil

- TX E profil
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

503.4364	4 pcs	E6xE8 - E10xE12 - E14xE18 - E20xE24	630

GEARplus® UNIVERSAL DOUBLE RING SPANNER SETS

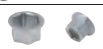
GEARplus® Universal double ratchet ring spanner set

- 6 point
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- Reversible
- With go-through facility
- The collar on each insert prevents slipping
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium
- In durable plastic storage case

503.4625	8 pcs	GEARplus® Universal double ratchet ring spanner set	500
1 x		14 x 19 mm	
7 x		5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16"	

GEARplus® Universal double ratchet ring spanner set

- 6 point
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- Reversible
- With go-through facility
- The collar on each insert prevents slipping
- Especially suitable for narrow hard to access areas
- Matt finis
- Chrome vanadium
- In durable plastic storage case

503.4645	10 pcs	GEARplus® Universal double ratchet ring spanner set	500
1 x		14 x 19 mm	
9 x		8 - 9 - 10 - 11 - 12 - 13 - 15 - 16 - 17 mm	

GEARplus® ACCESSORIES

GEARplus® Bit adapter

- FlankTraction profile (12 point
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 5/16" 10 mm

	mm		B mm	L mm	
503.4290	10,0	1/4"	11.0	15.7	6
503.4292	13,0	5/16"	15.5	15.3	11
503.4293	13,0	10 mm	21.0	21.0	17

GEARplus® Bit adapter set

- FlankTraction profile (12 point
- Chrome plated and mirror polished
- Chrome vanadium

5/16" 10 mm

503.4294	2 pcs	GEARplus® Bit adapter set	100
2 x		13 mm x 5/16" - 13 mm x 10 mm	

GEARplus® Socket adapter

- 6 point
- With quick release locking function
- Suitable for GEARplus® spanners
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

			B mm	L mm	
503.4296	10 mm	1/4"	11.1	16.7	50
503.4297	13 mm	3/8"	14.5	21.7	70
503.4298	19 mm	1/2"	21.4	28.8	100

GEARplus® Socket adapter set, for metric spanner

- FlankTraction profile (12 point
- Suitable for metric GEARplus® spanners
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

503.4286	4 pcs	GEARplus® Socket adapter set, for metric spanner	270
1 x		10 mm x 1/4"	
3 x		10 mm x 1/4" - 13 mm x 3/8" - 19 mm x 1/2"	

GEARplus® Socket adapter set, for imperial spanners

- FlankTraction profile (12 point
- Suitable for imperial GEARplus® spanners
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

503.4287	4 pcs	GEARplus® Socket adapter set, for imperial spanners	100
1 x		3/8" x 1/4"	
3 x		3/8" x 1/4" - 1/2" x 3/8" - 3/4" x 1/2"	

GEARplus® Socket adapter for ring stop spanner

- 6 point
- With quick release locking function
- Suitable for ring stop spanners
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

			B mm	L mm	
503.4998	19 mm	1/2"	21.4	28.8	100

KS TOOLS®

Innovation is our mission!

SPANNERS

CLASSIC

CHROME plus®

ULTIMATE PLUS

GEAR plus®

SOCKETS AND OPERATING TOOLS

KS TOOLS®

Innovation is our mission!

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1“ POWER BALL JOINTS	145
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SOCKETS AND OPERATING TOOLS

Manufacturing and fabrication steps

Raw material blank cutting

Forging of the blank socket with square drive and socket profil

Dressing the socket size

Amti slip ground

Knurling

Hardening and tempering

Galvanizing preprocessing

Drive profile

Profil

FlankTraction 6 point

- Perfect grip even on screws and nuts which are not true to size or damaged
- Larger contact area for better pressure distribution
- Avoids damage of head of screws
- Perfect torque transfer to the flan s of nuts and bolts

FlankTraction 12 point

- The recessed corners typical for this profil ensure that the corners are protected and the power is transmitted onto the fl t area
- Also does not need to be 100% the exact size so is suitable for damaged screws and/or nuts
- Good pressure distribution
- Screw head is protected
- Ideal for corroded screws and high power expenditure

E-TX

- This profile is onsidered as a further development of Phillips and hexagonal heads
- The six notched star form with rounded tip is typical
- No cam distortion effect due to vertical driving force
- Optimal power transmission
  T = Internal profil
  E = Outer profile external)

Socket profil

CLASSIC

- For manual operation
- Matt finis
- Chrome vanadium
- FlankTraction Profil

CHROME plus

- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- FlankTraction Profil

KRAFT

- For machinery usage
- Phosphate
- Chrome molybdenum

1/4“ SOCKETS

CLASSIC Hexagonal socket

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	mm		L mm	D1 mm	D2 mm	T mm	g
917.1404	4,0		25.0	7.0	12.0	2.0	9
917.14045	4,5		25.0	8.0	12.0	2.0	10
917.1405	5,0		25.0	8.0	12.0	3.0	10
917.14055	5,5		25.0	9.0	12.0	3.0	10
917.1406	6,0		25.0	9.0	12.0	4.0	10
917.1407	7,0		25.0	11.0	12.0	4.0	12
917.1408	8,0		25.0	12.0	12.0	5.0	14
917.1409	9,0		25.0	13.0	13.0	5.0	16
917.1410	10,0		25.0	14.0	14.0	6.0	20
917.1411	11,0		25.0	16.0	16.0	7.0	25
917.1412	12,0		25.0	17.0	17.0	8.0	30
917.1413	13,0		25.0	18.0	18.0	8.0	35
917.1414	14,0		25.0	20.0	20.0	10.0	40
917.1499		5/32“	25.0	5.6	10.7	2.0	9
917.1516		3/16“	25.0	8.0	12.0	3.0	10
917.1517		7/32“	25.0	9.0	12.0	3.0	10
917.1518		1/4“	25.0	10.0	12.0	4.0	10
917.1519		9/32“	25.0	11.0	12.0	4.0	12
917.1520		5/16“	25.0	12.0	12.0	5.0	14
917.1521		11/32“	25.0	13.0	13.0	5.0	16
917.1522		3/8“	25.0	14.0	14.0	6.0	20
917.1523		7/16“	25.0	16.0	16.0	7.0	25
917.1524		1/2“	25.0	18.0	18.0	8.0	35
917.1601		9/16“	25.0	20.0	20.0	10.0	40

CLASSIC Hexagonal socket set

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Includes storage rail

1/4"

			kg
917.0620	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.35

CLASSIC Hexagonal socket, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	mm		L mm	D1 mm	D2 mm	T mm	g
917.1525	4,0		50.0	7.0	11.0	3.0	15
917.1526	4,5		50.0	8.0	11.0	3.0	15
917.1527	5,0		50.0	8.0	11.0	4.0	15
917.1528	5,5		50.0	9.0	11.0	5.0	20
917.1426	6,0		50.0	9.0	11.0	5.0	20
917.1427	7,0		50.0	11.0	11.0	6.0	20
917.1428	8,0		50.0	12.0	12.0	8.0	30
917.1429	9,0		50.0	13.0	13.0	8.0	30
917.1430	10,0		50.0	14.0	14.0	9.0	40
917.1431	11,0		50.0	16.0	16.0	11.0	50
917.1432	12,0		50.0	17.0	17.0	12.0	50
917.1433	13,0		50.0	18.0	18.0	12.0	50
917.1515		5/32“	50.0	6.7	10.7	3.0	13
917.1531		3/16“	50.0	8.0	11.0	4.0	15
917.1532		7/32“	50.0	9.0	11.0	5.0	20
917.1533		1/4“	50.0	10.0	11.0	5.0	20
917.1534		9/32“	50.0	11.0	11.0	6.0	20
917.1535		5/16“	50.0	12.0	12.0	8.0	30
917.1536		11/32“	50.0	13.0	13.0	8.0	30
917.1537		3/8“	50.0	14.0	14.0	9.0	40
917.1538		7/16“	50.0	16.0	16.0	11.0	50
917.1539		1/2“	50.0	18.0	18.0	12.0	70

CLASSIC Hexagonal socket set, deep

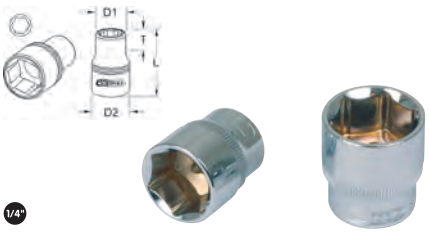
- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Includes storage rail

1/4"

			kg
917.0610	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.36

CHROME*plus*® Hexagonal socket

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/4"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.1404	4,0		7.0	12.0	25.0	2.0	10
918.14045	4,5		7.0	12.0	25.0	2.0	40
918.1405	5,0		8.0	12.0	25.0	3.0	40
918.14055	5,5		9.0	12.0	25.0	3.0	40
918.1406	6,0		9.0	12.0	25.0	4.0	40
918.1407	7,0		11.0	12.0	25.0	4.0	40
918.1408	8,0		12.0	12.0	25.0	5.0	40
918.1409	9,0		13.0	13.0	25.0	5.0	12
918.1410	10,0		14.0	14.0	25.0	6.0	40
918.1411	11,0		16.0	16.0	25.0	7.0	40
918.1412	12,0		17.0	17.0	25.0	8.0	40
918.1413	13,0		18.0	18.0	25.0	8.0	40
918.1414	14,0		20.0	20.0	25.0	10.0	40
918.1511		5/32“	5.6	10.7	25.0	2.0	10
918.1512		3/16“	8.0	12.0	25.0	3.0	10
918.1513		7/32“	9.0	12.0	25.0	3.0	10
918.1514		1/4“	10.0	12.0	25.0	4.0	10
918.1515		9/32“	11.0	12.0	25.0	4.0	12
918.1516		5/16“	12.0	12.0	25.0	5.0	14
918.1517		11/32“	13.0	13.0	25.0	5.0	16
918.1518		3/8“	14.0	14.0	25.0	6.0	20
918.1519		7/16“	16.0	16.0	25.0	7.0	25
918.1520		1/2“	18.0	18.0	25.0	8.0	35
918.15205		9/16“	20.0	20.0	25.0	10.0	40

CHROME*plus*® Hexagonal socket set

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Includes storage rail

1/4"

			kg
918.0620	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.35

CHROME*plus*® Hexagonal socket, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.1424	4,0		7.0	11.0	50.0	3.0	15
918.14245	4,5		8.0	11.0	50.0	3.0	15
918.1425	5,0		8.0	11.0	50.0	4.0	15
918.14255	5,5		9.0	11.0	50.0	5.0	20
918.1426	6,0		9.0	11.0	50.0	5.0	20
918.1427	7,0		11.0	11.0	50.0	6.0	20
918.1428	8,0		12.0	12.0	50.0	8.0	25
918.1429	9,0		13.0	13.0	50.0	8.0	30
918.1430	10,0		14.0	14.0	50.0	9.0	35
918.1431	11,0		16.0	16.0	50.0	11.0	45
918.1432	12,0		17.0	17.0	50.0	12.0	50
918.1433	13,0		18.0	18.0	50.0	12.0	65
918.1521		5/32“	6.7	10.7	50.0	3.0	20
918.1522		3/16“	8.0	11.0	50.0	4.0	15
918.1523		7/32“	9.0	11.0	50.0	5.0	20
918.1524		1/4“	10.0	11.0	50.0	5.0	20
918.1525		9/32“	11.0	11.0	50.0	6.0	20
918.1526		5/16“	12.0	12.0	50.0	8.0	25
918.1527		11/32“	13.0	13.0	50.0	8.0	30
918.1528		3/8“	14.0	14.0	50.0	9.0	35
918.1529		7/16“	16.0	16.0	50.0	11.0	50
918.1530		1/2“	18.0	18.0	50.0	12.0	65

CHROME*plus*® hexagonal socket set, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/4"

			kg
918.0610	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.36

12 Point socket

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	mm		D1 mm	D2 mm	L mm	g	
917.1461	4,0		7.0	12.0	25.0	10	
917.1462	4,5		8.0	12.0	25.0	10	
917.1463	5,0		8.0	12.0	25.0	10	
917.1464	5,5		9.0	12.0	25.0	12	
917.1465	6,0		10.0	12.0	25.0	10	
917.1466	7,0		11.0	12.0	25.0	10	
917.1467	8,0		12.0	12.0	25.0	15	
917.1468	9,0		13.0	13.0	25.0	15	
917.1469	10,0		15.0	15.0	25.0	20	
917.1470	11,0		16.0	16.0	25.0	25	
917.1471	12,0		17.0	17.0	25.0	25	
917.1472	13,0		18.0	18.0	25.0	30	
917.1473	14,0		20.0	20.0	25.0	40	
917.1474		3/16“	8.0	12.0	25.0	11	
917.1475		7/32“	9.0	12.0	25.0	12	
917.1476		1/4“	10.0	12.0	25.0	13	
917.1477		9/32“	11.0	12.0	25.0	14	
917.1478		5/16“	12.0	12.0	25.0	15	
917.1479		11/32“	13.0	13.0	25.0	15	
917.1480		3/8“	14.0	14.0	25.0	15	
917.1481		7/16“	16.0	16.0	25.0	25	
917.1482		1/2“	18.0	18.0	25.0	30	
917.1483		9/16“	20.0	20.0	25.0	40	

12 point socket set

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Includes storage rail

1/4"

			kg	
917.0625	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.35	

12 Point socket, deep

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finishe
- Chrome vanadium

1/4"

	mm		D1 mm	D2 mm	L mm	g	
917.1604	4,0		7.0	11.0	50.0	15	
917.16045	4,5		8.0	11.0	50.0	15	
917.1605	5,0		8.0	11.0	50.0	15	
917.16055	5,5		9.0	11.0	50.0	20	
917.1606	6,0		9.0	11.0	50.0	20	
917.1607	7,0		11.0	11.0	50.0	20	
917.1608	8,0		12.0	12.0	50.0	25	
917.1609	9,0		13.0	13.0	50.0	30	
917.1610	10,0		14.0	14.0	50.0	35	
917.1611	11,0		16.0	16.0	50.0	45	
917.1612	12,0		17.0	17.0	50.0	50	
917.1613	13,0		18.0	18.0	50.0	65	
917.1565		3/16"	8.0	12.0	50.0	11	
917.1566		7/32"	9.0	12.0	50.0	12	
917.1567		1/4"	10.0	12.0	50.0	13	
917.1568		9/32"	11.0	12.0	50.0	14	
917.1569		5/16"	12.0	12.0	50.0	15	
917.1570		11/32"	13.0	13.0	50.0	15	
917.1571		3/8"	14.0	14.0	50.0	15	
917.1572		7/16"	16.0	16.0	50.0	25	
917.1573		1/2"	18.0	18.0	50.0	30	
917.1574		9/16"	20.0	20.0	50.0	40	

12 Point socket set, deep

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Includes storage rail

1/4"

			kg	
917.0630	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.35	

CHROME*plus*® 12 point socket

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	mm		D1 mm	D2 mm	L mm	g	
918.1502	4,0		7.0	12.0	25.0	10	
918.1503	4,5		7.0	12.0	25.0	10	
918.1504	5,0		8.0	12.0	25.0	10	
918.1506	5,5		9.0	12.0	25.0	10	
918.1507	6,0		9.0	12.0	25.0	10	
918.1508	7,0		11.0	12.0	25.0	10	
918.1509	8,0		12.0	12.0	25.0	10	
918.1541	9,0		13.0	13.0	25.0	11	
918.1542	10,0		14.0	14.0	25.0	12	
918.1543	11,0		16.0	16.0	25.0	17	
918.1544	12,0		17.0	17.0	25.0	20	
918.1546	13,0		18.0	18.0	25.0	23	
918.1547	14,0		20.0	20.0	25.0	40	
918.1548		3/16“	8.0	12.0	25.0	9	
918.1549		7/32“	9.0	12.0	25.0	9	
918.1551		1/4“	10.0	12.0	25.0	10	
918.1552		9/32“	11.0	12.0	25.0	10	
918.1553		5/16“	12.0	12.0	25.0	9	
918.1554		11/32“	13.0	13.0	25.0	11	
918.1555		3/8“	14.0	14.0	25.0	12	
918.1556		7/16“	16.0	16.0	25.0	25	
918.1557		1/2“	18.0	18.0	25.0	23	
918.1559		9/16“	20.0	20.0	25.0	40	

CHROME*plus*® 12 Point socket set

- 12-point
- FlankTraction-Profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Includes storage rail

1/4"

			kg	
918.0615	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.35	

CHROME*plus*® 12 Point socket, deep

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	mm		D1 mm	D2 mm	L mm	g	
918.1561	4,0		7.0	11.0	50.0	15	
918.1562	4,5		8.0	11.0	50.0	15	
918.1563	5,0		8.0	11.0	50.0	15	
918.1589	5,5		9.0	11.0	50.0	20	
918.1591	6,0		9.0	11.0	50.0	20	
918.1592	7,0		11.0	11.0	50.0	20	
918.1596	8,0		12.0	12.0	50.0	25	
918.1597	9,0		13.0	13.0	50.0	30	
918.1598	10,0		14.0	14.0	50.0	35	
918.1599	11,0		16.0	16.0	50.0	45	
918.1418	12,0		17.0	17.0	50.0	50	
918.1419	13,0		18.0	18.0	50.0	65	
918.1423		3/16“	8.0	11.0	50.0	15	
918.1601		7/32“	9.0	11.0	50.0	20	
918.1602		1/4“	10.0	11.0	50.0	20	
918.1603		9/32“	11.0	11.0	50.0	20	
918.1611		5/16“	12.0	12.0	50.0	25	
918.1613		11/32“	13.0	13.0	50.0	30	
918.1615		3/8“	14.0	14.0	50.0	35	
918.1616		7/16“	16.0	16.0	50.0	50	
918.1618		1/2“	18.0	18.0	50.0	65	

CHROME*plus*® 12-point socket-set, deep

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Includes storage rail

1/4"

			kg	
918.0630	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0.35	

TX E Socket

- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

		D1 mm	D2 mm	L mm	T mm	g	
911.4313	E4	6.0	11.0	25.0	5.0	10	
911.4314	E5	7.0	11.0	25.0	5.0	10	
911.4315	E6	8.0	11.0	25.0	5.0	10	
911.4316	E7	10.0	11.0	25.0	6.0	10	
911.4317	E8	11.0	12.0	25.0	7.0	15	
911.4332	E10	13.0	13.0	25.0	7.0	15	
911.4350	E11	14.0	15.0	25.0	8.0	15	

TX E Socket set

- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

			kg	
911.4355	7 pcs	E4 - E5 - E6 - E7 - E8 - E10 - E11	0.10	

CHROME*plus*® TX E Socket

- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

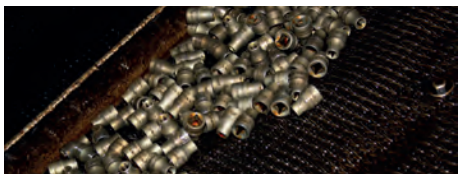
		D1 mm	D2 mm	L mm	T mm	g	
918.1582	E4	6.0	11.0	25.0	5.0	10	
918.1583	E5	7.0	11.0	25.0	5.0	10	
918.1584	E6	8.0	11.0	25.0	5.0	10	
918.1585	E7	10.0	11.0	25.0	6.0	10	
918.1586	E8	11.0	12.0	25.0	7.0	15	
918.1587	E10	13.0	13.0	25.0	7.0	15	
918.1588	E11	13.0	15.0	25.0	8.0	15	

CHROME*plus*® TX E Socket set

- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

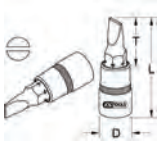
			g	
918.4355	7 pcs	E4 - E5 - E6 - E7 - E8 - E10 - E11	100	



1/4“ BIT SOCKETS

Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

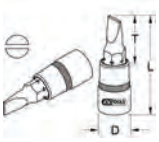


1/4"

	mm	D mm	L mm	T mm	g	
911.1418	4.0	12.0	37.0	18.0	20	
911.1419	5.5	12.0	37.0	18.0	20	
917.1421	6.5	12.0	37.0	18.0	20	
911.1420	7.0	12.0	37.0	18.0	20	
917.1422	8.0	12.0	37.0	18.0	20	

CHROME*plus*® Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

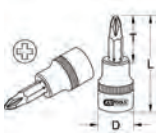


1/4"

	mm	D mm	L mm	T mm	g	
918.1487	4.0	12.0	37.0	18.0	20	
918.1488	5.0	12.0	37.0	18.0	20	
918.1489	6.5	12.0	37.0	18.0	20	
918.1491	7.0	12.0	37.0	18.0	20	
918.1486	8.0	12.0	37.0	18.0	20	

Bit socket for phillips head screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g	
911.1482	PH0	12.0	37.0	18.0	15	
911.1415	PH1	12.0	37.0	18.0	20	
911.1416	PH2	12.0	37.0	18.0	20	
911.1417	PH3	12.0	37.0	18.0	20	
911.1421	PH4	12.0	37.0	18.0	20	

CHROME*plus*® Bit socket for phillips screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

		D mm	L mm	T mm	g	
918.1416	PH0	12.0	37.0	18.0	20	
918.1468	PH1	12.0	37.0	18.0	20	
918.1469	PH2	12.0	37.0	18.0	20	
918.1436	PH3	12.0	37.0	18.0	20	
918.1440	PH4	12.0	37.0	18.0	20	

Bit socket for phillips head screws PZ

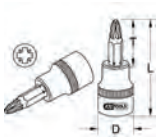
- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

		D mm	L mm	T mm	g	
911.1483	PZ 0	12.0	37.0	18.0	15	
911.1401	PZ 1	12.0	37.0	18.0	14	
911.1402	PZ 2	12.0	37.0	18.0	15	
911.1403	PZ 3	12.0	37.0	18.0	15	
917.1415	PZ 4	12.0	37.0	18.0	20	

CHROME*plus*® Bit socket for phillips screws PZ

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

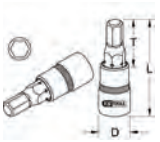


1/4"

		D mm	L mm	T mm	g	
918.1417	PZ0	12.0	37.0	18.0	14	
918.1477	PZ1	12.0	37.0	18.0	15	
918.1478	PZ2	12.0	37.0	18.0	15	
918.1437	PZ3	12.0	37.0	18.0	15	
918.1448	PZ4	12.0	37.0	18.0	20	

Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/4"

	mm		D mm	L mm	T mm	g	
917.1434	2,0		12.0	37.0	18.0	12	
917.1435	2,5		12.0	37.0	18.0	13	
911.1436	3,0		12.0	37.0	18.0	14	
911.1437	4,0		12.0	37.0	18.0	20	
911.1438	5,0		12.0	37.0	18.0	20	
911.1439	6,0		12.0	37.0	18.0	25	
911.1440	7,0		12.0	37.0	18.0	25	
911.1441	8,0		12.0	37.0	18.0	25	
917.1440		1/8"	12.0	37.0	18.0	25	
917.1441		5/32"	12.0	37.0	18.0	25	
917.1442		3/16"	12.0	37.0	18.0	25	
917.1443		7/32"	12.0	37.0	18.0	25	
917.1444		1/4"	12.0	37.0	18.0	25	

Bit socket set for hexagon screws

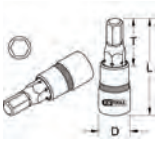
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

			kg	
911.1544	7 pcs	2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm	0.17	

CHROME*plus*® Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/4"

	mm		D mm	L mm	T mm	g	
918.1438	2,0		12.0	37.0	18.0	12	
918.1439	2,5		12.0	37.0	18.0	13	
918.1461	3,0		12.0	37.0	18.0	20	
918.1462	4,0		12.0	37.0	18.0	20	
918.1463	5,0		12.0	37.0	18.0	15	
918.1464	6,0		12.0	37.0	18.0	25	
918.1465	7,0		12.0	37.0	18.0	25	
918.1466	8,0		12.0	37.0	18.0	25	
918.1531		1/8"	12.0	37.0	18.0	25	
918.1532		5/32"	12.0	37.0	18.0	25	
918.1533		3/16"	12.0	37.0	18.0	25	
918.1534		7/32"	12.0	37.0	18.0	25	
918.1535		1/4"	12.0	37.0	18.0	25	

CHROME*plus*® Bit socket set for hexagon screws

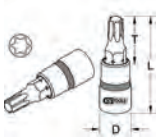
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/4"

			kg	
918.1670	7 pcs	2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm	0.17	

Bit socket for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g	
911.1448	T8	12.0	37.0	18.0	10	
911.1478	T9	12.0	37.0	18.0	10	
911.1442	T10	12.0	37.0	18.0	10	
911.1443	T15	12.0	37.0	18.0	10	
911.1444	T20	12.0	37.0	18.0	10	
911.1445	T25	12.0	37.0	18.0	14	
911.1449	T27	12.0	37.0	18.0	15	
911.1446	T30	12.0	37.0	18.0	15	
911.1447	T40	12.0	37.0	18.0	20	

Bit socket set for TX screws

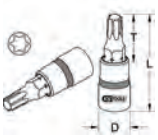
- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

			kg	
911.1458	7 pcs	T10 - T15 - T20 - T25 - T27 - T30 -T40	0.16	

CHROME*plus*® Bit socket for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g	
918.1492	T8	12.0	37.0	18.0	20	
918.1494	T9	12.0	37.0	18.0	20	
918.1479	T10	12.0	37.0	18.0	20	
918.1480	T15	12.0	37.0	18.0	20	
918.1481	T20	12.0	37.0	18.0	20	
918.1482	T25	12.0	37.0	18.0	20	
918.1483	T27	12.0	37.0	18.0	20	
918.1484	T30	12.0	37.0	18.0	20	
918.1485	T40	12.0	37.0	18.0	20	

CHROME*plus*® Bit socket set for TX screws

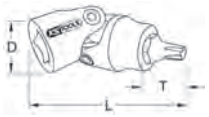
- TX
- Internal square drive adaptor to DIN 3120 / ISO 1174
- With press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

			kg	
918.1558	7 pcs	T10 - T15 - T20 - T25 - T27 - T30 -T40	0.16	

CHROME*plus*® bit socket with joint for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fi ted nickel plated insert bit
- For manual operation
- Ideal for diffi ult to access areas
- Screwed joints
- Especially short execution
- Chrome plated and mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g	
917.1491	T8	15.0	40.0	10.0	22	
917.1492	T10	15.0	40.0	10.0	22	
917.1493	T15	15.0	40.0	10.0	22	
917.1494	T20	15.0	40.0	10.0	22	
917.1495	T25	15.0	40.0	10.0	23	
917.1496	T27	15.0	40.0	10.0	23	
917.1497	T30	15.0	40.0	10.0	23	
917.1498	T40	15.0	40.0	10.0	25	

CHROME*plus*® bit socket set with joint for TX screws

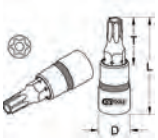
- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fi ted nickel plated insert bit
- For manual operation
- Ideal for diffi ult to access areas
- Screwed joints
- Especially short execution
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4"

			g	
917.1490	8 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40	350	

Bit socket for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g	
911.1461	TB8	12.0	37.0	20.0	14	
911.1485	TB9	12.0	37.0	18.0	14	
911.1462	TB10	12.0	37.0	20.0	14	
911.1463	TB15	12.0	37.0	20.0	14	
911.1464	TB20	12.0	37.0	20.0	14	
911.1465	TB25	12.0	37.0	20.0	15	
911.1466	TB27	12.0	37.0	20.0	15	
911.1467	TB30	12.0	37.0	20.0	15	
911.1468	TB40	12.0	37.0	20.0	20	

Bit socket set for TX tamperproof screws

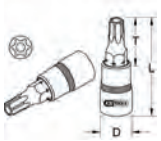
- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated stud
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

911.1460	7 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	0.16	

CHROME*plus*® Bit socket for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g	
918.1467	TB8	12.0	37.0	18.0	20	
918.1415	TB9	12.0	37.0	18.0	20	
918.1470	TB10	12.0	37.0	18.0	20	
918.1471	TB15	12.0	37.0	18.0	20	
918.1472	TB20	12.0	37.0	18.0	20	
918.1473	TB25	12.0	37.0	18.0	20	
918.1474	TB27	12.0	37.0	18.0	20	
918.1475	TB30	12.0	37.0	18.0	20	
918.1476	TB40	12.0	37.0	18.0	20	

CHROME*plus*® Bit socket set for TX tamperproof screws

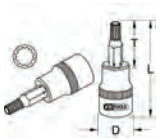
- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated stud
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

			kg	
918.1460	7 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	0.16	

Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g	
917.1541	M4	12.0	37.0	18.0	20	
917.1542	M5	12.0	37.0	18.0	20	
917.1543	M6	12.0	37.0	18.0	20	
917.1544	M7	12.0	37.0	18.0	16	
917.1545	M8	12.0	37.0	18.0	20	
917.1546	M10	12.0	37.0	18.0	20	

Bit socket set for spline (XZN®) screws

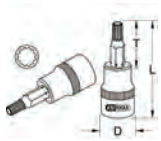
- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

			kg	
911.1547	6 pcs	M4 - M5 - M6 - M7 - M8 - M10	0.16	

CHROME*plus*® Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	g
918.1441	M4	12.0	37.0	18.0	20
918.1442	M5	12.0	37.0	18.0	20
918.1443	M6	12.0	37.0	18.0	20
918.1444	M7	12.0	37.0	18.0	20
918.1445	M8	12.0	37.0	18.0	20
918.1446	M10	12.0	37.0	18.0	20

CHROME*plus* bit socket set for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/4"

			g
918.0645	6 pcs	M4 - M5 - M6 - M7 - M8 - M10	0.16

Bit socket for fi e star tamperproof screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	D	D mm	L mm	T mm	g
911.1471	TS10	12.0	25.0	6.0	10
911.1472	TS15	12.0	25.0	6.0	10
911.1473	TS20	12.0	25.0	7.0	10
911.1474	TS25	12.0	25.0	7.0	10
911.1475	TS27	12.0	25.0	8.0	10
911.1476	TS30	12.0	25.0	8.0	10
911.1477	TS40	12.0	25.0	9.0	10

Bit socket set for tamperproof fi e star screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/4"

			g
911.1470	7 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	0.16

CLASSIC Bit set for tamperproof fi e star screws

- Five star bit, tamperproof
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- 1/4" Bit adaptor socket
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

			g
911.1480	8 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	50

CHROME*plus*® Bit socket for fi e star tamperproof screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

		D mm	L mm	T mm	g
918.1575	TS10	12.0	25.0	6.0	10
918.1576	TS15	12.0	25.0	6.0	10
918.1577	TS20	12.0	25.0	7.0	10
918.1578	TS25	12.0	25.0	7.0	10
918.1579	TS27	12.0	25.0	8.0	10
918.1580	TS30	12.0	25.0	8.0	10
918.1581	TS40	12.0	25.0	9.0	10

CHROME*plus*® Bit socket set for fi e star tamperproof screws

- Five star bit, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/4"

			g
918.1545	7 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 -TS40	0.16

Automotive bit socket set

- Problem solver for many automotive applications
- Matt finis
- Chrome vanadium
- In durable plastic storage case

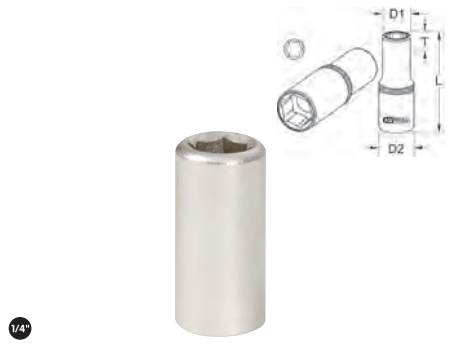
1/4" 1/2"

			g
911.4500	38 pcs	Automotive bit socket set	6.50
9 x		1/4": 37 mm, TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50	
5 x		1/2": 55 mm, 14 - 17 - 19 - 22 - 24 mm	
1 x		1/2": 55 mm, M16	
1 x		1/2": 75 mm, M18	
1 x		1/2": 100 mm, M9	
2 x		1/2": 110 mm, M9 - M16	
1 x		1/2": 110 mm, TB80	
3 x		1/2": 140 mm, 10 - 11 - 13 mm	
6 x		1/2": 140 mm, T40 - T45 - T50 - T55 - T60 - T70	
3 x		1/2": 140 mm, M10 - M12 - M14	
1 x		1/2": 140 mm, M10	
1 x		1/2": 160 mm, 5 mm	
1 x		1/2": 240 mm, 7 mm	
2 x		1/2": 240 mm, M7 - M8	
1 x		1/2": 300 mm, TB30	

1/4“ ADAPTERS

Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finis
- Chrome vanadium



1/4"

	D1 mm	D2 mm	L mm	T mm	g
911.4337	10.0	12.0	25.0	8.0	10

CHROME*plus*® Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	D1 mm	D2 mm	L mm	T mm	g
918.1421	10.0	12.0	25.0	8.0	10

Bit adaptor socket

- With clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	D1 mm	D2 mm	L mm	T mm	g
911.4327	10.0	12.0	25.0	8.0	10

CHROME*plus*® Bit adaptor socket

- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	D1 mm	D2 mm	L mm	T mm	g
918.1422	10.0	12.0	25.0	8.0	10

Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	□	■	L mm	g
911.1494	1/4"	3/8"	25.0	30

Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

CHROME*plus*® Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	□	■	L mm	g
918.1501	1/4"	3/8"	25.0	30

CHROME*plus*® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

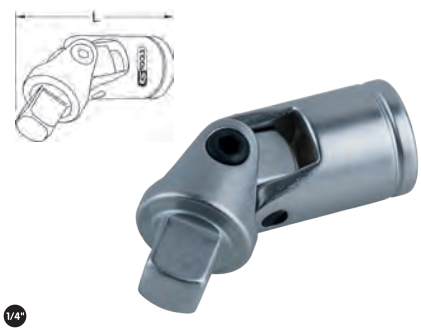
1/4" 3/8" 1/2"

			kg
918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

1/4“ UNIVERSAL JOINTS

Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With fl xible joint
- For manual operation
- Matt finis
- Chrome vanadium



1/4"

	□	■	L mm	g
911.1450	1/4"	1/4"	38.0	20

CHROME*plus*® Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With fl xible joint
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	□	■	L mm	
918.1450	1/4"	1/4"	38.0	20

Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very resistant to breakage
- Can be used by hand or with and electric screwdriver
- Matt finis
- Chrome vanadium

1/4"

	□	■	L mm	
917.1450	1/4"	1/4"	35.0	30

CHROME*plus*® Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very resistant to breakage
- Can be used by hand or with and electric screwdriver
- Chrome plated and mirror polished
- Chrome vanadium

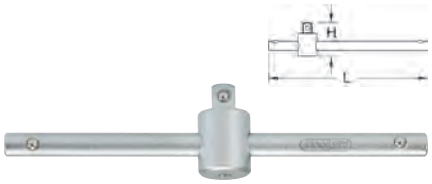
1/4"

	□	■	L mm	
919.1450	1/4"	1/4"	35.0	30

1/4" T-HANDLES

Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

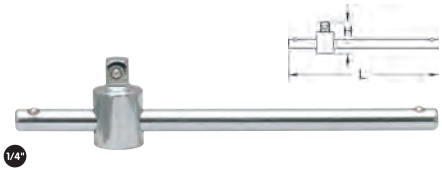


1/4"

	■	H mm	L mm	
911.1425	1/4"	6.0	110.0	50

CHROME*plus*® Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/4"

	■	H mm	L mm	
918.1451	1/4"	6.0	110.0	50

1/4" EXTENSIONS

Flexible extension

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Limited torque due to a spiral spring
- For diffi ult to access areas
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	L mm	
911.1422	150.0	60

CHROME*plus*® Flexible extension

- Square drive adaptor to DIN 3123 / ISO 3316 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Limited torque due to a spiral spring
- For diffi ult to access areas
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	L mm	
918.1505	150.0	60

Extension with hexagon drive

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With hexagon drive
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	L mm	
911.1423	50.0	30
911.1486	75.0	35
911.1424	100.0	40
911.1451	150.0	90
911.1504	250.0	130

Extension set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With hexagon drive
- For manual operation
- Matt finis
- Chrome vanadium

1/4" 3/8" 1/2"

			kg
911.0007	9 pcs	Extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

CHROME*plus*® Extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	L mm	g
918.1452	50.0	20
918.1453	75.0	30
918.1455	100.0	50
918.1454	150.0	60
918.1652	250.0	130

CHROME*plus*® Extension set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

			kg
918.0007	9 pcs	CHROME*plus*® Extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

Wobble extension with hexagon drive

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- Hexagon drive
- For manual operation
- Matt finis
- Chrome vanadium

1/4"

	L mm	g
911.1506	50.0	20
911.1509	75.0	35
911.1507	100.0	40
911.1508	150.0	60
911.1543	250.0	130

Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finis
- Chrome vanadium

1/4" 3/8" 1/2"

			kg
911.0009	9 pcs	Wobble extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

CHROME*plus*® Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	L mm	g
918.1403	50.0	20
918.1653	75.0	35
918.1401	100.0	40
918.1402	150.0	60
918.1458	250.0	100

CHROME*plus*® Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

			kg
918.0009	9 pcs	CHROME*plus*® Wobble extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 225 mm	
2 x		1/2" : 125 - 250 mm	

CHROME*plus*® extension with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	L mm	g
919.1402	100.0	40
919.1404	150.0	60
919.1406	250.0	100

CHROME*plus*® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

			kg
919.0143	3 pcs	100 - 150 - 250 mm	0.33

CHROME*plus*® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

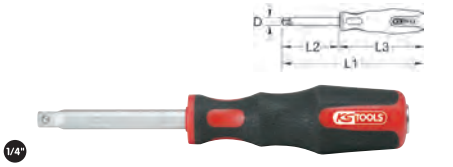
1/4" 3/8" 1/2"

			kg
919.0007	7 pcs	CHROME*plus*® Extension set with interlock	1.24
2 x		1/4" : 100 - 150 mm	
3 x		3/8" : 75 - 150 - 250 mm	
2 x		1/2" : 125 - 250 mm	

1/4“ MANUAL DRIVE TOOLS

Square drive screwdriver

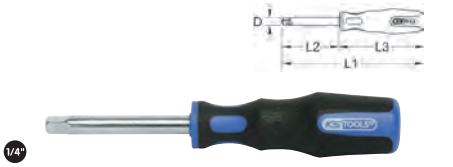
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Protective cap on the handle end
- Dual component handle
- Matt finis
- Chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	g
911.1434	6.0	150.0	60.0	90.0	140

CHROME*plus*® Square drive screwdriver

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Dual component handle
- Chrome plated and mirror polished
- Chrome vanadium



	D	L1 mm	L2 mm	L3 mm	g
918.1434	1/4"	150.0	60.0	90.0	60

ERGOTORQUE® Square screwdriver

- Flexible blade with double spiral shaft
- Limited torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Plastic protective coating
- One component handle
- With hanging hole

	D mm	L1 mm	L2 mm	L3 mm	g
911.1120	15.0	200.0	150.0	50.0	150

1/4“ RATCHETS

ERGOTORQUE®*max* T-handle ratchet

- DIN 3122 / ISO 3315
- Reversible
- 1/4" square drive adaptor to DIN 3120 / ISO 1174
- With ball lock
- Exact gearing with 45 teeth
- Two component handle
- With hanging hole
- Handy and compact
- Matt finis
- Chrome vanadium

	B mm	L1 mm	L2 mm	g
151.1109	115.0	110.0	55.0	40

Mini reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Matt finis
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
911.1510	10.0	22.0	110.0	911.1599	70

CHROME*plus*® Mini reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
918.1510	10.0	22.0	110.0	911.1599	70

Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle with soft zone
- Matt finis
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
911.1400	12.0	25.0	145.0	911.1499	130

CHROME*plus*® Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Chrome plated and mirror polished
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
918.1400	12.0	25.0	145.0	911.1499	130

Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Matt finis
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
914.1490	12.0	26.0	145.0	914.1497	130

CHROME*plus*® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
918.1490	12.0	26.0	145.0	914.1497	130

CHROME*plus*® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
918.1593	12.0	25.0	145.0	914.1497	150

SlimPOWER reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 102 N•m maximum load
- Reversible
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle with soft zone
- Chrome plated and mirror polished
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g
920.1490	20.0	20.0	140.0	920.1490-1	80

SlimPOWER reversible ratchet set

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle with soft zone
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 1/2"

			g
920.0002	2 pcs	1/4" + 1/2"	430

Flexibel head reversible ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head with locking device
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Matt finis
- Chrome vanadium

1/4"

	A mm	D mm	L mm	Repair set	g
911.1495	12.0	26.0	140.0	911.1499	160

CHROME*plus*® Flexibel head reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Reversible
- Exact gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

1/4"

	A mm	D mm	L mm	Repair set	g
918.1493	12.0	26.0	140.0	914.1497	130

1/4“ SET ASSORTMENTS

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4"

		kg
918.0613	13 pcs CHROME*plus*® Socket set	0.78
11 x	4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm	
1 x	100 mm	
1 x	140 mm	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4"

		kg
911.0623	23 pcs Socket set	0.45
12 x	4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm	
1 x	1/4“	
1 x	100 mm	
1 x	1/4“	
2 x	PH1 - PH2	
2 x	PZ1 - PZ2	
4 x	T15 - T20 - T25 - T30	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4"

		kg
911.0625	25 pcs Socket set	0.83
13 x	4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
2 x	50 - 100 mm	
1 x	150 mm	
1 x	1/4“	
1 x	1/4“	
1 x	1/4“	
1 x	1/4“ x 1/4“	
4 x	1,0 - 1,5 - 2,0 - 2,5 mm	
1 x	1/4“	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable metal case

1/4"

		kg
917.4030	30 pcs Socket set	1.20
11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 14 mm	
3 x	4 - 5,5 - 6 mm	
3 x	PH1 - PH2 - PH3	
3 x	PZ1 - PZ2 - PZ3	
4 x	3 - 4 - 5 - 6 mm	
2 x	50 - 100 mm	
1 x	1/4“	
1 x	1/4“	
1 x	1/4“	
1 x	1/4“	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable metal case

1/4"

			kg
911.0833	33 pcs	Socket set	1.52

13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		TB10 - TB15 - TB20 - TB25 - TB27 TB30 - TB40
2 x		50 - 100 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“: 110 mm
1 x		1/4“ x 1/4“
1 x		140 mm

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4"

			kg
918.0640	40 pcs	CHROME*plus*® Socket set	0.80

13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
2 x		PH1 - PH2
6 x		PZ1 - PZ2
7 x		3 - 4 - 5 - 6 - 7 - 8 mm
5 x		T10 - T15 - T20 - T25 - T27 - T30 T40
1 x		M4 - M5 - M6 - M8 - M10
1 x		1/4“
1 x		100 mm
1 x		1/4“
1 x		1/4“
1 x		110 mm

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4"

			kg
911.0646	46 pcs	Socket set	1.10

13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
3 x		4 - 5,5 - 7 mm
3 x		PH1 - PH2 - PH3
2 x		PZ1 - PZ2
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4“ x 1/4“
1 x		1/4“

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4"

			kg
918.0646	46 pcs	CHROME*plus*® Socket set	1.10

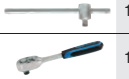
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
3 x		4 - 5,5 - 7 mm
3 x		PH1 - PH2 - PH3
2 x		PZ1 - PZ2
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4“ x 1/4“
1 x		145 mm

CHROME*plus*® Socket set

- Imperial sizes
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4"

			kg
918.0847	47 pcs	CHROME*plus*® Socket set	1.13

10 x		5/32“ - 3/16“ - 7/32“ - 1/4“ - 9/32“ 5/16“ - 11/32“ - 3/8“ - 7/16“ - 1/2“
10 x		5/32“ - 3/16“ - 7/32“ - 1/4“ - 9/32“ 5/16“ - 11/32“ - 3/8“ - 7/16“ - 1/2“
3 x		4 - 5,5 - 7 mm
2 x		PH1 - PH2
5 x		1/8“ - 5/32“ - 3/16“ - 7/32“ - 1/4“
6 x		T10 - T15 - T20 - T25 - T30 - T40
4 x		M4 - M5 - M6 - M8
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4“
1 x		1/4“
1 x		110 mm
1 x		110 mm

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4"

		kg
911.0651	51 pcs	Socket set	1.35
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
3 x		4 - 5,5 - 7 mm
3 x		PH1 - PH2 - PH3
3 x		PZ1 - PZ2 - PH3
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		145 mm

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4"

		kg
911.0653	53 pcs	Socket set	1.55
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
7 x		6 - 7 - 8 - 10 - 11 - 12 - 13 mm
3 x		4 - 5,5 - 7 mm
3 x		PH1 - PH2 - PH3
3 x		PZ1 - PZ2 - PH3
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
6 x		T10 - T15 - T20 - T25 - T30 - T40
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“
1 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4“ x 1/4“
1 x		145 mm

1/4“ SET ASSORTMENTS

TX Socket set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" - 1/2"

		kg
911.4307	21 pcs	TX Socket set	1.15
4 x		1/4“: E4 - E5 - E6 - E8
5 x		1/2“: E10 - E12 - E14 - E18 - E20
7 x		1/4“: T8 - T10 - T15 - T20 - T25 T27 - T30
5 x		1/2“: T40 - T45 - T50 - T55 - T60

TX Socket set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

		kg
911.4302	31 pcs	TX Socket set	1.40
6 x		1/4“: T10 - T15 - T20 - T25 - T27 - T30
3 x		5/16“: T40 - T45 - T50
3 x		1/4“: TB30 x 30 mm - TB25 x 75 mm - TB30 x 75 mm
2 x		1/2“: T55 - T60
4 x		1/4“: E5 - E6 - E7 - E8
3 x		3/8“: E10 - E12 - E14
3 x		1/2“: E16 - E18 - E20
3 x		1/4“ x 1/4“ - 3/8“ x 5/16“ - 1/2“ x 5/16“
4 x		E6 x E8 - E7 x E11 - E10 x E12 E14 x E18 -

TX Socket and bit set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

		kg
911.4305	57 pcs	TX Socket and bit set	2.00
2 x		3/8“ x 10mm - 1/2“ x 1/4“
12 x		1/4“: E4 - E5 - E6 - E7 - E8; 3/8“: E10 - E11 - E12 - E14;1/2“: E16 - E18 - E20
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60
5 x		M5 - M6 - M8 - M10 - M12
2 x		8 - 10 mm
2 x		PH2 - PH3
5 x		5 - 6 - 7 - 8 - 10 mm
9 x		T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60
4 x		M6 - M8 - M10 - M12

TX Socket and bit set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.4301-1	30 pcs	TX Socket and bit set	1.45
5 x		1/4": E4 - E5 - E6 - E7 - E8	
4 x		3/8": E10 - E11 - E12 - E14	
5 x		1/2": E16 - E18 - E20 - E22 - E24	
2 x		3/8" x 10 mm - 1/2" x 10mm	
7 x		30 mm (T20 - T25 - T30 - T40 - T45 T50 - T55)	
7 x		75 mm (T20 - T25 - T30 - T40 - T45 T50 - T55)	

TX Bit socket set for TX tamperproof screws

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.4301-2	30 pcs	TX Bit socket set for TX tamper-proof screws	1.45
5 x		1/4": E4 - E5 - E6 - E7 - E8	
4 x		3/8": E10 - E11 - E12 - E14	
5 x		1/2": E16 - E18 - E20 - E22 - E24	
2 x		3/8" x 10 mm - 1/2" x 10mm	
7 x		30 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	
7 x		75 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" 1/2"

			kg
917.4052	52 pcs	Socket set	6.25
11 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 13 mm	
13 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 17 19 - 21 - 24 - 27 - 30 - 32 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
3 x		1/4": PH1 - PH3 - PH4	
4 x		1/4": 3 - 4 - 5 - 6 mm	
2 x		1/2": 8 - 10 mm	
1 x		1/2": PH3	
5 x		1/2": 7 - 8 - 10 - 12 - 14 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/2"	
1 x		1/4"	
1 x		1/4": 145 mm	
1 x		1/2": 250 mm	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In a classy aluminium case

1/4" - 1/2"

			kg
911.0670	70 pcs	Socket set	7.30
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
3 x		1/4": 8 - 10 - 13 mm	
12 x		1/2": 15 - 16 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2": 17 - 19 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
6 x		1/4": T10 - T15 - T20 - T25 - T30 - T40	
3 x		1,5 - 2 - 2,5 mm	
2 x		1/4": 50 - 100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/2" x 3/8"	
1 x		1/2"	
1 x		1/2": 250 mm	
7 x		8 - 10 - 12 - 13 - 14 - 17 - 19 mm	

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" - 1/2"

			kg
918.0678	78 pcs	CHROME*plus*® Socket set	6.30
13 x		1/4“: 4-4,5-5-5,5-6-7-8-9-10-11-12 13-14 mm
8 x		1/4“: 6-7-8-9-10-11-12-13 mm
15 x		1/2“: 13-14-15-16-17-18-19-20-21-22 24-27-30-32-34 mm
5 x		1/2“: 14-15-17-19-22 mm
3 x		1/2“: 16-18-21 mm
2 x		1/4“: PH1-PH2
2 x		1/4“: PZ1-PZ2
6 x		1/4“: 3-4-5-6-7-8 mm
7 x		1/4“: T10-T15-T20-T25-T27 T30-T40
6 x		1/4“: M4-M5-M6-M7-M8-M10
1 x		1/4“
2 x		1/4“: 50-100 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“: 145 mm
1 x		F3/8“ x M1/2“
2 x		1/2“: 125-250 mm
1 x		1/2“
1 x		1/2“: 250 mm

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" - 1/2"

			kg
911.0682	82 pcs	Socket set	5.80
13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
12 x		1/2“: 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm
2 x		1/2“: 16 - 21 mm
3 x		1/4“: 4 - 5,5 - 7 mm
2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
4 x		1/4“: 3 - 4 - 5 - 6 mm
6 x		1/4“: T8 - T10 - T15 - T20 - T25 - T30
3 x		5/16“: 8 - 10 - 12 mm
2 x		5/16“: PH3 - PH4
2 x		5/16“: PZ3 - PZ4
4 x		5/16“: 8 - 10 - 12 - 14
4 x		5/16“: T40 - T45 - T50 - T55
2 x		1/4“: 50 - 100 mm
1 x		1/4“: 150 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“
1 x		1/4“
1 x		1/4“
2 x		1/2“: 125 + 250 mm
1 x		1/2“
1 x		1/2“
1 x		1/2“ x 5/16“
1 x		1/2“
9 x		8 - 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" - 1/2"

			kg
911.0694	94 pcs	Socket set	6.20
13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
8 x		1/4“: 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
18 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 27 - 30 - 32 mm
4 x		1/2“: 14 - 15 - 17 - 19 mm
2 x		1/2“: 16 - 21 mm
3 x		1/4“: 4 - 5,5 - 7 mm
2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
4 x		1/4“: 3 - 4 - 5 - 6 mm
6 x		1/4“: TB8 - TB10 - TB15 - TB20 - TB25 - TB30
2 x		1/4“: 50 - 100 mm
1 x		1/4“: 150 mm
3 x		5/16“: 8 - 10 - 12 mm
2 x		5/16“: PH3 - PH4
2 x		5/16“: PZ3 - PZ4
4 x		5/16“: 8 - 10 - 12 - 14 mm
4 x		5/16“: TB40 - TB45 - TB50 - TB55
1 x		1/4“
1 x		1/4“
1 x		1/4“
1 x		1/4“: 145 mm
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4“
2 x		1/2“: 125 - 250 mm
1 x		1/2“
1 x		1/2“
1 x		1/2“ x 5/16“
1 x		1/2“: 250 mm

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" - 1/2"

			kg
918.0694	94 pcs	CHROME*plus*® Socket set	6.38
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm
4 x		1/2": 14 - 15 - 17 - 19 mm
2 x		1/2": 16 - 21 mm
3 x		1/4": 4 - 5,5 - 7 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
4 x		1/4": 3 - 4 - 5 - 6 mm
6 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB30
2 x		1/4": 50 - 100 mm
1 x		1/4": 150 mm
3 x		5/16": 8 - 10 - 12 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
4 x		5/16": 8 - 10 - 12 - 14 mm
4 x		5/16": T40 - T45 - T50 - T55
1 x		1/4"
1 x		1/4"
1 x		1/4"
1 x		1/4": 145 mm
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4"
2 x		1/2": 125 - 250 mm
1 x		F3/8" x M1/2"
1 x		1/2"
1 x		1/2" x 5/16"
1 x		1/2": 250 mm

CHROME*plus*® Socket set

- Imperial sizes
- 6 point
- FlankTraction Profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" 3/8"

			kg
918.0699	99 pcs	CHROME*plus*® Socket set	6.30
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm
10 x		1/4": 5/32" - 3/16" - 7/32" - 1/4" - 9/32" 5/16" - 11/32" - 3/8" - 7/16" - 1/2"
16 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 24 mm
5 x		3/8": 10 - 12 - 13 - 17 - 19 mm
11 x		3/8": 1/4" - 5/16" - 3/8" - 7/16" - 1/2" 9/16" - 5/8" - 11/16" - 3/4" - 13/16" 7/8"
5 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8"
3 x		3/8": 16 - 18 - 21 mm
3 x		3/8": 5,5 - 6,5 - 8 mm
2 x		3/8": PH1 - PH2
2 x		3/8": PZ1 - PZ2
5 x		3/8": 5 - 6 - 7 - 8 - 10 mm
5 x		3/8": 5/32" - 3/16" - 1/4" - 5/16" - 3/8"
8 x		3/8": T10 - T15 - T20 - T25 - T27 - T30 T40 - T45
5 x		3/8": M4 - M5 - M6 - M8 - M10
1 x		1/4"
1 x		1/4": 100 mm
1 x		1/4"
2 x		3/8": 75 - 150 mm
1 x		3/8"
1 x		3/8": 200 mm

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In a classy aluminium case

1/4" - 1/2"

			kg
918.0702	102 pcs	CHROME*plus*® Socket set	9.70
13 x		1/4": 4 - 4,5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
3 x		1/4": 8 - 10 - 13 mm
13 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 - 34 mm
5 x		1/2": 14 - 15 - 17 - 19 - 22 mm
3 x		1/4": PH1 - PH2 - PH3
2 x		1/4": PZ1 - PZ2
4 x		1/4": 3 - 4 - 5 - 6 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40
3 x		1/4": M4 - M5 - M6
3 x		1/4": E6 - E7 - E8
6 x		1/2": E10 - E12 - E14 - E16 - E18 E20
2 x		1/2": 16 - 21 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		5/16": PZ3
2 x		5/16": 8 - 10 mm
4 x		5/16": TB45 - TB50 - TB55 - TB60
3 x		5/16": M8 - M10 - M12
1 x		1/4"
1 x		1/4"
2 x		1/4": 50 - 100 mm
2 x		1/2": 125 - 250 mm
1 x		F3/8" x M1/2"
1 x		1/2"
1 x		1/2" x 5/16"
2 x		1/4" - 1/2"
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" - 1/2"

			kg
911.0708	108 pcs	Socket set	7.00
13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
8 x		1/4“: 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
5 x		1/4“: E4 - E5 - E6 - E7 - E8
3 x		1/4“: 4 - 5,5 - 6,5 mm
2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
4 x		1/4“: 3 - 4 - 5 - 6 mm
7 x		1/4“: T8 - T10 - T15- T20 - T25- T27 T30
17 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 20 - 21 - 22 - 24 - 27 30 - 32 mm
5 x		1/2“: 14 - 15 - 17 - 19 - 22 mm
8 x		1/2“: E10 - E11 - E12 - E14 - E16 E18 - E20 - E24
2 x		1/2“: 16 - 21 mm
2 x		1/4“: 50 - 100 mm
3 x		5/16“: 8 - 10 - 12 mm
2 x		5/16“: PH3 - PH4
2 x		5/16“: PZ3 - PZ4
5 x		5/16“: 7 - 8 - 10 - 12 - 14 mm
5 x		5/16“: T40 - T45 - T50 - T55 - T60
1 x		1/4“
1 x		1/4“
1 x		1/4“
1 x		1/4“: 145 mm
3 x		1,5 - 2 - 2,5 mm
1 x		1/2“: 125 - 250 mm
1 x		1/2“
1 x		1/2“
1 x		1/2“ x 5/16“
1 x		1/2“: 250 mm

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
918.0724	124 pcs	CHROME*plus*® Socket set	9.50
10 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm
6 x		1/4“: 5 - 6 - 7 - 8 - 9 - 10 mm
11 x		3/8“: 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 mm
8 x		3/8“: E8 - E10 - E11 - E12 - E14 - E16 E18 - E20
8 x		1/2“: 20 - 21 - 22 - 24 - 27 - 30 - 32 34 mm
6 x		1/2“: 10 - 12 - 13 - 14 - 17 - 19 mm
2 x		1/2“: E22 - E24
2 x		1/2“: 16 - 21 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
2 x		3/8“: 4 - 5,5 mm
3 x		3/8“: PH1 - PH2 - PH3
3 x		3/8“: PZ1 - PZ2 - PZ3
5 x		3/8“: 3 - 4 - 5 - 6 - 8 mm
5 x		3/8“: T20 - T30 - T40 - T45 - T50
4 x		3/8“: M4 - M5 - M6 - M8
7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 -T40
1 x		1/4“
1 x		1/4“
1 x		1/4“: 100 mm
2 x		3/8“: 75 - 150 mm
2 x		1/2“: 125 - 250 mm
3 x		1/4“ - 3/8“ - 1/2“
2 x		1/2“: F1/2“ x M 3/8“
3 x		1/4“ - 3/8“ - 1/2“

Socket set

- 6 point
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
917.0779	179 pcs	Socket set	9.00
13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
7 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 10 mm
10 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 mm
17 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 30 - 32 mm
5 x		1/2“: 16 - 17 - 18 - 19 - 22 mm
1 x		3/8“: 18 mm
2 x		1/2“: 16 - 21 mm
4 x		1/4“: 4 - 5,5 - 6,5 - 7 mm
3 x		1/4“: PH0 - PH1 - PH2
3 x		1/4“: PZ0 - PZ1 - PZ2
4 x		1/4“: 3 - 4 - 5 - 6 mm
8 x		1/4“: T8 - T9 - T10 - T15 - T20 - T25 - T27 T30
8 x		1/4“: TB8 - TB9 - TB10 - TB15 - TB20 TB25 TB27 - TB30
5 x		1/4“: E4 - E5 - E6 - E7 - E8
6 x		3/8“: E10 - E11 - E12 - E14 - E16 - E18
2 x		1/2“: E20 - E24
11 x		1/4“: T5 - T6 - T7 - T8 - T9 - T10 - T15 T20 - T25 - T27 - T30
1 x		1/4“: TB7
3 x		1/4“: M5 - M6 - M8
5 x		1/4“: M5 - M6 - M7 - M8 - M9
8 x		1/4“: TS10 - TS15 - TS20 - TS25 TS27 - TS30 - TS40 - TS45
3 x		5/16“: 8 - 10 - 12 mm
5 x		5/16“: 7 - 8 - 10 - 12 - 14 mm
2 x		5/16“: PH3 - PH4
2 x		5/16“: PZ3 - PZ4
6 x		5/16“: T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16“: TB40 - TB45 - TB50 - TB55 TB60 - TB70

7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4“: 150 mm
1 x		1/4“: 110 mm
2 x		1/4“: 50 - 100 mm
1 x		3/8“: 150 mm
2 x		1/2“: 125 - 250 mm
3 x		1/4“ - 3/8“ - 1/2
1 x		1/4“ x 1/4“
1 x		3/8“ x 5/16“
1 x		1/2“ x 5/16“
1 x		3/8“Fx1/2“M
3 x		1/4“ - 3/8“ - 1/2

Tool kit

- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" - 1/2"

			kg
911.0688	88 pcs	Tool kit	7.45

12 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm
17 x		1/2“: 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 23 - 24 - 25 - 26 - 27 - 28 30 - 32 mm
1 x		1/4“: 911.2060
2 x		1/4“: 50 - 100 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“: 145 mm
1 x		1/2“: 125 mm
1 x		1/2“: 250 mm
2 x		6,5 - 8 mm
2 x		PH1 - PH2
1 x		150 - 250 V
1 x		250 mm
1 x		180 mm
1 x		300 g
12 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 19 - 22 mm

Universal tool kit

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In a classy aluminium case

1/4" - 1/2"

			kg
911.0727	127 pcs	Universal tool kit	15.50

13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
13 x		1/2“: 10 - 13 - 14 - 16 - 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm
2 x		1/2“: 16 - 21 mm
1 x		1/4“: 911.2060
1 x		1/4“ x 1/4“
2 x		1/4“: 50 - 100 mm
1 x		1/4“
1 x		1/4“: 110 mm
1 x		1/4“: 145 mm
1 x		1/4“
2 x		1/2“: 125 - 250 mm
1 x		F3/8“ x M1/2“
1 x		1/2“
1 x		1/2“: 250 mm
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 -10 mm
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50
2 x		5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		1/4“: 150 mm
8 x		8 - 9 - 10 - 11 - 13 - 14 - 17 - 19 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		250 mm
1 x		200 mm
1 x		145 mm
1 x		300 g
1 x		150 - 250 V
1 x		
1 x		250 mm

1 x		200 mm
1 x		150 mm
3 x		907.2131
1 x		
1 x		
1 x		0 - 150 mm
1 x		400 mm
1 x		5 m x 19 mm
1 x		
1 x		

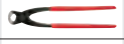
Universal tool kit

- Removeable plastic trays
- Matt finis
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley

1/4" - 1/2"

			kg
911.0735	135 pcs	Universal tool kit	17.60

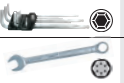
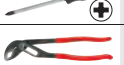
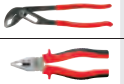
9 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 11 - 12 - 13 mm
4 x		1/4“: 8 - 9 - 10 - 13 mm
13 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 - 24 mm
1 x		1/4“: 911.2060
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 -10 mm
1 x		T10 - T15 - T20 - T25 - T30 - T40 T45 - T45 - T50
1 x		1/4“: 100 mm
1 x		1/4“: 150 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“: 145 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“
1 x		1/2“
1 x		1/2“: 250 mm
2 x		4 - 8 mm
3 x		PH1 - PH2 - PH3
3 x		PZ1 - PZ2 - PZ3
11 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 - 17 18 - 19 mm

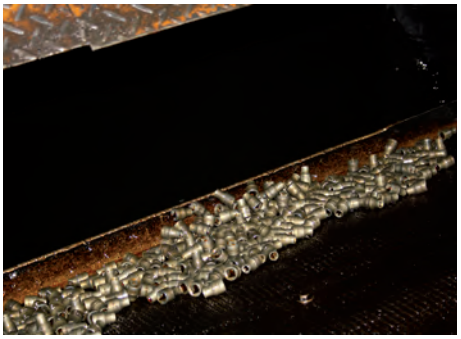
1 x		150 - 250 V
1 x		2,5 mm
2 x		PH1 - PH2
1 x		max. 2 kg
1 x		160 mm
1 x		160 mm
1 x		240 mm
1 x		250 mm
1 x		250 mm
1 x		10“
1 x		
1 x		
1 x		140 mm
1 x		165 mm
1 x		3 - 42 mm
1 x		
1 x		250 mm
1 x		300 mm
1 x		8 mm
1 x		300 g
1 x		5 m x 19 mm
1 x		400 mm

CHROME*plus*® Tool kit

- 6 point
- FlankTraction profil
- With removeable plastic storage trays
- Chrome plated and mirror polished
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley

1/4" - 1/2"

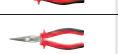
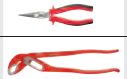
			kg
918.0690	90 pcs	CHROME*plus*® Tool kit	10.50
13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
10 x		1/2“: 15 - 17 - 18 - 19 - 20 - 22 - 24 27 - 30 - 32 mm	
2 x		1/2“: 16 - 21 mm	
1 x		1/4“	
2 x		1/4“: 50 - 100 mm	
1 x		1/4“	
1 x		1/4“ x 1/4“	
1 x		1/4“: 185 mm	
1 x		1/4“	
1 x		1/4“: 140 mm	
2 x		1/2“: 125 - 250 mm	
1 x		1/2“	
1 x		1/2“: F3/8“ - M1/2“	
1 x		1/2“: 250 mm	
6 x		1/4“: 3 - 4 - 5 - 6 - 7 - 8 mm	
5 x		1/4“: PH0 - PH1 - 2 x PH2 - PH3	
5 x		1/4“: PZ0 - PZ1 - 2 x PZ2 - PZ3	
6 x		1/4“: 3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 - T40	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm	
2 x		5,5 - 6,5 mm	
2 x		PH1 - PH2	
1 x		240 mm	
1 x		180 mm	



Universal tool kit

- 6 point
- Flank Traction profile
- With 3 drawers and upper insert storage
- Matt finis
- Chrome vanadium
- In durable steel tool chest

1/4" 1/2"

			kg
911.0100	100 pcs	Universal tool kit	19.80
12 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 -9 - 10 11 - 12 - 13 mm	
12 x		1/2“: 14 - 15 - 16 - 17 - 18 - 19 - 20 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2“: 16 - 21 mm	
1 x		1/4“: 911.2060	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
4 x		1/4“: 50 - 100 mm; 1/2“: 125 - 250 mm	
2 x		1/4“: 100 mm; 1/2“: 250 mm	
1 x		1/4“	
2 x		1/4“ - 1/2“	
2 x		1/4“: 145 mm; 1/2“: 250 mm	
12 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 19 - 22 mm	
4 x		4,0 x 100 mm - 4,5 x 100 mm 5,0 x 100 mm - 5,0 x 150 mm	
2 x		PH1 x 75 mm - PH2 x 100 mm	
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	
1 x		10“	

CHROME*plus*® Universal tool set

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable steel tool chest

1/4" 1/2"

			kg
918.0100	99 pcs	CHROME*plus*® Universal tool set	19.50
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm
3 x		1/4": 8 - 10 - 13 mm
1 x		1/4": 50 mm
1 x		1/4"
1 x		1/4": 110 mm
1 x		1/4": 140 mm
3 x		1/4": 4 - 5,5 - 7 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40
12 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 mm
2 x		1/2": 17 - 19 mm
2 x		1/2": 16 - 21 mm
2 x		1/2": 125 - 250 mm
1 x		1/2": F3/8" x M 1/2"
1 x		1/2"
1 x		1/2": 250 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		6 x 38 - 3 x 75 - 4 x 100 - 5,5 x 100 6,5 x 125 - 8 x 150 mm
4 x		PH2 x 38 mm - PH1 x 75 mm - PH2 x 100 mm - PH3 x 150 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10"
1 x		250 mm
1 x		300 g

CHROME*plus*® Universal tool set

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable steel tool chest

1/4" - 1/2"

			kg
918.0200	99 pcs	CHROME*plus*® Universal tool set	19.50
13 x		1/4": 4 - 4,5 - 5 -5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
3 x		1/4": 8 - 10 - 13 mm
1 x		1/4": 50 mm
1 x		1/4"
1 x		1/4": 110 mm
1 x		1/4": 145 mm
3 x		1/4": 4 - 4,5 - 7 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40
12 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 mm
2 x		1/2": 17 - 19 mm
2 x		1/2": 16 - 21 mm
2 x		1/2": 125 - 250 mm
1 x		1/2": F3/8" x M 1/2"
1 x		1/2"
1 x		1/2": 250 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10"
1 x		250 mm
1 x		300 g

CHROME*plus*® Universal tool set

- With 3 drawers and upper insert storage
- Imperial sizes
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable steel tool chest

1/4" 1/2"

			kg
918.0150	99 pcs	CHROME*plus*® Universal tool set	25.60
13 x		1/4": 5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" 11/32" - 3/8" - 13/32" - 7/16" - 15/32" - 1/2" - 9/16"
3 x		1/4": 5/16" - 3/8" - 1/2"
1 x		1/4": 50 mm
1 x		1/4"
1 x		1/4": 110 mm
1 x		1/4": 140 mm
3 x		1/4": 5/32" - 1/4" - 9/32"
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
6 x		1/4": 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16"
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40
12 x		1/2": 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" 13/16" - 7/8" - 15/16" 1.1/16" - 1.3/16" - 1.1/4"
2 x		1/2": 11/16" - 3/4"
2 x		1/2": 16 - 21 mm
2 x		1/2": 125 - 250 mm
1 x		1/2": F3/8" x M 1/2"
1 x		1/2"
1 x		1/2": 250 mm
1 x		1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" 7/32" - 1/4" - 5/16" - 3/8"
12 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" 11/16" - 3/4" - 13/16" - 7/8" - 15/16"
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm
1 x		125 mm
1 x		180 mm
1 x		200 mm
1 x		10"
1 x		250 mm
1 x		300 g

1/4“ POINT OF SALE DISPLAYS

Socket display

- Superlock
- Matt finis
- Chrome vanadium

1/4“

			kg
911.0320	379 pcs	Socket display	13.50
179 x		19x(4-5-6-7-8mm)-17x9mm-16x10mm -14x11mm-13x(12-13mm)-11x14mm	
20 x		150 mm	
20 x		100 mm	
11 x		110 mm	
129 x		19x(6-7-8mm)-17x9mm-15x10mm-14x11mm-13x(12-13mm)	
20 x		25 mm	

CHROME*plus*® Socket display

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In point of sale display

1/4“

			kg
918.0320	379 pcs	CHROME*plus*® Socket display	13.50
179 x		19x(4-5-6-7-8mm)-17x9mm-16x10mm -14x11mm-13x(12-13mm)-11x14mm	
20 x		150 mm	
20 x		100 mm	
11 x		110 mm	
129 x		19x(6-7-8mm)-17x9mm-15x10mm-14x11mm-13x(12-13mm)	
20 x		25 mm	

Bit socket display

- Matt finis
- Chrome vanadium
- In point of sale display

1/4“

			kg
911.0330	540 pcs	Bit socket display	13.00
40 x		20 x (4 - 5,5 mm)	
60 x		20 x (PH1 - PH2 - PH3)	
60 x		20 x (PZ1 - PZ2 - PZ3)	
100 x		20 x (3 - 4 - 5 - 6 - 7 mm)	
80 x		20 x (T10 - T15 - T20 - T25)	
160 x		20 x (TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40)	
40 x		20 x (50 - 100mm)	

CHROME*plus*® Bit socket display

- Chrome plated and mirror polished
- Chrome vanadium
- In point of sale display

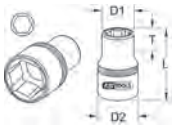
1/4“

			kg
918.0330	540 pcs	CHROME*plus*® Bit socket display	13.00
40 x		20 x (4 - 5,5 mm)	
60 x		20 x (PH1 - PH2 - PH3)	
60 x		20 x (PZ1 - PZ2 - PZ3)	
100 x		20 x (3 - 4 - 5 - 6 - 7 mm)	
80 x		20 x (T10 - T15 - T20 - T25)	
160 x		20 x (TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40)	
40 x		20 x (50 - 100mm)	

3/8“ SOCKETS

CLASSIC Hexagonal socket

- 6 point
- FlankTraction Profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium



3/8“

	mm		D1 mm	D2 mm	L mm	T mm	g	
917.3806	6,0		10.0	18.0	28.0	5.0	20	
917.3807	7,0		11.0	18.0	28.0	5.0	22	
917.3808	8,0		12.0	18.0	28.0	9.0	24	
917.3809	9,0		14.0	18.0	28.0	9.0	26	
917.3810	10,0		15.0	18.0	28.0	9.0	30	
917.3811	11,0		16.0	18.0	28.0	9.0	30	
917.3812	12,0		17.0	18.0	28.0	9.0	32	
917.3813	13,0		19.0	18.0	28.0	9.0	35	
917.3814	14,0		20.0	18.0	29.0	11.0	40	
917.3815	15,0		21.0	20.0	30.0	13.0	42	
917.3816	16,0		22.0	21.0	30.0	13.0	48	
917.3817	17,0		24.0	22.0	30.0	13.0	55	
917.3818	18,0		25.0	23.0	30.0	13.0	60	
917.3819	19,0		26.0	24.0	30.0	13.0	70	
917.3820	20,0		27.0	25.0	31.0	13.0	75	
917.3821	21,0		29.0	26.0	31.0	14.0	82	
917.3822	22,0		30.0	26.0	32.0	15.0	85	
917.3824	24,0		31.0	27.0	32.0	16.0	88	
917.3870		1/4“	10.0	18.0	30.0	6.0	20	
917.3871		9/32“	11.0	18.0	30.0	7.0	22	
917.3872		5/16“	12.0	18.0	30.0	7.0	24	
917.3873		11/32“	13.0	18.0	30.0	7.0	26	
917.3874		3/8“	14.0	18.0	30.0	9.0	26	
917.3875		7/16“	16.0	16.0	27.0	10.0	30	
917.3876		1/2“	18.0	18.0	30.0	12.0	30	
917.3877		9/16“	20.0	20.0	30.0	13.0	30	
917.3801		19/32“	19.0	20.8	30.0	13.0	40	
917.3878		5/8“	22.0	22.0	30.0	13.0	40	
917.3879		11/16“	23.0	24.0	30.0	14.0	50	
917.3880		3/4“	25.0	26.0	30.0	15.0	60	
917.3881		13/16“	21.0	28.0	32.0	16.0	70	
917.3882		7/8“	29.0	30.0	32.0	18.0	80	

CLASSIC hexagonal socket set

- 6 point
- FlankTraction Profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

3/8“

			kg
911.0608	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75

CLASSIC Hexagonal socket, deep

- 6 point
- FlankTraction Profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	mm		D1 mm	D2 mm	L mm	T mm	g
917.3828	8,0		12.0	16.0	63.0	10.0	110
917.3829	9,0		14.0	17.0	63.0	11.0	110
917.3830	10,0		15.0	18.0	63.0	11.0	110
917.3831	11,0		16.0	18.0	63.0	12.0	120
917.3832	12,0		17.0	18.0	63.0	14.0	120
917.3833	13,0		19.0	19.0	63.0	14.0	140
917.3834	14,0		20.0	20.0	63.0	17.0	140
917.3835	15,0		21.0	21.0	63.0	17.0	140
917.3836	16,0		22.0	22.0	63.0	17.0	150
917.3837	17,0		24.0	21.0	63.0	17.0	150
917.3838	18,0		24.0	25.0	63.0	20.0	150
917.3839	19,0		26.0	22.0	63.0	20.0	150
917.3840	20,0		28.0	24.0	63.0	20.0	150
917.3841	21,0		28.0	24.0	63.0	20.0	150
917.3842	22,0		30.0	24.0	63.0	23.0	150
917.3843		3/8"	15.0	18.0	63.0	11.0	50
917.3844		7/16"	16.0	18.0	63.0	12.0	50
917.3845		1/2"	19.0	19.0	63.0	14.0	70
917.3846		9/16"	20.0	20.0	63.0	17.0	70
917.3847		5/8"	22.0	22.0	63.0	17.0	90
917.3848		11/16"	24.0	21.0	63.0	17.0	90
917.3849		3/4"	26.0	22.0	63.0	20.0	90
917.3802		13/16"	27.0	25.0	63.0	23.0	180
917.3803		7/8"	29.0	26.5	63.0	25.0	190

CLASSIC hexagonal socket set, deep

- 6 point
- FlankTraction Profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

3/8"

			kg
911.0611	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75

CHROME*plus*® hexagonal socket

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.3936	6,0		10.0	18.0	28.0	5.0	20
918.3937	7,0		11.0	18.0	27.0	5.0	22

	mm		D1 mm	D2 mm	L mm	T mm	g
918.3808	8,0		12.0	18.0	27.0	9.0	24
918.3809	9,0		14.0	18.0	27.0	9.0	26
918.3810	10,0		15.0	18.0	27.0	9.0	30
918.3811	11,0		16.0	18.0	27.0	9.0	30
918.3812	12,0		17.0	18.0	30.0	9.0	32
918.3813	13,0		19.0	18.0	30.0	9.0	35
918.3814	14,0		20.0	18.0	30.0	11.0	40
918.3815	15,0		21.0	20.0	30.0	13.0	42
918.3816	16,0		22.0	21.0	30.0	13.0	48
918.3817	17,0		24.0	22.0	30.0	13.0	55
918.3818	18,0		25.0	24.0	30.0	13.0	60
918.3819	19,0		26.0	25.0	30.0	13.0	70
918.3820	20,0		27.7	24.9	30.0	16.0	70
918.3821	21,0		27.8	25.0	32.0	16.0	63
918.3822	22,0		29.8	26.6	30.0	16.0	82
918.3824	24,0		31.7	29.0	30.0	16.0	92
918.3901		1/4"	10.5	16.9	28.0	11.5	20
918.3912		9/32"	10.6	16.9	28.0	11.5	22
918.3902		5/16"	11.9	16.9	28.0	11.5	20
918.3903		11/32"	14.2	16.9	28.0	11.5	26
918.3913		3/8"	14.6	16.9	28.0	11.5	26
918.3904		7/16"	15.6	16.9	28.0	11.5	30
918.3905		1/2"	17.8	16.9	28.0	11.5	30
918.3906		9/16"	19.8	16.9	28.0	14.3	30
918.3951		19/32"	19.0	20.8	30.0	13.0	40
918.3907		5/8"	21.8	18.8	28.0	14.3	40
918.3908		11/16"	23.9	19.9	30.0	16.4	50
918.3909		3/4"	25.8	22.9	30.0	16.4	60
918.3910		13/16"	27.8	25.0	30.0	16.4	70
918.3911		7/8"	29.8	28.8	30.0	16.4	80

CHROME*plus*® Hexagonal socket set

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Includes storage rail

3/8"

			kg
918.0608	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75

CHROME*plus*® Hexagonal socket, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	mm		D1 mm	D2 mm	L mm	g
918.3828	8		12.6	16.9	63.0	43
918.3829	9		17.0	13.0	63.0	45
918.3830	10		14.6	16.9	63.0	51
918.3831	11		16.0	16.9	63.0	52
918.3832	12		17.8	16.9	63.0	59
918.3833	13		17.8	16.9	63.0	75
918.3834	14		19.6	17.9	63.0	77
918.3835	15		21.8	19.6	63.0	78
918.3836	16		21.8	19.6	63.0	82
918.3837	17		23.7	21.8	63.0	107
918.3838	18		25.7	22.9	63.0	120
918.3839	19		25.7	22.9	63.0	149
918.3840	20		27.8	25.2	63.0	154
918.3841	21		27.8	25.5	63.0	150

	mm		D1 mm	D2 mm	L mm	g
918.3842	22		29.9	26.8	63.0	159
918.3923		3/8"	14.6	16.9	63.0	50
918.3924		7/16"	15.9	16.9	63.0	50
918.3925		1/2"	17.8	16.9	63.0	70
918.3926		9/16"	19.8	18.0	63.0	70
918.3927		5/8"	23.8	21.7	63.0	90
918.3928		11/16"	23.8	21.7	63.0	90
918.3929		3/4"	25.8	23.2	63.0	90
918.3706		13/16"	27.0	25.0	63.0	130
918.3707		7/8"	29.0	26.5	63.0	180

CHROME*plus*® hexagonal socket set, deep

- 6 point
- FlankTraction Profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 - ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

3/8"

			kg
918.0611	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75

Classic hexagonal socket with fl xible joint

- 6 point
- FlankTraction Profil
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Screwed joints
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	mm	D1 mm	D2 mm	L mm	T mm	g
917.3941	10,0	15.0	20.0	40.0	6.0	50
917.3942	11,0	16.0	20.0	40.0	6.0	60
917.3943	12,0	17.0	20.0	40.0	7.0	70
917.3944	13,0	19.0	20.0	40.0	7.0	80
917.3945	14,0	20.0	20.0	40.0	9.0	80
917.3946	15,0	21.0	20.0	40.0	9.0	80
917.3947	16,0	22.0	20.0	40.0	10.0	80
917.3948	17,0	24.0	20.0	40.0	11.0	80
917.3949	18,0	24.0	20.0	40.0	12.0	100
917.3951	19,0	26.0	20.0	40.0	13.0	100

Classic hexagonal socket set with fl xible joint

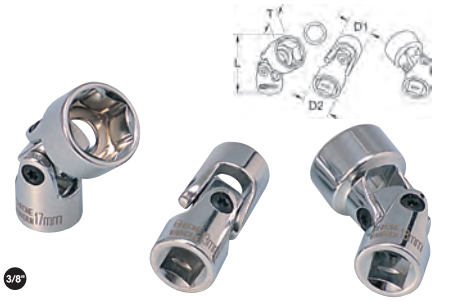
- 6 point
- FlankTraction Profil
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Screwed joints
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

3/8"

			kg
917.3940	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1.10

CHROME*plus*® hexagonal socket with fl xible joint

- 6 point
- FlankTraction Profil
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Screwed joints
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



3/8"

	mm	D1 mm	D2 mm	L mm	T mm	g
911.3841	10,0	15.0	20.0	40.0	6.0	50
911.3842	11,0	16.0	20.0	40.0	6.0	60
911.3843	12,0	17.0	20.0	40.0	7.0	70
911.3844	13,0	19.0	20.0	40.0	7.0	80
911.3845	14,0	20.0	20.0	40.0	9.0	80
911.3846	15,0	21.0	20.0	40.0	9.0	80
911.3847	16,0	22.0	20.0	40.0	10.0	80
911.3848	17,0	24.0	20.0	40.0	11.0	80
911.3849	18,0	24.0	20.0	40.0	12.0	100
911.3851	19,0	26.0	20.0	40.0	13.0	100

CHROME*plus*® hexagonal socket set with fl xible joint

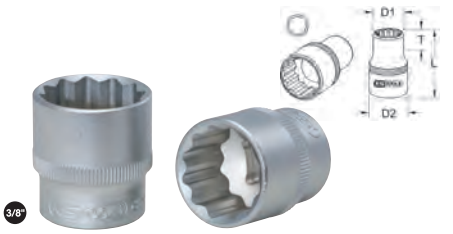
- 6 point
- FlankTraction Profil
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Screwed joints
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

3/8"

			kg
911.3840	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1.11

12 Point socket

- 12 point
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium



3/8"

	mm		D1 mm	D2 mm	L mm	T mm	g
917.3804	6.0		10.0	18.0	28.0	5.0	20
917.3805	7.0		11.0	18.0	28.0	5.0	22
911.3981	8.0		12.0	18.0	28.0	9.0	24
911.3982	9.0		14.0	18.0	28.0	9.0	26
911.3983	10.0		15.0	18.0	28.0	9.0	30
911.3984	11.0		16.0	18.0	28.0	9.0	30
911.3985	12.0		17.0	18.0	28.0	9.0	32
911.3986	13.0		19.0	18.0	28.0	9.0	35
911.3987	14.0		20.0	18.0	29.0	11.0	40
911.3988	15.0		21.0	20.0	30.0	13.0	42
911.3989	16.0		22.0	21.0	30.0	13.0	48
911.3992	17.0		24.0	22.0	30.0	13.0	55
911.3993	18.0		25.0	23.0	30.0	13.0	60
911.3994	19.0		26.0	24.0	30.0	13.0	70
911.3996	21.0		29.0	26.0	31.0	14.0	82
911.3997	22.0		30.0	26.0	32.0	15.0	85
911.3998	24.0		31.0	27.0	32.0	15.0	90
917.3823		1/4"	10.0	18.0	30.0	6.0	20
917.3825		9/32"	11.0	18.0	30.0	7.0	22
917.3826		5/16"	12.0	18.0	30.0	7.0	24
917.3827		11/32"	13.0	18.0	30.0	7.0	26
917.3851		3/8"	14.0	18.0	30.0	9.0	26
917.3852		7/16"	16.0	16.0	27.0	10.0	30
911.4000		1/2"	18.0	19.0	28.0	9.0	35
911.4001		9/16"	20.0	19.0	29.0	11.0	40
911.4002		19/32"	21.0	20.0	30.0	13.0	42
911.4003		5/8"	22.0	21.0	30.0	13.0	48
911.4004		11/16"	24.0	23.0	30.0	13.0	55
911.4005		3/4"	26.0	24.0	30.0	13.0	70
917.3854		13/16"	21.0	28.0	32.0	16.0	70
911.4006		7/8"	30.0	27.0	32.0	15.0	100

12 point socket set

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Includes storage rail

3/8"

			kg
911.0609	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75

12 Point socket, deep

- 12 point
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	mm		D1 mm	D2 mm	L mm	T mm	g
917.3855	8.0		12.0	16.0	63.0	10.0	40
917.3856	9.0		14.0	17.0	63.0	10.0	43
917.3970	10.0		15.0	18.0	63.0	11.0	50
917.3971	11.0		16.0	18.0	63.0	12.0	60
917.3972	12.0		17.0	18.0	63.0	14.0	65
917.3973	13.0		19.0	19.0	63.0	14.0	70
917.3974	14.0		20.0	20.0	63.0	17.0	85
917.3975	15.0		21.0	21.0	63.0	17.0	85
917.3976	16.0		22.0	22.0	63.0	17.0	95
917.3977	17.0		24.0	21.0	63.0	17.0	105
917.3978	18.0		25.0	22.0	63.0	20.0	110
917.3979	19.0		26.0	22.0	63.0	20.0	120
917.3980	20.0		27.0	24.0	63.0	20.0	135
917.3981	21.0		29.0	24.0	63.0	20.0	145
917.3982	22.0		30.0	24.0	63.0	23.0	160
917.3983		3/8"	14.0	18.0	63.0	11.0	50
917.3984		7/16"	16.0	18.0	63.0	12.0	60
917.3985		1/2"	18.0	19.0	63.0	14.0	70
917.3986		9/16"	20.0	20.0	63.0	17.0	85
917.3987		5/8"	22.0	22.0	63.0	17.0	95
917.3988		11/16"	24.0	21.0	63.0	17.0	105
917.3989		3/4"	26.0	22.0	63.0	20.0	135
917.3990		13/16"	28.0	24.0	63.0	20.0	145
917.3991		7/8"	30.0	24.0	63.0	23.0	160

12 Point socket set, deep

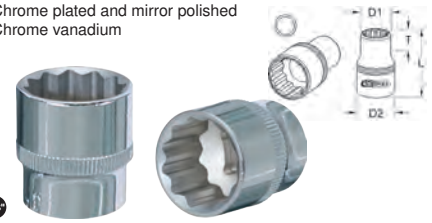
- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Includes storage rail

3/8"

			kg
911.0606	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75

CHROME*plus*® 12 point socket

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



3/8"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.3723	6,0		10.0	18.0	28.0	5.0	20
918.3725	7,0		11.0	18.0	28.0	5.0	22
918.3708	8,0		12.0	18.0	28.0	9.0	24
918.3709	9,0		14.0	18.0	28.0	9.0	26
918.3710	10,0		15.0	18.0	28.0	9.0	30
918.3711	11,0		16.0	18.0	28.0	9.0	30
918.3712	12,0		17.0	18.0	28.0	9.0	32
918.3713	13,0		19.0	18.0	28.0	9.0	35
918.3714	14,0		20.0	18.0	29.0	11.0	40
918.3715	15,0		21.0	20.0	30.0	13.0	42
918.3716	16,0		22.0	21.0	30.0	13.0	48
918.3717	17,0		24.0	22.0	30.0	13.0	55
918.3718	18,0		25.0	23.0	30.0	13.0	60
918.3719	19,0		26.0	24.0	30.0	13.0	70
918.3720	20,0		27.0	25.0	31.0	13.0	75
918.3721	21,0		29.0	26.0	31.0	14.0	82
918.3722	22,0		30.0	26.0	32.0	15.0	85
918.3724	24,0		31.0	27.0	32.0	16.0	88
918.3726		1/4"	10.0	18.0	30.0	6.0	20
918.3727		9/32"	11.0	18.0	30.0	7.0	22
918.3728		5/16"	12.0	18.0	30.0	7.0	24
918.3729		11/32"	13.0	18.0	30.0	7.0	26
918.3731		3/8"	14.0	18.0	30.0	9.0	26
918.3732		7/16"	16.0	18.0	30.0	10.0	30
918.3733		1/2"	18.0	18.0	30.0	12.0	30
918.3734		9/16"	20.0	20.0	30.0	13.0	30
918.3741		19/32"	19.0	20.8	30.0	13.0	40
918.3735		5/8"	22.0	22.0	30.0	13.0	40
918.3736		11/16"	23.0	24.0	30.0	14.0	50
918.3737		3/4"	25.0	26.0	30.0	15.0	60
918.3738		13/16"	21.0	28.0	32.0	16.0	70
918.3739		7/8"	29.0	30.0	32.0	18.0	80

CHROME*plus*® 12 Point socket set

- 12-point
- FlankTraction-Profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Includes storage rail

3/8"

			kg
918.0601	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75

CHROME*plus*® 12 Point socket, deep

- 12 point
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

			D1 mm	D2 mm	L mm	T mm	g	
918.3742	8,0		12.0	16.0	63.0	10.0	45	
918.3743	9,0		14.0	17.0	63.0	10.0	50	
918.3744	10,0		15.0	18.0	64.0	11.0	50	
918.3745	11,0		16.0	18.0	64.0	12.0	60	
918.3746	12,0		17.0	18.0	64.0	14.0	65	
918.3747	13,0		19.0	19.0	64.0	14.0	70	
918.3748	14,0		20.0	20.0	64.0	17.0	85	
918.3749	15,0		21.0	21.0	64.0	17.0	85	
918.3751	16,0		22.0	22.0	64.0	17.0	95	
918.3752	17,0		24.0	21.0	64.0	17.0	105	
918.3753	18,0		25.0	22.0	64.0	20.0	110	
918.3754	19,0		26.0	22.0	64.0	20.0	120	
918.3755	20,0		27.0	24.0	64.0	20.0	135	
918.3756	21,0		29.0	24.0	64.0	20.0	145	
918.3757	22,0		30.0	24.0	64.0	23.0	160	
918.3758		3/8"	14.0	18.0	64.0	11.0	50	
918.3759		7/16"	16.0	18.0	64.0	12.0	60	
918.3761		1/2"	18.0	19.0	64.0	14.0	70	
918.3762		9/16"	20.0	20.0	64.0	17.0	85	
918.3763		5/8"	22.0	22.0	64.0	17.0	95	
918.3764		11/16"	24.0	22.0	64.0	17.0	105	
918.3765		3/4"	26.0	22.0	64.0	20.0	135	
918.3766		13/16"	28.0	24.0	64.0	20.0	145	
918.3767		7/8"	30.0	24.0	64.0	23.0	160	

CHROME*plus*® 12-point socket-set, deep

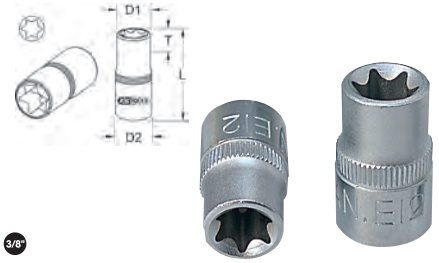
- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Includes storage rail

3/8"

			kg	
918.0602	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.75	

TX E socket

- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium



3/8"

		D1 mm	D2 mm	L mm	T mm	g	
911.4338	E4	7.0	17.0	28.0	5.0	25	
911.4339	E5	7.0	18.0	28.0	5.0	25	
911.4340	E6	9.0	18.0	28.0	5.0	25	
911.4341	E7	10.0	18.0	28.0	6.0	25	
911.4342	E8	11.0	18.0	28.0	6.0	25	
911.4318	E10	13.0	18.0	28.0	9.0	30	
911.4319	E11	14.0	18.0	28.0	9.0	30	
911.4320	E12	15.0	18.0	28.0	9.0	30	
911.4321	E14	17.0	18.0	28.0	9.0	35	
911.4343	E16	18.0	19.0	28.0	9.0	40	
911.4344	E18	19.0	19.0	28.0	9.0	40	
911.4345	E20	19.0	20.0	28.0	9.0	40	

TX E socket set

- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

3/8"

			kg	
911.3930	10 pcs	E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14 - E16 - E18	0.31	

CHROME*plus*® TX E socket

- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

		D1 mm	D2 mm	L mm	T mm	g	
918.3971	E4	7.0	17.0	28.0	5.0	25	
918.3972	E5	7.0	18.0	28.0	5.0	25	
918.3973	E6	9.0	18.0	28.0	5.0	25	
918.3974	E7	10.0	18.0	28.0	6.0	25	
918.3975	E8	11.0	18.0	28.0	6.0	25	
918.3976	E10	13.0	18.0	28.0	9.0	30	
918.3977	E11	14.0	18.0	28.0	9.0	30	
918.3978	E12	15.0	18.0	28.0	9.0	30	
918.3979	E14	17.0	18.0	28.0	9.0	35	
918.3980	E16	18.0	23.0	28.0	9.0	40	
918.3981	E18	19.0	24.0	28.0	9.0	40	
918.3982	E20	19.0	17.0	28.0	9.0	40	

CHROME*plus*® TX E socket set

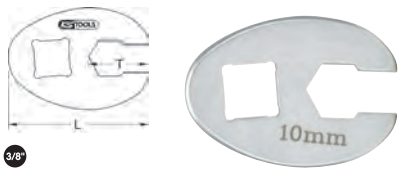
- TX E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

3/8"

			kg	
918.3955	10 pcs	E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14 - E16 - E18	0.31	

Crawfoot wrench, hexagonal

- 6 point
- With internal square drive
- For manual operation
- Matt finis
- Chrome vanadium



3/8"

	mm	L mm	T mm	g	
913.3810	10,0	40.0	16.0	40	
913.3811	11,0	37.0	13.0	40	
913.3812	12,0	37.0	15.0	40	
913.3813	13,0	36.0	14.0	40	
913.3814	14,0	43.0	18.0	60	
913.3815	15,0	42.0	20.0	60	
913.3816	16,0	43.0	22.0	60	
913.3817	17,0	48.0	23.0	80	
913.3818	18,0	46.0	21.0	80	
913.3819	19,0	44.0	22.0	80	

Crawfoot wrench, hexagonal

- 6 point
- Internal square drive
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

			kg	
913.3800	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.63	

CHROME*plus*® 12 point crawfoot wrench

- 12 point
- Internal square drive
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	○ mm	L mm	T mm	g	
913.3910	10.0	36.0	13.0	40	
913.3911	11.0	36.0	17.0	40	
913.3912	12.0	37.0	14.0	40	
913.3913	13.0	37.0	17.0	40	
913.3914	14.0	41.0	19.0	60	
913.3915	15.0	42.0	21.0	60	
913.3916	16.0	43.0	22.0	60	
913.3917	17.0	46.0	22.0	80	
913.3919	19.0	46.0	23.0	80	
913.3922	22.0	54.0	30.0	90	

CHROME*plus*® 12 point crawfoot wrench set

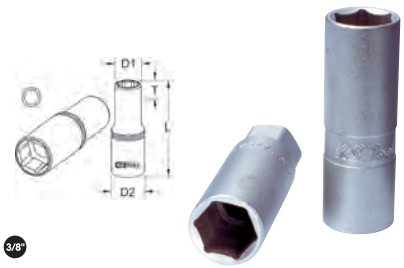
- 12 point
- Internal square drive
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

3/8"

			kg
913.3900	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 22 mm	0.50

Spark plug socket

- DIN 3124 / ISO 3315
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the sparks plugs
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium



3/8"

	Profile	mm		D1 mm	D2 mm	L mm	g
911.3990	○	14,0		26.0	20.0	63.0	60
911.3804	○	16,0		20.0	18.0	63.0	60
911.3823	○	18,0		26.0	21.0	63.0	135
911.3805	○	21,0		22.0	19.0	63.0	60
911.3909	○		5/8"	22.0	20.0	63.0	60
911.3908	○		13/16"	27.0	20.0	63.0	60

CHROME*plus*® Spark plug socket

- DIN 3124 / ISO 3315
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Rubber stop for holding the sparks plugs
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

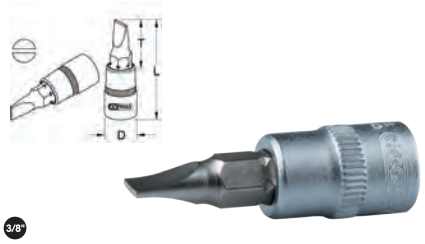
3/8"

	Profile	mm		D1 mm	D2 mm	L mm	g
918.3990	○	14		20.0	18.0	63.0	60
918.3804	○	16,0		22.0	19.0	63.0	60
918.3805	○	18,0		26.0	20.0	63.0	60
918.3806	○	21,0		28.0	21.0	63.0	60
918.3991	○		13/16"	27.0	20.0	63.0	60
918.3992	○		5/8"	22.0	20.0	63.0	60

3/8" BIT SOCKETS

Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

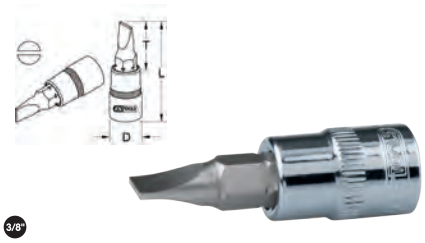


3/8"

	mm	D mm	L mm	T mm	g
911.3946	4.0	18.0	50.0	24.0	45
911.3947	5.0	18.0	50.0	24.0	45
911.3878	5.5	18.0	50.0	24.0	45
911.3879	6.5	18.0	50.0	24.0	45
911.3880	8.0	18.0	50.0	24.0	50
911.3948	12.0	18.0	50.0	24.0	50
911.3949	10.0	18.0	50.0	24.0	50

CHROME*plus*® bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

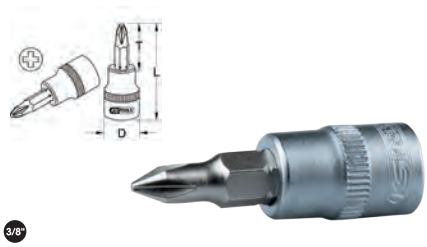


3/8"

	mm	D mm	L mm	T mm	g
918.3851	4.0	18.0	50.0	24.0	40
918.3852	5.0	18.0	50.0	24.0	40
918.3853	5.5	18.0	50.0	24.0	45
918.3854	6.5	18.0	50.0	24.0	45
918.3855	8.0	18.0	50.0	24.0	50
918.3986	10.0	18.0	50.0	24.0	50
918.3987	12.0	18.0	50.0	24.0	50

Bit socket for phillips head screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

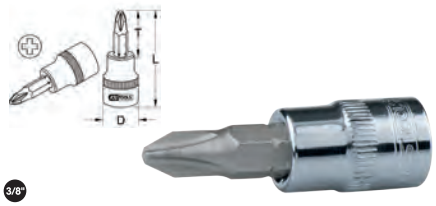


3/8"

		D mm	L mm	T mm	g
911.3875	PH 1	18.0	50.0	24.0	35
911.3876	PH 2	18.0	50.0	24.0	45
911.3877	PH 3	18.0	50.0	24.0	50

CHROME*plus*® bit socket for Phillips screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

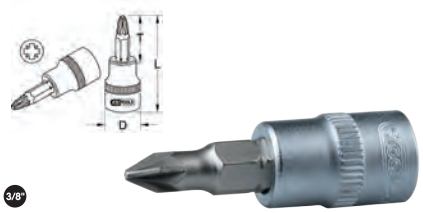


3/8"

		D mm	L mm	T mm	g
918.3868	PH 1	18.0	50.0	24.0	35
918.3869	PH 2	18.0	50.0	24.0	45
918.3891	PH 3	18.0	50.0	24.0	50

Bit socket for Phillips head screws PZ

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

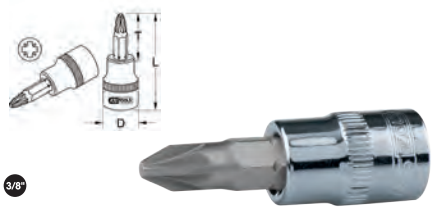


3/8"

		D mm	L mm	T mm	g
911.3881	PZ 1	18.0	50.0	24.0	40
911.3882	PZ 2	18.0	50.0	24.0	40
911.3883	PZ 3	18.0	50.0	24.0	55

CHROME*plus*® bit socket for Phillips screws PZ

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



3/8"

		D mm	L mm	T mm	g
918.3877	PZ 1	18.0	50.0	24.0	40
918.3878	PZ 2	18.0	50.0	24.0	40
918.3892	PZ 3	18.0	50.0	24.0	55

Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

	mm		D mm	L mm	T mm	g
911.3863	3,0		18.0	50.0	24.0	40
911.3864	4,0		18.0	50.0	24.0	43
911.3865	5,0		18.0	50.0	24.0	44
911.3866	6,0		18.0	50.0	24.0	45
911.3867	7,0		18.0	50.0	24.0	46
911.3868	8,0		18.0	50.0	24.0	47
917.3857	10,0		18.0	50.0	24.0	60
911.3862	12,0		18.0	50.0	24.0	65
917.3962		5/32"	18.0	50.0	24.0	40
917.3963		3/16"	18.0	50.0	24.0	43
917.3964		1/4"	18.0	50.0	24.0	44
917.3965		5/16"	18.0	50.0	24.0	45
917.3966		3/8"	18.0	50.0	24.0	46
917.3967		1/8"	18.0	50.0	24.0	47
917.3968		7/32"	18.0	50.0	24.0	60

Bit socket set for hexagon key screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted stud
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.3945	7 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 mm	0.31

CHROME*plus*® Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

	mm		D mm	L mm	T mm	g
918.3861	3,0		18.0	50.0	24.0	40
918.3862	4,0		18.0	50.0	24.0	43
918.3863	5,0		18.0	50.0	24.0	44
918.3864	6,0		18.0	50.0	24.0	45
918.3865	7,0		18.0	50.0	24.0	46
918.3866	8,0		18.0	50.0	24.0	47
918.3867	10,0		18.0	50.0	24.0	60
918.3961	12,0		18.0	50.0	24.0	65
918.3962		5/32"	18.0	50.0	24.0	40
918.3963		3/16"	18.0	50.0	24.0	43
918.3964		1/4"	18.0	50.0	24.0	44
918.3965		5/16"	18.0	50.0	24.0	45
918.3966		3/8"	18.0	50.0	24.0	46
918.3967		1/8"	18.0	50.0	24.0	47
918.3968		7/32"	18.0	50.0	24.0	60

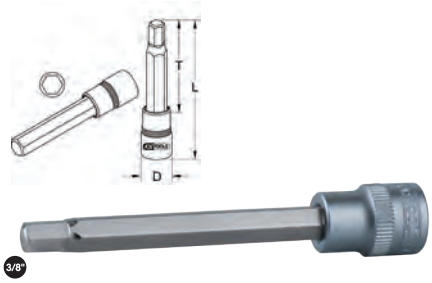
CHROME*plus*® bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted stud
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.3921	7 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 mm	0.31

Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



	mm	D mm	L mm	T mm	g
911.1561	4,0	18.0	100.0	74.0	50
911.1562	5,0	18.0	100.0	74.0	50
911.1563	6,0	18.0	100.0	74.0	50
911.1564	7,0	18.0	100.0	74.0	50
911.1565	8,0	18.0	100.0	74.0	60
911.1566	10,0	18.0	100.0	74.0	60
911.1567	12,0	18.0	100.0	74.0	60

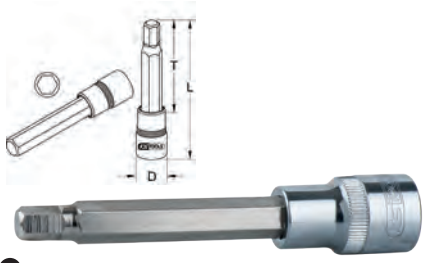
Bit socket set for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.1560	7 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 mm	0.52

CHROME*plus*® bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.3914	4,0	18.0	100.0	74.0	50
918.3915	5,0	18.0	100.0	74.0	50
918.3916	6,0	18.0	100.0	74.0	50
918.3917	7,0	18.0	100.0	74.0	50
918.3918	8,0	18.0	100.0	74.0	60
918.3919	10,0	18.0	100.0	74.0	60
918.3920	12,0	18.0	100.0	74.0	60

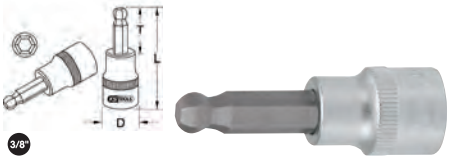
CHROME*plus*® bit socket set for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.3960	7 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 mm	0.52

Bit socket for hexagon screws with ball end

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



	mm	D mm	L mm	T mm	g
917.3860	3,0	18.0	50.0	24.0	45
917.3861	4,0	18.0	50.0	24.0	45
917.3862	5,0	18.0	50.0	24.0	45
917.3863	6,0	18.0	50.0	24.0	45
917.3864	7,0	18.0	50.0	24.0	45
917.3868	8,0	18.0	50.0	24.0	45
917.3869	10,0	18.0	50.0	24.0	45

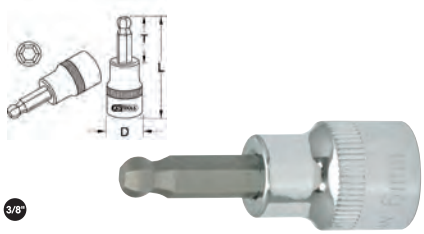
Bit socket set for hexagon-screws with ball end

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.3922	7 pcs	3 - 4 - 5 - 6 - 7 - 8 - 10 mm	0.41

CHROME*plus*® bit socket for hexagon screws with ball end

- Ball end hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.3870	3,0	18.0	50.0	24.0	45
918.3871	4,0	18.0	50.0	24.0	45
918.3872	5,0	18.0	50.0	24.0	45
918.3873	6,0	18.0	50.0	24.0	45
918.3874	7,0	18.0	50.0	24.0	45
918.3875	8,0	18.0	50.0	24.0	45
918.3876	10,0	18.0	50.0	24.0	45

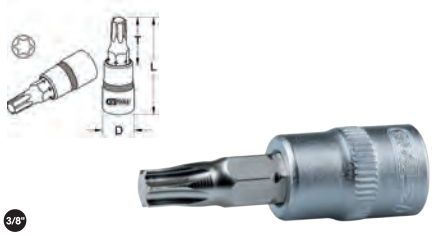
CHROMEplus® bit socket-set for hexagon screws with ball end

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.3772	7 pcs	3 - 4 - 5 - 6 - 7 - 8 - 10 mm	0.41

Bit socket for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
911.3921	T9	18.0	50.0	24.0	42
911.3887	T10	18.0	50.0	24.0	45
911.3869	T15	18.0	50.0	24.0	45
911.3870	T20	18.0	50.0	24.0	45
911.3871	T25	18.0	50.0	24.0	45
911.3872	T27	18.0	50.0	24.0	45
911.3873	T30	18.0	50.0	24.0	45
911.3874	T40	18.0	50.0	24.0	45
911.3885	T45	18.0	50.0	24.0	50
911.3884	T50	18.0	50.0	24.0	70
911.3888	T55	18.0	50.0	24.0	70
911.3889	T60	18.0	50.0	24.0	70

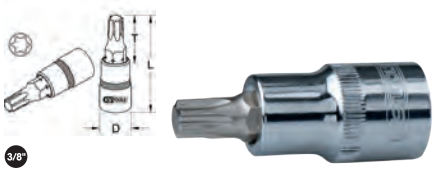
Bit socket set for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.3935	10 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55	0.41

CHROME*plus*® bit socket for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.3768	T9	18.0	50.0	24.0	42
918.3879	T10	18.0	50.0	24.0	45
918.3880	T15	18.0	50.0	24.0	45
918.3881	T20	18.0	50.0	24.0	45
918.3882	T25	18.0	50.0	24.0	45
918.3883	T27	18.0	50.0	24.0	45
918.3884	T30	18.0	50.0	24.0	45
918.3885	T40	18.0	50.0	24.0	35
918.3886	T45	18.0	50.0	24.0	50
918.3887	T50	18.0	50.0	24.0	70
918.3888	T55	18.0	50.0	24.0	70
918.3889	T60	18.0	50.0	24.0	70

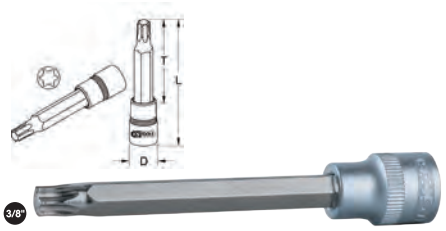
CHROME*plus*® bit socket set for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.3939	10 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55	0.41

Bit socket for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
911.1551	T20	18.0	100.0	74.0	50
911.1552	T25	18.0	100.0	74.0	50
911.1553	T27	18.0	100.0	74.0	50
911.1554	T30	18.0	100.0	74.0	60
911.1555	T40	18.0	100.0	74.0	60
911.1556	T45	18.0	100.0	74.0	60
911.1557	T50	18.0	100.0	74.0	60
911.1558	T55	18.0	100.0	74.0	80
911.1559	T60	18.0	100.0	74.0	100

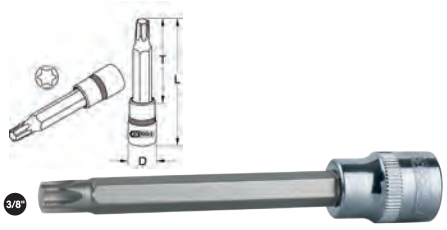
Bit socket set for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.1550	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	0.65

CHROME*plus*® bit socket for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.4011	T20	18.0	100.0	74.0	50
918.4012	T25	18.0	100.0	74.0	50
918.4013	T27	18.0	100.0	74.0	50
918.4014	T30	18.0	100.0	74.0	60
918.4015	T40	18.0	100.0	74.0	60
918.4016	T45	18.0	100.0	74.0	60
918.4017	T50	18.0	100.0	74.0	60
918.4018	T55	18.0	100.0	74.0	80
918.4019	T60	18.0	100.0	74.0	100

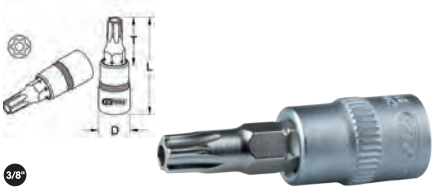
CHROME*plus*® bit socket set for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.1550	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	0.65

Bit socket for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
911.3960	TB10	18.0	47.0	24.0	33
911.3961	TB15	18.0	47.0	24.0	34
911.3962	TB20	18.0	47.0	24.0	34
911.3963	TB25	18.0	47.0	24.0	34
911.3964	TB27	18.0	46.0	24.0	34
911.3965	TB30	18.0	64.0	24.0	35
911.3966	TB40	18.0	64.0	24.0	35
911.3967	TB45	18.0	64.0	24.0	38
911.3968	TB50	18.0	77.0	24.0	40
911.3969	TB55	18.0	77.0	24.0	45
911.3970	TB60	18.0	50.0	24.0	48

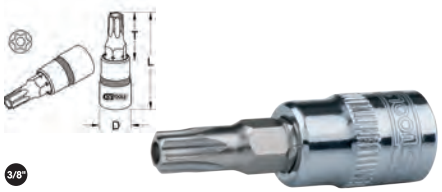
Bit socket set for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.3940	10 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55	0.40

CHROME*plus*® bit socket for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.3940	TB10	18.0	50.0	24.0	47
918.3941	TB15	18.0	50.0	24.0	47
918.3942	TB20	18.0	50.0	24.0	47
918.3943	TB25	18.0	50.0	24.0	47
918.3944	TB27	18.0	50.0	24.0	34
918.3945	TB30	18.0	50.0	24.0	34
918.3946	TB40	18.0	50.0	24.0	64
918.3947	TB45	18.0	50.0	24.0	39
918.3948	TB50	18.0	50.0	24.0	77
918.3949	TB55	18.0	50.0	24.0	77
918.3950	TB60	18.0	50.0	24.0	77

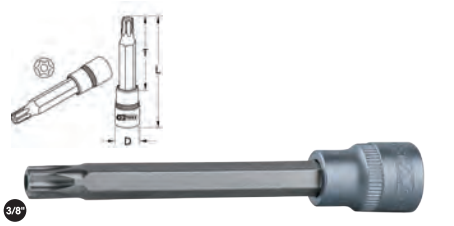
CHROME*plus*® bit socket set for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.3970	10 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55	0.40

Bit socket for TX tamperproof screws, long

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
911.3971	TB20	18.0	100.0	74.0	50
911.3972	TB25	18.0	100.0	74.0	50
911.3973	TB27	18.0	100.0	74.0	50
911.3974	TB30	18.0	100.0	74.0	60
911.3975	TB40	18.0	100.0	74.0	60
911.3976	TB45	18.0	100.0	74.0	60
911.3977	TB50	18.0	100.0	74.0	60
911.3978	TB55	18.0	100.0	74.0	80
911.3979	TB60	18.0	100.0	74.0	100

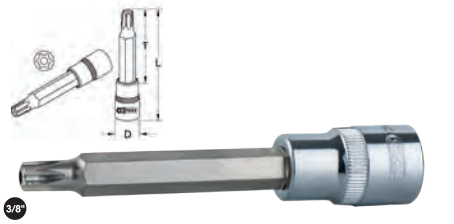
Bit socket set for TX tamperproof screws, long

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.3980	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	0.65

CHROME*plus*® bit socket for TX tamperproof screws, long

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.4001	TB20	18.0	100.0	74.0	50
918.4002	TB25	18.0	100.0	74.0	50
918.4003	TB27	18.0	100.0	74.0	50
918.4004	TB30	18.0	100.0	74.0	60
918.4005	TB40	18.0	100.0	74.0	60
918.4006	TB45	18.0	100.0	74.0	60
918.4007	TB50	18.0	100.0	74.0	60
918.4008	TB55	18.0	100.0	74.0	80
918.4009	TB60	18.0	100.0	74.0	100

CHROME*plus*® bit socket set for TX tamperproof screws, long

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.3969	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	0.65

Bit socket for XZN® screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

		D mm	L mm	T mm	g
911.3918	M4	18.0	50.0	24.0	43
911.3915	M5	18.0	50.0	24.0	44
911.3916	M6	18.0	50.0	24.0	45
911.3917	M8	18.0	50.0	24.0	47
911.3920	M10	18.0	50.0	24.0	48

Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.3923	5 pcs	M4 - M5 - M6 - M8 - M10	0.15

CHROME*plus*® bit socket for Spline(XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

		D mm	L mm	T mm	g
918.3856	M4	18.0	50.0	24.0	43
918.3857	M5	18.0	50.0	24.0	44
918.3858	M6	18.0	50.0	24.0	45
918.3859	M8	18.0	50.0	24.0	47
918.3860	M10	18.0	50.0	24.0	48

CHROMEplus® bit socket set for Spline(XZN®) screws

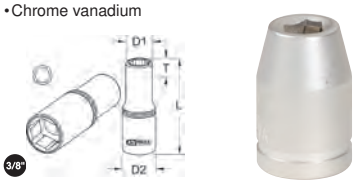
- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.3773	5 pcs	M4 - M5 - M6 - M8 - M10	0.15

3/8“ ADAPTERS

Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finis
- Chrome vanadium



	□	○	L mm	D1 mm	D2 mm	T mm	g
911.3894	3/8“	1/4“	25.0	12.0	17.0	11.0	20
911.4328	3/8“	5/16“	30.0	13.0	17.0	14.0	30

CHROME*plus*® bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

	□	○	L mm	D1 mm	D2 mm	T mm	g
918.3983	3/8“	1/4“	25.0	12.0	17.0	11.0	20
918.3984	3/8“	5/16“	30.0	13.0	17.0	14.0	30
918.3985	3/8“	10 mm	30.0	17.0	17.0	11.0	30

Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 5/16" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finis
- Chrome vanadium

	□	○	L mm	D1 mm	g
911.4331	3/8	5/16“	28.0	13.0	25
911.4311	3/8	10 mm	30.0	17.0	30

Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

	□	■	L mm	g
911.3892	3/8”	1/2”	30.0	60

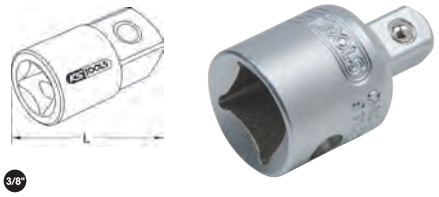
CHROME*plus*® adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

	□	■	L mm	g
918.3931	3/8”	1/2”	30.0	60

Reducing adaptor

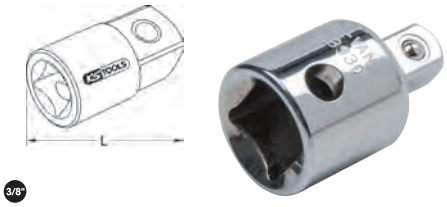
- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium



	□	■	L mm	g
911.3897	3/8”	1/4”	30.0	60

CHROME*plus*® reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



3/8"

	□	■	L mm	g
918.3930	3/8"	1/4"	30.0	60

Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

CHROME*plus*® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

Sliding adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- Also usably as adaptors and/or reducing adaptors
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	□	■	L mm	g
911.1207	3/8"	1/2"	40.0	60
911.3826	1/2"	3/8"	40.0	60

CHROME*plus*® sliding / adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- Also usably as adaptors and/or reducing adaptors Reducing adaptor
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	□	■	L mm	g
918.3807	1/2"	3/8"	40.0	60
918.1449	1/4"	3/8"	40.0	60

3/8" UNIVERSAL JOINTS

Universal joint

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	□	■	L mm	g
911.3850	3/8"	3/8"	55.0	80

CHROME*plus*® universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	□	■	L mm	g
918.3988	3/8"	3/8"	55.0	80

Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very resistant to breakage
- Can be used by hand or with and electric screwdriver
- Matt finis
- Chrome vanadium

3/8"

	□	■	L mm	g
917.3850	3/8"	3/8"	50.0	80

CHROME*plus*® power universal joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very resistant to breakage
- Can be used by hand or with and electric screwdriver
- Chrome plated and mirror polished
- Chrome vanadium

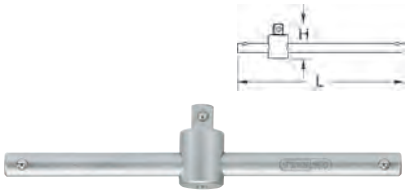
3/8"

	□	■	L mm	g
919.3850	3/8"	3/8"	50.0	80

3/8“ T-HANDLES

Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

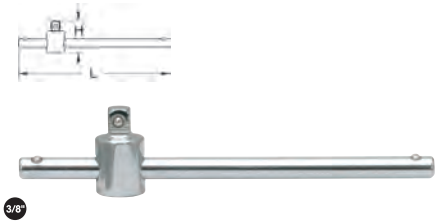


3/8"

	■	H mm	L mm	g	
911.3855	3/8"	40.0	160.0	160	

CHROME*plus*® sliding T handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



3/8"

	■	H mm	L mm	g	
918.3845	3/8"	40.0	160.0	160	

3/8“ EXTENSIONS

Extension

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	L mm	g	
911.3852	45.0	40	
911.3801	75.0	50	
911.3802	150.0	160	
911.3856	200.0	200	
911.3803	250.0	240	

Extension set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With hexagon drive
- For manual operation
- Matt finis
- Chrome vanadium

1/4" 3/8" 1/2"

		kg	
911.0007	9 pcs Extension set	1.22	

3 x		1/4“ : 50 - 100 - 250 mm
4 x		3/8“ : 45 - 75 - 150 - 200 mm
2 x		1/2“ : 125 - 250 mm

CHROME*plus*® extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Hexagon drive
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	L mm	g	
918.3769	45.0	40	
918.3896	75.0	120	
918.3897	150.0	150	
918.3771	200.0	190	
918.3898	250.0	240	

CHROME*plus*® Extension set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

		kg	
918.0007	9 pcs CHROME*plus*® Extension set	1.22	

3 x		1/4“ : 50 - 100 - 250 mm
4 x		3/8“ : 45 - 75 - 150 - 200 mm
2 x		1/2“ : 125 - 250 mm

Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	L mm	g	
911.3910	45.0	40	
911.3911	75.0	80	
911.3912	150.0	140	
911.3913	200.0	190	
911.3914	250.0	240	

Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finis
- Chrome vanadium

1/4" 3/8" 1/2"

		kg	
911.0009	9 pcs Wobble extension set	1.22	

3 x		1/4“ : 50 - 100 - 250 mm
4 x		3/8“ : 45 - 75 - 150 - 200 mm
2 x		1/2“ : 125 - 250 mm

CHROME*plus*® wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	L mm	g	
918.3935	45.0	120	
918.3801	75.0	150	
918.3802	150.0	145	
918.3958	225.0	210	
918.3803	250.0	240	

CHROME*plus*® Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

		kg	
918.0009	9 pcs CHROME*plus*® Wobble extension set	1.22	

CHROME*plus*® extension with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	L mm	g	
919.3801	75.0	70	
919.3804	150.0	140	
919.3806	250.0	250	

CHROME*plus*® extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

			kg	
919.0383	3 pcs	75 - 150 - 250 mm	0.56	

CHROME*plus*® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

			kg	
919.0007	7 pcs	CHROME*plus*® Extension set with interlock	1.24	
2 x		1/4" : 100 - 150 mm		
3 x		3/8" : 75 - 150 - 250 mm		
2 x		1/2" : 125 - 250 mm		

3/8" MANUAL DRIVE TOOLS

CHROME*plus*® Flexi head drive handle

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Ideal for diffi ult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	L mm	head,spare	g	
918.3700	260.0	918.3826-1	390	
918.3826	400.0	918.3826-1	542	
918.3701	450.0	918.3826-1	615	

Offset handle

- DIN 3122 / ISO 3315
- Square drive according to DIN 3120 / ISO 1174 with with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	L mm	g	
911.3925	180.0	198	

Crank handle

- DIN 3122 / ISO 3315
- Square drive according to DIN 3120 / ISO 1174 with with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

3/8"

	L mm	g	
911.3950	190.0	482	

3/8" RATCHETS

Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Matt finis
- Chrome vanadium

3/8"

	A mm	D mm	L mm	Repair set	g	
914.3890	17.0	32.0	200.0	914.3897	130	

CHROME*plus*® reversible ratchet

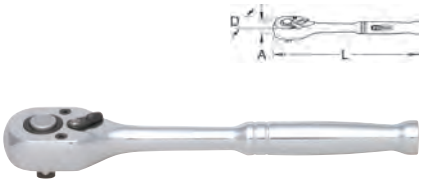
- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Lightweight recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	A mm	D mm	L mm	Repair set	g	
918.3890	17.0	32.0	200.0	914.3897	130	

CHROME*plus*® reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Lightweight recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium



3/8"

	A mm	D mm	L mm	Repair set	g	
918.3993	17.0	31.0	180.0	914.3897	540	

SlimPOWER reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 102 N•m maximum load
- Reversible
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle with soft zone
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	A mm	D mm	L mm	Repair set	g	
920.3890	14.0	26.0	190.0	920.3890-1	267	

Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Matt finis
- Chrome vanadium

3/8"

	A mm	D mm	L mm	Repair set	g
911.3800	16.0	32.0	200.0	911.3899	310

CHROME*plus*® reversible ratchet

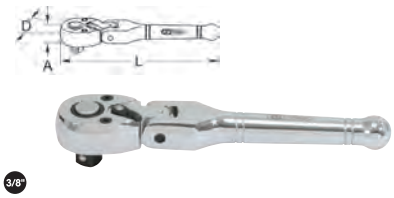
- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	A mm	D mm	L mm	Repair set	g
918.3800	16.0	32.0	200.0	911.3899	310

CHROME*plus*® fl xible head reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

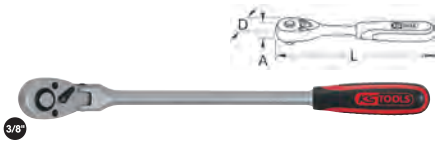


3/8"

	A mm	D mm	L mm	Repair set	g
918.3997	16.0	31.0	150.0	914.3897	170

Flexible head reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Reversible
- Exact gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Matt finis
- Chrome vanadium



3/8"

	A mm	D mm	L mm	Repair set	g
914.3896	16.0	30.0	275.0	914.3897	260

CHROME*plus*® fl xible head reversible ratchet with cranked shaft

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Cranked shaft
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Lightweight recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

3/8"

	A mm	D mm	L mm	Repair set	g
918.3895	16.0	30.0	275.0	914.3897	230

3/8“ SET ASSORTMENTS

CHROME*plus*® spark plug service set

- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

3/8"

			kg
918.0607	7 pcs	CHROME*plus*® spark plug service set	1.44
4 x		14 - 16 - 18 - 21 mm	
1 x		150 mm	
1 x		150 mm	
1 x		270 mm	

Socket set

- 12 point
- FlankTraction Profil
- Matt finis
- Chrome vanadium
- In durable plastic case

3/8"

			kg
911.3995	22 pcs	Socket set	2.00
15 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 - 24 mm	
1 x		3/8“	
2 x		75 - 150 mm	
1 x		3/8“	
2 x		16 - 21 mm	
1 x		1/2“F x 3/8“M	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

3/8"

			kg
911.0626	26 pcs	Socket set	2.70
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
2 x		16 - 21 mm	
3 x		50 - 75 - 200 mm	
1 x		3/8“	
1 x		3/8“	
1 x		200 mm	

CHROME*plus*® socket set

- 6 point
- FlankTraction Profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

3/8"

			kg
918.0627	27 pcs	CHROME*plus*® socket set	2.40
13 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 22 - 24 mm
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
2 x		75 - 150 mm
1 x		3/8"
1 x		195 mm

Socket set

- 6 point
- FlankTraction Profil
- Matt finis
- Chrome vanadium
- In durable steel case

3/8"

			kg
917.4031	30 pcs	Socket set	2.88
16 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 19 - 21 - 22 - 24 mm
7 x		8 - 10 - 11 - 12 - 13 - 15 - 17 mm
2 x		16 - 21 mm
2 x		75 - 200 mm
1 x		3/8"
1 x		3/8"
1 x		200 mm

CHROME*plus*® Socket set

- Imperial sizes
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

3/8"

			kg
918.0846	46 pcs	CHROME*plus*® Socket set	1.13
11 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" 5/8" - 11/16" - 3/4" - 13/16" - 7/8"
6 x		3/8" - 7/16" - 1/2" - 9/16" - 11/16" 3/4"
2 x		5/8" - 13/16"
7 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4" 5/16" - 3/8"
10 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55
5 x		M4 - M5 - M6 - M8 - M10
2 x		75 - 150 mm
1 x		3/8"
1 x		160 mm
1 x		195 mm

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

3/8"

			kg
911.0661	61 pcs	Socket set	4.20
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 24 mm
10 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm
3 x		5,5 - 7 - 8 mm
3 x		PH1 - PH2 - PH3
3 x		PZ1 - PZ2 - PZ3
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm
10 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55
2 x		16 - 21 mm
2 x		75 - 250 mm
1 x		3/8"
1 x		3/8"
1 x		200 mm

CHROME*plus*® socket set

- 6 point
- FlankTraction Profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

3/8"

			kg
918.0661	61 pcs	CHROME*plus*® socket set	3.80
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm
10 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 19 mm
2 x		16 - 21 mm
3 x		5,5 - 7 - 8 mm
3 x		PH1 - PH2 - PH3
3 x		PZ1 - PZ2 - PZ3
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm
10 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55
2 x		75 - 150 mm
1 x		3/8"
1 x		3/8"
1 x		200 mm

3/8“ SET ASSORTMENTS

TX Socket and bit set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

				kg
911.4301-1	30 pcs	TX Socket and bit set		1.45
5 x			1/4“: E4 - E5 - E6 - E7 - E8	
4 x			3/8“: E10 - E11 - E12 - E14	
5 x			1/2“: E16 - E18 - E20 - E22 - E24	
2 x			3/8“ x 10 mm - 1/2“ x 10mm	
7 x			30 mm (T20 - T25 - T30 - T40 - T45 T50 - T55)	
7 x			75 mm (T20 - T25 - T30 - T40 - T45 T50 - T55)	

TX Bit socket set for TX tamperproof screws

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

				kg
911.4301-2	30 pcs	TX Bit socket set for TX tamper-proof screws		1.45
5 x			1/4“: E4 - E5 - E6 - E7 - E8	
4 x			3/8“: E10 - E11 - E12 - E14	
5 x			1/2“: E16 - E18 - E20 - E22 - E24	
2 x			3/8“ x 10 mm - 1/2“ x 10mm	
7 x			30 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	
7 x			75 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	

TX Socket set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

				kg
911.4302	31 pcs	TX Socket set		1.40
6 x			1/4“: T10 - T15 - T20 - T25 - T27 - T30	
3 x			5/16“: T40 - T45 - T50	
3 x			1/4“: TB30 x 30 mm - TB25 x 75 mm - TB30 x 75 mm	
2 x			1/2“: T55 - T60	
4 x			1/4“: E5 - E6 - E7 - E8	
3 x			3/8“: E10 - E12 - E14	
3 x			1/2“: E16 - E18 - E20	
3 x			1/4“ x 1/4“ - 3/8“ x 5/16“ - 1/2“ x 5/16“	
4 x			E6 x E8 - E7 x E11 - E10 x E12 E14 x E18 -	

TX Socket and bit set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

				kg
911.4305	57 pcs	TX Socket and bit set		2.00
2 x			3/8“ x 10mm - 1/2“ x 1/4“	
12 x			1/4“: E4 - E5 - E6 - E7 - E8; 3/8“: E10 - E11 - E12 - E14;1/2“: E16 - E18 - E20	
7 x			4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
9 x			TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	
5 x			M5 - M6 - M8 - M10 - M12	
2 x			8 - 10 mm	
2 x			PH2 - PH3	
5 x			5 - 6 - 7 - 8 - 10 mm	
9 x			T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	
4 x			M6 - M8 - M10 - M12	

CHROME*plus*® Socket set

- Imperial sizes
- 6 point
- FlankTraction Profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" 3/8"

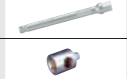
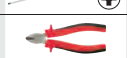
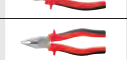
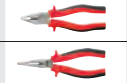
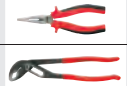
			kg
918.0699	99 pcs	CHROME*plus*® Socket set	6.30
12 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm	
10 x		1/4“: 5/32“ - 3/16“ - 7/32“ - 1/4“ - 9/32“ 5/16“ - 11/32“ - 3/8“ - 7/16“ - 1/2“	
16 x		3/8“: 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 24 mm	
5 x		3/8“: 10 - 12 - 13 - 17 - 19 mm	
11 x		3/8“: 1/4“ - 5/16“ - 3/8“ - 7/16“ - 1/2“ 9/16“ - 5/8“ - 11/16“ - 3/4“ - 13/16“ 7/8“	
5 x		3/8“: 3/8“ - 7/16“ - 1/2“ - 9/16“ - 5/8“	
3 x		3/8“: 16 - 18 - 21 mm	
3 x		3/8“: 5,5 - 6,5 - 8 mm	
2 x		3/8“: PH1 - PH2	
2 x		3/8“: PZ1 - PZ2	
5 x		3/8“: 5 - 6 - 7 - 8 - 10 mm	
5 x		3/8“: 5/32“ - 3/16“ - 1/4“ - 5/16“ - 3/8“	
8 x		3/8“: T10 - T15 - T20 - T25 - T27 - T30 T40 - T45	
5 x		3/8“: M4 - M5 - M6 - M8 - M10	
1 x		1/4“	
1 x		1/4“: 100 mm	
1 x		1/4“	
2 x		3/8“: 75 - 150 mm	
1 x		3/8“	
1 x		3/8“: 200 mm	

CHROME*plus*® Universal tool kit set

- 3 drawers and upper insert storage
- 6 point
- FlankTraction Profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable steel tool chest

1/4" 3/8"

			kg
918.0250	99 pcs	CHROME*plus*® Universal tool kit set	22.00

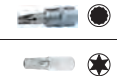
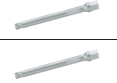
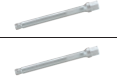
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
3 x		1/4": 8 - 10 - 13 mm
1 x		1/4": 50 mm
1 x		1/4"
1 x		1/4": 110 mm
1 x		1/4": 140 mm
3 x		1/4": 4 - 5,5 - 7 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40
12 x		3/8": 8 - 10 - 12 - 13 - 14 - 15 - 17 - 18 - 19 - 20 - 22 - 24 mm
2 x		3/8": 17 - 19 mm
2 x		3/8": 16 - 21 mm
2 x		3/8": 75 - 150 mm
1 x		3/8": F1/4" x M 3/8"
1 x		3/8"
1 x		3/8": 200 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10"
1 x		250 mm
1 x		300 g

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
918.0724	124 pcs	CHROME*plus*® Socket set	9.50

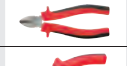
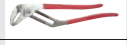
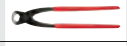
10 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm
6 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 mm
11 x		3/8": 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm
8 x		3/8": E8 - E10 - E11 - E12 - E14 - E16 E18 - E20
8 x		1/2": 20 - 21 - 22 - 24 - 27 - 30 - 32 34 mm
6 x		1/2": 10 - 12 - 13 - 14 - 17 - 19 mm
2 x		1/2": E22 - E24
2 x		1/2": 16 - 21 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
2 x		3/8": 4 - 5,5 mm
3 x		3/8": PH1 - PH2 - PH3
3 x		3/8": PZ1 - PZ2 - PZ3
5 x		3/8": 3 - 4 - 5 - 6 - 8 mm
5 x		3/8": T20 - T30 - T40 - T45 - T50
4 x		3/8": M4 - M5 - M6 - M8
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 -T40
1 x		1/4"
1 x		1/4"
1 x		1/4": 100 mm
2 x		3/8": 75 - 150 mm
2 x		1/2": 125 - 250 mm
3 x		1/4" - 3/8" - 1/2"
2 x		1/2": F1/2" x M 3/8"
3 x		1/4" - 3/8" - 1/2"

CHROME*plus*® universal tool kit set

- 6 point
- FlankTraction Profil
- Removeable plastic storage trays
- Chrome plated and mirror polished
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley

3/8"

			kg
918.0772	172 pcs	CHROME*plus*® universal tool kit set	19.00

16 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 - 22 - 24 mm
2 x		16 - 21 mm
3 x		5,5 - 6,5 - 8 mm
4 x		M4 - M5 - M6 - M8 - M10
5 x		5 - 6 - 7 - 8 - 10 mm
8 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45
2 x		PH1 - PH2
2 x		PZ1 - PZ2
1 x		
1 x		
1 x		200 mm
1 x		3/8"
2 x		75 - 150 mm
1 x		250 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
4 x		6 x 38 mm - 3 x 75 mm 6,5 x 125 mm - 10 x 250 mm
3 x		PH 1 x 75 mm - PH 2 x 100 mm PH 2 x 38 mm
2 x		PZ 1 x 75 mm - PZ 2 x 38 mm
1 x		160 mm
1 x		165 mm
1 x		180 mm
1 x		250 mm
1 x		
1 x		
1 x		10"
1 x		250 mm
1 x		140 mm
1 x		300 g
1 x		
1 x		5 mm

1 x		12 mm
1 x		
1 x		
1 x		100 mm
1 x		max. 2 kg
1 x		102 mm
1 x		
1 x		
1 x		
1 x		
1 x		12,5 x 200 mm

Socket set

- 6 point
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
917.0779	179 pcs	Socket set	9.00

13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 30 - 32 mm
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm
1 x		3/8": 18 mm
2 x		1/2": 16 - 21 mm
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
4 x		1/4": 3 - 4 - 5 - 6 mm
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 TB27 - TB30
5 x		1/4": E4 - E5 - E6 - E7 - E8
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18
2 x		1/2": E20 - E24
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 T20 - T25 - T27 - T30
1 x		1/4": TB7
3 x		1/4": M5 - M6 - M8
5 x		1/4": M5 - M6 - M7 - M8 - M9
8 x		1/4": TS10 - TS15 - TS20 - TS25 TS27 - TS30 - TS40 - TS45
3 x		5/16": 8 - 10 - 12 mm
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 TB60 - TB70

7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 150 mm
1 x		1/4": 110 mm
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
3 x		1/4" - 3/8" - 1/2
1 x		1/4" x 1/4"
1 x		3/8" x 5/16"
1 x		1/2" x 5/16"
1 x		3/8"Fx1/2"M
3 x		1/4" - 3/8" - 1/2

3/8" POINT OF SALE DISPLAYS

Socket display

- 6-point
- FlankTraction-Profil
- Matt finis
- Chrome vanadium
- In point of sale display

3/8"

			kg
911.0340	169 pcs	Socket display	10.50

169 x		16 x (8 mm) 13 x (9 - 10 - 11 - 12 - 13 mm) 11 x (14 mm) 10 x (15 - 16 mm) 9 x (17 - 18 mm) 8 x (19 - 20 - 21 - 22 mm) 7 x (24 mm)

CHROME*plus*® socket display

- 6 point
- FlankTraction Profil
- Chrome plated and mirror polished
- Chrome vanadium
- In point of sale display

3/8"

			kg
918.0340	169 pcs	CHROME*plus*® socket display	10.50

169 x		16 x (8 mm) 13 x (9 - 10 - 11 - 12 - 13 mm) 11 x (14 mm) 10 x (15 - 16 mm) 9 x (17 - 18 mm) 8 x (19 - 20 - 21 - 22 mm) 7 x (24 mm)

Bit socket display

- Matt finis
- Chrome vanadium

3/8"

			kg
911.0350	229 pcs	Bit socket display	13.50

39 x		13 x (5,5 - 6,5 - 8 mm)
39 x		13 x (PH1 - PH2 - PH3)
39 x		13 x (PZ1 - PZ2 - PZ3)
91 x		13 x (TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40)
20 x		10 x (75 mm) 10 x (150 mm)

CHROME*plus*® Bit socket display

- Chrome plated and mirror polished
- Chrome vanadium

3/8"

			kg
918.0350	229 pcs	CHROME*plus*® Bit socket display	13.50

39 x		13 x (5,5 - 6,5 - 8 mm)
39 x		13 x (PH1 - PH2 - PH3)
39 x		13 x (PZ1 - PZ2 - PZ3)
91 x		13 x (TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40)
20 x		10 x (75 mm) 10 x (150 mm)

1/2“ SOCKETS

CLASSIC Hexagonal socket

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g	
917.1340	8,0		13.0	22.0	38.0	14.0	45	
917.1341	9,0		14.0	22.0	38.0	14.0	48	
917.1210	10,0		15.0	22.0	38.0	14.0	48	
917.1211	11,0		16.0	22.0	38.0	14.0	51	
917.1212	12,0		18.0	22.0	38.0	14.0	50	
917.1213	13,0		19.0	22.0	38.0	14.0	54	
917.1214	14,0		20.0	22.0	38.0	14.0	54	
917.1215	15,0		21.0	22.0	38.0	14.0	51	
917.1216	16,0		22.0	21.0	38.0	14.0	48	
917.1217	17,0		24.0	22.0	38.0	14.0	63	
917.1218	18,0		25.0	23.0	38.0	14.0	63	
917.1219	19,0		26.0	23.0	38.0	17.0	63	
917.1220	20,0		28.0	24.0	38.0	17.0	85	
917.1221	21,0		28.0	25.0	38.0	17.0	77	
917.1222	22,0		30.0	26.0	38.0	17.0	90	
917.1223	23,0		32.0	28.0	38.0	17.0	114	
917.1224	24,0		32.0	28.0	38.0	17.0	104	
917.1342	25,0		34.0	30.0	42.0	20.0	130	
917.1343	26,0		36.0	30.0	42.0	20.0	162	
917.1227	27,0		36.0	30.0	42.0	20.0	150	
917.1344	28,0		38.0	32.0	42.0	20.0	167	
917.1345	29,0		38.0	32.0	42.0	20.0	185	
917.1230	30,0		40.0	34.0	44.0	22.0	192	
917.1225	31,0		42.0	36.0	44.0	22.0	254	
917.1232	32,0		42.0	36.0	44.0	22.0	215	
917.1346	34,0		44.0	36.0	45.0	22.0	177	
917.1226	33,0		44.0	36.0	44.0	22.0	531	
917.1347	36,0		48.0	40.0	45.0	22.0	270	
917.1228		5/16”	13.0	22.0	38.0	14.0	45	
917.1229		11/32”	14.0	22.0	38.0	14.0	48	
917.1348		3/8”	15.0	22.0	38.0	14.0	50	
917.1231		13/32””	15.0	22.0	38.0	14.0	50	
917.1349		7/16”	17.0	22.0	38.0	14.0	51	
917.1350		1/2”	19.0	22.0	38.0	14.0	54	
917.1351		9/16”	20.0	22.0	38.0	14.0	54	
917.1352		19/32”	22.0	20.0	38.0	14.0	51	
917.1353		5/8”	22.0	21.0	38.0	14.0	48	
917.1354		11/16”	24.0	22.0	38.0	14.0	63	
917.1355		3/4”	26.0	23.0	38.0	15.0	63	
917.1233		25/32”	26.0	23.0	38.0	17.0	70	
917.1356		13/16”	28.0	26.0	38.0	16.0	77	
917.1357		7/8”	30.0	26.0	38.0	16.0	90	
917.1358		15/16”	32.0	28.0	38.0	17.0	104	
917.1359		1”	34.0	30.0	42.0	20.0	123	
917.1360		1.1/16”	36.0	31.0	42.0	22.0	123	
917.1329		1.1/8”	38.0	33.0	43.0	22.0	268	
917.1234		1.3/16”	40.0	34.0	44.0	22.0	192	
917.1330		1.1/4”	42.0	36.0	44.0	22.0	371	

CLASSIC Hexagonal socket set

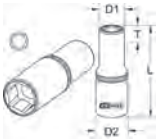
- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
917.0635	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.72	

CLASSIC Hexagonal socket, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium

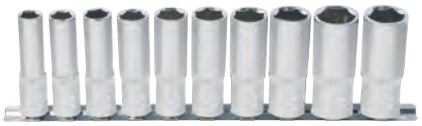


1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g	
917.1240	10,0		16.0	16.0	76.0	14.0	110	
917.1241	11,0		17.0	17.0	76.0	13.0	110	
917.1242	12,0		18.0	18.0	76.0	13.0	110	
917.1243	13,0		20.0	19.0	76.0	13.0	120	
917.1244	14,0		21.0	21.0	76.0	13.0	120	
917.1245	15,0		22.0	22.0	76.0	15.0	140	
917.1246	16,0		23.0	24.0	76.0	15.0	140	
917.1247	17,0		24.0	24.0	76.0	15.0	140	
917.1248	18,0		26.0	26.0	76.0	17.0	150	
917.1249	19,0		27.0	27.0	76.0	17.0	150	
917.1258	20,0		27.0	28.0	76.0	17.0	150	
917.1259	21,0		27.0	28.0	76.0	19.0	190	
917.1252	22,0		28.0	30.0	76.0	19.0	200	
917.1257	24,0		30.0	32.0	76.0	19.0	250	
917.1254	27,0		34.0	36.0	76.0	19.0	280	
917.1255	30,0		35.0	37.0	76.0	21.0	290	
917.1256	32,0		36.0	38.0	76.0	23.0	310	
917.1235	34,0		45.0	36.5	76.0	37.0	430	
917.1201		3/8“	15.0	16.0	76.0	15.0	90	
917.1202		7/16“	17.0	17.0	76.0	13.0	100	
917.1203		1/2“	19.0	19.0	76.0	13.0	120	
917.1205		9/16“	21.0	21.0	76.0	13.0	130	
917.1236		5/8“	22.5	24.0	76.0	16.0	120	
917.1206		11/16“	25.0	24.0	76.0	17.0	150	
917.1207		3/4“	27.0	40.0	76.0	17.0	180	
917.1237		13/16“	28.5	28.5	76.0	22.0	195	
917.1208		7/8“	31.0	30.0	76.0	19.0	240	
917.1204		15/16“	33.0	32.0	76.0	19.0	250	
917.1209		1“	35.0	34.0	76.0	19.0	270	

CLASSIC Hexagonal socket set, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

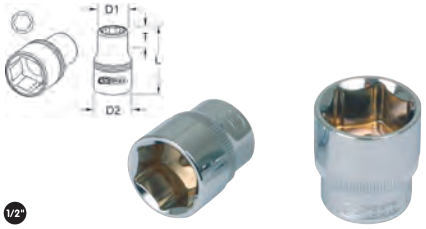


1/2"

			kg	
917.0615	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1.50	

CHROME*plus*® Hexagonal socket

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.1208	8,0		13.0	23.0	38.0	7.0	45
918.1209	9,0		14.0	23.0	38.0	8.0	48
918.1210	10,0		16.0	23.0	38.0	14.0	50
918.1211	11,0		17.0	23.0	38.0	13.0	53
918.1212	12,0		18.0	23.0	38.0	13.0	55
918.1213	13,0		19.0	23.0	38.0	13.0	60
918.1214	14,0		21.0	23.0	38.0	13.0	62
918.1215	15,0		22.0	24.0	40.0	15.0	65
918.1216	16,0		23.0	24.0	40.0	15.0	68
918.1217	17,0		24.0	23.0	40.0	15.0	70
918.1218	18,0		26.0	23.0	40.0	17.0	72
918.1219	19,0		27.0	24.0	40.0	17.0	80
918.1220	20,0		28.0	26.0	40.0	17.0	85
918.1221	21,0		30.0	26.0	42.0	19.0	95
918.1222	22,0		31.0	26.0	42.0	19.0	100
918.1223	23,0		32.0	28.0	42.0	19.0	105
918.1224	24,0		33.0	28.0	42.0	19.0	110
918.1225	25,0		34.0	29.0	42.0	19.0	120
918.1226	26,0		36.0	29.0	42.0	19.0	130
918.1227	27,0		37.0	30.0	42.0	19.0	150
918.1228	28,0		38.0	31.0	43.0	20.0	165
918.1229	29,0		39.0	31.0	43.0	20.0	180
918.1230	30,0		41.0	33.0	43.0	21.0	200
918.1231	31,0		42.5	28.0	47.0	22.0	210
918.1232	32,0		53.0	35.0	45.0	23.0	210
918.1233	33,0		44.0	36.0	45.0	23.0	210
918.1234	34,0		46.0	37.0	45.0	23.0	260
918.1236	36,0		48.0	38.0	45.0	23.0	260
918.1235		5/16"	13.0	23.0	38.0	8.0	48
918.1237		11/32"	14.0	23.0	38.0	15.0	58
918.1301		3/8"	15.0	16.0	16.0	9.0	50
918.1238		13/32""	16.0	23.0	38.0	14.0	50
918.1302		7/16"	16.0	17.0	17.0	9.0	50
918.1303		1/2"	19.0	19.0	19.0	13.0	60
918.1304		9/16"	20.0	21.0	21.0	13.0	60
918.1305		19/32"	22.0	22.0	22.0	14.0	60
918.1306		5/8"	24.0	24.0	24.0	14.0	60
918.1307		11/16"	24.0	24.0	24.0	16.0	70
918.1308		3/4"	27.0	27.0	27.0	16.0	90
918.1239		25/32"	28.0	25.0	40.0	17.0	85
918.1309		13/16"	28.0	28.0	28.0	17.0	90
918.1310		7/8"	30.0	30.0	30.0	18.0	120
918.1311		15/16"	32.0	32.0	32.0	19.0	130
918.1312		1"	34.0	34.0	34.0	19.0	150
918.1313		1.1/16"	36.0	36.0	36.0	20.0	170
918.1314		1.1/8"	38.0	38.0	38.0	20.0	170
918.1255		1.3/16"	41.0	33.0	43.0	21.0	200
918.1315		1.1/4"	40.0	42.0	42.0	21.0	240

CHROME*plus*® Hexagonal socket set

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg
918.0650	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.72

CHROME*plus*® Hexagonal socket, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.1240	10,0		16.0	16.0	76.0	13.0	110
918.1241	11,0		17.0	17.0	76.0	13.0	110
918.1242	12,0		18.0	18.0	76.0	13.0	110
918.1243	13,0		19.0	19.0	76.0	13.0	120
918.1244	14,0		21.0	21.0	76.0	13.0	120
918.1245	15,0		22.0	22.0	76.0	15.0	140
918.1246	16,0		23.0	24.0	76.0	15.0	140
918.1247	17,0		24.0	24.0	76.0	15.0	140
918.1248	18,0		26.0	26.0	76.0	17.0	150
918.1249	19,0		27.0	27.0	76.0	17.0	150
918.1260	20,0		27.0	28.0	76.0	17.0	150
918.1258	21,0		27.0	28.0	76.0	19.0	190
918.1252	22,0		28.0	30.0	76.0	19.0	200
918.1254	24,0		30.0	32.0	76.0	19.0	250
918.1257	27,0		34.0	36.0	76.0	19.0	280
918.1272	30,0		35.0	37.0	76.0	21.0	300
918.1273	32,0		36.0	38.0	76.0	23.0	310
918.1256	34,0		45.0	36.5	76.0	37.0	430
918.1318		3/8"	15.0	16.0	76.0	13.0	90
918.1319		7/16"	17.0	17.0	76.0	13.0	100
918.1320		1/2"	19.0	19.0	76.0	13.0	120
918.1321		9/16"	21.0	21.0	76.0	13.0	130
918.1269		5/8"	22.5	24.0	76.0	16.0	120
918.1322		11/16"	25.0	24.0	76.0	17.0	150
918.1323		3/4"	30.0	27.0	76.0	17.0	180
918.1283		13/16"	28.5	28.5	76.0	22.0	195
918.1324		7/8"	31.0	30.0	76.0	19.0	240
918.1325		15/16"	33.0	32.0	76.0	19.0	250
918.1326		1"	35.0	34.0	76.0	19.0	270

CHROME*plus*® Hexagonal socket set, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg
918.0612	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1.50

12 Point socket

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g
917.1361	8.0		13.0	23.0	38.0	7.0	45
917.1362	9.0		14.0	23.0	38.0	8.0	48
911.1570	10.0		16.0	23.0	38.0	14.0	50
911.1571	11.0		17.0	23.0	38.0	13.0	53
911.1572	12.0		18.0	23.0	38.0	13.0	55
911.1573	13.0		19.0	23.0	38.0	13.0	60
911.1574	14.0		21.0	23.0	38.0	13.0	62
911.1575	15.0		22.0	24.0	40.0	15.0	65
911.1576	16.0		23.0	24.0	40.0	15.0	68
911.1577	17.0		24.0	23.0	40.0	15.0	70
911.1578	18.0		26.0	23.0	40.0	17.0	72
911.1579	19.0		27.0	24.0	40.0	17.0	80
911.1580	20.0		28.0	26.0	42.0	17.0	85
911.1581	21.0		29.0	26.0	42.0	19.0	95
911.1582	22.0		31.0	26.0	42.0	19.0	100
911.1583	23.0		32.0	28.0	42.0	19.0	105
911.1584	24.0		33.0	28.0	42.0	19.0	110
917.1363	25.0		34.0	29.0	42.0	19.0	120
917.1364	26.0		36.0	29.0	42.0	19.0	130
911.1585	27.0		37.0	30.0	42.0	19.0	150
917.1365	28.0		38.0	31.0	43.0	20.0	165
917.1366	29.0		39.0	31.0	43.0	20.0	180
911.1586	30.0		41.0	33.0	43.0	21.0	200
917.1238	31.0		42.5	28.0	47.0	22.0	210
911.1587	32.0		43.0	35.0	45.0	23.0	210
917.1367	33.0		44.0	36.0	45.0	23.0	210
917.1239	34.0		46.0	37.0	45.0	23.0	260
911.1589	36.0		40.0	48.0	45.0	24.0	368
917.1368		5/16"	13.0	23.0	38.0	7.0	45
917.1369		11/32"	14.0	23.0	38.0	8.0	48
917.1370		3/8"	15.0	23.0	38.0	15.0	58
917.1371		13/32"	16.0	23.0	38.0	14.0	50
917.1372		7/16"	17.0	23.0	38.0	13.0	53
917.1373		1/2"	19.0	23.0	38.0	13.0	60
917.1374		9/16"	21.0	23.0	38.0	13.0	62
917.1375		19/32"	22.0	24.0	40.0	15.0	65
917.1376		5/8"	23.0	24.0	40.0	15.0	68
917.1377		11/16"	25.0	23.0	40.0	17.0	70
917.1378		3/4"	27.0	24.0	40.0	17.0	80
917.1379		25/32"	28.0	25.0	40.0	17.0	85
917.1380		13/16"	29.0	26.0	42.0	19.0	95
917.1381		7/8"	31.0	27.0	42.0	19.0	100
917.1382		15/16"	33.0	28.0	42.0	19.0	110
917.1383		1"	35.0	29.0	42.0	19.0	123
917.1384		1. 1/16"	37.0	30.0	42.0	19.0	150
917.1385		1. 1/8"	39.0	31.0	43.0	20.0	180
917.1386		1. 3/16"	41.0	33.0	43.0	21.0	200
917.1387		1. 1/4"	43.0	35.0	45.0	23.0	210

12 Point socket set

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

			kg
911.1285	15 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 mm	1.20

12 Point socket, deep

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g
917.1261	10.0		16.0	23.0	77.0	12.0	88
917.1285	11.0		17.0	17.0	76.0	13.0	110
917.1262	12.0		18.0	23.0	77.0	14.0	102
917.1263	13.0		19.0	23.0	77.0	16.0	109
917.1264	14.0		21.0	23.0	77.0	17.0	112
917.1265	15.0		22.0	23.0	77.0	17.0	105
917.1266	16.0		23.0	24.0	77.0	18.0	98
917.1267	17.0		24.0	24.0	77.0	18.0	140
917.1268	18.0		26.0	25.0	82.0	20.0	145
917.1269	19.0		27.0	26.0	82.0	22.0	139
917.1286	20.0		27.0	28.0	76.0	17.0	150
917.1270	21.0		29.0	29.0	82.0	24.0	156
917.1271	22.0		31.0	29.0	82.0	24.0	200
917.1272	24.0		33.0	29.0	82.0	26.0	250
917.1273	27.0		37.0	30.0	82.0	30.0	268
917.1274	30.0		41.0	33.0	82.0	33.0	333
917.1275	32.0		43.0	35.0	82.0	36.0	371
917.1276	34.0		46.0	37.0	82.0	37.0	455
917.1287		3/8"	15.0	16.0	76.0	13.0	90
917.1288		7/16"	17.0	17.0	76.0	13.0	100
917.1277		1/2"	19.0	23.0	77.0	16.0	109
917.1278		9/16"	21.0	23.0	77.0	17.0	112
917.1279		5/8"	23.0	24.0	77.0	18.0	94
917.1280		11/16"	25.0	25.0	77.0	18.0	122
917.1281		3/4"	27.0	26.0	82.0	22.0	139
917.1282		13/16"	29.0	29.0	82.0	22.0	156
917.1283		7/8"	31.0	29.0	82.0	24.0	179
917.1284		15/16"	33.0	29.0	82.0	26.0	250
917.1289		1"	35.0	34.0	76.0	19.0	270

12 Point socket set, deep

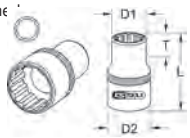
- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

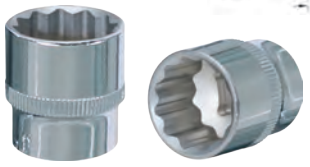
1/2"

			kg	
917.1750	10 pcs	10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 mm	1.50	

CHROME*plus*® 12 Point socket

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polishe
- Chrome vanadium





1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.1316	8.0		13.0	23.0	38.0	7.0	45
918.1327	9.0		14.0	23.0	38.0	8.0	48
918.1328	10.0		16.0	23.0	38.0	14.0	50
918.1329	11.0		17.0	23.0	38.0	13.0	53
918.1331	12.0		18.0	23.0	38.0	13.0	55
918.1332	13.0		19.0	23.0	38.0	13.0	60
918.1333	14.0		21.0	23.0	38.0	13.0	62
918.1334	15.0		22.0	24.0	40.0	15.0	65
918.1337	16.0		23.0	24.0	40.0	15.0	68
918.1338	17.0		24.0	23.0	40.0	15.0	70
918.1339	18.0		26.0	23.0	40.0	17.0	72
918.1341	19.0		27.0	24.0	40.0	17.0	80
918.1342	20.0		28.0	26.0	42.0	17.0	85
918.1343	21.0		29.0	26.0	42.0	19.0	95
918.1344	22.0		31.0	26.0	42.0	19.0	100
918.1345	23.0		32.0	28.0	42.0	19.0	105
918.1346	24.0		33.0	28.0	42.0	19.0	110
918.1347	25.0		34.0	29.0	42.0	19.0	120
918.1348	26.0		36.0	29.0	42.0	19.0	130
918.1351	27.0		37.0	30.0	42.0	19.0	150
918.1352	28.0		38.0	31.0	43.0	20.0	165
918.1353	29.0		39.0	31.0	43.0	20.0	180
918.1354	30.0		41.0	33.0	43.0	21.0	200
918.1355	31.0		42.5	28.0	47.0	22.0	210
918.1356	32.0		43.0	35.0	45.0	23.0	210
918.1357	33.0		44.5	45.0	47.0	22.0	215
918.1359	34.0		46.0	37.0	45.0	23.0	260
918.1361	36.0		48.0	38.0	45.0	23.0	260
918.1362		5/16"	13.0	23.0	38.0	7.0	45
918.1363		11/32"	14.0	23.0	38.0	8.0	48
918.1364		3/8"	15.0	23.0	38.0	15.0	58
918.1366		13/32"	16.0	23.0	38.0	14.0	50
918.1371		7/16"	17.0	23.0	38.0	13.0	53
918.1373		1/2"	19.0	23.0	38.0	13.0	60
918.1375		9/16"	21.0	23.0	38.0	13.0	62
918.1376		19/32"	22.0	24.0	40.0	15.0	65
918.1378		5/8"	23.0	24.0	40.0	15.0	68
918.1379		11/16"	25.0	23.0	40.0	17.0	70
918.1381		3/4"	27.0	24.0	40.0	17.0	80
918.1383		25/32"	28.0	25.0	40.0	17.0	85
918.1384		13/16"	29.0	26.0	42.0	19.0	95
918.1387		7/8"	31.0	27.0	42.0	19.0	100
918.1388		15/16"	33.0	28.0	42.0	19.0	110
918.1389		1"	35.0	29.0	42.0	19.0	123
918.1394		1.1/16"	37.0	30.0	42.0	19.0	150
918.1396		1.1/8"	39.0	31.0	43.0	20.0	180
918.1397		1.3/16"	41.0	33.0	43.0	21.0	200
918.1398		1.1/4"	43.0	35.0	45.0	23.0	210

CHROME*plus*® 12 Point socket set

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
918.0655	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.72	

CHROME*plus*® 12 Point socket, deep

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	mm		D1 mm	D2 mm	L mm	T mm	g
918.1666	10.0		16.0	16.0	76.0	13.0	110
918.1668	11.0		17.0	17.0	76.0	13.0	110
918.1678	12.0		18.0	18.0	76.0	13.0	110
918.1679	13.0		19.0	19.0	76.0	13.0	120
918.1683	14.0		21.0	21.0	76.0	13.0	120
918.1684	15.0		22.0	22.0	76.0	15.0	140
918.1698	16.0		23.0	24.0	76.0	15.0	140
918.1711	17.0		24.0	24.0	76.0	15.0	140
918.1712	18.0		26.0	26.0	76.0	17.0	150
918.1713	19.0		27.0	27.0	76.0	17.0	150
918.1714	20.0		27.0	28.0	76.0	17.0	150
918.1715	21.0		27.0	28.0	76.0	19.0	190
918.1716	22.0		28.0	30.0	76.0	19.0	200
918.1717	24.0		30.0	32.0	76.0	19.0	250
918.1718	27.0		34.0	36.0	76.0	19.0	280
918.1719	30.0		35.0	37.0	76.0	21.0	300
918.1731	32.0		36.0	38.0	76.0	23.0	310
918.1734	34.0		45.0	36.5	76.0	37.0	430
918.1735		3/8"	15.0	16.0	76.0	13.0	90
918.1736		7/16"	17.0	17.0	76.0	13.0	100
918.1737		1/2"	19.0	19.0	76.0	13.0	120
918.1285		9/16"	21.0	21.0	76.0	13.0	109
918.1284		5/8"	22.5	24.0	76.0	16.0	120
918.1286		11/16"	25.0	24.0	76.0	17.0	150
918.1287		3/4"	30.0	27.0	76.0	17.0	180
918.1288		13/16"	28.5	28.5	76.0	22.0	195
918.1289		7/8"	31.0	30.0	76.0	19.0	240
918.1738		15/16"	33.0	32.0	76.0	19.0	212
918.1298		1"	35.0	34.0	76.0	19.0	270

CHROME*plus*® 12 Point socket set, deep

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
918.0660	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0.74	

TX E Socket

- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

		L mm	D1 mm	D2 mm	T mm	g	
911.4333	E10	38.0	14.0	23.0	16.0	50	
911.4334	E11	38.0	14.0	23.0	16.0	50	
911.4335	E12	38.0	16.0	23.0	16.0	55	
911.4336	E14	38.0	17.0	23.0	13.0	55	
911.4322	E16	38.0	19.0	23.0	13.0	60	
911.4323	E18	40.0	21.0	25.0	14.0	65	
911.4324	E20	40.0	24.0	25.0	14.0	70	
911.4325	E22	40.0	26.0	25.0	14.0	80	
911.4326	E24	42.0	29.0	26.0	16.0	85	

TX E Socket set

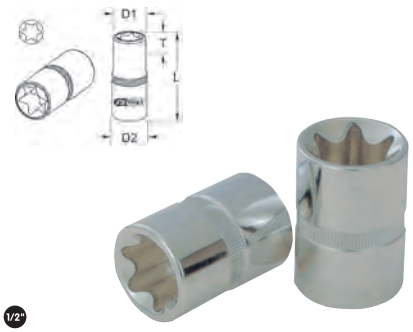
- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- In durable metal case

1/2"

			kg	
911.4410	9 pcs	E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1.00	

CHROME*plus*® TX E Socket

- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

		L mm	D1 mm	D2 mm	T mm	g	
918.1276	E10	38.0	14.0	23.0	16.0	50	
918.1733	E11	38.0	14.0	23.0	16.0	50	
918.1278	E12	38.0	16.0	23.0	16.0	55	
918.1277	E14	38.0	17.0	23.0	13.0	55	
918.1280	E16	38.0	19.0	23.0	13.0	60	
918.1281	E18	40.0	21.0	25.0	14.0	65	
918.1282	E20	40.0	24.0	25.0	14.0	70	
918.1294	E22	40.0	26.0	25.0	14.0	80	
918.1295	E24	42.0	29.0	26.0	16.0	85	

CHROME*plus*® TX E Socket set

- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable metal case

1/2"

			kg	
918.4410	9 pcs	E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1.00	

TX E Socket, deep

- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

		L mm	D1 mm	D2 mm	T mm	g	
911.4423	E10	78.0	14.0	25.0	8.0	100	
911.4424	E11	78.0	15.0	25.0	12.0	100	
911.4425	E12	78.0	16.0	25.0	12.0	110	
911.4426	E14	78.0	17.0	25.0	13.0	100	
911.4427	E16	78.0	18.0	25.0	14.0	115	
911.4428	E18	78.0	20.0	25.0	16.0	130	
911.4429	E20	78.0	24.0	25.0	17.0	160	
911.4430	E22	78.0	26.0	25.0	17.0	195	
911.4431	E24	78.0	28.0	25.0	18.0	230	

TX E Socket set, deep

- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium
- In durable plastic case

1/2"

			kg	
911.4420	8 pcs	E10 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1.00	

CHROME*plus*® TX E Socket, deep

- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

		L mm	D1 mm	D2 mm	T mm	g	
918.1761	E10	78.0	14.0	25.0	8.0	100	
918.1762	E11	78.0	15.0	25.0	12.0	100	
918.1763	E12	78.0	16.0	25.0	12.0	110	
918.1764	E14	78.0	17.0	25.0	13.0	100	
918.1765	E16	78.0	18.0	25.0	14.0	115	
918.1766	E18	78.0	20.0	25.0	16.0	130	
918.1767	E20	78.0	24.0	25.0	17.0	160	
918.1768	E22	78.0	26.0	25.0	17.0	195	
918.1769	E24	78.0	28.0	25.0	18.0	230	

CHROME*plus*® TX E Socket set, deep

- TX E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/2"

			kg	
918.4420	8 pcs	E10 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1.00	

Socket for spark plugs

- DIN 3124 / ISO 3315
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the sparks plugs
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium

	Profile			D1 mm	D2 mm	L mm	T mm	g
911.1590		14,0		22.0	22.0	65.0	16.0	60
911.1205		16,0		22.0	22.0	65.0	26.0	60
911.1512		18,0		26.0	21.0	65.0	23.0	60
911.1206		21,0		28.0	24.0	65.0	26.0	60
911.1513			13/16"	28.0	24.0	65.0	23.0	60
911.1514			5/8"	22.0	22.0	65.0	18.0	60

CHROME*plus*® spark plug-socket

- DIN 3124 / ISO 3315
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the sparks plugs
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

	Profile			D1 mm	D2 mm	L mm	T mm	g
918.1390		14,0		22.0	22.0	65.0	16.0	60
918.1205		16,0		22.0	22.0	65.0	26.0	60
918.1207		18,0		26.0	21.0	65.0	23.0	60
918.1206		21,0		28.0	24.0	65.0	26.0	60
918.1391			5/8"	28.0	24.0	65.0	23.0	60
918.1392			13/16"	22.0	22.0	65.0	18.0	60

1/2" BIT SOCKETS

Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

		D mm	L mm	T mm	g
917.1391	6.5	23.0	60.0	22.0	50
917.1392	8.0	23.0	60.0	22.0	55
917.1393	10.0	23.0	60.0	22.0	60
917.1394	12.0	23.0	60.0	22.0	65
917.1395	14.0	25.0	60.0	20.0	80
917.1396	16.0	28.0	60.0	20.0	95
917.1311	18.0	27.0	60.0	20.0	110

CHROME*plus*® Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

		D mm	L mm	T mm	g
918.1790	7.0	23.0	60.0	22.0	50
918.1791	8.0	23.0	60.0	22.0	55
918.1792	10.0	23.0	60.0	22.0	60
918.1793	12.0	23.0	60.0	22.0	65
918.1794	14.0	25.0	60.0	20.0	80
918.1795	16.0	28.0	60.0	20.0	95
918.1796	18.0	27.0	60.0	20.0	110

Bit socket for phillips screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

		D mm	L mm	T mm	g
917.1397	PH 1	24.0	55.0	18.0	80
917.1398	PH 2	24.0	55.0	18.0	80
917.1399	PH 3	24.0	55.0	18.0	80
917.1301	PH 4	24.0	55.0	18.0	80

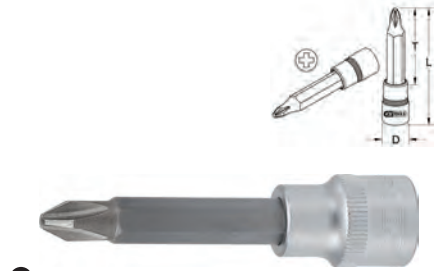
CHROME*plus*® Bit socket for phillips screws PH

- PH
- For Phillips head screw
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

		D mm	L mm	T mm	g
918.1635	PH 1	24.0	55.0	18.0	80
918.1636	PH 2	24.0	55.0	18.0	80
918.1637	PH 3	24.0	55.0	18.0	80
918.1739	PH 4	24.0	55.0	18.0	80

Bit socket for phillips screws PH, long

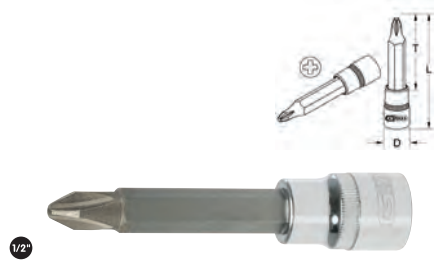
- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
917.1388	PH 1	22.0	110.0	72.0	120
917.1389	PH 2	22.0	110.0	72.0	120
917.1390	PH 3	22.0	110.0	72.0	120
917.1302	PH 4	22.0	110.0	72.0	125

CHROME*plus*® Bit socket for phillips screws PH, long

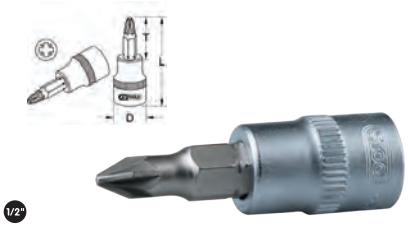
- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.1685	PH 1	22.0	110.0	72.0	120
918.1686	PH 2	22.0	110.0	72.0	120
918.1687	PH 3	22.0	110.0	72.0	120
918.1756	PH 4	22.0	110.0	72.0	125

Bit socket for phillips screws PZ

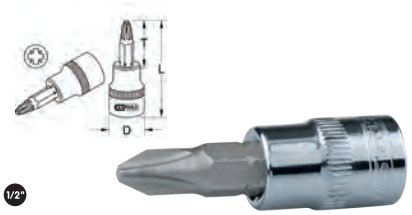
- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
917.1697	PZ 1	24.0	55.0	18.0	80
917.1698	PZ 2	24.0	55.0	18.0	80
917.1699	PZ 3	24.0	55.0	18.0	80
917.1303	PZ 4	24.0	55.0	18.0	85

CHROME*plus*® Bit socket for phillips screws PZ

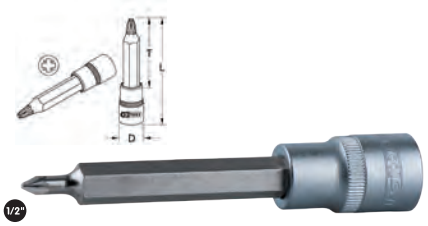
- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.1680	PZ 1	24.0	55.0	18.0	70
918.1681	PZ 2	24.0	55.0	18.0	70
918.1682	PZ 3	24.0	55.0	18.0	70
918.1757	PZ 4	24.0	55.0	18.0	85

Bit socket for phillips screws PZ, long

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- Long execution
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
917.1325	PZ 1	21.0	110.0	72.0	110
917.1326	PZ 2	21.0	110.0	72.0	110
917.1327	PZ 3	21.0	110.0	72.0	110
917.1305	PZ 4	21.0	110.0	72.0	110

CHROME*plus*® Bit socket for phillips screws PZ, long

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- Long execution
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

		D mm	L mm	T mm	g
918.1688	PZ 1	22.0	110.0	72.0	110
918.1689	PZ 2	22.0	110.0	72.0	110
918.1690	PZ 3	22.0	110.0	72.0	110
918.1758	PZ 4	21.0	110.0	72.0	110

Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

	mm		D mm	L mm	T mm	g
911.1304	4,0		22.0	55.0	17.0	90
911.1305	5,0		22.0	55.0	17.0	90
911.1306	6,0		22.0	55.0	17.0	90
911.1307	7,0		22.0	55.0	17.0	90
911.1308	8,0		22.0	55.0	17.0	90
911.1309	9,0		22.0	55.0	17.0	90
911.1310	10,0		22.0	55.0	17.0	90
911.1312	12,0		22.0	55.0	17.0	100
911.1314	14,0		22.0	55.0	17.0	120
911.1317	17,0		22.0	55.0	17.0	150
911.1319	19,0		22.0	55.0	17.0	200
911.1322	22,0		22.0	55.0	17.0	200
911.1324	24,0		22.0	55.0	17.0	200
917.1316		3/16"	22.0	55.0	17.0	60
917.1317		7/32"	22.0	55.0	17.0	70
917.1318		1/4"	22.0	55.0	17.0	70
917.1319		9/32"	22.0	55.0	17.0	70
917.1320		5/16"	22.0	55.0	17.0	85
917.1321		3/8"	22.0	55.0	17.0	90
917.1322		1/2"	22.0	55.0	17.0	100
917.1323		9/16"	22.0	55.0	17.0	110
917.1324		5/8"	22.0	55.0	17.0	150

Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.1320	7 pcs	5 - 6 - 7 - 8 - 10 - 12 - 14 mm	0.65

Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- In durable metal case

			kg
911.1321	9 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm	2.30

CHROME*plus*® Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

	mm		D mm	L mm	T mm	g
918.1604	4,0		22.0	55.0	17.0	70
918.1605	5,0		22.0	55.0	17.0	70
918.1606	6,0		22.0	55.0	17.0	70
918.1607	7,0		22.0	55.0	17.0	70
918.1608	8,0		22.0	55.0	17.0	70
918.1609	9,0		22.0	55.0	17.0	70
918.1610	10,0		22.0	55.0	17.0	80
918.1612	12,0		22.0	55.0	17.0	100
918.1614	14,0		22.0	55.0	17.0	110
918.1617	17,0		22.0	55.0	17.0	150
918.1619	19,0		22.0	55.0	17.0	170
918.1631	22,0		22.0	55.0	17.0	180
918.1633	24,0		22.0	55.0	17.0	190
918.1701		3/16"	22.0	55.0	17.0	60
918.1702		7/32"	22.0	55.0	17.0	70
918.1703		1/4"	22.0	55.0	17.0	70
918.1704		9/32"	22.0	55.0	17.0	70
918.1705		5/16"	22.0	55.0	17.0	85
918.1706		3/8"	22.0	55.0	17.0	90
918.1707		1/2"	22.0	55.0	17.0	100
918.1708		9/16"	22.0	55.0	17.0	110
918.1709		5/8"	22.0	55.0	17.0	150

CHROME*plus*® Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.1335	7 pcs	5 - 6 - 7 - 8 - 10 - 12 - 14 mm	0.65

CHROME*plus*® Bit socket set for hexagon screws

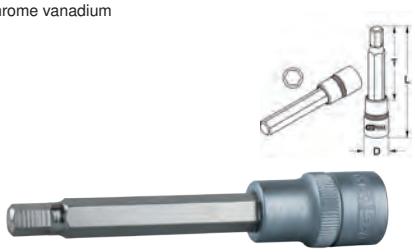
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable metal case

1/2"

			kg	
918.1330	9 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm	2.30	

Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/2"

	mm	D mm	L mm	T mm	g	
917.1331	4,0	22.0	110.0	72.0	120	
911.1325	5,0	22.0	110.0	72.0	120	
911.1326	6,0	22.0	110.0	72.0	120	
911.1327	7,0	22.0	110.0	72.0	120	
911.1328	8,0	22.0	110.0	72.0	120	
911.1329	9,0	22.0	110.0	72.0	120	
911.1330	10,0	22.0	110.0	72.0	120	
911.1332	12,0	22.0	110.0	72.0	140	
917.1332	14,0	22.0	110.0	72.0	180	
911.1337	17,0	22.0	110.0	72.0	260	
911.1339	19,0	22.0	110.0	72.0	400	

Bit socket set for hexagon screws, long

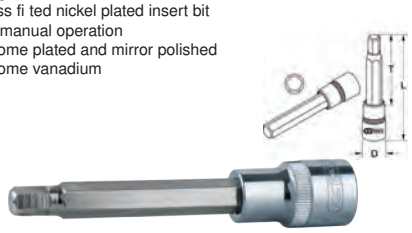
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
911.1336	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm	0.75	

CHROME*plus*® Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

	mm	D mm	L mm	T mm	g	
918.1654	4,0	22.0	110.0	72.0	120	
918.1655	5,0	22.0	110.0	72.0	120	
918.1656	6,0	22.0	110.0	72.0	120	
918.1657	7,0	22.0	110.0	72.0	120	
918.1658	8,0	22.0	110.0	72.0	120	
918.1659	9,0	22.0	110.0	72.0	130	
918.1660	10,0	22.0	110.0	72.0	130	
918.1662	12,0	22.0	110.0	72.0	150	
918.1664	14,0	22.0	110.0	72.0	180	
918.1667	17,0	22.0	110.0	72.0	260	
918.1669	19,0	22.0	110.0	72.0	290	

CHROME*plus*® Bit socket set for hexagon screws, long

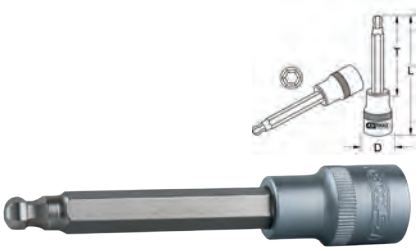
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
918.1336	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm	0.88	

Bit socket for hexagon screws with ball end, long

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/2"

	mm	D mm	L mm	T mm	g	
911.1655	5,0	22.0	110.0	72.0	108	
911.1656	6,0	22.0	110.0	72.0	108	
911.1657	7,0	22.0	110.0	72.0	108	
911.1658	8,0	22.0	110.0	72.0	110	
911.1659	9,0	22.0	110.0	72.0	130	
911.1660	10,0	22.0	110.0	72.0	130	
911.1662	12,0	22.0	110.0	72.0	138	
911.1667	17,0	22.0	110.0	72.0	249	
911.1669	19,0	22.0	110.0	72.0	302	

Bit socket set for hexagon screws, long

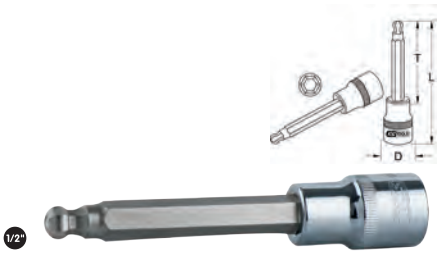
- For Hexagon screws
- With ball end
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
911.1650	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm	0.88	

CHROME*plus*® Bit socket for hexagon screws with ball end, long

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

	mm	D mm	L mm	T mm	g	
918.1771	5,0	22.0	110.0	72.0	104	
918.1772	6,0	22.0	110.0	72.0	105	
918.1773	7,0	22.0	110.0	72.0	106	
918.1774	8,0	22.0	110.0	72.0	107	
918.1775	9,0	22.0	110.0	72.0	130	
918.1776	10,0	22.0	110.0	72.0	130	
918.1777	12,0	22.0	110.0	72.0	138	
918.1778	17,0	22.0	110.0	72.0	248	
918.1779	19,0	22.0	110.0	72.0	300	

CHROME*plus*® Bit socket set for hexagon screws, long

- For Hexagon screws
- With ball end
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
918.1665	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm	0.88	

Bit socket for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

		D mm	L mm	T mm	g
917.1333	T10	22.0	55.0	17.0	80
917.1334	T15	22.0	55.0	17.0	80
911.1361	T20	22.0	55.0	17.0	70
911.1362	T25	22.0	55.0	17.0	700
911.1363	T27	22.0	55.0	17.0	710
911.1364	T30	22.0	55.0	17.0	710
911.1365	T40	22.0	55.0	17.0	730
911.1366	T45	22.0	55.0	17.0	90
911.1367	T50	22.0	55.0	17.0	90
911.1368	T55	22.0	55.0	17.0	770
911.1369	T60	22.0	55.0	17.0	90
911.1370	T70	22.0	55.0	17.0	110

Bit socket set for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- In durable steel storage case

			kg
911.1385	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	1.50

CHROME*plus*® Bit socket for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

		D mm	L mm	T mm	g
918.1620	T10	22.0	55.0	17.0	67
918.1621	T15	22.0	55.0	17.0	67
918.1622	T20	22.0	55.0	17.0	67
918.1623	T25	22.0	55.0	17.0	67
918.1624	T27	22.0	55.0	17.0	67
918.1625	T30	22.0	55.0	17.0	68
918.1626	T40	22.0	55.0	17.0	69
918.1627	T45	22.0	55.0	17.0	70
918.1628	T50	22.0	55.0	17.0	70
918.1629	T55	22.0	55.0	17.0	73
918.1630	T60	22.0	55.0	17.0	86
918.1632	T70	22.0	55.0	17.0	110

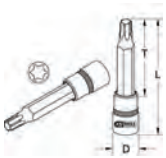
CHROME*plus*® Bit socket set for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable metal case

			kg
918.1385	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	1.50

Bit socket for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



		D mm	L mm	T mm	g
911.1518	T10	22.0	110.0	72.0	100
911.1519	T15	22.0	110.0	72.0	100
911.1521	T20	22.0	110.0	72.0	110
911.1522	T25	22.0	110.0	72.0	110
911.1523	T27	22.0	110.0	72.0	110
911.1524	T30	22.0	110.0	72.0	108
911.1525	T40	22.0	110.0	72.0	110
911.1526	T45	22.0	110.0	72.0	120
911.1527	T50	22.0	110.0	72.0	111
911.1528	T55	22.0	110.0	72.0	120
911.1529	T60	22.0	110.0	72.0	120
911.1517	T70	22.0	110.0	72.0	120

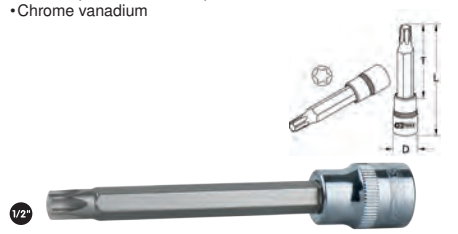
Bit socket set for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg
911.1520	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	1.24

CHROME*plus*® Bit socket for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.1640	T10	22.0	110.0	72.0	120
918.1641	T15	22.0	110.0	72.0	120
918.1642	T20	22.0	110.0	72.0	120
918.1643	T25	22.0	110.0	72.0	120
918.1644	T27	22.0	110.0	72.0	120
918.1645	T30	22.0	110.0	72.0	120
918.1646	T40	22.0	110.0	72.0	120
918.1647	T45	22.0	110.0	72.0	120
918.1648	T50	22.0	110.0	72.0	120
918.1649	T55	22.0	110.0	72.0	130
918.1650	T60	22.0	110.0	72.0	150
918.1651	T70	22.0	110.0	72.0	180

CHROME*plus*® Bit socket set for TX screws, long

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg
918.1317	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	1.24

Bit socket for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

		D mm	L mm	T mm	g
917.1335	TB10	22.0	55.0	17.0	65
917.1336	TB15	22.0	55.0	17.0	66
911.1371	TB20	22.0	55.0	17.0	90
911.1372	TB25	22.0	55.0	17.0	90
911.1373	TB27	22.0	55.0	17.0	90
911.1374	TB30	22.0	55.0	17.0	90
911.1375	TB40	22.0	55.0	17.0	90
911.1376	TB45	22.0	55.0	17.0	90
911.1377	TB50	22.0	55.0	17.0	90
911.1378	TB55	22.0	55.0	17.0	90
911.1379	TB60	22.0	55.0	17.0	90
911.1380	TB70	22.0	55.0	17.0	107

Bit socket set for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- In durable metal case

1/2"

			kg
911.1386	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45- TB50 - TB55 - TB60	1.50

CHROME*plus*® Bit socket for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

		D mm	L mm	T mm	g
918.1720	TB10	18.0	55.0	24.0	80
918.1721	TB15	18.0	55.0	24.0	80
918.1722	TB20	18.0	55.0	24.0	68
918.1723	TB25	18.0	55.0	24.0	68
918.1724	TB27	18.0	55.0	24.0	68
918.1725	TB30	18.0	55.0	24.0	68
918.1726	TB40	18.0	55.0	24.0	69
918.1727	TB45	18.0	55.0	24.0	70
918.1728	TB50	18.0	55.0	24.0	70
918.1729	TB55	18.0	55.0	24.0	72
918.1730	TB60	18.0	55.0	24.0	84
918.1732	TB70	18.0	55.0	24.0	107

CHROME*plus*® Bit socket set for TX tamperproof screws

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium metal steel storage case

1/2"

			kg
918.1386	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45- TB50 - TB55 - TB60	1.50

Bit socket for TX tamperproof screws, long

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

		D mm	L mm	T mm	g
917.1291	TB10	22.0	110.0	72.0	115
917.1292	TB15	22.0	110.0	72.0	115
917.1293	TB20	22.0	110.0	72.0	120
917.1294	TB25	22.0	110.0	72.0	120
917.1295	TB27	22.0	110.0	72.0	120
917.1296	TB30	22.0	110.0	72.0	130
917.1297	TB40	22.0	110.0	72.0	130
917.1298	TB45	22.0	110.0	72.0	130
917.1299	TB50	22.0	110.0	72.0	150
917.1251	TB55	22.0	110.0	72.0	150
917.1253	TB60	22.0	110.0	72.0	150
917.1304	TB70	22.0	110.0	72.0	155

Bit socket set for TX tamperproof screws, long

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

			kg
917.1790	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	1.50

CHROME*plus*® Bit socket for TX tamperproof screws, long

- For tamperproof TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

		D mm	L mm	T mm	g
918.1740	TB10	22.0	110.0	72.0	115
918.1741	TB15	22.0	110.0	72.0	115
918.1742	TB20	22.0	110.0	72.0	120
918.1743	TB25	22.0	110.0	72.0	120
918.1744	TB27	22.0	110.0	72.0	120
918.1745	TB30	22.0	110.0	72.0	130
918.1746	TB40	22.0	110.0	72.0	130
918.1747	TB45	22.0	110.0	72.0	130
918.1748	TB50	22.0	110.0	72.0	150
918.1749	TB55	22.0	110.0	72.0	150
918.1750	TB60	22.0	110.0	72.0	150
918.1759	TB70	22.0	110.0	72.0	155

CHROME*plus*® Bit socket set for TX tamperproof screws, long

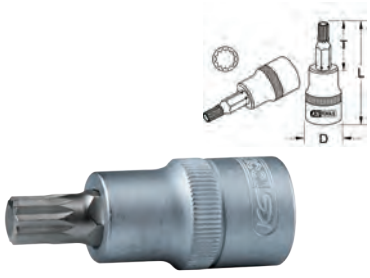
- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg
918.1890	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	1.50

Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
911.1340	M5	22.0	55.0	17.0	80
911.1341	M6	22.0	55.0	17.0	80
911.1347	M7	22.0	55.0	17.0	85
911.1342	M8	22.0	55.0	17.0	90
911.1313	M9	22.0	55.0	17.0	95
911.1343	M10	22.0	55.0	17.0	100
911.1344	M12	22.0	55.0	17.0	100
911.1345	M14	22.0	55.0	17.0	110
911.1346	M16	22.0	55.0	17.0	140

Bit socket for spline (XZN®) screws

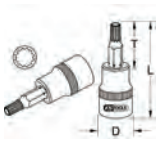
- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

			kg
911.1349	6 pcs	M5 - M6 - M8 - M10 - M12 - M14	0.59

CHROME*plus*® Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g	
918.1671	M5	22.0	55.0	17.0	70	
918.1672	M6	22.0	55.0	17.0	70	
918.1673	M8	22.0	55.0	17.0	70	
918.1797	M9	22.0	55.0	17.0	95	
918.1674	M10	22.0	55.0	17.0	80	
918.1675	M12	22.0	55.0	17.0	100	
918.1676	M14	22.0	55.0	17.0	110	
918.1677	M16	22.0	55.0	17.0	140	

CHROME*plus*® Bit socket set for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
918.1349	6 pcs	M5 - M6 - M8 - M10 - M12 - M14	0.59	

Bit socket for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

		D mm	L mm	T mm	g	
911.1350	M5	22.0	110.0	72.0	107	
911.1351	M6	22.0	110.0	72.0	109	
911.1352	M8	22.0	110.0	72.0	109	
911.1359	M9	22.0	110.0	72.0	112	
911.1353	M10	22.0	110.0	72.0	112	
911.1354	M12	22.0	110.0	72.0	138	
911.1355	M14	22.0	110.0	72.0	179	
911.1356	M16	22.0	110.0	72.0	250	

Bit socket set for spline (XZN®) screws, long

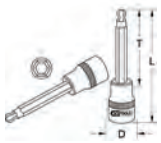
- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
911.1358	6 pcs	M5 - M6 - M8 - M10 - M12 - M14	0.75	

CHROME*plus*® Bit socket for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g	
918.1691	M5	22.0	110.0	72.0	120	
918.1692	M6	22.0	110.0	72.0	120	
918.1693	M8	22.0	110.0	72.0	120	
918.1699	M9	22.0	110.0	72.0	130	
918.1694	M10	22.0	110.0	72.0	120	
918.1695	M12	22.0	110.0	72.0	150	
918.1696	M14	22.0	110.0	72.0	180	
918.1697	M16	22.0	110.0	72.0	190	

CHROME*plus*® Bit socket set for spline (XZN®) screws, long

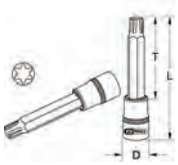
- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

1/2"

			kg	
918.1358	6 pcs	M5 - M6 - M8 - M10 - M12 - M14	0.93	

Bit socket for RIBE® screws, long

- RIBE®
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



1/2"

	D	L mm	D mm	T mm	g	
911.1921	M5	110.0	22.0	10.0	108	
911.1922	M6	110.0	22.0	10.0	108	
911.1923	M7	110.0	22.0	10.0	109	
911.1993	M7	240.0	22.0	10.0	175	
911.1924	M8	110.0	22.0	10.0	109	
911.1994	M8	240.0	22.0	10.0	175	
911.1925	M9	110.0	22.0	10.0	112	
911.1926	M10	110.0	22.0	10.0	112	
911.1980	M10	140.0	22.0	10.0	194	
911.1995	M12	110.0	24.0	14.0	175	
911.1996	M13	110.0	24.0	14.0	175	
911.1997	M14	110.0	24.0	14.0	175	

Bit socket set for RIBE® screws, long

- For tamperproof RIBE® profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

1/2"

				kg	
911.1335	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1.20		

CHROME*plus*® RIBE® Bit socket, long

- For RIBE® profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

	D	D mm	L mm	T mm	g	
918.1806	M5	22.0	110.0	10.0	103	
918.1807	M6	22.0	110.0	10.0	104	
918.1808	M7	22.0	110.0	10.0	105	
918.1811	M7	22.0	240.0	10.0	175	
918.1809	M8	22.0	110.0	10.0	106	
918.1812	M8	22.0	240.0	10.0	175	
918.1810	M9	22.0	110.0	10.0	108	
918.1818	M10	22.0	110.0	10.0	109	
918.1813	M12	24.0	110.0	14.0	175	
918.1814	M13	24.0	110.0	14.0	175	
918.1815	M14	24.0	110.0	14.0	175	

CHROME*plus*® Bit socket set for RIBE® screws, long

- For RIBE® profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg	
918.1340	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1.20	

RIBE® Bit socket for tamperproof screws, long

- For tamperproof RIBE® profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

		D mm	L mm	T mm	g	
911.3951	M5	22.0	110.0	72.0	120	
911.3952	M6	22.0	110.0	72.0	120	
911.3953	M7	22.0	110.0	72.0	120	
911.3954	M8	22.0	110.0	72.0	120	
911.3955	M9	22.0	110.0	72.0	130	
911.3956	M10	22.0	110.0	72.0	130	
911.3957	M12	22.0	110.0	72.0	150	
911.3958	M13	22.0	110.0	72.0	180	
911.3959	M14	22.0	110.0	72.0	180	

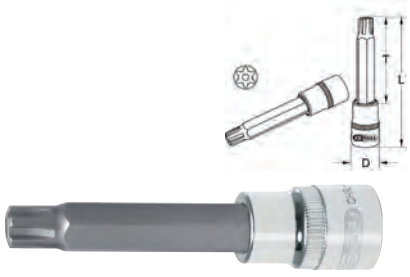
RIBE® Bit socket set for tamperproof screws, long

- For tamperproof RIBE® profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted insert bit
- For manual operation
- Matt finis
- Chrome vanadium
- Includes storage rail

			kg	
911.1630	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1.24	

CHROME*plus*® RIBE® Bit socket for tamperproof screws, long

- For tamperproof RIBE® profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



	D	D mm	L mm	T mm	g	
918.1780	M5	22.0	110.0	72.0	120	
918.1781	M6	22.0	110.0	72.0	120	
918.1782	M7	22.0	110.0	72.0	120	
918.1783	M8	22.0	110.0	72.0	120	
918.1784	M9	22.0	110.0	72.0	130	
918.1785	M10	22.0	110.0	72.0	130	
918.1786	M12	22.0	110.0	72.0	150	
918.1787	M13	22.0	110.0	72.0	180	
918.1788	M14	22.0	110.0	72.0	180	

CHROME*plus*® RIBE® bit socket set for tamperproof screws, long

- For tamperproof RIBE® profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fi ted nickel plated insert bit
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- Includes storage rail

			kg	
918.1895	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1.24	

CHROME*plus*® Bit socket set

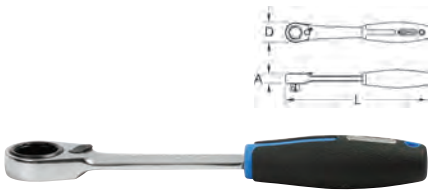
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

			kg	
918.1752	32 pcs	CHROME*plus*® Bit socket set	6.30	
8 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm		
4 x		6 - 8 - 10 - 12 mm		
8 x		T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60		
4 x		T30 - T40 - T50 - T60		
4 x		M5 - M6 - M8 - M10		
4 x		M6 - M8 - M10 - M12		

GO THROUGH SOCKETS

19 mm TRIPLE*plus*® Go through reversing ratchet

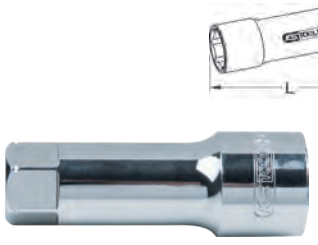
- 19 mm Hexagon drive
- Reversible
- With exact gearing 72 teeth ratchet mechanism
- Extremely slim head
- Dual component handle with soft zone
- Chrome plated and mirror polished
- Chrome vanadium



	A mm	D mm	L mm	g	
918.4051	12.0	34.0	205.0	190	

19 mm TRIPLE*plus*® Go through extension

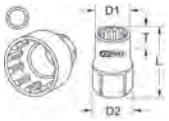
- For manual operation TRIPLEplus® go through reversing ratchet 918.4051
- Chrome plated and mirror polished
- Chrome vanadium



	mm	L mm	g	
918.4052	19,0	75.0	110	

19 mm TRIPLE*plus*® Go through socket

- TRIPLEplus® profil
- For manual operation TRIPLEplus® go through reversing ratchet 918.4051
- Chrome plated and mirror polished
- Chrome vanadium



	mm	L mm	D1 mm	D2 mm	T mm	g
916.4060	10,0	32.0	16.0	16.0	12.0	40
916.4061	11,0	32.0	17.0	17.0	12.0	40
916.4062	12,0	32.0	18.0	18.0	12.0	40
916.4063	13,0	32.0	19.0	19.0	12.0	40
916.4064	14,0	32.0	21.0	21.0	12.0	40
916.4065	15,0	32.0	22.0	22.0	12.0	40
916.4066	16,0	32.0	24.0	24.0	12.0	40
916.4067	17,0	32.0	25.0	25.0	12.0	40
916.4068	18,0	32.0	26.0	26.0	12.0	40
916.4069	19,0	32.0	27.0	27.0	12.0	40
916.4071	21,0	32.0	29.0	29.0	12.0	40
916.4072	22,0	32.0	31.0	31.0	12.0	50
916.4074	24,0	32.0	33.0	33.0	12.0	50

19 mm TRIPLE*plus*® Go through socket adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation TRIPLEplus® go through reversing ratchet 918.4051
- With a push button quick release function
- Chrome plated and mirror polished
- Chrome vanadium

3/8" 1/2"

	□	L mm	g
918.4053	3/8“	28.0	40
918.4054	1/2“	35.0	50

TRIPLE*plus*® Go through socket set

- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

3/8" 1/2"

			kg
916.4050	17 pcs	TRIPLE*plus*® Go through socket set	1.46

13 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm
1 x		75 mm
1 x		19 mm x 3/8“
1 x		19 mm x 1/2“
1 x		19 mm

1/2“ ADAPTERS

Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 5/16" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	■	○	L mm	D1 mm	D2 mm	T mm	g
911.1253	1/2“	5/16“	40.0	16.0	22.0	14.0	50

CHROME*plus*® Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 5/16" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	□	○	L mm	D1 mm	D2 mm	T mm	g
918.1266	1/2“	5/16“	38.0	17.0	22.0	15.0	50

Bit adaptor socket with clamping ring

- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 10 mm bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	■	○	L mm	D1 mm	D2 mm	T mm	g
911.4312	1/2“	10mm	40.0	17.0	22.0	15.0	50
911.4351	1/2“	5/16“	38.0	17.0	22.0	20.0	25

CHROME*plus*® Bit adaptor socket with clamping ring

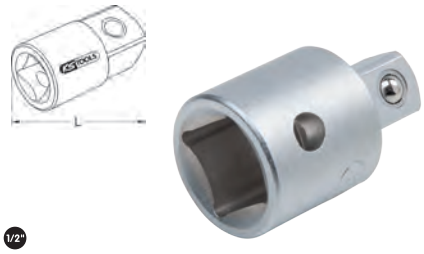
- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 10 mm Bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	□	○	L mm	D1 mm	D2 mm	T mm	g
918.1271	1/2“	10mm	35.0	17.0	22.0	15.0	40
918.4351	1/2“	5/16“	38.0	17.0	22.0	14.0	59

Adaptor and reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium



1/2"

	□	■	L mm	g
911.1233	1/2"	3/8"	46.0	50
911.1234	1/2"	3/4"	46.0	140

Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

CHROME*plus*® Adaptor and reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	□	■	L mm	g
918.1753	1/2"	3/8"	46.0	50
918.1754	1/2"	3/4"	46.0	140

CHROME*plus*® adaptor and reducing adaptor set

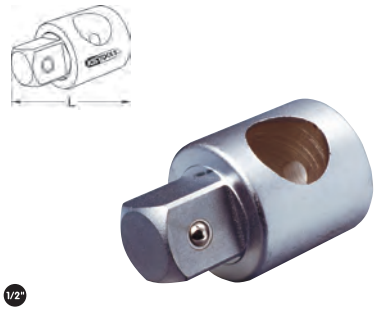
- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

Sliding adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- Also usably as adaptors and/or reducing adaptors
- For manual operation
- Matt finis
- Chrome vanadium

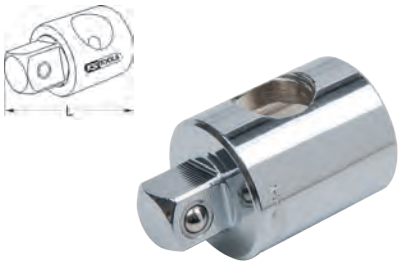


1/2"

	□	■	L mm	g
911.1207	3/8"	1/2"	40.0	60

CHROME*plus*® Sliding adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



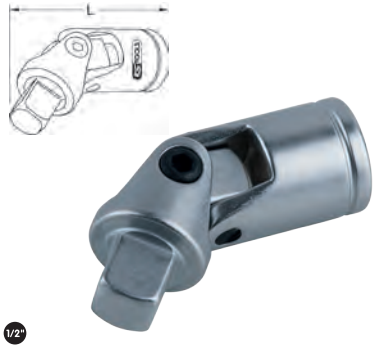
1/2"

	□	■	L mm	g
918.1261	3/8"	1/2"	40.0	70

1/2" UNIVERSAL JOINTS

Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- Matt finis
- Chrome vanadium



1/2"

	□	■	L mm	g
911.1250	1/2"	1/2"	73.0	160

CHROME*plus*® Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	□	■	L mm	g
918.1250	1/2"	1/2"	73.0	170

Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very resistant to breakage
- Can be used by hand or with electric screwdriver
- Matt finis
- Chrome vanadium

1/2"

	□	■	L mm	g
917.1250	1/2"	1/2"	70.0	160

CHROME*plus*® Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very resistant to breakage
- Can be used by hand or with electric screwdriver
- Chrome plated and mirror polished
- Chrome vanadium

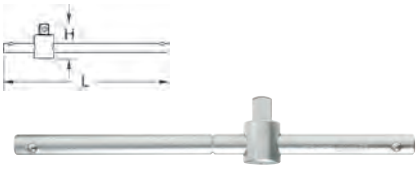
1/2"

	□	■	L mm	g
919.1250	1/2"	1/2"	70.0	160

1/2" T-HANDLES

Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive according to DIN 3120 / ISO 1174 with with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

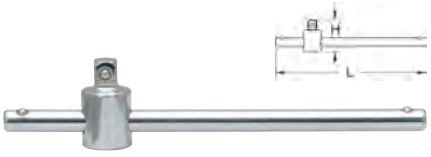


1/2"

	H mm	L mm	g
911.1204	42.0	250.0	440

CHROME*plus*® Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

	H mm	L mm	g
918.1263	42.0	250.0	360

1/2" EXTENSIONS

Extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	L mm	g
911.1235	50.0	100
911.1201	75.0	120
911.1202	125.0	180
911.1315	180.0	260
911.1203	250.0	380
911.1316	305.0	410

Extension set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With hexagon drive
- For manual operation
- Matt finis
- Chrome vanadium

1/4" 3/8" 1/2"

		kg
911.0007	9 pcs Extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm
4 x		3/8" : 45 - 75 - 150 - 200 mm
2 x		1/2" : 125 - 250 mm

CHROME*plus*® Extension

- DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	L mm	g
918.1274	50.0	90
918.1279	75.0	120
918.1202	125.0	180
918.1816	180.0	260
918.1203	250.0	420
918.1817	305.0	410

CHROME*plus*® Extension set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

		kg
918.0007	9 pcs CHROME*plus*® Extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm
4 x		3/8" : 45 - 75 - 150 - 200 mm
2 x		1/2" : 125 - 250 mm

Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	L mm	g
911.1381	50.0	90
911.1382	75.0	120
911.1383	125.0	180
911.1318	180.0	260
911.1384	250.0	340
911.1323	305.0	410

Wobble extension set

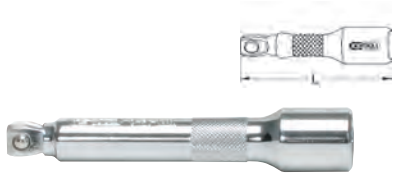
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finis
- Chrome vanadium

1/4" 3/8" 1/2"

		kg
911.0009	9 pcs Wobble extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm
4 x		3/8" : 45 - 75 - 150 - 200 mm
2 x		1/2" : 125 - 250 mm

CHROME*plus*® Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium



1/2"

	L mm	g
918.1264	50.0	90
918.1267	75.0	120
918.1201	125.0	180
918.1661	180.0	260
918.1204	250.0	420
918.1663	305.0	410

CHROME*plus*® Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

			kg
918.0009	9 pcs	CHROME*plus*® Wobble extension set	1.22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 225 mm	
2 x		1/2" : 125 - 250 mm	

CHROME*plus*® Extension with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	L mm	g
919.1201	75.0	130
919.1203	125.0	220
919.1206	250.0	450

CHROME*plus*® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

			kg
919.0123	3 pcs	75 - 125 - 250 mm	0.80

CHROME*plus*® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium

1/4" 3/8" 1/2"

			kg
919.0007	7 pcs	CHROME*plus*® Extension set with interlock	1.24
2 x		1/4" : 100 - 150 mm	
3 x		3/8" : 75 - 150 - 250 mm	
2 x		1/2" : 125 - 250 mm	

1/2" MANUAL DRIVE TOOLS

L-Handle

- DIN 3122 / ISO 3315
- Square drive according to DIN 3120 / ISO 1174 with with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	L mm	g
911.1331	220.0	415

Speed brace

- DIN 3122 / ISO 3315
- Square drive according to DIN 3120 / ISO 1174 with with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

1/2"

	L mm	g
911.1338	400.0	500

CHROME*plus*® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for diffi ult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

		■	L mm	head,spare	g
918.1291	A	1/2"	360.0	918.1292-1	660
918.1297	B	1/2"	460.0	918.1292-1	1115
918.1292	B	1/2"	600.0	918.1292-1	1420
918.1293	B	1/2"	760.0	918.1292-1	1630

1/2" RATCHETS

Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Matt finis
- Chrome vanadium

1/2"

	A mm	D mm	L mm	Repair set	g
911.1200	18.0	42.0	250.0	911.1299	580

CHROME*plus*® Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Chrome plated and mirror polished
- Chrome vanadium

1/2"

	A mm	D mm	L mm	Repair set	g
918.1200	18.0	42.0	250.0	911.1299	580

Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Matt finis
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g	
914.1290	20.5	40.0	250.0	914.1297	700	

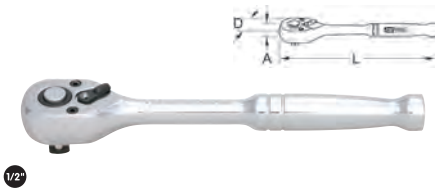
CHROME*plus*® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g	
918.1290	21.0	40.0	250.0	914.1297	600	

CHROME*plus*® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g	
918.1393	21.0	40.0	250.0	914.1297	630	

SlimPOWER Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 710 N•m maximum load
- Reversible
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle with soft zone
- Chrome plated and mirror polished
- Chrome vanadium

	A mm	D mm	L mm	Repair set	g	
920.1290	34.0	32.0	245.0	920.1290-1	356	

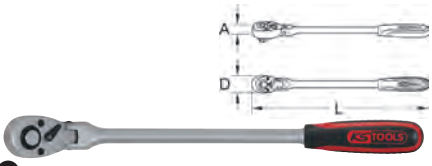
SlimPOWER reversible ratchet set

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle with soft zone
- Chrome plated and mirror polished
- Chrome vanadium

			g	
920.0002	2 pcs	1/4" + 1/2"	430	

Flexibel head reversible ratchet

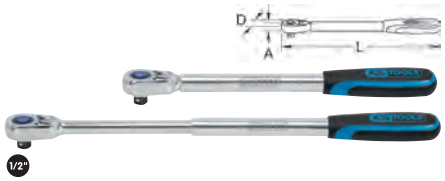
- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Extra long
- 180° revolving head
- Reversible
- Exact gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Recessed reverse lever
- Matt finis
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g	
914.1296	20.0	40.0	440.0	914.1297	800	

CHROME*plus*® Telescopic reversible ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 36-teeth ratchet mechanism
- Infini ely variable
- Ejection mechanism on the ratchet head
- Ergonomic dual component handle
- Chrome plated and mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g	
918.1270	19.0	43.0	380,0-500,0	918.1275	1200	

1/2“ SET ASSORTMENTS

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

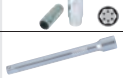
			kg	
911.0620	20 pcs	Socket set	3.30	

15 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 22 - 24 - 27 - 30 - 32 mm
2 x		125 - 250 mm
1 x		1/2“
1 x		1/2“
1 x		250 mm

CHROME*plus*® Socket set

- Imperial sizes
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

			kg	
918.0830	30 pcs	CHROME*plus*® Socket set	3.40	

15 x		3/8“-7/16“-1/2“-9/16“-19/32“-5/8“-11/16“-3/4“ 13/16“-7/8“-15/16“-1“-1.1“/16“-1.1“/8“-1.1“/4“
7 x		1/2“ - 9/16“ - 11/16“ - 3/4“ - 7/8“ 15/16“ - 1“
2 x		5/8“ - 13/16“
2 x		125 - 250 mm
1 x		1/2“
1 x		F1/2“ x M3/8“
1 x		360 mm
1 x		250 mm

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/2"

			kg
918.0625	22 pcs	CHROME*plus*® Socket set	4.75
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
2 x		125 - 250 mm	
1 x		1/2“	
1 x		3/8“ x M1/2“	
1 x		380 - 500 mm	

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable metal case

1/2"

			kg
917.4024	24 pcs	Socket set	5.00
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 32 mm	
2 x		16 - 21 mm	
2 x		125 - 250 mm	
1 x		1/2“	
1 x		1/2“	
1 x		250 mm	

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

1/2"

			kg
918.0635	35 pcs	CHROME*plus*® Socket set	5.75
18 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 mm	
2 x		16 - 21 mm	
2 x		125 - 250 mm	
1 x		1/2“	
1 x		F3/8“ x M1/2“	
1 x		250 mm	

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/2"

			kg
918.0623	23 pcs	CHROME*plus*® Socket set	2.40
18 x		10-11-12-13-14-15-16-17-18-19-20 21-22-24-27-30-32-34 mm	
2 x		125 - 250 mm	
1 x		1/2“	
1 x		3/8“ x M1/2“	
1 x		250 mm	

Socket set

- 12 point
- Matt finis
- Chrome vanadium
- In durable plastic case

1/2"

			kg
911.1595	24 pcs	Socket set	3.00
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
1 x		250 mm	
2 x		125 - 250 mm	
1 x		1/2“	
2 x		16 - 21 mm	
1 x		3/8“F x 1/2“M	

1/2“ SET ASSORTMENTS

TX Socket and bit set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.4301-1	30 pcs	TX Socket and bit set	1.45
5 x		1/4“: E4 - E5 - E6 - E7 - E8	
4 x		3/8“: E10 - E11 - E12 - E14	
5 x		1/2“: E16 - E18 - E20 - E22 - E24	
2 x		3/8“ x 10 mm - 1/2“ x 10mm	
7 x		30 mm (T20 - T25 - T30 - T40 - T45 T50 - T55)	
7 x		75 mm (T20 - T25 - T30 - T40 - T45 T50 - T55)	

TX Bit socket set for TX tamperproof screws

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.4301-2	30 pcs	TX Bit socket set for TX tamper-proof screws	1.45
5 x		1/4": E4 - E5 - E6 - E7 - E8	
4 x		3/8": E10 - E11 - E12 - E14	
5 x		1/2": E16 - E18 - E20 - E22 - E24	
2 x		3/8" x 10 mm - 1/2" x 10mm	
7 x		30 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	
7 x		75 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	

TX Socket set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.4302	31 pcs	TX Socket set	1.40
6 x		1/4": T10 - T15 - T20 - T25 - T27 - T30	
3 x		5/16": T40 - T45 - T50	
3 x		1/4": TB30 x 30 mm - TB25 x 75 mm - TB30 x 75 mm	
2 x		1/2": T55 - T60	
4 x		1/4": E5 - E6 - E7 - E8	
3 x		3/8": E10 - E12 - E14	
3 x		1/2": E16 - E18 - E20	
3 x		1/4" x 1/4" - 3/8" x 5/16" - 1/2" x 5/16"	
4 x		E6 x E8 - E7 x E11 - E10 x E12 E14 x E18 -	

TX Socket and bit set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.4305	57 pcs	TX Socket and bit set	2.00
2 x		3/8" x 10mm - 1/2" x 1/4"	
12 x		1/4": E4 - E5 - E6 - E7 - E8; 3/8": E10 - E11 - E12 - E14;1/2": E16 - E18 - E20	
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	
5 x		M5 - M6 - M8 - M10 - M12	
2 x		8 - 10 mm	
2 x		PH2 - PH3	
5 x		5 - 6 - 7 - 8 - 10 mm	
9 x		T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	
4 x		M6 - M8 - M10 - M12	

Tool kit

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/2"

			kg
911.0650	50 pcs	Tool kit	5.20
9 x		10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 22 mm	
1 x		1/4": PZ1 - PZ2 - T10 - T15 - T20 T25 - T30 - T40	
1 x		21 mm	
1 x		250 mm	
1 x		1/2"	
1 x		1/2"	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		250 mm	
3 x		4,5 - 5,5 - 6,5 mm	
2 x		PH1 - PH2	
1 x		200 mm	
1 x		150 - 250 V	
1 x		240 mm	
1 x		180 mm	
1 x		300 g	
8 x		8 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" - 1/2"

			kg
918.0678	78 pcs	CHROME*plus*® Socket set	6.30
13 x		1/4": 4-4,5-5-5,5-6-7-8-9-10-11-12 13-14 mm	
8 x		1/4": 6-7-8-9-10-11-12-13 mm	
15 x		1/2": 13-14-15-16-17-18-19-20-21-22 24-27-30-32-34 mm	
5 x		1/2": 14-15-17-19-22 mm	
3 x		1/2": 16-18-21 mm	
2 x		1/4": PH1-PH2	
2 x		1/4": PZ1-PZ2	
6 x		1/4": 3-4-5-6-7-8 mm	
7 x		1/4": T10-T15-T20-T25-T27 T30-T40	
6 x		1/4": M4-M5-M6-M7-M8-M10	
1 x		1/4"	
2 x		1/4": 50-100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
1 x		F3/8" x M1/2"	
2 x		1/2": 125-250 mm	
1 x		1/2"	
1 x		1/2": 250 mm	

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" - 1/2"

			kg
918.0694	94 pcs	CHROME*plus*® Socket set	6.38

13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
8 x		1/4“: 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
18 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm
4 x		1/2“: 14 - 15 - 17 - 19 mm
2 x		1/2“: 16 - 21 mm
3 x		1/4“: 4 - 5,5 - 7 mm
2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
4 x		1/4“: 3 - 4 - 5 - 6 mm
6 x		1/4“: TB8 - TB10 - TB15 - TB20 TB25 - TB30
2 x		1/4“: 50 - 100 mm
1 x		1/4“: 150 mm
3 x		5/16“: 8 - 10 - 12 mm
2 x		5/16“: PH3 - PH4
2 x		5/16“: PZ3 - PZ4
4 x		5/16“: 8 - 10 - 12 - 14 mm
4 x		5/16“: T40 - T45 - T50 - T55
1 x		1/4“
1 x		1/4“
1 x		1/4“
1 x		1/4“: 145 mm
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4“
2 x		1/2“: 125 - 250 mm
1 x		F3/8“ x M1/2“
1 x		1/2“
1 x		1/2“ x 5/16“
1 x		1/2“: 250 mm

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In a classy aluminium case

1/4" - 1/2"

			kg
918.0702	102 pcs	CHROME*plus*® Socket set	9.70

13 x		1/4“: 4 - 4,5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
3 x		1/4“: 8 - 10 - 13 mm
13 x		1/2“: 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 - 34 mm
5 x		1/2“: 14 - 15 - 17 - 19 - 22 mm
3 x		1/4“: PH1 - PH2 - PH3
2 x		1/4“: PZ1 - PZ2
4 x		1/4“: 3 - 4 - 5 - 6 mm
7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 - T40
3 x		1/4“: M4 - M5 - M6
3 x		1/4“: E6 - E7 - E8
6 x		1/2“: E10 - E12 - E14 - E16 - E18 E20
2 x		1/2“: 16 - 21 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		5/16“: PZ3
2 x		5/16“: 8 - 10 mm
4 x		5/16“: TB45 - TB50 - TB55 - TB60
3 x		5/16“: M8 - M10 - M12
1 x		1/4“
1 x		1/4“
2 x		1/4“: 50 - 100 mm
2 x		1/2“: 125 - 250 mm
1 x		F3/8“ x M1/2“
1 x		1/2“
1 x		1/2“ x 5/16“
2 x		1/4“ - 1/2“
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm

CHROME*plus*® Socket set

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
918.0724	124 pcs	CHROME*plus*® Socket set	9.50

10 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm
6 x		1/4“: 5 - 6 - 7 - 8 - 9 - 10 mm
11 x		3/8“: 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 mm
8 x		3/8“: E8 - E10 - E11 - E12 - E14 - E16 E18 - E20
8 x		1/2“: 20 - 21 - 22 - 24 - 27 - 30 - 32 34 mm
6 x		1/2“: 10 - 12 - 13 - 14 - 17 - 19 mm
2 x		1/2“: E22 - E24
2 x		1/2“: 16 - 21 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
2 x		3/8“: 4 - 5,5 mm
3 x		3/8“: PH1 - PH2 - PH3
3 x		3/8“: PZ1 - PZ2 - PZ3
5 x		3/8“: 3 - 4 - 5 - 6 - 8 mm
5 x		3/8“: T20 - T30 - T40 - T45 - T50
4 x		3/8“: M4 - M5 - M6 - M8
7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 -T40
1 x		1/4“
1 x		1/4“
1 x		1/4“: 100 mm
2 x		3/8“: 75 - 150 mm
2 x		1/2“: 125 - 250 mm
3 x		1/4“ - 3/8“ - 1/2“
2 x		1/2“: F1/2“ x M 3/8“
3 x		1/4“ - 3/8“ - 1/2“

Socket set

- 6 point
- Matt finis
- Chrome vanadium
- In durable plastic storage case

1/4" 3/8" 1/2"

			kg
917.0779	179 pcs	Socket set	9.00
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 30 - 32 mm
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm
1 x		3/8": 18 mm
2 x		1/2": 16 - 21 mm
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
4 x		1/4": 3 - 4 - 5 - 6 mm
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 TB27 - TB30
5 x		1/4": E4 - E5 - E6 - E7 - E8
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18
2 x		1/2": E20 - E24
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 T20 - T25 - T27 - T30
1 x		1/4": TB7
3 x		1/4": M5 - M6 - M8
5 x		1/4": M5 - M6 - M7 - M8 - M9
8 x		1/4": TS10 - TS15 - TS20 - TS25 TS27 - TS30 - TS40 - TS45
3 x		5/16": 8 - 10 - 12 mm
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 TB60 - TB70
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 150 mm
1 x		1/4": 110 mm
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
3 x		1/4" - 3/8" - 1/2
1 x		1/4" x 1/4"
1 x		3/8" x 5/16"
1 x		1/2" x 5/16"
1 x		3/8"Fx1/2"M
3 x		1/4" - 3/8" - 1/2

CHROME*plus*® Tool kit

- 6 point
- FlankTraction profil
- With removeable plastic storage trays
- Chrome plated and mirror polished
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley

1/4" - 1/2"

		kg
918.0690	90 pcs	CHROME*plus*® Tool kit 10.50
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
10 x		1/2": 15 - 17 - 18 - 19 - 20 - 22 - 24 27 - 30 - 32 mm
2 x		1/2": 16 - 21 mm
1 x		1/4"
2 x		1/4": 50 - 100 mm
1 x		1/4"
1 x		1/4" x 1/4"
1 x		1/4": 185 mm
1 x		1/4"
1 x		1/4": 140 mm
2 x		1/2": 125 - 250 mm
1 x		1/2"
1 x		1/2": F3/8" - M1/2"
1 x		1/2": 250 mm
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
5 x		1/4": PH0 - PH1 - 2 x PH2 - PH3
5 x		1/4": PZ0 - PZ1 - 2 x PZ2 - PZ3
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm
2 x		5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		240 mm
1 x		180 mm

Universal tool kit

- 6 point
- Flank Traction profile
- With 3 drawers and upper insert storage
- Matt finis
- Chrome vanadium
- In durable steel tool chest

1/4" 1/2"

			kg
911.0100	100 pcs	Universal tool kit	19.80
12 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 -9 - 10 11 - 12 - 13 mm
12 x		1/2“: 14 - 15 - 16 - 17 - 18 - 19 - 20 22 - 24 - 27 - 30 - 32 mm
2 x		1/2“: 16 - 21 mm
1 x		1/4“: 911.2060
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
4 x		1/4“: 50 - 100 mm; 1/2“: 125 - 250 mm
2 x		1/4“: 100 mm; 1/2“: 250 mm
1 x		1/4“
2 x		1/4“ - 1/2“
2 x		1/4“: 145 mm; 1/2“: 250 mm
12 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 19 - 22 mm
4 x		4,0 x 100 mm - 4,5 x 100 mm 5,0 x 100 mm - 5,0 x 150 mm
2 x		PH1 x 75 mm - PH2 x 100 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10“

CHROME*plus*® Universal tool set

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable steel tool chest

1/4" 1/2"

			kg
918.0100	99 pcs	CHROME*plus*® Universal tool set	19.50
13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm
3 x		1/4“: 8 - 10 - 13 mm
1 x		1/4“: 50 mm
1 x		1/4“
1 x		1/4“: 110 mm
1 x		1/4“: 140 mm
3 x		1/4“: 4 - 5,5 - 7 mm
2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
6 x		1/4“: 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 - T40
12 x		1/2“: 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 mm
2 x		1/2“: 17 - 19 mm
2 x		1/2“: 16 - 21 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“: F3/8“ x M 1/2“
1 x		1/2“
1 x		1/2“: 250 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		6 x 38 - 3 x 75 - 4 x 100 - 5,5 x 100 6,5 x 125 - 8 x 150 mm
4 x		PH2 x 38 mm - PH1 x 75 mm - PH2 x 100 mm - PH3 x 150 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10“
1 x		250 mm
1 x		300 g

CHROME*plus*® Universal tool set

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable steel tool chest

1/4" - 1/2"

			kg
918.0200	99 pcs	CHROME*plus*® Universal tool set	19.50
13 x		1/4“: 4 - 4,5 - 5 -5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
3 x		1/4“: 8 - 10 - 13 mm
1 x		1/4“: 50 mm
1 x		1/4“
1 x		1/4“: 110 mm
1 x		1/4“: 145 mm
3 x		1/4“: 4 - 4,5 - 7 mm
2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
6 x		1/4“: 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 - T40
12 x		1/2“: 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 mm
2 x		1/2“: 17 - 19 mm
2 x		1/2“: 16 - 21 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“: F3/8“ x M 1/2“
1 x		1/2“
1 x		1/2“: 250 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10“
1 x		250 mm
1 x		300 g

CHROME*plus*® Universal tool set

- With 3 drawers and upper insert storage
- Imperial sizes
- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In durable steel tool chest

1/4" 1/2"

			kg
918.0150	99 pcs	CHROME*plus*® Universal tool set	25.60
13 x		1/4": 5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" 11/32" - 3/8" - 13/32" - 7/16" - 15/32" - 1/2" - 9/16"	
3 x		1/4": 5/16" - 3/8" - 1/2"	
1 x		1/4": 50 mm	
1 x		1/4"	
1 x		1/4": 110 mm	
1 x		1/4": 140 mm	
3 x		1/4": 5/32" - 1/4" - 9/32"	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16"	
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40	
12 x		1/2": 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" 13/16" - 7/8" - 15/16" 1.1/16" - 1.3/16" - 1.1/4"	
2 x		1/2": 11/16" - 3/4"	
2 x		1/2": 16 - 21 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/2": F3/8" x M 1/2"	
1 x		1/2"	
1 x		1/2": 250 mm	
1 x		1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" 7/32" - 1/4" - 5/16" - 3/8"	
12 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" 11/16" - 3/4" - 13/16" - 7/8" - 15/16"	
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm	
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm	
1 x		125 mm	
1 x		180 mm	
1 x		200 mm	
1 x		10"	
1 x		250 mm	
1 x		300 g	

1/2" POINT OF SALE DISPLAYS

Socket display

- Superlock
- Matt finis
- Chrome vanadium

1/2"

			kg
911.0300	311 pcs	Socket display	39.30
228x		38mm: 10x(8-9-11-12-14-15-16-24-27-30-32mm) 20x(10-13-17-19mm) 8x(18mm) 15x(21-22mm)	
83x		75mm: 7x(10-11-12-13-14-15-16-17mm) 6x(18-19mm) 5x(21-22-24mm)	

CHROME*plus*® Socket display

- 6 point
- FlankTraction profil
- Chrome plated and mirror polished
- Chrome vanadium
- In point of sale display

1/2"

			kg
918.0300	311 pcs	CHROME*plus*® Socket display	39.90
228x		38mm: 10x(8-9-11-12-14-15-16-24-27-30-32mm) 20x(10-13-17-19mm) 8x(18mm) 15x(21-22mm)	
83x		75mm: 7x(10-11-12-13-14-15-16-17mm) 6x(18-19mm) 5x(21-22-24mm)	

Bit socket display

- Matt finis
- Chrome vanadium

1/2"

			kg
911.0310	385 pcs	Bit socket display	42.50
80 x		10 x (5-6-7-8-10-12-14-17 mm)	
28 x		7 x (7-8-10-12 mm)	
60 x		10 x (M5-M6-M8-M10-M12-M14)	
28 x		7 x (M8-M10-M12-M14)	
70 x		10 x (T20-T25-T27-T30-T40-T45-T50)	
70 x		10 x (TB20-TB25-TB27-TB30-TB40 TB45-TB50)	
49 x		7 x (T20-T25-T27-T30-T40-T45-T50)	

CHROME*plus*® Bit socket display

- Chrome plated and mirror polished
- Chrome vanadium

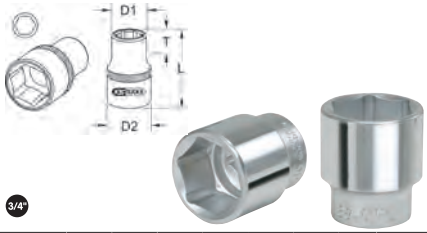
1/2"

			kg
918.0310	385 pcs	CHROME*plus*® Bit socket display	43.70
80 x		10 x (5-6-7-8-10-12-14-17 mm)	
28 x		7 x (7-8-10-12 mm)	
60 x		10 x (M5-M6-M8-M10-M12-M14)	
28 x		7 x (M8-M10-M12-M14)	
70 x		10 x (T20-T25-T27-T30-T40-T45-T50)	
70 x		10 x (TB20-TB25-TB27-TB30-TB40 TB45-TB50)	
49 x		7 x (T20-T25-T27-T30-T40-T45-T50)	

3/4“ SOCKETS

CLASSIC Hexagonal socket

- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For manual operation
- Matt finis
- Chrome vanadium

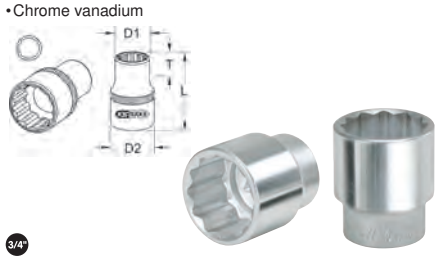


3/4"

	⬡ mm	□	D1 mm	D2 mm	L mm	T mm	g
911.3406	18,0		28.0	36.0	52.0	19.0	210
911.3419	19,0		30.0	36.0	52.0	19.0	210
911.3421	21,0		32.0	36.0	52.0	19.0	220
911.3422	22,0		33.0	36.0	52.0	19.0	220
911.3423	23,0		35.0	38.0	52.0	19.0	220
911.3424	24,0		36.0	38.0	52.0	20.0	220
911.3426	26,0		37.0	36.0	55.0	23.0	220
911.3427	27,0		40.0	36.0	55.0	24.0	230
911.3429	29,0		42.0	36.0	55.0	24.0	260
911.3430	30,0		43.0	38.0	58.0	26.0	290
911.3432	32,0		46.0	38.0	58.0	27.0	300
911.3407	33,0		47.0	40.0	58.0	26.0	355
911.3408	34,0		47.0	40.0	58.0	24.0	360
911.3435	35,0		50.0	40.0	60.0	27.0	400
911.3436	36,0		51.0	40.0	60.0	28.0	430
911.3438	38,0		53.0	41.0	60.0	28.0	490
911.3441	41,0		57.0	44.0	63.0	31.0	540
911.3446	46,0		63.0	44.0	66.0	33.0	630
911.3450	50,0		68.0	48.0	69.0	35.0	840
911.3409	55,0		75.0	53.0	68.0	33.0	960
911.3411	60,0		80.0	53.0	68.0	33.0	1050
911.3413		3/4“	28.0	34.0	50.0	16.0	175
911.3414		13/16“	31.0	35.0	50.0	16.0	190
911.3416		7/8“	33.5	36.0	52.0	19.0	225
911.3418		15/16“	35.0	38.0	52.0	20.0	260
911.3425		1“	38.0	36.0	52.0	22.0	225
911.3428		1.1/16“	40.0	36.0	55.0	24.0	250
911.3431		1.1/8“	41.0	36.0	55.0	24.0	260
911.3433		1.3/16“	43.0	38.0	57.0	24.0	270
911.3437		1.1/4“	45.0	38.0	58.0	26.0	330
911.3439		1.5/16“	47.0	40.0	58.0	26.0	375
911.3442		1.3/8“	50.0	40.0	60.0	28.0	405
911.3443		1.7/16“	51.0	40.0	60.0	28.0	410
911.3444		1.1/2“	53.0	40.0	60.0	28.0	430
911.3445		1.5/8“	57.0	44.0	63.0	30.0	530
911.3447		1.11/16“	59.0	44.0	63.0	30.0	565
911.3448		1.3/4“	61.0	44.0	65.0	32.0	625
911.3449		1.13/16“	63.0	44.0	65.0	32.0	630
911.3451		1.7/8“	65.0	44.0	65.0	32.0	660
911.3452		2“	69.0	48.0	68.0	34.0	810

12 Point socket

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For manual operation
- Matt finis
- Chrome vanadium



3/4"

	⬡ mm	□	D1 mm	D2 mm	L mm	T mm	g
911.3517	18.0		28.0	36.0	52.0	19.0	210
911.3518	19.0		30.0	36.0	52.0	19.0	210
911.3525	21.0		32.0	36.0	52.0	19.0	220
911.3528	22.0		33.0	36.0	52.0	19.0	220
911.3531	23.0		35.0	38.0	52.0	19.0	220
911.3533	24.0		36.0	38.0	52.0	20.0	220
911.3534	26.0		37.0	36.0	55.0	23.0	220
911.3537	27.0		40.0	36.0	55.0	24.0	230
911.3539	29.0		42.0	36.0	55.0	24.0	260
911.3542	30.0		43.0	38.0	58.0	26.0	290
911.3543	32.0		46.0	38.0	58.0	27.0	300
911.3544	33.0		47.0	40.0	58.0	26.0	355
911.3545	34.0		47.0	40.0	58.0	24.0	360
911.3547	35.0		50.0	40.0	60.0	27.0	400
911.3548	36.0		51.0	40.0	60.0	28.0	430
911.3549	38.0		53.0	41.0	60.0	28.0	490
911.3557	41.0		57.0	44.0	63.0	31.0	540
911.3598	46.0		63.0	44.0	66.0	33.0	630
911.3599	50.0		68.0	48.0	69.0	35.0	840
911.3453	55.0		75.0	53.0	68.0	33.0	960
911.3454	60.0		80.0	53.0	68.0	33.0	1050
911.3519		3/4“	29.0	35.0	50.0	16.0	210
911.3521		13/16“	31.0	35.0	51.0	17.0	220
911.3522		7/8“	33.0	35.0	51.0	18.0	220
911.3523		15/16“	34.0	35.0	51.0	19.0	220
911.3524		1“	37.0	38.0	52.0	20.0	220
911.3526		1.1/16“	39.0	38.0	54.0	20.0	220
911.3527		1.1/8“	41.0	38.0	57.0	20.0	230
911.3529		1.3/16“	43.0	38.0	57.0	21.0	260
911.3530		1.1/4“	45.0	38.0	58.0	22.0	290
911.3532		1.5/16“	47.0	40.0	59.0	24.0	300
911.3535		1.3/8“	49.0	40.0	59.0	24.0	400
911.3536		1.7/16“	50.0	40.0	60.0	27.0	430
911.3538		1.1/2“	52.0	41.0	64.0	30.0	490
911.3541		1.5/8“	56.0	40.0	67.0	30.0	540
911.3455		1.11/16“	59.0	44.0	63.0	30.0	565
911.3546		1.3/4“	60.0	40.0	70.0	32.0	630
911.3456		1.13/16“	63.0	44.0	65.0	32.0	630
911.3457		1.7/8“	65.0	44.0	65.0	32.0	660
911.3550		2“	67.0	40.0	80.0	34.0	840

3/4“ BIT SOCKETS

Bit socket for hexagon screws

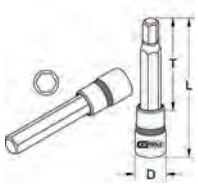
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

3/4"

	⬡ mm	D mm	L mm	T mm	g
911.3458	14,0	38.0	80.0	25.0	350
911.3459	17,0	38.0	80.0	25.0	390
911.3461	19,0	38.0	80.0	25.0	430
911.3462	22,0	38.0	80.0	25.0	480

Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium

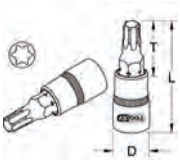


3/4"

	⬡ mm	D mm	L mm	T mm	g
911.3463	14,0	38.0	155.0	100.0	450
911.3464	17,0	38.0	155.0	100.0	540
911.3465	19,0	38.0	155.0	100.0	580
911.3466	22,0	38.0	155.0	100.0	610

Bit socket for TX screws

- TX
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



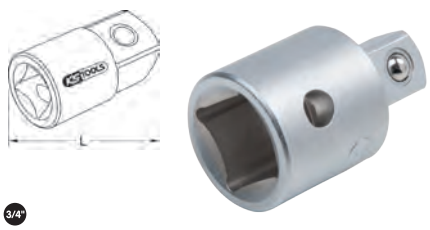
3/4"

		D mm	L mm	T mm	g
911.3467	T60	38.0	80.0	25.0	340
911.3468	T70	38.0	80.0	25.0	380
911.3469	T80	38.0	80.0	25.0	415
911.3471	T90	38.0	80.0	25.0	450
911.3472	T100	38.0	80.0	25.0	460

3/4“ ADAPTERS

Reducing adaptor

- DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

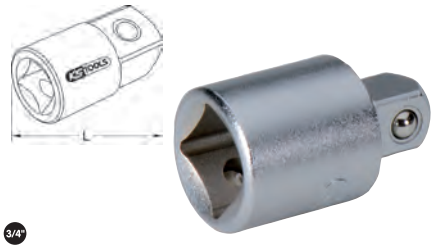


3/4"

	□	■	L mm	g
911.3412	3/4	1/2”	56.0	195

Adaptor and reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium



3/4"

	□	■	L mm	g
911.3473	3/4"	1"	60.0	335

Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium
- In durable plastic case

1/4" 3/8" 1/2"

			kg
911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

CHROME*plus*® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

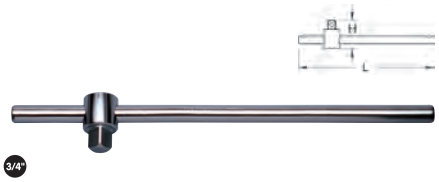
1/4" 3/8" 1/2"

			kg
918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"	0.66

3/4“ T-HANDLES

Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finis
- Chrome vanadium



3/4"

	H mm	L mm	kg
911.3405	16.0	450.0	1.22

3/4“ EXTENSIONS

Extensions

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finis
- Chrome vanadium

3/4"

	L mm	g
911.3402	100.0	420
911.3403	200.0	730
911.3404	400.0	1600

3/4“ MANUAL DRIVE TOOLS

CHROME*plus*® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for diffi ult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Chrome plated and mirror polished
- Chrome vanadium

3/4"

	L mm	head,spare	kg
918.1801	1030.0	918.1801-1	3.80

3/4“ RATCHETS

Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Ergonomic handle
- Matt finis
- Chrome vanadium

3/4"

	A mm	D mm	L mm	Repair set	kg
911.3400	21.0	55.0	500.0	911.3498	1.98

CHROME*plus*® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Knurled handle
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

3/4"

	A mm	D mm	L mm	Repair set	kg
911.3401	30.0	63.0	500.0	911.3499	2.55

CHROME*plus*® Telescopic reversible ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24 teeth ratchet mechanism
- Ejection mechanism on the ratchet head
- Knurled handle
- Recessed reverse lever
- Chrome plated and mirror polished
- Chrome vanadium

3/4"

	A mm	D mm	L mm	Repair set	kg
911.3490	30.0	63.0	510,0-730,0	911.3499	3.35

Reversible ratchet

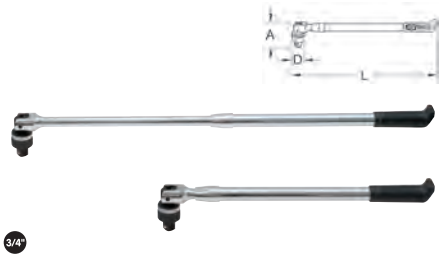
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Maximum load capacity up to 1.750 N•m
- Reversible
- Exact gearing 24 teeth ratchet mechanism
- Extremely substaintial handle bar
- Ejection mechanism on the ratchet head
- Knurled handle
- Recessed reverse lever
- Ideally suited for extreme loads
- Burnished head
- Matt finis
- Chrome vanadium

3/4"

	A mm	D mm	L mm	Repair set	kg	
911.3410	35.0	70.0	1000.0	911.3499	3.00	

Adjustable lengths high torque ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24-teeth ratchet mechanism
- Infini ely variable
- Chrome plated and mirror polished
- Chrome vanadium



3/4"

	■	D mm	L mm	A mm	kg	
918.1805	3/4"	46.0	610-915	96.0	3.00	

3/4" SOCKETS

Socket set

- 6 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- In durable plastic storage case

3/4"

			kg
911.0721	21 pcs	Socket set	14.50
16 x		19 - 21 - 22 - 23 - 24 - 26 - 27 - 29 - 30 32 - 35 - 36 - 38 - 41 -46 - 50 mm	
3 x		100 - 200 - 400 mm	
1 x		450 mm	
1 x		500 mm	

Socket set

- Imperial sizes
- 6 point
- Matt finis
- Chrome vanadium
- In durable plastic case

3/4"

			kg
911.0752	21 pcs	Socket set	14.00
16 x		3/4" - 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.3/16" - 1.1/4" - 1.5/16" - 1.3/8" - 1.7/16" - 1.1/2" - 1.5/8" - 1.3/4" - 2"	
3 x		100 - 200 - 400 mm	
1 x		450 mm	
1 x		500 mm	

Socket set

- Imperial sizes
- 12 point
- Matt finis
- Chrome vanadium
- In durable plastic case

3/4"

			kg
911.0751	21 pcs	Socket set	14.50
16 x		3/4"-13/16"-7/8"-15/16"-1"-1.1/16"-1.1/8"-1.3/16" 1.1/4"-1.5/16-1.3/8"-1.7/16"-1.1/2"-1.5/8"-1.3/4"-2"	
3 x		100 - 200 - 400 mm	
1 x		450 mm	
1 x		500 mm	

Socket set

- 12 point
- FlankTraction profile 12 point)
- Matt finis
- Chrome vanadium
- In durable plastic case

3/4"

			kg
911.0722	21 pcs	Socket set	14.00
16 x		19 - 21 - 22 - 23 - 24 - 26 - 27 - 29 - 30 32 - 35 - 36 - 38 - 41 - 46 - 50 mm	
3 x		100 - 200 - 400 mm	
1 x		450 mm	
1 x		500 mm	

1“ SOCKETS

CLASSIC Hexagonal socket

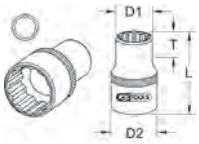
- 6 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For manual operation
- Matt finis
- Chrome vanadium

1"

	mm		D1 mm	D2 mm	L mm	T mm	kg	
911.1036	36,0		51.0	45.0	66.0	25.0	0.51	
911.1038	38,0		54.0	45.0	66.0	26.0	0.54	
911.1041	41,0		57.0	45.0	70.0	30.0	0.55	
911.1046	46,0		65.0	50.0	75.0	30.0	0.80	
911.1050	50,0		70.0	57.0	76.0	31.0	1.00	
911.1054	54,0		74.0	57.0	81.0	32.0	1.10	
911.1055	55,0		76.0	57.0	81.0	32.0	1.20	
911.1058	58,0		79.0	57.0	81.0	32.0	1.26	
911.1060	60,0		82.0	57.0	85.0	40.0	1.40	
911.1063	63,0		86.0	57.0	87.0	40.0	1.50	
911.1065	65,0		88.0	57.0	87.0	40.0	1.63	
911.1067	67,0		90.0	57.0	88.0	40.0	1.70	
911.1070	70,0		94.0	68.0	93.0	44.0	2.00	
911.1071	71,0		95.0	68.0	93.0	45.0	2.10	
911.1075	75,0		100.0	68.0	97.0	45.0	2.20	
911.1077	77,0		101.0	68.0	101.0	50.0	2.25	
911.1080	80,0		105.0	68.0	103.0	51.0	2.25	
911.1022		1.7/16“	55.0	48.0	70.0	30.0	0.60	
911.1023		1.1/2“	56.0	48.0	70.0	30.0	0.65	
911.1024		1.5/8“	60.0	50.0	70.0	30.0	0.70	
911.1025		1.13/16“	66.0	50.0	75.0	33.0	0.83	
911.1026		1.7/8“	68.0	50.0	75.0	33.0	0.89	
911.1027		2“	72.0	50.0	75.0	5.0	0.94	
911.1028		2.1/16“	74.0	50.0	75.0	35.0	0.99	
911.1029		2.3/16“	78.0	50.0	80.0	37.0	1.18	
911.1031		2.1/4“	80.0	50.0	80.0	37.0	1.23	
911.1032		2.3/8“	84.0	50.0	85.0	41.0	1.39	
911.1033		2.7/16“	86.0	50.0	85.0	41.0	1.54	
911.1034		2.9/16“	90.0	59.5	88.0	44.5	1.79	
911.1035		2.5/8“	92.0	59.0	88.0	44.0	1.81	
911.1037		2.3/4“	96.0	59.0	92.0	48.0	2.06	
911.1039		2.13/16“	98.0	60.0	92.0	48.0	2.14	
911.1042		2.15/16“	102.0	60.0	95.0	51.0	2.30	
911.1043		3“	104.0	60.0	95.0	51.0	2.35	
911.1044		3.1/8“	109.0	60.0	97.0	54.0	2.56	

12 Point socket

- 12 point
- FlankTraction profil
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Short execution
- For manual operation
- Matt finis
- Chrome vanadium



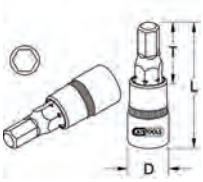
1"

	mm		D1 mm	D2 mm	L mm	T mm	kg	
911.1045	36.0		54.0	48.0	70.0	30.0	0.51	
911.1047	38.0		56.0	48.0	70.0	30.0	0.60	
911.1048	41.0		60.0	50.0	70.0	31.0	0.64	
911.1049	46.0		66.0	50.0	75.0	34.0	0.90	
911.1051	50.0		71.0	50.0	75.0	35.0	1.10	
911.1052	54.0		75.0	50.0	80.0	36.0	1.14	
911.1053	55.0		80.0	50.0	80.0	38.0	1.30	
911.1056	58.0		83.0	50.0	85.0	40.0	1.40	
911.1057	60.0		85.0	50.0	85.0	41.0	1.50	
911.1059	63.0		86.0	60.0	88.0	43.0	1.68	
911.1061	65.0		88.0	60.0	88.0	45.0	1.74	
911.1062	67.0		90.0	60.0	88.0	46.0	1.85	
911.1064	70.0		92.0	60.0	92.0	48.0	2.00	
911.1066	71.0		94.0	60.0	92.0	50.0	2.13	
911.1068	75.0		95.0	60.0	95.0	51.0	2.28	
911.1069	77.0		93.0	60.0	96.0	52.0	2.40	
911.1072	80.0		97.0	60.0	97.0	54.0	2.58	
911.1073		1.7/16“	55.0	48.0	70.0	30.0	0.60	
911.1074		1.1/2“	56.0	48.0	70.0	30.0	0.65	
911.1076		1.5/8“	60.0	50.0	70.0	30.0	0.70	
911.1078		1.13/16“	66.0	50.0	75.0	33.0	0.83	
911.1079		1.7/8“	68.0	50.0	75.0	33.0	0.89	
911.1082		2“	72.0	50.0	75.0	5.0	0.94	
911.1083		2.1/16“	74.0	50.0	75.0	35.0	0.99	
911.1084		2.3/16“	78.0	50.0	80.0	37.0	1.18	
911.1093		2.1/4“	80.0	50.0	80.0	37.0	1.23	
911.1094		2.3/8“	84.0	50.0	85.0	41.0	1.39	
911.1095		2.7/16“	86.0	50.0	85.0	41.0	1.54	
911.1096		2.9/16“	90.0	59.5	88.0	44.5	1.79	
911.1097		2.5/8“	92.0	59.0	88.0	44.0	1.81	
911.1098		2.3/4“	96.0	59.0	92.0	48.0	2.06	
911.0801		2.13/16“	98.0	60.0	92.0	48.0	2.14	
911.0802		2.15/16“	102.0	60.0	95.0	51.0	2.30	
911.0803		3“	104.0	60.0	95.0	51.0	2.35	
911.0804		3.1/8“	109.0	60.0	97.0	54.0	2.56	

1" BIT SOCKETS

Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- Press fi ted nickel plated insert bit
- For manual operation
- Matt finis
- Chrome vanadium



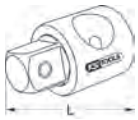
1"

	mm	D mm	L mm	T mm	g	
911.1805	14,0	43.0	85.0	25.0	390	
911.1806	17,0	43.0	85.0	25.0	415	
911.1807	19,0	43.0	85.0	25.0	445	
911.1808	22,0	48.0	90.0	25.0	660	
911.1809	24,0	48.0	90.0	25.0	720	
911.1811	27,0	49.0	90.0	25.0	830	

1“ T-HANDLES

Sliding adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- To the use with extensions
- For manual operation
- Matt finis
- Chrome vanadium



1"

	L mm	g	
911.1081	80.0	640	

Universal handle

- With ball lock
- For manual operation
- Matt finis
- Chrome vanadium

1"

	D mm	L mm	kg	
911.1021	28.0	540.0	2.55	

1“ EXTENSIONS

CHROME*plus*® Extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Chrome plated and mirror polished
- Chrome vanadium

1"

	L mm	kg	
911.1020	200.0	1.33	
911.1040	400.0	2.35	

1/4“ MANUAL DRIVE TOOLS

CHROME*plus*® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for diffi ult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Chrome plated and mirror polished
- Chrome vanadium

1"

	L mm	head,spare	kg	
918.1802	1050.0	918.1802-1	3.80	

1“ RATCHETS

Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24 teeth ratchet mechanism
- Lightweight recessed reverse lever
- Ideally suited for extreme loads
- Burnished head
- With handle
- Chrome plated and mirror polished
- Chrome vanadium

1"

	A mm	D mm	L mm	Replacement handle bar	Repair set	kg	
911.1019	35.0	70.0	210.0	911.1021	911.1099	4.60	

1“ SET ASSORTMENTS

Socket set

- 6 point
- Flank Traction profil
- Matt finis
- Chrome vanadium
- Robust 24 teeth ratchet mechanism
- In durable steel storage case

1"

			kg	
911.0815	15 pcs	36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	29.00	
911.0822	22 pcs	36 - 38 - 41 - 46 - 50 - 54 - 55 - 58 - 60 - 63 - 65 - 67 - 70 - 71 - 75 - 77 - 80 mm	43.50	

Socket set

- 12 point
- FlankTraction profil
- Matt finis
- Chrome vanadium
- Robust 24 teeth ratchet mechanism
- In durable steel storage case

1"

			kg	
911.0814	15 pcs	36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	29.00	
911.0824	22 pcs	36 - 38 - 41 - 46 - 50 - 54 - 55 - 58 - 60 - 63 - 65 - 67 - 70 - 71 - 75 - 77 - 80 mm	43.50	

1/4“ POWER SOCKETS

Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/4"

	mm		L mm	D1 mm	D2 mm	T mm	g	
515.1501	4,0		23.0	10.0	13.0	3.0	12	
515.1502	4,5		23.0	10.0	13.0	3.0	12	
515.1503	5,0		23.0	10.0	13.0	3.0	12	
515.1541	5,5		23.0	10.0	13.0	3.0	14	
515.1542	6,0		23.0	10.0	13.0	3.0	14	
515.1543	7,0		23.0	11.0	13.0	3.0	14	
515.1544	8,0		23.0	12.0	13.0	3.5	14	
515.1545	9,0		23.0	13.0	13.0	4.0	16	
515.1546	10,0		23.0	14.0	13.0	5.0	16	
515.1547	11,0		23.0	16.0	13.0	6.0	19	
515.1548	12,0		23.0	17.0	13.0	6.0	19	
515.1549	13,0		23.0	19.0	13.0	6.0	21	
515.1550	14,0		23.0	20.0	13.0	7.0	21	
515.1552		3/16“	23.0	9.0	13.0	3.0	14	
515.1553		1/4“	23.0	10.0	13.0	3.0	14	
515.1554		5/16“	23.0	13.0	13.0	3.0	14	
515.1505		11/32“	23.0	13.0	10.0	4.0	15	
515.1555		3/8“	23.0	14.0	13.0	4.0	16	
515.1556		7/16“	23.0	16.0	13.0	6.0	19	
515.1525		1/2“	23.0	17.0	14.0	6.0	22	

Spiral profile i pact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Phosphate finis
- Chrome molybdenum

1/4"

	mm	D mm	L mm	g	
913.1473	6,0	17.0	32.0	40	
913.1408	8,0	17.0	32.0	40	
913.1410	10,0	17.0	32.0	40	
913.1470	11,0	17.0	32.0	40	
913.1412	12,0	17.0	32.0	40	

Spiral profile i pact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Drive out pin
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

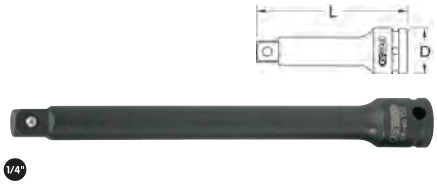
1/4" 1/2"

			kg	
913.1460	15 pcs	Spiral profile i pact socket set	1.10	
8 x		1/2“: 13 - 14 - 15 - 17 - 19 - 21 - 24 - 27 mm		
5 x		1/4“: 6 - 8 - 10 - 11 - 12 mm		
2 x		1/4“		

1/4“ POWER EXTENSIONS

Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum



1/4"

	L mm	D mm	g	
515.1560	50.0	13.0	25	

1/4“ POWER ADAPTERS

Impact socket adapter

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/4"

	□	■	L mm	D mm	g	
515.1530	1/4”	3/8”	26.0	13.0	16	

Impact adaptor and reducing adaptor set

- Ideal set of compilation for adaptors and ball joints
- Chrome molybdenum
- In durable plastic case

1/4" 3/8" 1/2" 3/4"

			kg	
515.0100	9 pcs	Impact adaptor and reducing adaptor set	1.78	
1 x		1/4“F x 3/8“M		
1 x		3/8“F x 1/4“M		
1 x		3/8“F x 1/2“M		
1 x		1/2“F x 3/8“M		
1 x		1/2“F x 3/4“M		
1 x		3/4“F x 1/2“M		
1 x		3/8“		
1 x		1/2“		
1 x		3/4“		

1/4“ POWER SECURING ELEMENTS

O-Ring

- For impact drivers and impact sockets
- For safeguard

1/4"

	for sockets mm	D mm	B mm	g	
515.1403	5,5-17	9.0	3.0	1	

Connection pin for sockets

- For impact drivers and impact sockets
- For safeguard

1/4"

	for sockets mm	D mm	L mm	g	
515.1404	5,5-17	1.5	10.0	1	

3/8“ POWER SOCKETS

Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/8“

	mm		L mm	D1 mm	D2 mm	T mm	g
515.1506	6,0		28.0	11.0	19.0	3.0	32
515.1507	7,0		32.0	12.0	19.0	3.5	32
515.1508	8,0		32.0	14.0	19.0	4.0	32
515.1509	9,0		32.0	15.0	19.0	4.0	32
515.1510	10,0		32.0	16.0	19.0	5.0	33
515.1511	11,0		32.0	17.0	19.0	6.0	35
515.1512	12,0		32.0	18.0	19.0	6.0	35
515.1513	13,0		32.0	20.0	19.0	6.0	46
515.1514	14,0		32.0	21.0	22.0	8.0	46
515.1515	15,0		32.0	22.0	22.0	8.0	50
515.1516	16,0		32.0	24.0	22.0	8.0	54
515.1517	17,0		32.0	24.0	22.0	8.0	54
515.1518	18,0		32.0	26.0	22.0	9.0	62
515.1519	19,0		32.0	28.0	22.0	9.0	70
515.1520	20,0		32.0	28.0	22.0	9.0	70
515.1521	21,0		32.0	30.0	22.0	10.0	70
515.1522	22,0		32.0	32.0	22.0	10.0	83
515.1523	23,0		32.0	32.0	22.0	12.0	120
515.1524	24,0		32.0	34.0	22.0	12.0	130
515.1526		5/16“	26.0	14.5	19.0	3.5	30
515.1527		3/8“	26.0	15.2	19.0	3.5	30
515.1528		7/16“	26.0	16.7	19.0	3.5	35
515.1529		1/2“	27.0	18.5	19.0	3.5	45
515.1551		9/16“	27.0	20.5	22.0	4.0	55
515.1557		7/8“	28.0	22.5	22.0	4.0	60
515.1558		5/8“	290.0	24.5	22.0	4.0	65
515.1559		11/16“	30.0	26.8	22.0	5.0	75
515.1561		3/4“	31.0	28.5	22.0	5.0	85
515.1562		13/16“	32.0	30.0	22.0	5.0	95

Hexagon impact socket set

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- On a socket rail

3/8“

			kg
515.0608	8 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm	1.49

Hexagon impact socket, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/8“

	mm	L mm	D1 mm	D2 mm	T mm	g
515.1606	6,0	63.0	11.0	19.0	4.0	75
515.1607	7,0	63.0	12.0	19.0	4.0	75
515.1608	8,0	63.0	14.0	19.0	4.0	75
515.1609	9,0	63.0	15.0	19.0	4.0	75
515.1610	10,0	63.0	16.0	19.0	5.0	75
515.1611	11,0	63.0	17.0	19.0	6.0	75
515.1612	12,0	63.0	18.0	19.0	6.0	80
515.1613	13,0	63.0	20.0	22.0	6.0	105
515.1614	14,0	63.0	21.0	22.0	8.0	105
515.1615	15,0	63.0	22.0	22.0	8.0	110
515.1616	16,0	63.0	24.0	22.0	8.0	125
515.1617	17,0	63.0	24.0	22.0	8.0	125
515.1618	18,0	63.0	26.0	22.0	9.0	135
515.1619	19,0	63.0	28.0	22.0	9.0	165
515.1620	20,0	63.0	28.0	22.0	9.0	220
515.1621	21,0	63.0	30.0	22.0	10.0	230
515.1622	22,0	63.0	32.0	22.0	10.0	240
515.1623	23,0	63.0	32.0	22.0	12.0	260
515.1624	24,0	63.0	34.0	22.0	12.0	260

Hexagont impact socket set, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- On a socket rail

3/8“

			kg
515.0648	8 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm	1.00

12 point impact socket

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/8“

	mm		L mm	D1 mm	D2 mm	T mm	g
515.1563	6.0		28.0	11.3	19.0	3.0	32
515.1564	7.0		32.0	12.1	19.0	3.5	32
515.0958	8.0		28.0	14.0	19.0	4.0	40
515.0959	9.0		28.0	15.0	19.0	4.0	40
515.0960	10.0		28.0	16.0	19.0	5.0	40
515.0961	11.0		30.0	17.0	19.0	6.0	40
515.0962	12.0		30.0	18.0	19.0	6.0	40
515.0963	13.0		30.0	20.0	22.0	6.0	60
515.0964	14.0		30.0	21.0	22.0	8.0	60
515.0965	15.0		30.0	22.0	22.0	8.0	60
515.0966	16.0		30.0	24.0	22.0	8.0	70
515.0967	17.0		32.0	24.0	22.0	8.0	80
515.0968	18.0		32.0	26.0	22.0	9.0	80
515.0969	19.0		32.0	28.0	22.0	9.0	90
515.1565	20.0		32.0	27.8	22.0	9.0	70
515.1566	21.0		32.0	29.8	22.0	10.0	70
515.1567	22.0		32.0	31.8	22.0	10.0	83
515.1568	23.0		32.0	31.8	22.0	12.0	120
515.1569	24.0		32.0	33.8	22.0	12.0	130
515.1570		5/16“	26.0	14.5	19.0	3.5	30
515.1571		3/8“	26.0	15.2	19.0	3.5	30
515.1572		7/16“	26.0	16.7	19.0	3.5	35
515.1573		1/2“	27.0	18.5	19.0	3.5	45
515.1574		9/16“	27.0	20.5	22.0	4.0	55
515.1575		7/8“	28.0	22.5	22.0	4.0	60
515.1576		5/8“	290.0	24.5	22.0	4.0	65
515.1577		11/16“	30.0	26.8	22.0	5.0	75
515.1578		3/4“	31.0	28.5	22.0	5.0	85
515.1579		13/16“	32.0	30.0	22.0	5.0	95

12 Point impact socket

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

3/8“

			kg
515.0950	10 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm	1.65

Spiral profile i pact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Phosphate finis
- Chrome molybdenum

3/8"

	mm	D mm	L mm	g	
913.3860	10,0	15.0	34.0	30	
913.3861	11,0	16.0	34.0	30	
913.3862	12,0	18.0	34.0	40	
913.3863	13,0	18.5	34.0	40	
913.3864	14,0	20.5	34.0	40	
913.3865	15,0	22.0	34.0	60	
913.3866	16,0	22.5	34.0	60	
913.3867	17,0	24.5	34.0	70	
913.3868	18,0	26.0	34.0	80	
913.3869	19,0	27.0	34.0	80	

Spiral profile i pact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Drive out pin
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

3/8"

			g
913.3855	10 pcs	Spiral profile i pact socket set	660

consists of:

		g	
913.3860	3/8" Spiral profile so ket, 10 mm	30	
913.3861	3/8" Spiral profile so ket, 11 mm	30	
913.3862	3/8" Spiral profile so ket, 12 mm	40	
913.3863	3/8" Spiral profile so ket, 13 mm	40	
913.3864	3/8" Spiral profile so ket, 14 mm	40	
913.3865	3/8" Spiral profile so ket, 15 mm	60	
913.3866	3/8" Spiral profile so ket, 16 mm	60	
913.3867	3/8" Spiral profile so ket, 17 mm	70	
913.3869	3/8" Spiral profile so ket, 19 mm	80	
913.3870	Burr arbor	30	

TX E impact socket

- TX E profil
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/8"

		L mm	D1 mm	D2 mm	T mm	g	
515.0980	E5	30.0	8.0	19.0	4.0	30	
515.0981	E6	30.0	10.0	19.0	5.0	30	
515.0982	E7	30.0	10.0	19.0	6.0	30	
515.0983	E8	30.0	11.0	19.0	6.0	30	
515.0984	E10	30.0	13.0	19.0	8.0	37	
515.0985	E12	30.0	15.0	19.0	9.0	40	
515.0986	E14	30.0	17.0	19.0	10.0	50	

3/8“ POWER EXTENSIONS

Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/8"

	L mm	D mm	g	
515.1534	75.0	19.0	85	
515.1535	150.0	19.0	150	
515.1540	250.0	19.0	250	

3/8“ POWER BALL JOINTS

Impact universal ball joint

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/8"

	□	■	L mm	D mm	g	
515.1533	3/8“	3/8“	53.0	24.0	105	

3/8“ POWER ADAPTERS

Impact adaptor

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/8"

	□	■	L mm	D mm	g	
515.1531	3/8”	1/4”	32.0	22.0	20	
515.1532	3/8”	1/2”	36.0	22.0	62	

Impact adaptor and reducing adaptor set

- Ideal set of compilation for adaptors and ball joints
- Chrome molybdenum
- In durable plastic case

1/4" 3/8" 1/2" 3/4"

			kg	
515.0100	9 pcs	Impact adaptor and reducing adaptor set	1.78	
1 x		1/4“F x 3/8“M		
1 x		3/8“F x 1/4“M		
1 x		3/8“F x 1/2“M		
1 x		1/2“F x 3/8“M		
1 x		1/2“F x 3/4“M		
1 x		3/4“F x 1/2“M		
1 x		3/8“		
1 x		1/2“		
1 x		3/4“		

3/8“ POWER SECURING ELEMENTS

O-Ring

- For impact drivers and impact sockets
- For safeguard

3/8"

	for sockets mm	D mm	B mm	g	
515.1536	6-12	13.0	4.0	10	
515.1537	13-22	16.0	4.0	12	

Connection pin for sockets

- For impact drivers and impact sockets
- For safeguard

3/8"

	for sockets mm	D mm	L mm	g
515.1538	6-12	2.5	14.0	10
515.1539	13-22	2.5	16.0	14

1/2“ POWER SOCKETS

Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	mm		L mm	D1 mm	D2 mm	T mm	g
515.1008	8,0		38.0	15.0	24.0	8.0	57
515.1009	9,0		38.0	16.0	24.0	8.0	60
515.1010	10,0		38.0	17.0	24.0	10.0	60
515.1011	11,0		38.0	18.0	24.0	10.0	62
515.1012	12,0		38.0	20.0	24.0	10.0	64
515.1013	13,0		38.0	21.0	24.0	10.0	67
515.1014	14,0		38.0	22.0	24.0	11.0	69
515.1015	15,0		38.0	23.0	24.0	11.0	74
515.1016	16,0		38.0	25.0	24.0	11.0	72
515.1017	17,0		38.0	26.0	26.0	12.0	89
515.1018	18,0		38.0	27.0	28.0	13.0	111
515.1019	19,0		38.0	28.0	28.0	13.0	100
515.1020	20,0		38.0	30.0	30.0	13.0	121
515.1021	21,0		38.0	30.0	30.0	14.0	125
515.1022	22,0		38.0	32.0	30.0	14.0	130
515.1023	23,0		38.0	34.0	30.0	15.0	140
515.1024	24,0		38.0	34.0	30.0	15.0	138
515.1025	25,0		40.0	36.0	30.0	16.0	157
515.1026	26,0		40.0	38.0	30.0	16.0	158
515.1027	27,0		42.0	38.0	30.0	18.0	158
515.1028	28,0		42.0	40.0	30.0	18.0	189
515.1029	29,0		42.0	40.0	30.0	19.0	176
515.1030	30,0		42.0	42.0	30.0	19.0	202
515.1031	31,0		42.0	42.0	30.0	20.0	223
515.1032	32,0		44.0	44.0	30.0	20.0	226
515.0040		3/8“	38.0	17.0	24.0	9.0	70
515.0041		7/16“	38.0	18.0	24.0	9.0	70
515.0042		1/2“	38.0	21.0	24.0	13.0	75
515.0043		9/16“	38.0	22.0	24.0	13.0	80
515.0044		5/8“	38.0	25.0	24.0	14.0	115
515.0045		11/16“	38.0	26.0	26.0	16.0	120
515.0046		3/4“	38.0	28.0	28.0	16.0	120
515.0047		13/16“	38.0	30.0	30.0	17.0	120
515.0048		7/8“	38.0	32.0	30.0	18.0	130
515.0049		15/16“	38.0	34.0	30.0	19.0	135
515.0050		1“	40.0	36.0	30.0	19.0	140
515.0051		1.1/16“	42.0	38.0	30.0	20.0	180
515.0052		1.1/8“	42.0	40.0	30.0	20.0	200
515.0053		1.1/4“	42.0	44.0	30.0	21.0	220
515.0054		1.5/16“	44.0	44.0	30.0	22.0	230

Hexagon impact socket set

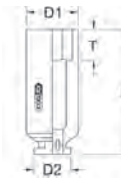
- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
515.0112	12 pcs	Hexagon impact socket set	2.40
10 x		10 - 11 - 13 - 14 - 17 - 19 - 21 - 22 23 - 24 mm	
1 x		1/2“	
1 x		125 mm	

Hexagon impact socket, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum



1/2"

	mm	L mm	D1 mm	D2 mm	T mm	g
515.1108	8,0	78.0	15.0	24.0	12.0	160
515.1109	9,0	78.0	16.0	24.0	12.0	160
515.1110	10,0	78.0	17.0	24.0	12.0	160
515.1111	11,0	78.0	18.0	24.0	13.0	160
515.1112	12,0	78.0	20.0	24.0	14.0	160
515.1113	13,0	78.0	21.0	24.0	14.0	180
515.1114	14,0	78.0	22.0	24.0	14.0	180
515.1115	15,0	78.0	23.0	24.0	15.0	210
515.1116	16,0	78.0	25.0	24.0	16.0	210
515.1117	17,0	78.0	26.0	26.0	17.0	220
515.1118	18,0	78.0	27.0	28.0	18.0	220
515.1119	19,0	78.0	28.0	28.0	20.0	220
515.1120	20,0	78.0	30.0	30.0	20.0	220
515.1121	21,0	78.0	30.0	30.0	22.0	220
515.1122	22,0	78.0	32.0	30.0	22.0	230
515.1123	23,0	78.0	34.0	30.0	24.0	230
515.1124	24,0	78.0	34.0	30.0	24.0	310
515.1125	25,0	78.0	36.0	30.0	24.0	340
515.1126	26,0	78.0	38.0	30.0	27.0	340
515.1127	27,0	78.0	38.0	30.0	27.0	410
515.1128	28,0	78.0	40.0	30.0	27.0	410
515.1129	29,0	78.0	40.0	30.0	27.0	410
515.1130	30,0	78.0	42.0	30.0	30.0	410
515.1131	31,0	78.0	42.0	30.0	31.0	410
515.1132	32,0	78.0	44.0	30.0	32.0	430

Hexagon impact socket set, deep

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- On a magnetic storage rail

1/2"

			kg
515.0612	13 pcs	Hexagon impact socket set, deep	2.69
10 x		12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
1 x		1/2“	
1 x		125 mm	

12 point impact socket

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	mm		L mm	D1 mm	D2 mm	T mm	g
515.0987	8.0		78.0	14.6	25.0	12.0	160
515.0988	9.0		78.0	15.8	25.0	12.0	160
515.0910	10.0		38.0	17.0	24.0	6.0	100
515.0911	11.0		38.0	18.0	24.0	7.0	100
515.0912	12.0		38.0	20.0	24.0	7.0	100
515.0913	13.0		38.0	21.0	24.0	8.0	100
515.0914	14.0		38.0	22.0	24.0	8.0	100
515.0915	15.0		38.0	23.0	24.0	9.0	140
515.0916	16.0		38.0	25.0	24.0	9.0	140
515.0917	17.0		38.0	26.0	26.0	10.0	140
515.0918	18.0		38.0	27.0	28.0	10.0	140
515.0919	19.0		38.0	28.0	28.0	12.0	140
515.0920	20.0		38.0	30.0	30.0	12.0	140
515.0921	21.0		38.0	30.0	30.0	13.0	150
515.0922	22.0		38.0	32.0	30.0	14.0	150
515.0923	23.0		38.0	34.0	30.0	14.0	160
515.0924	24.0		38.0	34.0	30.0	16.0	160
515.0925	25.0		78.0	35.8	30.0	24.0	340
515.0926	26.0		78.0	37.0	30.0	27.0	340
515.0927	27.0		78.0	38.3	30.0	27.0	410
515.0928	28.0		78.0	39.5	30.0	27.0	410
515.0929	29.0		78.0	40.8	30.0	27.0	410
515.0930	30.0		78.0	42.1	30.0	30.0	410
515.0931	31.0		78.0	43.3	30.0	30.0	410
515.0933	32.0		78.0	44.6	30.0	32.0	430
515.0901		3/8“	38.0	17.0	25.0	6.0	70
515.0902		7/16“	38.0	18.5	25.0	8.0	70
515.0903		1/2“	38.0	20.5	25.0	8.0	75
515.0904		9/16“	38.0	23.0	25.0	8.0	80
515.0905		5/8“	38.0	24.5	30.0	9.0	115
515.0906		11/16“	38.0	27.0	30.0	9.0	120
515.0907		3/4“	38.0	28.0	30.0	10.0	120
515.0908		13/16“	38.0	30.0	30.0	12.0	120
515.0909		7/8“	38.0	31.8	30.0	12.0	130
515.0934		15/16“	38.0	33.8	30.0	14.0	135
515.0935		1“	40.0	35.8	30.0	14.0	140
515.0936		1.1/16“	43.0	37.8	30.0	14.0	180
515.0937		1.1/8“	43.0	39.8	30.0	16.0	200
515.0938		1.1/4“	43.0	43.8	30.0	18.0	220
515.0939		1.5/16“	46.0	44.8	30.0	18.0	230

12 Point impact socket set

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
515.0900	13 pcs	10 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 20 - 21 - 22 - 23 - 24 mm	2.80

12 point impact socket, deep

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	○ mm	L mm	D1 mm	D2 mm	T mm	g
515.0940	8.0	78.0	14.0	25.0	12.0	160
515.0941	9.0	78.0	15.8	25.0	12.0	160
515.0942	10.0	78.0	17.0	25.0	12.0	155
515.0943	11.0	78.0	18.4	25.0	13.0	160
515.0944	12.0	78.0	16.6	25.0	14.0	160
515.0945	13.0	78.0	18.4	25.0	12.0	160
515.0946	14.0	78.0	20.8	25.0	12.0	185
515.0947	15.0	78.0	23.3	30.0	15.0	210
515.0948	16.0	78.0	24.6	25.0	13.0	210
515.0949	17.0	78.0	25.8	30.0	17.0	230
515.0951	18.0	78.0	27.1	30.0	18.0	240
515.0952	19.0	78.0	28.3	30.0	20.0	250
515.0953	20.0	78.0	29.5	30.0	20.0	260
515.0954	21.0	78.0	30.8	30.0	22.0	275
515.0955	22.0	78.0	32.3	30.0	22.0	300
515.0956	23.0	78.0	33.3	30.0	24.0	230
515.0957	24.0	78.0	34.6	30.0	24.0	370
515.0971	25.0	78.0	35.8	30.0	24.0	340
515.0972	26.0	78.0	37.0	30.0	27.0	340
515.0973	27.0	78.0	38.3	30.0	27.0	430
515.0974	28.0	78.0	39.5	30.0	27.0	410
515.0975	29.0	78.0	40.8	30.0	27.0	410
515.0976	30.0	85.0	42.1	30.0	27.0	510
515.0977	31.0	85.0	43.3	30.0	31.0	410
515.0978	32.0	85.0	44.6	30.0	32.0	560

12 Point impact socket set, deep

- 12 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- On a magnetic storage rail

1/2"

			kg
515.1140	13 pcs	12 Point impact socket set, deep	2.70
10 x		12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
1 x		1/2"	
1 x		125 mm	

TX E impact socket, short

- TX E
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

		L mm	D1 mm	D2 mm	T mm	g
911.0958	E10	38.0	13.5	25.0	8.0	80
911.0959	E12	38.0	15.5	25.0	10.0	80
911.0961	E14	38.0	17.5	25.0	10.0	85
911.0962	E16	38.0	19.6	25.0	10.0	85
911.0963	E18	38.0	21.7	30.0	11.0	85
911.0964	E20	38.0	23.8	30.0	11.0	85
911.0969	E24	38.0	28.3	30.0	11.0	90

Impact socket set, short

- TX-E
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- Includes storage rail

1/2"

			kg
515.1106	7 pcs	E10 - E12 - E14 - E16 - E18 - E20 - E24	1.45

TX E impact socket, deep

- TX E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

		L mm	D1 mm	D2 mm	T mm	g
515.1051	E10	75.0	13.0	22.0	8.0	150
515.1052	E11	75.0	14.0	22.0	21.0	150
515.1053	E12	75.0	16.0	22.0	21.0	150
515.1054	E14	75.0	16.0	22.0	18.0	170
515.1055	E16	75.0	19.0	22.0	20.0	180
515.1056	E18	75.0	20.0	22.0	19.0	200
515.1057	E20	75.0	24.0	22.0	20.0	240
515.1058	E22	75.0	26.0	24.0	34.0	280
515.1059	E24	75.0	28.0	26.0	21.0	320

Impact socket set

- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
515.1050	9 pcs	E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1.97

Spiral profile i pact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Phosphate finis
- Chrome molybdenum

1/2"

	mm	L mm	g
913.1469	12,0	34.0	40
913.1468	13,0	34.0	50
913.1467	14,0	34.0	70
913.1466	15,0	34.0	70
913.1465	17,0	34.0	70
913.1464	19,0	34.0	90
913.1249	19,0	50.0	90
913.1250	20,0	50.0	110
913.1463	21,0	34.0	90
913.1252	22,0	50.0	120
913.1253	23,0	50.0	130
913.1462	24,0	34.0	110
913.1255	25,0	50.0	150
913.1461	27,0	34.0	110

Spiral profile i pact socket set, extra deep

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Drive out pin
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			g
913.1240	6 pcs	Spiral profile i pact socket set, extra deep	690

consists of:

		g
913.1249	1/2" Spiral-Profil -Socket, 19 mm	90
913.1250	1/2" Spiral-Profil -Socket, 20 mm	110
913.1252	1/2" Spiral-Profil -Socket, 22 mm	120
913.1253	1/2" Spiral-Profil -Socket, 23 mm	130
913.1255	1/2" Spiral-Profil -Socket, 25 mm	150

Spiral profile i pact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Drive out pin
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/4" 1/2"

			kg
913.1460	15 pcs	Spiral profile i pact socket set	1.10
8 x		1/2": 13 - 14 - 15 - 17 - 19 - 21 - 24 - 27 mm	
5 x		1/4": 6 - 8 - 10 - 11 - 12 mm	
2 x		1/4"	

1/2" WHEEL ASSEMBLY SOCKETS

Spiral profile i pact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Phosphate finis
- Chrome molybdenum

1/2"

			g
913.1270	3 pcs	Spiral profile i pact socket set	600

consists of:

		g
913.1271	1/2" Spiral profile i pact socket 17 mm	140
913.1272	1/2" Spiral profile i pact socket 19 mm	200
913.1273	1/2" Spiral profile i pact socket 21 mm	210

Spiral profile i pact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile wi h aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firm y to give a firm onnection between stuck nut and head
- Phosphate finis
- Chrome molybdenum

1/2"

			g
913.1280	3 pcs	Spiral profile i pact socket set	600

consists of:

		g
913.1281	1/2" Spiral profile i pact socket 17 mm	130
913.1282	1/2" Spiral profile i pact socket 19 mm	170
913.1283	1/2" Socket Extension, 75 mm	160

Spiral profile i pact socket set, extra deep

- For example VAG and all vehicles with wheel nuts and/or bolt
- For loosening and unscrewing tight bolts and nuts with damaged or rounded heads
- Extra long execution 145 mm
- Internal square to DIN 3121 / ISO 1174 with ball reception
- For machinery usage
- Includes impact bar to extract or remove the damaged bolt or nut
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
913.1290	4 pcs	Spiral profile i pact socket set, extra deep	1.50

consists of:

		g
913.1291	1/2" Spiral profile i pact socket 17 mm	300
913.1292	1/2" Spiral profile i pact socket 19 mm	320
913.1293	1/2" Spiral profile i pact socket 21 mm	340
913.1295	Impact bar	540

Hexagon impact socket set, deep

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- Includes storage rail

1/2"

			kg
515.0103	3 pcs	17 - 19 - 21 mm	0.86

Aluminium wheel impact socket, deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Chrome vanadium

1/2"

	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	g
515.2015		15,0	85.0	21.0	25.0	23.0	515.2035	180
515.2017		17,0	85.0	24.0	30.0	23.0	515.2030	231
515.2019		19,0	85.0	26.0	30.0	23.0	515.2031	235
515.2021		21,0	85.0	28.0	30.0	23.0	515.2032	258
515.2022		22,0	85.0	30.0	32.0	23.0	515.2033	320

Aluminium wheel impact socket set, deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square to DIN 3121 / ISO 1174 with ball reception
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Chrome vanadium
- In durable plastic case

1/2"

			kg
515.1005	3 pcs	17 - 19 - 21 mm	0.86
515.1006	4 pcs	17 - 19 - 21 - 22 mm	1.45
515.1007	5 pcs	15 - 17 - 19 - 21 - 22 mm	1.40

Aluminium wheel impact socket, extra deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Chrome vanadium

1/2"

	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	g
515.2040		17,0	150.0	28.0	30.0	31.0	515.2045	600
515.2041		19,0	150.0	29.5	30.0	31.0	515.2046	650
515.2042		21,0	150.0	31.0	30.0	31.0	515.2047	700

Aluminium wheel impact socket set, extra deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Chrome vanadium
- In durable plastic case

1/2"

			kg
515.1040	6 pcs	Aluminium wheel impact socket set, extra deep	1.45
3 x		17 mm - 19 mm - 21 mm	
3 x		17 mm - 19 mm - 21 mm	

Special aluminium wheel impact socket, extra deep

- Specially for the wheel assembly and/or dismantling on aluminium sports wheels with deep lying wheel screws
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long and thin walled execution
- For machinery usage
- Plastic sleeves for the damage free work on aluminum rims
- Plastic sleeves interchangeable
- Phosphate finis
- Chrome molybdenum

	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	g
515.2043	17,0	130.0	28.0	30.0	19.0	515.2044	350

Aluminium wheel impact socket, deep

- Robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Phosphate finis
- Chrome molybdenum

1/2"

	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	g
515.1072		15,0	85.0	24.4	25.0	23.0	515.2053	150
515.1073		17,0	85.0	26.5	30.0	23.0	515.2050	220
515.1075		19,0	85.0	28.5	30.0	23.0	515.2051	235
515.1076		21,0	85.0	30.5	30.0	23.0	515.2052	257
515.1077		22,0	85.0	31.6	32.0	23.0	515.2054	262

Aluminium wheel impact socket set, deep

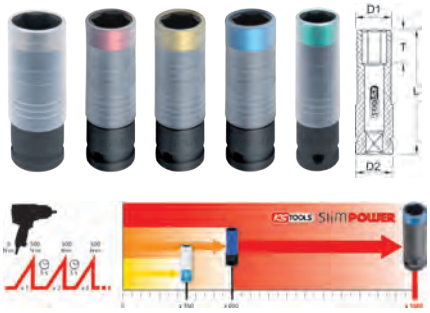
- Robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
515.1070	3 pcs	17 - 19 - 21 mm	0.78

SlimPOWER Alloy rim impact socket, deep

- Very robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Phosphate finis
- Chrome molybdenum



1/2"

	Colour code	mm	L mm	D1 mm	D2 mm	T mm	g
515.0991		15,0	86.0	24.5	23.5	20.0	155
515.0992		17,0	86.0	26.0	25.5	20.0	220
515.0993		19,0	86.0	26.0	27.5	20.0	207
515.0994		21,0	86.0	26.0	29.5	20.0	251
515.0995		22,0	86.0	32.0	30.0	20.0	266

SlimPOWER Alloy rim impact socket set, deep

- Very robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifi s the socket size
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			g
515.0989	2 pcs	17 - 19 mm	404
515.0990	3 pcs	17 - 19 - 21 mm	791

1/2" POWER BIT SOCKETS

Impact bit socket, hexagon

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	mm	L mm	D mm	g
911.0903	5,0	38.0	25.0	70
911.0904	6,0	38.0	25.0	72
911.0905	8,0	38.0	25.0	77
911.0906	10,0	38.0	25.0	80
911.0907	12,0	38.0	30.0	135
911.0908	14,0	43.0	30.0	145
911.0909	17,0	43.0	30.0	155
911.0911	19,0	43.0	30.0	155

Impact bit socket set for hexagon screws, short

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- Includes storage rail

1/2"

			kg
515.1102	6 pcs	8 - 10 - 12 - 14 - 17 - 19 mm	1.45
515.1103	4 pcs	5 - 6 - 8 - 10 mm	1.00

Impact bit socket for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	mm	L mm	D mm	g
911.0925	5,0	75.0	25.0	90
911.0926	6,0	75.0	25.0	92
911.0927	8,0	75.0	25.0	102
911.0928	10,0	75.0	25.0	130
911.0929	12,0	75.0	25.0	136
911.0930	14,0	75.0	25.0	136
911.0931	17,0	75.0	25.0	140
911.0932	19,0	75.0	25.0	210

Impact bit socket set for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- Includes storage rail

1/2"

			kg
515.1104	6 pcs	8 - 10 - 12 - 14 - 17 - 19 mm	1.70
515.1105	4 pcs	5 - 6 - 8 - 10 mm	1.35

Impact universal bit socket for internal hexangonal screws

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	mm	L mm	D mm	T mm	g
911.0966	6,0	75.0	28.0	39.0	170
911.0967	7,0	75.0	28.0	39.0	170
911.0968	8,0	75.0	28.0	39.0	170
911.0970	10,0	75.0	28.0	39.0	180
911.0972	12,0	75.0	28.0	39.0	180
911.0974	14,0	75.0	28.0	39.0	190
911.0977	17,0	75.0	28.0	39.0	210
911.0979	19,0	75.0	28.0	39.0	230

Impact universal bit socket set

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
911.0960	6 pcs	8 - 10 - 12 - 14 - 17 - 19 mm	1.48
911.0965	4 pcs	6 - 7 - 8 - 10 mm	1.03

Impact socket for TX® screws, short

- TX
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

		L mm	D mm	g
911.0912	T30	57.0	25.0	75
911.0913	T40	57.0	25.0	77
911.0914	T45	57.0	25.0	80
911.0924	T50	57.0	25.0	82
911.0933	T55	57.0	25.0	84
911.0955	T60	60.0	25.0	90
911.0956	T70	60.0	25.0	93
911.0957	T80	60.0	25.0	95

Impact bit socket set for TX screws, short

- TX
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			g
515.1107	8 pcs	T30 - T40 - T45 - T50 - T55 - T60 - T70 - T80	850

Impact socket for TX® screws, long

- TX
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

		L mm	D mm	g
911.0915	T30	75.0	25.0	100
911.0916	T40	75.0	25.0	83
911.0917	T45	75.0	25.0	110
911.0918	T50	75.0	25.0	133
911.0919	T55	75.0	25.0	145
911.0920	T60	75.0	25.0	160
911.0921	T70	75.0	25.0	180
911.0922	T80	75.0	25.0	200

Impact bit socket set for TX screws, long

- TX
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
911.0901	8 pcs	T30 - T40 - T45 - T50 - T55 - T60 - T70 - T80	1.05

Impact socket for RIBE® screws, long

- For RIBE® screws
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

		L mm	D mm	g
911.0935	M5	75.0	25.0	90
911.0936	M6	75.0	25.0	90
911.0937	M7	75.0	25.0	90
911.0938	M8	75.0	25.0	90
911.0939	M9	75.0	25.0	90
911.0940	M10	75.0	25.0	100
911.0941	M12	75.0	25.0	110
911.0942	M13	75.0	25.0	120
911.0943	M14	75.0	25.0	130

Impact bit socket set for RIBE® screws, long

- RIBE®
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
911.0934	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1.10

Impact bit socket for spline(XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

		L mm	D mm	T mm	g
911.0945	M4	75.0	25.0	45.0	90
911.0946	M5	75.0	25.0	45.0	90
911.0947	M6	75.0	25.0	45.0	90
911.0948	M8	75.0	25.0	45.0	90
911.0949	M9	75.0	25.0	45.0	100
911.0950	M10	75.0	25.0	45.0	100
911.0951	M12	75.0	25.0	45.0	110
911.0952	M14	75.0	25.0	45.0	130
911.0953	M16	75.0	25.0	45.0	150

Impact bit socket set for spline(XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
911.0944	9 pcs	M 4 - M 5 - M 6 - M 8 - M 9 - M10 - M12 - M14 - M16	1.14

1/2“ POWER EXTENSIONS

Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	L mm	D mm	g
515.1134	75.0	25.0	220
515.1135	125.0	25.0	425
515.1136	250.0	25.0	440

Torque bar extension

- Ideal for controlled loosening of wheel screws and nuts with impact wrenches
- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174
- For machinery usage
- Colour coded identifi s the max. torque
- Chrome molybdenum

1/2"

	Colour code	max N•m	L mm	D mm	g
515.1061		90	195.0	25.0	270
515.1062		100	195.0	25.0	270
515.1063		110	195.0	25.0	270
515.1064		120	195.0	25.0	270
515.1065		135	195.0	25.0	270

Torsion extension bar set, extra long

- Ideal for controlled loosening of wheel screws and nuts with impact wrenches
- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174
- For machinery usage
- Colour coded identifi s the max. torque
- Chrome molybdenum
- In durable plastic case

1/2"

			kg
515.1060	5 pcs	90 - 100 - 110 - 120 - 135 N•m	1.37

1/2“ POWER BALL JOINTS

Impact universal ball joint

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	□	■	L mm	D mm	g
515.1133	1/2"	1/2"	67.0	28.0	159

1/2“ POWER ADAPTERS

Impact adaptor

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1/2"

	□	■	L mm	D mm	g
515.1143	1/2“	3/8“	38.0	25.0	72
515.1144	1/2“	3/4“	48.0	30.0	165

Impact adaptor and reducing adaptor set

- Ideal set of compilation for adaptors and ball joints
- Chrome molybdenum
- In durable plastic case

1/4" 3/8" 1/2" 3/4"

			kg
515.0100	9 pcs	Impact adaptor and reducing adaptor set	1.78

1 x		1/4“F x 3/8“M
1 x		3/8“F x 1/4“M
1 x		3/8“F x 1/2“M
1 x		1/2“F x 3/8“M
1 x		1/2“F x 3/4“M
1 x		3/4“F x 1/2“M
1 x		3/8“
1 x		1/2“
1 x		3/4“

1/2“ POWER SECURING ELEMENTS

O-Ring

- For impact drivers and impact sockets
- For safeguard

1/2"

	for sockets mm	D mm	B mm	g
515.1137	6-12	19.0	4.0	10
515.1138	15-32	24.0	4.0	12

Connection pin

- For impact drivers and impact sockets
- For safeguard

1/2"

	for sockets mm	D mm	L mm	g
515.1141	6-12	3.0	20.0	10
515.1142	15-32	3.0	26.0	14

3/4“ POWER SOCKETS

Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/4"

	mm		L mm	D1 mm	D2 mm	T mm	g
515.1317	17,0		50.0	30.0	44.0	7.0	230
515.1318	18,0		50.0	31.0	44.0	7.0	230
515.1319	19,0		50.0	33.0	44.0	9.0	230
515.1320	20,0		50.0	34.0	44.0	11.0	240
515.1321	21,0		50.0	35.0	44.0	11.0	240
515.1322	22,0		50.0	36.0	44.0	14.0	250
515.1323	23,0		50.0	38.0	44.0	14.0	250
515.1324	24,0		50.0	39.0	44.0	14.0	250
515.1325	25,0		50.0	40.0	44.0	14.0	270
515.1326	26,0		50.0	41.0	44.0	14.0	270
515.1327	27,0		53.0	43.0	44.0	14.0	280
515.1328	28,0		53.0	44.0	44.0	15.0	320
515.1329	29,0		53.0	45.0	44.0	15.0	320
515.1330	30,0		53.0	46.0	44.0	15.0	370
515.1331	31,0		53.0	48.0	44.0	15.0	380
515.1332	32,0		56.0	49.0	44.0	15.0	380
515.1333	33,0		56.0	51.0	44.0	18.0	410
515.1334	34,0		56.0	51.0	44.0	18.0	410
515.1335	35,0		56.0	53.0	44.0	18.0	470
515.1336	36,0		56.0	54.0	44.0	18.0	470
515.1337	37,0		57.0	55.0	44.0	18.0	470
515.1338	38,0		57.0	57.0	44.0	18.0	470
515.1341	41,0		57.0	60.0	44.0	22.0	590
515.1346	46,0		62.0	66.0	44.0	24.0	770
515.1350	50,0		72.0	71.0	54.0	30.0	970
515.1355	55,0		74.0	78.0	54.0	30.0	1250
515.1360	60,0		75.0	84.0	54.0	30.0	1600
515.1365	65,0		78.0	88.0	54.0	33.0	1650
515.1370	70,0		83.0	96.0	54.0	35.0	1920
515.1386		13/16“	52.0	32.0	38.0	11.0	240
515.1387		7/8“	52.0	34.0	38.0	11.0	250
515.1388		15/16“	52.0	36.0	38.0	13.0	250
515.1389		1“	52.0	38.0	38.0	13.0	260
515.1390		1.1/16“	52.0	40.0	40.0	16.0	280
515.1391		1.1/8“	52.0	42.0	42.0	16.0	330
515.1392		1.1/4“	52.0	46.0	44.0	16.0	370
515.1393		1.5/16“	56.0	48.0	44.0	18.0	410
515.1394		1.3/8“	56.0	50.0	44.0	18.0	440
515.1395		1.7/16“	56.0	52.0	44.0	18.0	450
515.1396		1.1/2“	56.0	53.0	44.0	18.0	460
515.1397		1.5/8“	62.0	58.0	44.0	23.0	590
515.1398		1.11/16“	62.0	64.0	44.0	23.0	700
515.1399		1.3/4“	62.0	65.0	44.0	23.0	750
515.1401		1.7/8“	68.0	68.0	44.0	27.0	790
515.1402		2“	72.0	71.0	54.0	30.0	880

Hexagon impact socket set

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable metal case

3/4"

			kg
515.0510	8 pcs	24 - 27 - 29 - 30 - 32 - 33 - 34 - 36 mm	4.20

Hexagon impact socket set

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic case

3/4"

			kg
515.0208	8 pcs	26 - 27 - 29 - 30 - 32 - 35 - 36 - 38 mm	3.50

Hexagon impact socket, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/4"

	mm	L mm	D1 mm	D2 mm	T mm	g
515.1417	17,0	90.0	30.0	44.0	12.0	390
515.1418	18,0	90.0	31.0	44.0	12.0	590
515.1419	19,0	90.0	33.0	44.0	12.0	600
515.1420	20,0	90.0	34.0	44.0	12.0	610
515.1421	21,0	90.0	35.0	44.0	12.0	630

	mm	L mm	D1 mm	D2 mm	T mm	g
515.1422	22,0	90.0	37.0	44.0	19.0	640
515.1423	23,0	90.0	38.0	44.0	19.0	640
515.1424	24,0	90.0	39.0	44.0	19.0	640
515.1425	25,0	90.0	40.0	44.0	19.0	640
515.1426	26,0	90.0	41.0	44.0	19.0	650
515.1427	27,0	90.0	43.0	44.0	19.0	650
515.1428	28,0	90.0	44.0	44.0	19.0	650
515.1429	29,0	90.0	45.0	44.0	19.0	660
515.1430	30,0	90.0	46.0	44.0	19.0	680
515.1431	31,0	90.0	48.0	44.0	19.0	730
515.1432	32,0	90.0	49.0	44.0	19.0	740
515.1433	33,0	90.0	51.0	44.0	19.0	770
515.1434	34,0	90.0	51.0	44.0	19.0	790
515.1435	35,0	90.0	53.0	44.0	19.0	820
515.1436	36,0	90.0	54.0	44.0	19.0	840
515.1437	37,0	90.0	55.0	44.0	19.0	860
515.1438	38,0	90.0	56.0	44.0	19.0	880
515.1441	41,0	90.0	60.0	44.0	56.0	970
515.1443	43	90.0	63.2	44.0	56.0	1150
515.1446	46,0	90.0	66.0	44.0	56.0	1260
515.1450	50,0	90.0	71.0	54.0	56.0	1650

Hexagon impact socket, extra deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

	mm	L mm	D1 mm	D2 mm	T mm	kg
515.1182	27,0	270.0	42.0	44.0	27.0	1.09
515.1183	30,0	270.0	46.0	44.0	30.0	1.14
515.1184	32,0	270.0	49.0	44.0	32.0	1.16
515.1191	27,0	400.0	42.0	44.0	27.0	1.25
515.1192	30,0	400.0	46.0	44.0	30.0	1.32
515.1193	32,0	400.0	49.0	44.0	32.0	1.36
515.1194	33,0	400.0	50.0	44.0	32.0	1.38

TX E impact socket

- TX E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

		L mm	D1 mm	D2 mm	T mm	g
455.0081	E28	90.0	33.0	42.0	25.0	556

TX E impact socket, deep

- TX E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

		L mm	g
455.0012	E18	110.0	620
455.0013	E20	110.0	670

TX E impact socket, deep

- TX E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

		L mm	D mm	g
450.0451	E18	140.0	44.0	672
450.0452	E20	140.0	44.0	692
450.0453	E22	140.0	44.0	700
450.0454	E24	140.0	44.0	748

3/4“ POWER BIT SOCKETS

Impact bit socket, hexagon

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finis
- Chrome molybdenum

	mm	L mm	D mm	g
515.0001	14,0	60.0	40.0	140
515.0002	17,0	60.0	40.0	280
515.0003	19,0	60.0	40.0	340
515.0004	21,0	60.0	40.0	340
515.0005	22,0	60.0	40.0	340
515.0006	24,0	60.0	40.0	340

Impact bit socket for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

	mm	L mm	D mm	g
450.0461	17,0	140.0	44.0	672
450.0462	19,0	140.0	44.0	686
450.0463	22,0	140.0	44.0	710
450.0464	24,0	140.0	44.0	760

Impact bit socket for TX, tamperproof, short

- TX tamperproof
- Square drive according to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finis
- Chrome molybdenum

		L mm	D mm	g
515.0016	TB70	60.0	40.0	270
515.0017	TB80	60.0	40.0	270
515.0018	TB90	60.0	40.0	280
515.0019	TB100	60.0	40.0	290

Impact socket for TX® screws, long

- For TX screws
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

		L mm	D mm	g
450.0441	T60	140.0	44.0	630
450.0442	T70	140.0	44.0	650
450.0443	T80	140.0	44.0	656
450.0444	T90	140.0	44.0	666
450.0445	T100	140.0	44.0	680

Impact bit socket, tamperproof, for spline(XZN®) screws

- Spline (XZN®) tamperproof
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finis
- Chrome molybdenum

3/4"

		L mm	D mm	g	
515.0012	M16	60.0	40.0	270	
515.0013	M18	60.0	40.0	270	

Impact interchangeable bit set

- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic storage case

3/4" 1"

			kg	
450.0420	16 pcs	Impact interchangeable bit set	6.00	

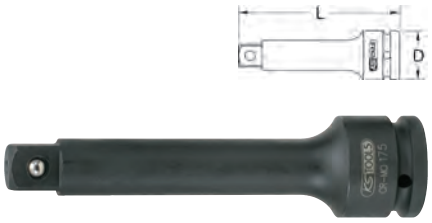
consists of:

		g	
450.0422	Impact bit socket hex adaptor, 107mm, 17mm	360	
450.0423	Impact bit socket hex adaptor, 107mm, 19mm	370	
450.0425	Impact bit socket hex adaptor, 107mm, 22mm	380	
450.0426	Impact bit socket hex adaptor, 107mm, 24mm	460	
450.0427	Impact bit socket TX adaptor, 107mm, T60	330	
450.0428	Impact bit socket TX adaptor, 107mm, T70	330	
450.0429	Impact bit socket TX adaptor, 107mm, T80	340	
450.0430	Impact bit socket TX adaptor, 107mm, T90	350	
450.0431	Impact bit socket TX adaptor, 107mm, T100	360	
450.0433	Impact bit socket TX E adaptor, 107mm, E18	470	
450.0434	Impact bit socket TX E adaptor, 107mm, E20	340	
450.0435	Impact bit socket TX E adaptor, 107mm, E22	370	
450.0436	Impact bit socket TX E adaptor, 107mm, E24	390	
450.0437	3/4" impact bit socket adaptor, 22mm	260	
450.0438	1" impact bit socket adaptor, 22mm	500	
151.2104	Ball ended hexagon key wrench, long, 4mm	10	

3/4" POWER EXTENSIONS

Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum



3/4"

	L mm	D mm	g	
515.1375	90.0	44.0	500	
515.1376	100.0	44.0	540	
515.1377	150.0	44.0	750	
515.1378	175.0	44.0	850	
515.1379	200.0	44.0	950	
515.1381	250.0	44.0	1110	

3/4" POWER BALL JOINTS

Impact universal ball joint

- Square drive adaptor to DIN 3121 / ISO 1174
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/4"

	□	■	L mm	D mm	g	
515.1374	3/4"	3/4"	108.0	44.0	700	

3/4" POWER ADAPTERS

Impact socket adapter

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

3/4"

	□	■	L mm	D mm	g	
515.1372	3/4"	1/2"	56.0	44.0	325	
515.1373	3/4"	1"	63.0	44.0	450	

Impact adaptor and reducing adaptor set

- Ideal set of compilation for adaptors and ball joints
- Chrome molybdenum
- In durable plastic case

1/4" 3/8" 1/2" 3/4"

			kg	
515.0100	9 pcs	Impact adaptor and reducing adaptor set	1.78	

1 x		1/4"F x 3/8"M
1 x		3/8"F x 1/4"M
1 x		3/8"F x 1/2"M
1 x		1/2"F x 3/8"M
1 x		1/2"F x 3/4"M
1 x		3/4"F x 1/2"M
1 x		3/8"
1 x		1/2"
1 x		3/4"

3/4" POWER SECURING ELEMENTS

O-Ring

- For impact drivers and impact sockets
- For safeguard

3/4"

	for sockets mm	D mm	B mm	g	
515.1382	17 - 49	36.0	5.0	10	
515.1383	50 - 70	46.0	5.0	12	

Connection pin

- For impact drivers and impact sockets
- For safeguard

3/4"

	for sockets mm	D mm	L mm	g	
515.1384	17 - 49	4.0	36.0	10	
515.1385	50 - 70	4.0	46.0	14	

1“ POWER SOCKETS

Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	mm		L mm	D2 mm	D1 mm	T mm	kg	
515.1722	22,0		58.0	51.0	39.0	12.0	0.51	
515.1724	24,0		58.0	54.0	42.0	14.0	0.51	
515.1727	27,0		58.0	54.0	46.0	14.0	0.52	
515.1729	29,0		60.0	54.0	48.0	16.0	0.53	
515.1730	30,0		60.0	54.0	49.0	16.0	0.53	
515.1731	31,0		60.0	54.0	51.0	16.0	0.56	
515.1732	32,0		61.0	54.0	60.0	19.0	0.59	
515.1733	33,0		61.0	54.0	54.0	19.0	0.62	
515.1734	34,0		61.0	54.0	54.0	19.0	0.64	
515.1736	36,0		65.0	54.0	57.0	19.0	0.67	
515.1737	37,0		65.0	54.0	58.0	19.0	0.67	
515.1738	38,0		65.0	54.0	59.0	20.0	0.68	
515.1740	40,0		65.0	54.0	62.0	23.0	0.87	
515.1741	41,0		65.0	54.0	63.0	23.0	0.92	
515.1742	42,0		65.0	54.0	63.0	23.0	0.98	
515.1746	46,0		74.0	54.0	69.0	23.0	1.00	
515.1750	50,0		74.0	54.0	74.0	26.0	1.07	
515.1755	55,0		85.0	54.0	81.0	28.0	1.44	
515.1760	60,0		89.0	54.0	87.0	31.0	1.78	
515.1765	65,0		93.0	54.0	93.0	32.0	1.80	
515.1770	70,0		98.0	54.0	99.0	35.0	2.04	
515.1775	75,0		100.0	86.0	106.0	40.0	3.48	
515.1780	80,0		100.0	86.0	112.0	47.0	4.10	
515.1785	85,0		102.0	86.0	119.0	47.0	4.80	
515.1790	90,0		107.0	86.0	124.0	47.0	5.10	
515.1795	95,0		107.0	86.0	131.0	50.0	5.25	
515.1891		1“	58.0	51.0	42.0	14.0	0.52	
515.1892		1.1/4“	60.0	51.0	51.0	16.0	0.61	
515.1893		1.7/16“	62.0	52.0	56.0	20.0	0.64	
515.1894		1.1/2“	62.0	52.0	58.0	22.0	0.67	
515.1895		1.5/8“	62.0	52.0	62.0	22.0	0.92	
515.1896		1.13/16“	64.0	58.0	68.0	23.0	1.00	
515.1897		1.7/8“	66.0	58.0	70.0	24.0	1.08	
515.1898		2.1/4“	75.0	62.0	84.0	30.0	1.52	

Hexagon impact socket set

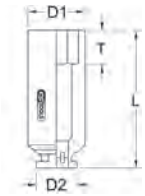
- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable steel storage case

1“

			kg	
515.0610	8 pcs	27 - 29 - 30 - 32 - 33 - 34 - 36 - 38 mm	3.00	

Hexagon impact socket

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra thick walled / long centre execution
- For machinery usage
- Phosphate
- Chrome molybdenum



1“

	mm	L mm	D1 mm	D2 mm	T mm	g	
515.2124	24,0	76.0	38.0	52.0	13.0	570	
515.2127	27,0	76.0	42.0	52.0	14.0	580	
515.2130	30,0	76.0	45.0	52.0	18.0	620	
515.2132	32,0	76.0	48.0	52.0	18.0	640	
515.2133	33,0	76.0	49.0	52.0	18.0	650	
515.2134	34,0	76.0	50.0	52.0	18.0	670	
515.2136	36,0	76.0	54.0	52.0	20.0	690	
515.2138	38,0	76.0	56.0	52.0	23.0	710	
515.2141	41,0	80.0	59.0	52.0	23.0	720	

Hexagon impact socket, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	mm	L mm	D1 mm	D2 mm	T mm	kg	
515.1822	22,0	90.0	39.0	51.0	16.0	0.71	
515.1824	24,0	90.0	42.0	54.0	16.0	0.72	
515.1827	27,0	90.0	46.0	54.0	19.0	0.80	
515.1830	30,0	90.0	49.0	54.0	19.0	0.80	
515.1832	32,0	90.0	52.0	54.0	19.0	0.91	
515.1833	33,0	90.0	54.0	54.0	23.0	0.91	
515.1834	34,0	90.0	54.0	54.0	23.0	0.95	
515.1836	36,0	90.0	57.0	54.0	23.0	0.95	
515.1838	38,0	90.0	59.0	54.0	23.0	0.99	
515.1841	41,0	90.0	63.0	54.0	40.0	1.20	
515.1846	46,0	100.0	69.0	54.0	40.0	1.36	
515.1850	50,0	100.0	74.0	54.0	40.0	1.57	
515.1855	55,0	100.0	81.0	54.0	52.0	1.95	
515.1860	60,0	120.0	87.0	54.0	52.0	2.82	
515.1865	65,0	120.0	93.0	54.0	60.0	3.15	
515.1870	70,0	125.0	99.0	54.0	60.0	3.34	
515.1875	75,0	125.0	105.0	54.0	60.0	4.43	
515.1880	80,0	125.0	112.0	54.0	75.0	4.76	
515.1885	85,0	135.0	119.0	54.0	75.0	5.80	
515.1890	90,0	135.0	124.0	54.0	75.0	6.10	
515.1881	95,0	150.0	135.0	127.0	49.0	6.90	
515.1882	100,0	150.0	140.0	127.0	54.0	7.20	
515.1883	105,0	150.0	150.0	127.0	54.0	8.10	
515.1884	110,0	160.0	155.0	127.0	62.0	8.90	
515.1886	115,0	160.0	160.0	127.0	67.0	9.40	
515.1887	120,0	170.0	165.0	127.0	67.0	10.10	

Hexagon impact socket set, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable steel storage case

1“

			kg	
515.0308	8 pcs	24 - 27 - 30 - 32 - 33 - 34 - 36 - 38 mm	4.20	

Hexagon torque impact socket, extra deep

- Ideal for controlled loosening of wheel screws and nuts with impact wrenches
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	mm	max N·m	L mm	D mm	T mm	kg	
515.1461	24,0	350	300.0	54.0	24.0	1.38	
515.1462	27,0	350	300.0	54.0	27.0	1.40	
515.1463	27,0	450	300.0	54.0	27.0	1.58	
515.1464	30,0	500	300.0	54.0	30.0	1.56	
515.1465	32,0	450	300.0	54.0	32.0	1.60	
515.1466	32,0	550	300.0	54.0	32.0	1.60	
515.1467	32,0	600	300.0	54.0	33.0	1.60	
515.1468	33,0	550	300.0	54.0	33.0	1.64	
515.1469	33,0	600	300.0	54.0	36.0	1.64	

TX E impact socket, deep

- TX E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

		L mm	D mm	g	
450.0481	E18	145.0	51.0	992	
450.0482	E20	145.0	51.0	1012	
450.0483	E22	145.0	51.0	1020	
450.0484	E24	145.0	51.0	1068	

1“ POWER BIT SOCKETS

Impact bit socket, hexagon

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	mm	L mm	D mm	g	
450.0476	17,0	75.0	54.0	620	
450.0477	19,0	75.0	54.0	650	
450.0478	22,0	75.0	54.0	675	
450.0479	24,0	75.0	54.0	700	
450.0485	27,0	75.0	54.0	730	
450.0486	30,0	75.0	54.0	770	
450.0487	32,0	75.0	54.0	900	
450.0488	36,0	75.0	54.0	920	

Impact bit socket for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	mm	L mm	D mm	g	
450.0491	17,0	145.0	51.0	0.99	
450.0492	19,0	145.0	51.0	1.01	
450.0493	22,0	145.0	51.0	1.03	
450.0494	24,0	145.0	51.0	1.08	
450.0495	27,0	145.0	51.0	2.00	
450.0496	30,0	145.0	51.0	2.03	
450.0497	32,0	145.0	51.0	2.07	
450.0498	36,0	145.0	51.0	2.11	

Impact socket for TX® screws, long

- TX
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

		L mm	D mm	g	
450.0471	T60	145.0	51.0	950	
450.0472	T70	145.0	51.0	970	
450.0473	T80	145.0	51.0	976	
450.0474	T90	145.0	51.0	986	
450.0475	T100	145.0	51.0	1000	

Impact interchangeable bit set

- For machinery usage
- Phosphate finis
- Chrome molybdenum
- In durable plastic storage case

3/4“ 1“

			kg	
450.0420	16 pcs	Impact interchangeable bit set	6.00	

consists of:

		g	
450.0422	Impact bit socket hex adaptor, 107mm, 17mm	360	
450.0423	Impact bit socket hex adaptor, 107mm, 19mm	370	
450.0425	Impact bit socket hex adaptor, 107mm, 22mm	380	
450.0426	Impact bit socket hex adaptor, 107mm, 24mm	460	
450.0427	Impact bit socket TX adaptor, 107mm, T60	330	
450.0428	Impact bit socket TX adaptor, 107mm, T70	330	
450.0429	Impact bit socket TX adaptor, 107mm, T80	340	
450.0430	Impact bit socket TX adaptor, 107mm, T90	350	
450.0431	Impact bit socket TX adaptor, 107mm, T100	360	
450.0433	Impact bit socket TX E adaptor, 107mm, E18	470	
450.0434	Impact bit socket TX E adaptor, 107mm, E20	340	
450.0435	Impact bit socket TX E adaptor, 107mm, E22	370	
450.0436	Impact bit socket TX E adaptor, 107mm, E24	390	
450.0437	3/4“ impact bit socket adaptor, 22mm	260	
450.0438	1“ impact bit socket adaptor, 22mm	500	
151.2104	Ball ended hexagon key wrench, long, 4mm	10	

1/4“ POWER EXTENSIONS

Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	L mm	D mm	kg	
515.1804	175.0	54.0	1.45	
515.1806	250.0	54.0	1.58	
515.1807	300.0	54.0	1.96	

1“ POWER BALL JOINTS

Impact universal ball joint

- Square drive adaptor to DIN 3121 / ISO 1174
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	□	■	L mm	D mm	kg	
515.1801	1“	1“	130.0	54.0	1.38	

1“ POWER ADAPTERS

Impact adaptor

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finis
- Chrome molybdenum

1“

	□	■	L mm	D mm	kg	
515.1798	1“	3/4“	75.0	54.0	0.57	
515.1799	1“	1.1/2“	82.0	54.0	1.00	

1“ POWER SECURING ELEMENTS

O-ring

- For impact drivers and impact sockets
- For safeguard

1“

	for sockets mm	D mm	B mm	g	
515.1809	22-70	45.0	5.0	10	

Connection pin

- For impact drivers and impact sockets
- For safeguard

1“

	for sockets mm	D mm	L mm	g	
515.1812	22-70	4.0	45.0	10	

3 TORQUE

KSTOOLS®

Innovation is our mission!

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TORQUE

The importance of torque control

Fastening a threaded fastener in a controlled manner is essential for operational safety and the long service life of screws and bolts. Manual fastening without any torque control is a safety risk. Depending on personal constitution, the screwed fi ting can be over-tightened and there is the risk of breakage or the screwed fi ting can become loose and open with very low application of force. A torque wrench that has been calibrated regularly
helps to achieve the specified astening torques or avoids over-tightening.

Competence and service

Our competence is expressed by the measuring instruments and test equipment used by us, which are monitored continuously and, if required, adjusted, by a laboratory that is accredited by the DKD (German Calibration Service).
They are calibrated by comparing them with standard reference units, which are traceable to the national standards. This ensures our competency in the fi ld of controlled fastening of screws and, in the long term, the quality of our torque wrenches and equipment.

Torque wrenches and torque test instruments are measuring tools; just as any other measuring tool, they must also be serviced regularly and calibrated with suitable measuring instruments and, if required, adjusted. The test interval periods depend on the frequency of use.

Our service includes the affordable requirement of both the normal calibration certifi ate in accordance with DIN EN ISO 6789 and on request, the calibration certifi ate in accordance with DKD (German Calibration Service) guidelines. We maintain, calibrate and adjust those of our own manufacture within 5 working days after goods are received in accordance with the DIN EN ISO 6789 standards including the factory test certifi ate and the control sticker.

Torque tools

Indicative torque wrench according to DIN6789 typ I

Torque screwdrivers

ESD torque screwdriver
- For controlled display in a clockwise and counter clockwise direction
- Torque screwdriver with a helical pressure spring
- Electro static discharge - electrostatically protected
- Range 20 - 500 c•N

Torque wrenches

Type torque wrench with dial indicator and drag indicator
- For controlled display in a clockwise and counter clockwise direction
- Display type torque wrench with dial indicator and drag indicator
- Using the torsion bar principle, and in contrast to conventional torque wrenches, it is possible to grip the torque wrench in any position
- Range 0,7 - 2.800 N•m

Triggering torque wrench according to DIN6789 typ II

Torque screwdrivers

ESD torque screwdriver
- For controlled fastening in clockwise and counter clockwise directions
- Clearly palpable release signal when the desired torque is achieved
- Electro static discharge - electrostatically protected
- Range 1 - 1.000 c•N

Mini torque wrenches
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Range 3 - 15 N•m

Torque screwdriver
- For controlled fastening in clockwise and counter clockwise directions
- Clearly palpable release signal when the desired torque is achieved
- Range 0,1 - 6,0 N•m

Torque wrenches

Torque wrench with quick-set feature
- With idle condition, resetting to the minimum value (0) is not necessary
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Torque setting is simple and quick by sliding the scale using the knurled-head screw
- Range 10 - 1.000 N•m

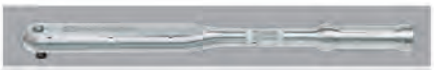
Torque wrench with close-gap release
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Range 2,5 - 2.000 N•m

KS Ergotorque®*basic*
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Range 10 - 320 N•m

KS Ergotorque®*precision*
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Range 1 - 1.000 N•m

KS Ultimate*precision*
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Range 1 - 1.000 N•m

Preset ratcheting torque wrench
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over tighten the set value
- Range 1 -125 N•m



ALUTORQUE*precision* torque wrench
- Single or double square for controlled fastening in clockwise and counter clockwise directions
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Light, robust and very workshop-friendly
- Range 6 - 2.000 N•m

Industrial torque wrench
- For controlled fastening in clockwise and counter clockwise directions
- Torque setting is easy using the locking knob in the handle end
- Clearly palpable release signal when the desired torque is achieved via close gap release
- Range 1 - 1.500 N•m

Torque testing

Type torque wrench with dial indicator and drag indicator
- For controlled display in a clockwise and counter clockwise direction
- Display type torque wrench with dial indicator and drag indicator
- Tool mounting using a three jaw chuck
- Range 1 - c•N - 9 N•m

Electronic torque wrench workshop tool
- High accuracy: +1 % tolerance for values within their range,
- For testing and adjusting torque wrenches and torque screwdrivers
- For controlled display in a clockwise and counter clockwise direction
- With autoreset and automatic switch-off
- Range 1 -1.000 N•m

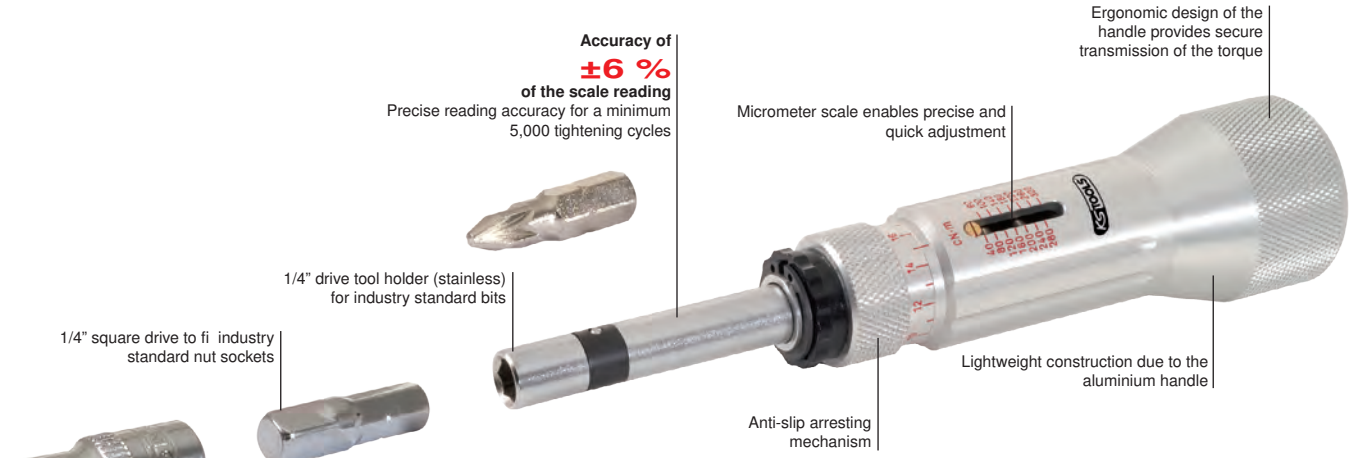
Torque convertor

Universal torque converter
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With single-stage precision planetary gear for both directions
- Range up to 2.700 N•m

Universal torque converter
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Range up to 9.500 N•m

TORQUE SCREWDRIVERS

**This torque screwdriver is fi ted with a friction clutch.
This enables it to ratchet when the set value is achieved.
As a result, it is not possible to over-tighten the screw.
The torque screwdriver has fastening function in clockwise
and counter clockwise directions and is adjusted with the help of a micrometer scale.**

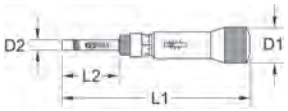


ESD

Tested and Certified to DIN EN ISO 6789 Certificate Precision

ESD Torque screwdriver with micrometer scale

- Actuation accuracy: ±6 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- With precision helical pressure spring
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Micrometer scale in N•m divisions for precise and fin adjustment
- Ergonomic designed handle provides secure transmission of the torque
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Electro static discharge - electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

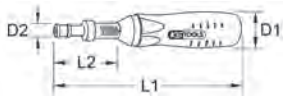


1/4" 6,3 mm

	Measuring range cN•m	Division cN•m	Division N•m	L1 mm	L2 mm	D1 mm	D2 mm	g
516.3210	1-15	0.1		111.0	26.0	16.0	10.0	60
516.3215	2-30	0.2		111.0	26.0	16.0	10.0	60
516.3220	5-60	0.5		111.0	26.0	25.0	10.0	99
516.3225	20-120	1.0		157.0	51.0	30.0	10.0	192
516.3235	40-300	1.0		157.0	51.0	34.0	10.0	214
516.3240	100-500	2.5		200.0	63.0	40.0	10.0	436
516.3245	400-1000		0.05	235.0	100.0	45.0	11.0	762

Torque screwdriver with micrometer scale

- Actuation accuracy: ±6 % tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- With precision helical pressure spring
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Including a micrometre scale in N•m divisions for precise and fin adjustment
- Ergonomic designed rubber handle provides secure torque transmission
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standards

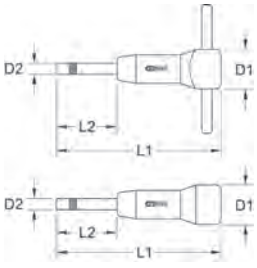


1/4" 6,3 mm

	Measuring range N•m	Division N•m	L mm	L2 mm	D1 mm	D2 mm	g
516.3250	0,1 - 1,2	0.01	180.0	28.0	30.0	11.0	230
516.3255	1 - 6	0.10	200.0	30.0	35.0	11.0	445

ESD Fixed adjustable torque screwdriver with colour coding

- Actuation accuracy: ±6 % tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- With precision helical pressure spring
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fi ed adjustable value
- Ergonomic designed handle provides secure transmission of the torque
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Electro static discharge - electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

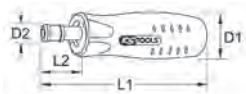


1/4" 6,3 mm

	Measuring range cN•m	L1 mm	L2 mm	D1 mm	D2 mm	Colour code	g
516.3910	1 - 15	92.0	22.0	16.0	8.0	-	45
516.3915	5 - 60	102.0	40.0	25.0	10.0	-	94
516.3920	40 - 200	111.0	49.0	30.0	10.0	green	170
516.3925	100 - 500	126.0	56.0	35.0	10.0	red	220

Pre-set torque screwdriver

- Actuation accuracy: ±6 % tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fi ed adjustable value
- Ergonomic designed handle provides secure torque transmission
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standards

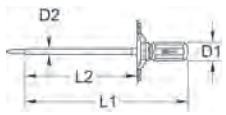


1/4" 6.3 mm

	Measuring range N·m	L mm	L2 mm	D1 mm	D2 mm	
516.3930	0,2 - 1,2	132.0	25.0	30.0	11.0	185
516.3935	1 - 1,8	132.0	25.0	30.0	11.0	185
516.3940	1 - 6	200.0	25.0	30.0	11.0	445

ESD Dial indicating torque screwdriver with a drag indicator

- Display accuracy: ±6 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- Torque screwdriver with a helical pressure spring
- Ergonomic designed handle provides secure transmission of the torque
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Electro static discharge - electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

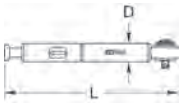


1/4" 6.3 mm

	Measuring range cN·m	Division cN·m	L1 mm	L2 mm	D1 mm	D2 mm	
516.3260	20 - 100	2.0	222.0	130.0	48.0	12.0	290
516.3265	50 - 200	5.0	242.0	130.0	48.0	12.0	320
516.3270	100 - 500	20.0	300.0	188.0	48.0	14.0	420

Stubby torque wrench with exact gearing reversible ratchet head

- Actuation accuracy: ±3 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



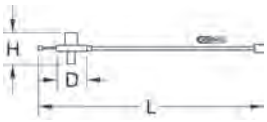
1/4"

	■	Measuring range N·m	Division N·m	D mm	
516.3280	1/4"	3 - 15	0.50	18.0	190

ROTARY ANGLE DISCS

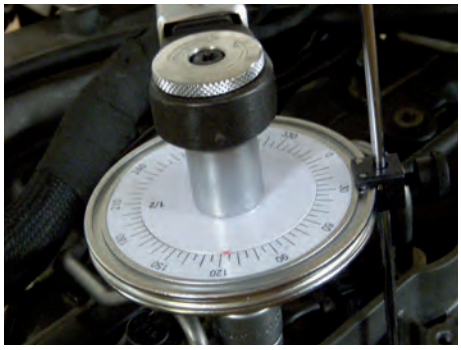
Rotary angle disc

- For fastening screws at an angle
- Device for angle regulated fastening with a torque wrench
- Flexible arm
- Range 0° - 360°
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Optionally with a magnetic arm or claw arm



1/2" 3/4"

	■	■	Arm	Pitch	D mm	H mm	L mm	
516.1195	1/2"	1/2"	magnet	2°	67.0	63.0	480.0	170
516.1196	1/2"	1/2"	claw	2°	67.0	63.0	538.0	60
516.1197	3/4"	3/4"	magnet	2°	80.0	63.0	500.0	170
516.1198	3/4"	3/4"	claw	2°	87.0	87.0	698.0	60



TORQUE LIMITERS

Torque limiter for spark plugs

- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fi ed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock

3/8"

	■	□	N·m	D mm	L mm	
516.1501	3/8"	3/8"	18	28.0	51.5	165
516.1502	3/8"	3/8"	24	28.0	52.0	166

Pre-set torque limiter with ball lock

- High accuracy
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fi ed adjustable value
- Easy to operate
- For application with low torque
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Square drive in accordance with DIN 3120 - ISO 1174

3/8" 6.3 mm

	○	□	Measuring range N·m	D1 mm	D2 mm	L mm	
516.1503	1/4"	3/8	0,5-5	22.0	11.0	75.0	90
516.1504	1/4"	3/8	5-10	22.0	11.0	75.0	90

Pre-set torque limiter with ball lock

- High accuracy
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fi ed adjustable value
- Easy to operate
- For application with low torque
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock

3/8"

	■	□	Measuring range N·m	D1 mm	D2 mm	L mm	
516.1507	3/8"	3/8"	0,5-5	22.0	10.0	75.0	95
516.1508	3/8"	3/8"	5-10	22.0	10.0	75.0	95

TORQUE WRENCH

con certificazione
DIN EN ISO 6789
Certificazione
precisione +/- 3%

Ratchet head:
A highly robust ratchet mechanism for clockwise and counter-clockwise movement is integrated in the polished ratchet head.
The direction of rotation can be changed by simply rotating the square drive. A sliding roller bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

Accuracy of
±3 %
of the scale reading
Precise reading accuracy for a minimum 5,000 tightening cycles

Corrosion:
The robust steel pipe body is coated with a powder coating protection in order to ensure durable corrosion-proof properties.

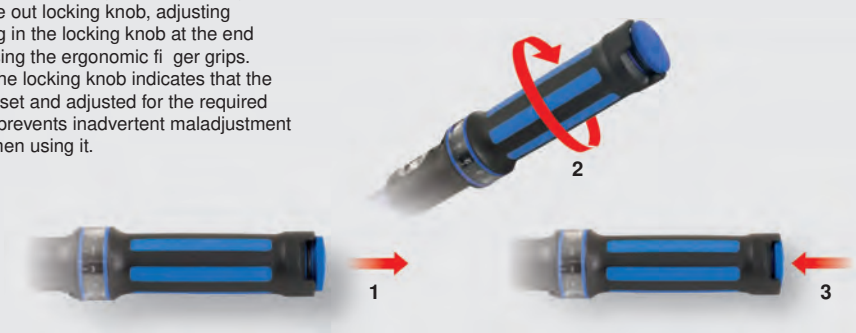
KS Ergotorque *Basic*
• Push through square (no mushroom heads)
• Large scale (no micro scale)
• Accuracy +/- 3%

KS Ultimate *precision*
• as for KS ERGOTORQUE® *precision* - only with a 2% triggering accuracy

Rotating ratchet head 1/4" - 1"

TECHNOLOGY

The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic fi ger grips.
A black ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.



RATCHET HEADS

Scale with magnifying glass:
A double scale having N•m and Lbf•ft divisions that can be read easily, is concealed under a large sized vision panel, which enables particularly accurate adjustment of the desired torque value. In order to be able to read off the scale in an optimal and simple manner, a strong magnifying glass is integrated in the vision panel.

Two-component handle:
The new durable and ergonomic two-component handle ensures safe and effort-less working, whereby the softer component prevents the hand from slipping and provides maximum safety.

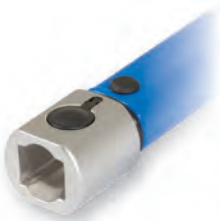
Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

Handle end:
The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic fi ger grips. A black ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.

Micrometer scale:
Even fine a justments can be made with the help of the white micrometer scale. The vision panel has been sized liberally and ensures that the micrometer value can be read off the scale in an optimal and simple manner using the magnifying glass. Thus, depending on the model, divisions of 1/ 0,5/ 0,1 or 0,025 N•m can be adjusted accurately.

Reversible ratchet head 1/4" - 1/2"

Quick change tool system 9 x 12 mm



Quick change tool system 14 x 18 mm

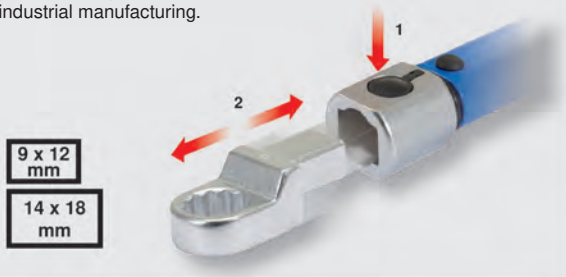
PUSH BUTTON RELEASE

MUSHROOM HEAD WITH SQUARE

The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece. The torque wrenches can be upgraded to another drive size with the the range of accessories available.

QUICK CHANGE TOOL SYSTEM

The quick-change tool system has diverse drive options for various applications for clockwise and counter clockwise fastening with a safety connector for standard sizes of 9 x 12 or 14 x 18 mm push-fit ools provides the solution for all areas of industrial manufacturing.



ERGOTORQUE®*basic* TORQUE WRENCH

T-handle box wrench

- Enables quick pre-fastening of the screw connections
- Especially for using in confined spa es
- Especially suitable for rapid screw tightening with the T-handle
- It is simply to be used in place of the standard box wrench
- Ergonomically shaped T-handle
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock

1/4" 3/8" 1/2"

	□	■	B mm	L mm	g
516.1404	3/8"	1/4"	83.0	72.0	51
516.1414	3/8"	3/8"	83.0	72.0	51
516.1424	1/2"	3/8"	100.0	83.0	97
516.1444	1/2"	1/2"	100.0	83.0	107

Rotary square box wrench

- Enables quick pre-fastening of the screw connections, espe-cially in constrained spaces
- Simple to be used in place of the standard box wrench
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock

1/4" 3/8" 1/2" 3/4" 1"

	□	■	D mm	L mm	g
516.1403	3/8"	1/4"	31.0	33.0	21
516.1413	3/8"	3/8"	31.0	33.0	21
516.1423	1/2"	3/8"	39.0	52.0	65
516.1443	1/2"	1/2"	39.0	52.0	65
516.1494	3/4"	3/4"	63.0	73.0	180
516.1491	1"	3/4"	83.0	78.0	380
516.1496	1"	1"	83.0	78.0	380

Insert type box wrench

- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock

3/8" 1/2"

	□	■	L mm	g
516.1933	1/2"	1/2"	43.0	49
516.1943	1/2"	3/8"	43.0	48

ERGOTORQUE®*basic* torque wrench with feed-through square ratchet head

- Actuation accuracy: ±3 % tolerance from the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Double scale in N•m and lbf•ft divisions for precise adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Including test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

1/2"

	■	N•m	lbf•ft	Division N•m	L mm	D mm	H mm	kg
516.1932	1/2"	10-100	8 - 75	5.00	395.0	43.0	27.0	0.91
516.1942	1/2"	20-200	15 - 150	10.00	485.0	43.0	27.0	1.12
516.1972	1/2"	60-320	45 - 236	10.00	585.0	43.0	27.0	1.45

ERGOTORQUE®*precision* TORQUE WRENCH

ERGOTORQUE®*precision* torque wrench with rotary mushroom ratchet head

- Actuation accuracy: ±3 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Torque setting by pulling out and pushing in the slide in knob at the end of the handle
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Double scale in N•m and lbf•ft divisions for precise adjustment
- Includes micrometer scale in N•m divisions for precise and fine a justment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

1/4" 3/8" 1/2" 3/4" 1"

	■	N•m	Division N•m	lbf•ft	L mm	D mm	H mm	kg
516.1412	1/4"	1-25	0.10	0,8 - 18	289.0	35.0	18.0	0.46
516.1422	3/8"	5-50	0.25	4 - 37	350.0	45.0	23.0	0.61
516.1432	1/2"	10-100	0.50	8 - 75	412.0	45.0	23.0	0.91
516.1442	1/2"	20-200	1.00	15 - 150	500.0	45.0	23.0	1.30
516.1472	1/2"	60-320	1.00	45 - 236	585.0	45.0	23.0	1.45
516.1482	1/2"	80-420	1.00	60 - 310	678.0	45.0	23.0	2.10
516.1490	3/4"	100-550	1.00	75 - 405	960.0	69.0	33.0	3.80
516.1493	3/4"	200-750	10.00	150 - 550	1250.0	69.0	33.0	7.30
516.1495	1"	300-1000	20.00	220 - 730	1500.0	90.0	36.0	5.80

ERGOTORQUE®*precision* torque wrench with reversible ratchet head

- Actuation accuracy: ±3 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Double scale in N•m and lbf•ft divisions for precise adjustment
- Includes micrometer scale in N•m divisions for precise and fine a justment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 36 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

1/4" 3/8" 1/2"

	■	N•m	lbf•ft	Division N•m	L mm	D mm	H mm	kg
516.1512	1/4"	1-25	0,8 -18	0.10	289.0	35.0	18.0	0.46
516.1522	3/8"	5-50	4 - 37	0.25	350.0	45.0	23.0	0.61
516.1532	1/2"	10-100	8 - 75	0.50	412.0	45.0	23.0	0.91
516.1542	1/2"	20-200	15 - 150	1.00	500.0	45.0	23.0	1.30
516.1572	1/2"	60-320	45 - 236	1.00	585.0	45.0	23.0	1.45
516.1582	1/2"	80-420	60 - 310	1.00	678.0	45.0	23.0	2.10

ERGOTORQUE®*precision* fine a justment torque wrench with retangular tool holder

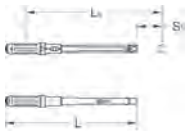
- Actuation accuracy: ±3 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Easy to adjust from clockwise to counter clockwise by turning the torque wrench 180°
- Double scale in N•m and lbf•ft divisions for precise adjustment
- With additional micrometer scale in N•m divisions for precise and fine a justment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

9x12 mm 14x18 mm

	□	N•m	lbf•ft	Division N•m	L mm	L mm	S mm	kg
516.1612	9x12	1-25	0,8 - 18	0.10	280.0	245,0	17,5	0.30
516.1622	9x12	5-50	4 - 37	0.25	335.0	295,0	17,5	0.45
516.1632	9x12	10-100	8 - 75	0.50	375.0	335,0	17,5	0.60
516.1633	14x18	10-100	8 - 75	0.50	375.0	335,0	17,5	1.02
516.1642	9x12	20-200	15 - 150	1.00	465.0	425,0	17,5	0.85
516.1652	14x18	20-200	15 - 150	1.00	470.0	435,0	25,0	0.90
516.1672	14x18	60-320	45 - 236	1.00	565.0	530,0	25,0	1.20
516.1682	14x18	80-420	60 - 310	1.00	650.0	435,0	25,0	1.60

ERGOTORQUE®*precision* fine a justment torque wrench with retangular tool holder

- Actuation accuracy: ±3 % tolerance from the set value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Without scale - With a fi ed adjustable value
- An audible and palpable signal when the desired torque value is achieved
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



		N•m	lbf•ft	L mm	L mm	S mm	g
516.1810	9x12	1-25	0,8 - 18	190.0	155,0	17,5	230
516.1820	9x12	5-50	4 - 37	250.0	210,0	17,5	300
516.1830	9x12	15-85	12 - 64	330.0	280,0	17,5	370
516.1840	14x18	20-200	15 - 150	410.0	370,0	25,0	780

ERGOTORQUE®*precision* TORQUE WRENCH TOOLKIT

ERGOTORQUE®*precision* torque wrench toolkit 1 - 25 N•m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/4"

			kg
516.1415	35 pcs	ERGOTORQUE®*precision* torque wrench toolkit 1 - 25 N•m	4.73

1 x		1 - 25 N•m
4 x		50 - 75 - 100 - 150 mm
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40
2 x		3/8“ x 1/4“ ; 3/8“
2 x		3/8“ x 1/4“ ; 3/8“

ERGOTORQUE®*precision* torque wrench toolkit 1-25 N•m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/4"

			kg
516.1515	31 pcs	ERGOTORQUE®*precision* torque wrench toolkit 1-25 N•m	4.99

1 x		1 - 25 N•m
4 x		50 - 75 - 100 - 150 mm
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40

ERGOTORQUE®*precision* torque wrench toolkit 5 - 50 N•m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

3/8"

			kg
516.1425	44 pcs	ERGOTORQUE®*precision* torque wrench toolkit 5 - 50 N•m	10.32

1 x		5 - 50 N•m
3 x		75 - 150 - 250 mm
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm
11 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60
2 x		3/8“ x 1/4“ ; 3/8“
2 x		3/8“ x 1/4“ ; 3/8“

ERGOTORQUE®*precision* torque wrench toolkit 10-100 N•m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.1435	52 pcs	ERGOTORQUE®*precision* torque wrench toolkit 10-100 N•m	13.48

1 x		10 - 100 N•m
3 x		75 - 125 - 250 mm
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70
2 x		1/2“ x 3/8“ ; 1/2“
2 x		1/2“ x 3/8“ ; 1/2“

ERGOTORQUE®*precision* torque wrench toolkit 20-200 N•m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.1445	52 pcs	ERGOTORQUE®*precision* torque wrench toolkit 20-200 N•m	13.90
1 x		20 - 200 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2"	
2 x		1/2" x 3/8" ; 1/2"	

ERGOTORQUE®*precision* torque wrench toolkit 10-100 N•m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.1535	48 pcs	ERGOTORQUE®*precision* torque wrench toolkit 10-100 N•m	13.61
1 x		10 - 100 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70	

ERGOTORQUE®*precision* torque wrench toolkit 60-320 N•m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.1575	48 pcs	ERGOTORQUE®*precision* torque wrench toolkit 60-320 N•m	14.11
1 x		60 - 320 Nm	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70	

ERGOTORQUE®*precision* torque wrench toolkit 60-320 N•m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.1475	52 pcs	ERGOTORQUE®*precision* torque wrench toolkit 60-320 N•m	13.98
1 x		60 - 320 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2"	
2 x		1/2" x 3/8" ; 1/2"	

ERGOTORQUE®*precision* torque wrench toolkit 20-200 N•m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.1545	48 pcs	ERGOTORQUE®*precision* torque wrench toolkit 20-200 N•m	13.81
1 x		20 - 200 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70	

ERGOTORQUE®*precision* torque wrench toolkit 80-420 N•m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.1585	48 pcs	ERGOTORQUE®*precision* torque wrench toolkit 80-420 N•m	14.51
1 x		80 - 420 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70	

ERGOTORQUE®*precision* torque wrench toolkit 1-25 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

				kg
516.1615	33 pcs	ERGOTORQUE®*precision* torque wrench toolkit 1-25 N•m	8.47	
1 x		1 - 25 N•m		
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm		
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 mm		
2 x		1/4“ - 5/16“		
1 x		9 x 12		
2 x		1/4“ - 3/8“		

ERGOTORQUE®*precision* torque wrench toolkit 10-100 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

				kg
516.1635	33 pcs	ERGOTORQUE®*precision* torque wrench toolkit 10-100 N•m	8.92	
1 x		10 - 100 N•m		
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm		
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 mm		
2 x		1/4“ - 5/16“		
1 x		9 x 12		
2 x		1/4“ - 3/8“		

ERGOTORQUE®*precision* torque wrench toolkit 60-320 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

14x18 mm

				kg
516.1675	39 pcs	ERGOTORQUE®*precision* torque wrench toolkit 60-320 N•m	15.25	
1 x		60 - 320 N•m		
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm		
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 24 - 27 - 30 - 32 - 34 - 36 - 41 mm		
1 x		5/16“		
1 x		14 x 18		
1 x		1/2“		

ERGOTORQUE®*precision* torque wrench toolkit 5-50 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

				kg
516.1625	33 pcs	ERGOTORQUE®*precision* torque wrench toolkit 5-50 N•m	8.56	
1 x		5 - 50 N•m		
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm		
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 mm		
2 x		1/4“ - 5/16“		
1 x		9 x 12		
2 x		1/4“ - 3/8“		

ERGOTORQUE®*precision* torque wrench toolkit 20-200 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

				kg
516.1645	32 pcs	ERGOTORQUE®*precision* torque wrench toolkit 20-200 N•m	9.12	
1 x		20 - 200 N•m		
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm		
2 x		1/4“ - 5/16“		
1 x		9 x 12		
1 x		1/2“		

ERGOTORQUE®*precision* torque wrench toolkit 80-420 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

14x18 mm

				kg
516.1685	39 pcs	ERGOTORQUE®*precision* torque wrench toolkit 80-420 N•m	15.65	
1 x		80 - 420 N•m		
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm		
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 24 - 27 - 30 - 32 - 34 - 36 - 41 mm		
1 x		5/16“		
1 x		14 x 18		
1 x		1/2“		

ULTIMATE*precision* TORQUE WRENCH

- Accuracy of ±2 % of the scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- Tested with certifi ation in accordance to DIN EN 6789
- Durable and ergonomic two-component handle
- Secure and clearly visible indentations in the handle
- Easily readable double scale with fine orque adjustment
- individually marked with serial number - unique product identifi ation
- Diverse drive options for differenrt types of applications
- Clearly audible and palpable release signal when the desired torque value has been achieved
- Durable corrosion-proof construction due to the robust and powder-coated steel pipe
- Overload gaurantee of ±125% of the maximum scale or torque value

Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

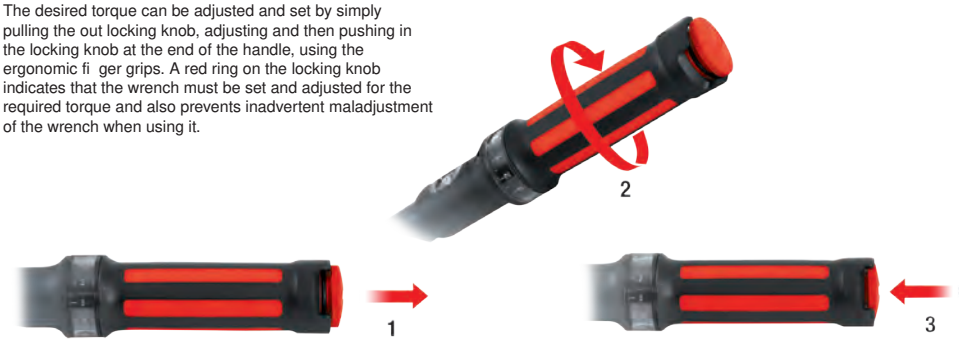
Ratchet head:
A highly robust ratchet mechanism 72 teeth for clockwise and counter clockwise movement is integrated in the polished ratchet head. The direction of rotation can be changed by simply rotating the square drive. A sliding roller bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

Accuracy of
±2 %
of the scale reading
Precise reading accuracy for a minimum 10.000 tightening cycles

Corrosion:
The robust steel pipe body is coated with a powder coating protection in order to ensure durable corrosion-proof properties.

TECHNOLOGY

The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic fi ger grips. A red ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.



RATCHET HEAD

Reversible ratchet head 1/4" - 1"

Rotary ratchet head 1/4" - 1/2"

Tool-attachment bracket 9x12 mm

Tool-attachment bracket 14x18 mm

Scale with magnifying glass
A double scale having N•m and Lbf•ft divisions that can be read easily, is concealed under a large sized vision panel, which enables particularly accurate adjustment of the desired torque value. In order to be able to read off the scale in an optimal and simple manner, a strong magnifying glass is integrated in the vision panel.

Dual component handle
The durable and ergonomic two-component handle ensures safe and effortless working, whereby the softer component prevents the hand from slipping and provides maximum safety.

Handle end locking:
The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic fi ger grips. A black ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.

Micrometer scale:
Even fine a justments can be made with the help of the white micrometer scale. The vision panel has been sized liberally and ensures that the micrometer value can be read off the scale in an optimal and simple manner using the magnifying glass.
Thus, depending on the model, divisions of 1/ 0,5/ 0,1 or 0,025 N•m can be adjusted accurately.

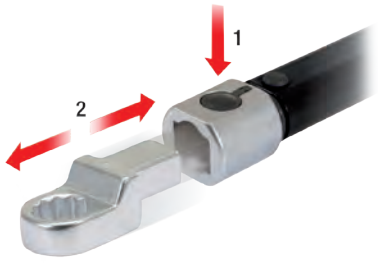
PUSH BUTTON RELEASE

MUSHROOM HEAD WITH SQUARE

The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece. The torque wrenches can be upgraded to another drive size with the the range of accessories available.

QUICK CHANGE TOOL SYSTEM

The quick-change tool system has diverse drive options for various applications for clockwise and counter clockwise fastening with a safety connector for standard sizes of 9 x 12 or 14 x 18 mm push-fit ools provides the solution for all areas of industrial manufacturing.



ULTIMATE*precision* TORQUE WRENCH

T-handle box wrench

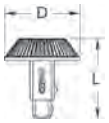
- Enables quick pre-fastening of the screw connections
- Especially for using in confined spa es
- Especially suitable for rapid screw tightening with the T-handle
- It is simply to be used in place of the standard box wrench
- Ergonomically shaped T-handle
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock

1/4" 3/8" 1/2"

	□	■	B mm	L mm	g
516.1404	3/8"	1/4"	83.0	72.0	51
516.1414	3/8"	3/8"	83.0	72.0	51
516.1424	1/2"	3/8"	100.0	83.0	97
516.1444	1/2"	1/2"	100.0	83.0	107

Rotary square box wrench

- Enables quick pre-fastening of the screw connections, espe- cially in constrained spaces
- Simple to be used in place of the standard box wrench
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



1/4" 3/8" 1/2" 3/4" 1"

	□	■	D mm	L mm	g
516.1403	3/8"	1/4"	31.0	33.0	21
516.1413	3/8"	3/8"	31.0	33.0	21
516.1423	1/2"	3/8"	39.0	52.0	65
516.1443	1/2"	1/2"	39.0	52.0	65
516.1494	3/4"	3/4"	63.0	73.0	180
516.1491	1"	3/4"	83.0	78.0	380
516.1496	1"	1"	83.0	78.0	380

ULTIMATE*precision* torque wrench with rotary mushroom ratchet head

- Actuation accuracy: ±2 % tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Torque setting by pulling out and pushing in the slide-in knob at the end of the handle
- For controlled fastening in both directions.
- Double scale in N•m and lbf•ft divisions for precise adjustment
- With additional micrometer scale in N•m divisions for precise and fine a justment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

1/4" 3/8" 1/2" 3/4" 1"

	■	N•m	Division N•m	lbf•ft	L mm	D mm	H mm	kg
516.4012	1/4"	1-25	0.10	0,8 - 18	289.0	35.0	18.0	0.46
516.4022	3/8"	5-50	0.25	4 - 37	350.0	45.0	23.0	0.61
516.4032	1/2"	10-100	0.50	8 - 75	412.0	45.0	23.0	0.91
516.4042	1/2"	20-200	1.00	15 - 150	500.0	45.0	23.0	1.30
516.4072	1/2"	60-320	1.00	45 - 236	585.0	45.0	23.0	1.45
516.4082	1/2"	80-420	1.00	60 - 310	678.0	45.0	23.0	2.10
516.4090	3/4"	100-550	1.00	75 - 405	960.0	69.0	33.0	3.80
516.4093	3/4"	140-750	10.00	150 - 550	1250.0	69.0	33.0	4.80
516.4095	1"	300-1000	20.00	220 - 730	1500.0	90.0	36.0	5.80

ULTIMATE*precision* torque wrench with rotary mushroom ratchet head

- Actuation accuracy: ±2 % tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Double scale in N•m and lbf•ft divisions for precise adjustment
- With additional micrometer scale in N•m divisions for precise and fine a justment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 36 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

1/4" 3/8" 1/2"

	■	N•m	lbf•ft	Division N•m	L mm	D mm	H mm	kg
516.4912	1/4"	1-25	0,8 -18	0.10	289.0	35.0	18.0	0.46
516.4922	3/8"	5-50	4 - 37	0.25	350.0	45.0	23.0	0.61
516.4932	1/2"	10-100	8 - 75	0.50	412.0	45.0	23.0	0.91
516.4942	1/2"	20-200	15 - 150	1.00	500.0	45.0	23.0	1.30
516.4972	1/2"	60-320	45 - 236	1.00	585.0	45.0	23.0	1.45
516.4982	1/2"	80-420	60 - 310	1.00	678.0	45.0	23.0	2.10

ULTIMATE*precision* torque wrench with retangular tool holder

- Actuation accuracy: ±2 % tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- Easy to adjust from clockwise to counter clockwise by turning the torque wrench 180°
- Double scale in N•m and lbf•ft divisions for precise adjustment
- With additional micrometer scale in N•m divisions for precise and fine a justment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

9x12 mm 14x18 mm

	□	N•m	Division N•m	lbf•ft	L mm	L mm	S mm	kg
516.4212	9x12	1-25	0.10	0,8 - 18	280.0	245,0	17,5	0.30
516.4222	9x12	5-50	0.25	4,0 - 37	335.0	295,0	17,5	0.45
516.4232	9x12	10-100	0.50	8,0 - 75	375.0	335,0	17,5	0.60
516.4242	9x12	20-200	1.00	15,0 - 150	465.0	425,0	17,5	0.85
516.4252	14x18	20-200	1.00	15,0 - 150	470.0	435,0	25,0	0.90
516.4272	14x18	60-320	1.00	45,0 - 236	565.0	530,0	25,0	1.20
516.4282	14x18	80-420	1.00	60,0 - 310	650.0	435,0	25,0	1.60
516.4290	14x18	100-550	1.00	74,0 - 405	920.0	875,0	25,0	3.75
516.4293	14x18	200-750	1.00	148 - 553	1120.0	1155,0	25,0	5.27

ULTIMATE*precision* fine a justment torque wrench with retangular tool holder

- Actuation accuracy: ±2% tolerance from the set value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Without scale - With a fi ed adjustable value
- An audible and palpable signal when the desired torque value is achieved
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- With snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

9x12 mm 14x18 mm

	□	N•m	lbf•ft	L mm	L mm	S mm	g
516.4810	9x12	1-25	0,8 - 18	190.0	155,0	17,5	230
516.4820	9x12	5-50	4 - 37	250.0	210,0	17,5	300
516.4830	9x12	15-85	12 - 64	330.0	280,0	17,5	370
516.4840	14x18	20-200	15 - 180	410.0	370,0	25,0	780

ULTIMATE*precision* TORQUE WRENCH TOOLKIT

ULTIMATE*precision* torque wrench toolkit 1-25 N•m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/4"

			kg
516.4015	35 pcs	ULTIMATE*precision* torque wrench toolkit 1-25 N•m	4.74

1 x		1 - 25 N•m
4 x		50 - 75 - 100 - 150 mm
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40
2 x		3/8" x 1/4" ; 3/8" x 3/8"
2 x		3/8" x 1/4" ; 3/8" x 3/8"

ULTIMATE*precision* torque wrench toolkit 5-50 N•m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

3/8"

			kg
516.4025	42 pcs	ULTIMATE*precision* torque wrench toolkit 5-50 N•m	10.33

1 x		5 - 50 N•m
3 x		75 - 150 - 250 mm
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm
11 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60
1 x		3/8" x 1/2"

ULTIMATE*precision* torque wrench toolkit 10-100 N•m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4035	52 pcs	ULTIMATE*precision* torque wrench toolkit 10-100 N•m	13.49

1 x		1 - 100 N•m
3 x		75 - 125 - 250 mm
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70
2 x		1/2" x 3/8" ; 1/2" x 1/2"
2 x		3/8" x 1/4" ; 3/8" x 3/8"

ULTIMATE*precision* torque wrench toolkit 1-25 N•m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/4"

			kg
516.4915	31 pcs	ULTIMATE*precision* torque wrench toolkit 1-25 N•m	4.60

1 x		1 - 25 N•m
4 x		50 - 75 - 100 - 150 mm
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40

ULTIMATE*precision* torque wrench toolkit 5-50 N•m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

3/8"

			kg
516.4925	40 pcs	ULTIMATE*precision* torque wrench toolkit 5-50 N•m	6.29

1 x		5 - 50 N•m
3 x		75 - 150 - 250 mm
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 24 mm
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm
11 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60

ULTIMATE*precision* torque wrench toolkit 20-200 N•m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4045	52 pcs	ULTIMATE*precision* torque wrench toolkit 20-200 N•m	13.88

1 x		20 - 200 N•m
3 x		75 - 125 - 250 mm
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70
2 x		1/2" x 3/8" ; 1/2" x 1/2"
2 x		1/2" x 3/8" ; 1/2" x 1/2"

ULTIMATE*precision* torque wrench toolkit 60-320 N•m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4075	52 pcs	ULTIMATE*precision* torque wrench toolkit 60-320 N•m	14.03
1 x		60 - 320 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2"	
2 x		1/2" x 3/8" ; 1/2"	

ULTIMATE*precision* torque wrench toolkit 10-100 N•m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4935	48 pcs	ULTIMATE*precision* torque wrench toolkit 10-100 N•m	13.22
1 x		10 - 100 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATE*precision* torque wrench toolkit 60-320 N•m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4975	48 pcs	ULTIMATE*precision* torque wrench toolkit 60-320 N•m	13.76
1 x		60 - 320 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATE*precision* torque wrench toolkit 80-420 N•m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4085	52 pcs	ULTIMATE*precision* torque wrench toolkit 80-420 N•m	14.68
1 x		80 - 420 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2"	
2 x		1/2" x 3/8" ; 1/2"	

ULTIMATE*precision* torque wrench toolkit 20-200 N•m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4945	48 pcs	ULTIMATE*precision* torque wrench toolkit 20-200 N•m	13.61
1 x		60 - 320 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATE*precision* torque wrench toolkit 80-420 N•m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised

1/2"

			kg
516.4985	48 pcs	ULTIMATE*precision* torque wrench toolkit 80-420 N•m	14.41
1 x		80 - 420 N•m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATEprecision torque wrench toolkit 1-25 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

516.4215	33 pcs	ULTIMATEprecision torque wrench toolkit 1-25 N•m	7.92 kg
1 x		1 - 25 N•m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4“ - 5/16“	
1 x		9 x 12 mm	
2 x		1/4“ - 3/8“	

ULTIMATE*precision* torque wrench toolkit 10-100 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

516.4235	33 pcs	ULTIMATE*precision* torque wrench toolkit 10-100 N•m	8.22 kg
1 x		10 - 100 N•m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4“ - 5/16“	
1 x		9 x 12 mm	
2 x		1/4“ - 3/8“	

ULTIMATE*precision* torque wrench toolkit 60-320 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

14x18 mm

516.4275	39 pcs	ULTIMATE*precision* torque wrench toolkit 60-320 N•m	14.65 kg
1 x		60 - 320 N•m	
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 22 - 24 26 - 27 - 29 - 30 - 32 - 34 36 - 38 - 41mm	
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm	
1 x		5/16“	
1 x		14 x 18 mm	
1 x		1/2“	

ULTIMATE*precision* torque wrench toolkit 5-50 N•m

- Set contents for universal applications
- Includes Torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

516.4225	33 pcs	ULTIMATE*precision* torque wrench toolkit 5-50 N•m	8.07 kg
1 x		5 - 50 N•m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4“ - 5/16“	
1 x		9 x 12 mm	
2 x		1/4“ - 3/8“	

ULTIMATE*precision* torque wrench toolkit 20-200 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm

516.4245	33 pcs	ULTIMATE*precision* torque wrench toolkit 20-200 N•m	8.47 kg
1 x		20 - 200 N•m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4“ - 5/16“	
1 x		9 x 12 mm	
2 x		1/4“ - 3/8“	

ULTIMATE*precision* torque wrench toolkit 80-420 N•m

- Set contents for universal applications
- Includes torque wrench with retangular tool holder
- Supplied in a metal carrying case with the tools clearly organised

14x18 mm

516.4285	39 pcs	ULTIMATE*precision* torque wrench toolkit 80-420 N•m	15.05 kg
1 x		80 - 420 N•m	
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm	
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 24 - 27 - 30 - 32 - 34 - 36 - 41 mm	
1 x		5/16“	
1 x		14 x 18 mm	
1 x		1/2“	

ALUTORQUE*precision*

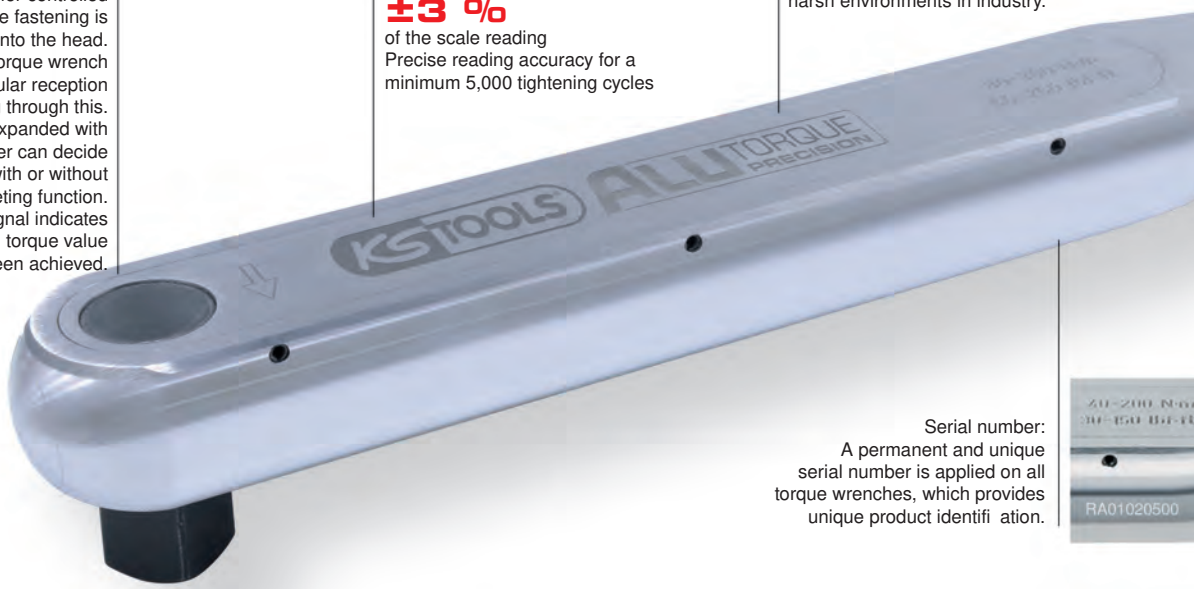
Torque wrench made from high-strength aluminium alloy

Tested and Certified to DIN EN ISO 6789 Certificate Precision +/-3%

Ratchet head:
A robust mechanism, optionally with a square drive for controlled fastening or with a double square for controlled clockwise and counter clockwise fastening is integrated into the head.
The ALUTORQUE*precision* torque wrench is also available with a rectangular reception and guarantees fl xible working through this.
The square drives can be expanded with pin ratchets so that the user can decide himself whether he wants to work with or without the ratcheting function.
An audible and palpable signal indicates automatically that the desired torque value has been achieved.

Accuracy of
±3 %
of the scale reading
Precise reading accuracy for a minimum 5,000 tightening cycles

The robust and durable body is ideal for use in harsh environments in industry.

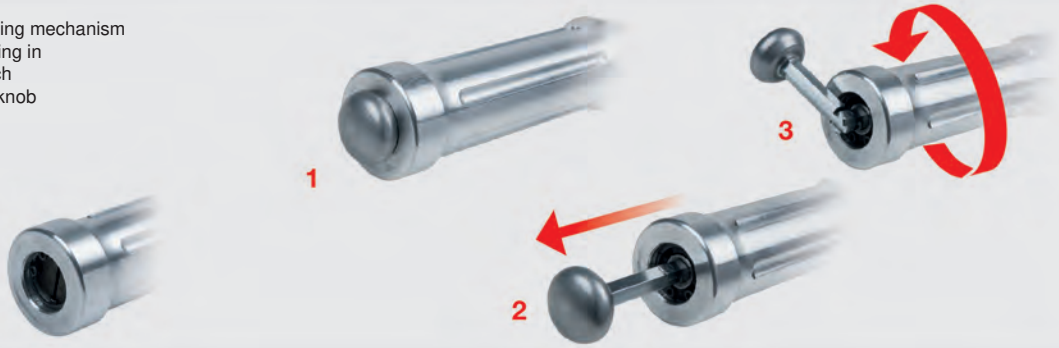


Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

TECHNOLOGY

The desired torque can be adjusted and set using the folding mechanism by simply pulling out and pushing in the captive hexagon key wrench in connection with the locking knob at the end of the handle.

All **ALUTORQUE*precision*** torque wrenches can be used permanently with safety.



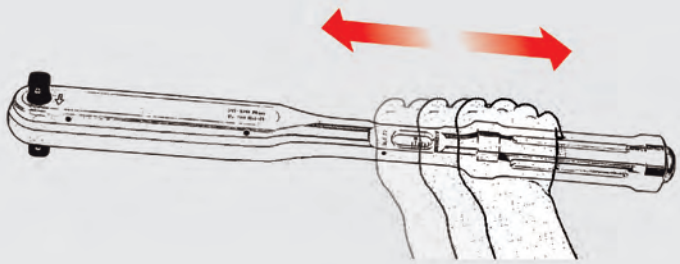
Scale:
A double scale having N.m and lbf.in/lbf.ft divisions that can be read easily, is concealed under a large sized vision panel, which enables particularly accurate adjustment of the desired torque value.

Aluminium handle:
The new light, durable and ergonomic aluminium handle ensures simple and secure operation.

The desired torque can be adjusted and set using the folding mechanism by simply pulling out and pushing in the captive hexagon key wrench in connection with the locking knob at the end of the handle.

Error-free operation:

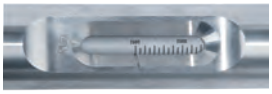
The pivot of the drive lever and the drive square lie on one axis, meaning that in contrast to conventional torque wrenches, it is possible to grip the torque wrench in any position, either using both hands or with an extension bar. Thanks to the lever chain a shift in the value is ruled out. The absolute accuracy always remains preserved.

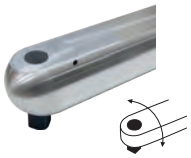


ALUTORQUE*precision* TORQUE WRENCH

ALUTORQUE*precision* torque wrench

- Release accuracy: ±3 % tolerance from the set scale value and better
- Use is almost all industrial production areas
- Depending on option with fast release function button
- Depending on option with robust ratchet mechanism
- Simple operation - fast and secure torque tightening
- Simple and/or double square for controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- Clear audible and noticeable torque release signal through close-gap release
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Setting the torque by using the captive crank lever mechanism in the handle
- Comfortable setting through shapely, captive adjustment knob on the end of the handle
- Extendible to reduces the workload of the user
- Extremely low wear through force reductions through lever mechanism
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standards



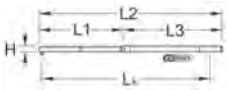


1/4" 3/8" 1/2" 3/4" 1" 1/2"

					N·m	Division N·m	lbf·in	lbf·ft	Division lbf·in	Division lbf·ft	L mm	H mm	L1 mm	L2 mm	L3 mm		kg	
516.5030				1/4"	6-30	1.00	50-270		10.0		207	30.0	268.0				0.58	
516.5031				1/4"	6-30	1.00	50-270		10.0		207	30.0	268.0				0.58	
516.5032				3/8"	8-40	5.00	70-350		50.0		263	30.0	338.0				1.00	
516.5033				3/8"	8-40	5.00	70-350		50.0		263	30.0	338.0				1.00	
516.5034		X		1/2"	20-120	5.00		15-90		5.0	374	30.0	462.0				1.50	
516.5035				1/2"	20-120	5.00		15-90		5.0	374	30.0	462.0				1.50	
516.5036		X		1/2"	40-200	5.00		30-150		5.0	463	30.0	551.0				1.40	
516.5037				1/2"	40-200	5.00		30-150		5.0	463	30.0	551.0				1.30	
516.5038			X	1/2"	40-200	5.00		30-150		5.0	463	35.0	554.0				1.40	
516.5039		X		1/2"	50-300	5.00		35-220		5.0	529	30.0	617.0				2.00	
516.5040				1/2"	50-300	5.00		35-220		5.0	529	30.0	671.0				2.00	
516.5041				3/4"	80-360	5.00		60-260		5.0	624	30.0	717.0				2.40	
516.5042				3/4"	80-360	5.00		60-260		5.0	624	30.0	717.0				2.40	
516.5043				3/4"	110-550	10.00		80-400		10.0	719	35.0	812.0				2.90	
516.5044				3/4"	110-550	10.00		80-400		10.0	719	35.0	812.0				2.90	
516.5045				3/4"	140-760	10.00		100-560		10.0	719	35.0	812.0				3.20	
516.5046				3/4"	140-760	10.00		100-560		10.0	719	35.0	812.0				3.20	
516.5047				3/4"	140-760	10.00		100-560		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.00	
516.5048				3/4"	140-760	10.00		100-560		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.00	
516.5049				3/4"	520-1000	10.00		380-730		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.60	
516.5050				3/4"	520-1000	10.00		380-730		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.60	
516.5051				1"	600-1500	25.00					1473	40.0	932.0	1608.0	925.0	516.5058	10.80	
516.5052				1"	600-1500	25.00					1473	40.0	932.0	1608.0	925.0	516.5058	10.80	
516.5053				1"	750-2000	50.00					2218	40.0	932.0	2353.0	925.0	516.5057+58	11.60	
516.5054				1"	750-2000	50.00					2218	40.0	932.0	2353.0	925.0	516.5057+58	11.60	
516.5055				1.1/2"	1500-3000	50.00					2313	40.0	1025.0	2463.0	925.0	516.5057+58	13.20	

ALUTORQUE*precision* Pre-set torque wrench

- Release accuracy: ±3 % tolerance from the set scale value and better
- Use is almost all industrial production areas
- Depending on option with fast release function button
- Simple operation - fast and secure torque tightening
- Simple and/or double square for controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- Clear audible and noticeable torque release signal through close-gap release
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Setting the torque by using the captive crank lever mechanism in the handle
- Comfortable setting through shapely, captive adjustment knob on the end of the handle
- Extendible to reduces the workload of the user
- Extremely low wear through force reductions through lever mechanism
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standards



1/4" 3/8" 1/2" 3/4" 1" 1.1/2"

				N·m	Division N·m	lbf·in	lbf·ft	Division lbf·in	Division lbf·ft	L mm	H mm	L1 mm	L2 mm	L3 mm	kg	
516.5100			1/4"	6-30	1.00	50-270		10.0		207	30.0	268.0			0.58	
516.5101			1/4"	6-30	1.00	50-270		10.0		207	30.0	268.0			0.58	
516.5102			3/8"	8-40	5.00	70-350		50.0		263	30.0	338.0			1.00	
516.5103			3/8"	8-40	5.00	70-350		50.0		263	30.0	338.0			1.00	
516.5104		X	1/2"	20-120	5.00		15-90		5.0	374	30.0	462.0			1.50	
516.5105			1/2"	20-120	5.00		15-90		5.0	374	30.0	462.0			1.50	
516.5106		X	1/2"	40-200	5.00		30-150		5.0	463	30.0	551.0			1.40	
516.5107			1/2"	40-200	5.00		30-150		5.0	463	30.0	551.0			1.30	
516.5108		X	1/2"	50-300	5.00		35-220		5.0	529	30.0	617.0			2.00	
516.5109			1/2"	50-300	5.00		35-220		5.0	529	30.0	617.0			2.00	
516.5110			3/4"	80-360	5.00		60-260		5.0	624	30.0	717.0			2.40	
516.5111			3/4"	80-360	5.00		60-260		5.0	624	30.0	717.0			2.40	
516.5112			3/4"	110-550	10.00		80-400		10.0	719	35.0	812.0			2.90	
516.5113			3/4"	110-550	10.00		80-400		10.0	719	35.0	812.0			2.90	
516.5114			3/4"	140-760	10.00		100-560		10.0	719	35.0	812.0			3.20	
516.5115			3/4"	140-760	10.00		100-560		10.0	719	35.0	812.0			3.20	
516.5116			3/4"	140-760	10.00		100-560		10.0	1297	35.0	812.0	1413.0	762.0	5.00	
516.5117			3/4"	140-760	10.00		100-560		10.0	1297	35.0	812.0	1413.0	762.0	5.00	
516.5118			3/4"	520-1000	10.00		380-730		10.0	1297	35.0	812.0	1413.0	762.0	5.60	
516.5119			3/4"	520-1000	10.00		380-730		10.0	1297	35.0	812.0	1413.0	762.0	5.60	
516.5120			1"	600-1500	25.00					1473	40.0	932.0	1608.0	925.0	10.80	
516.5121			1"	600-1500	25.00					1473	40.0	932.0	1608.0	925.0	10.80	
516.5122			1"	750-2000	50.00					2218	40.0	932.0	2353.0	925.0	11.60	
516.5123			1"	750-2000	50.00					2218	40.0	932.0	2353.0	925.0	11.60	
516.5124			1.1/2"	1500-3000	50.00					2313	40.0	1025.0	2453.0	925.0	13.20	

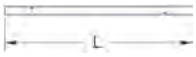
ALUTORQUE*precision* Socket pipe for torque wrench

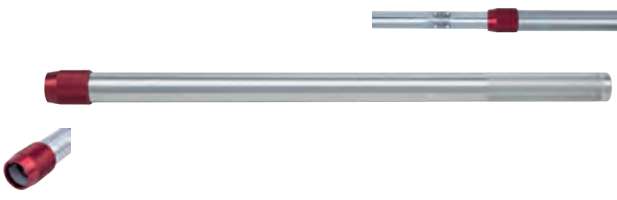
- To reach the high torque values easier with the lever arm extension
- Option and secure connection to the aluminium torque wrench
- To extend the lever arm
- Made of zinc coated steel

	L mm	Suitable for	kg	
516.5056	400.0	516.5053	2.30	
516.5057	745.0	516.5053, 516.5055	3.60	
516.5058	762.0	516.5047, 516.5049	3.40	

ALUTORQUE*precision* aluminium extension pipe for torque wrench

- To reach the high torque values easier with the lever arm extension
- Option and secure connection to the aluminium torque wrench
- To extend the lever arm
- With slightly anodised clamping nut
- Made of aluminium





	L mm	Suitable for	kg	
516.5059	925.0	516.5051, 516.5053, 516.5055	0.80	

Ratchet adapter for aluminium torque wrench

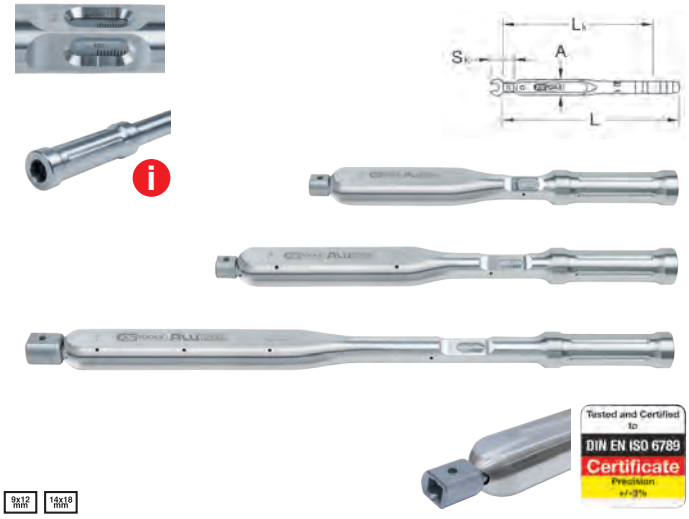
- Robust ratchet adapter
- To be used in combination with aluminium torque wrench
- For controlled fastening in clockwise and counter clockwise directions
- Internal square in accordance with DIN 3120 / ISO 1174
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- For manual operation
- Matt finis
- Chrome vanadium

1/4" 3/8" 1/2" 3/4" 1"

	□	■	H mm	D mm	Format	Suitable for	kg	
516.5020	1/4"	1/4"	21.0	24.0	Right-handed rotation	516.5030	0.05	
516.5021	3/8"	3/8"	28.0	35.0	Right-handed rotation	516.5032	0.15	
516.5022	1/2"	1/2"	35.0	46.0	Right-handed rotation	516.5034, 516.5036, 516.5039	0.35	
516.5023	3/4"	3/4"	53.0	65.0	Right-handed rotation	516.5041, 516.4043, 516.5045, 516.5047, 516.5049	1.00	
516.5024	1"	1"	63.0	73.0	Right-handed rotation	516.5051, 516.5053	1.80	
516.5025	3/8"	3/8"	28.0	35.0	Left-handed rotation	516.5033	0.15	
516.5026	1/2"	1/2"	35.0	46.0	Left-handed rotation	516.5035, 516.5037, 516.5040	0.35	
516.5027	3/4"	3/4"	53.0	65.0	Left-handed rotation	516.5042, 516.5044, 516.5046, 516.5048, 516.5050	1.00	
516.5028	1"	1"	63.0	73.0	Left-handed rotation	516.5052, 516.5054	1.80	

ALUTORQUE*precision* Fixed pre-set torque wrench with plug-in tool holder

- Release accuracy: ±3 % tolerance from the set value
- Depending on tool use it is possible to work to the front (e.g. open-end wrench) or to the side (e.g. changeover ratchet and socket wrench set)
- Simple operation - fast and secure torque tightening
- Changing the operating direction takes place by turning the torque wrench
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- Clear audible and noticeable torque release signal through close-gap release
- With a fi ed adjustable value
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- With lock connector
- Setting the torque by using the captive crank lever mechanism in the handle
- Extremely low wear through force reductions through lever mechanism
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standards



9x12 mm² 14x18 mm²

	□	N·m	Division N·m	lbf·in	lbf·ft	Division lbf·in	Division lbf·ft	L mm	L_k mm	S_k mm	H mm	kg
516.5080	9x12	8-40	5.00	70-350		5.0		350.0	303	17,5	35.0	0.95
516.5081	9x12	20-120	5.00		15-90		5.0	474.0	414	17,5	35.0	1.25
516.5082	14x18	50-400	5.00		35-300		5.0	641.0	532	25,0	35.0	1.70

ALUTORQUE*precision* Fixed pre-set torque wrench with plug-in tool holder

- Release accuracy: ±3 % tolerance from the set value
- Depending on tool use it is possible to work to the front (e.g. open-end wrench) or to the side (e.g. changeover ratchet and socket wrench set)
- Simple operation - fast and secure torque tightening
- Changing the operating direction takes place by turning the torque wrench
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- Clear audible and noticeable torque release signal through close-gap release
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- With lock connector
- Setting the torque by using the captive crank lever mechanism in the handle
- Extremely low wear through force reductions through lever mechanism
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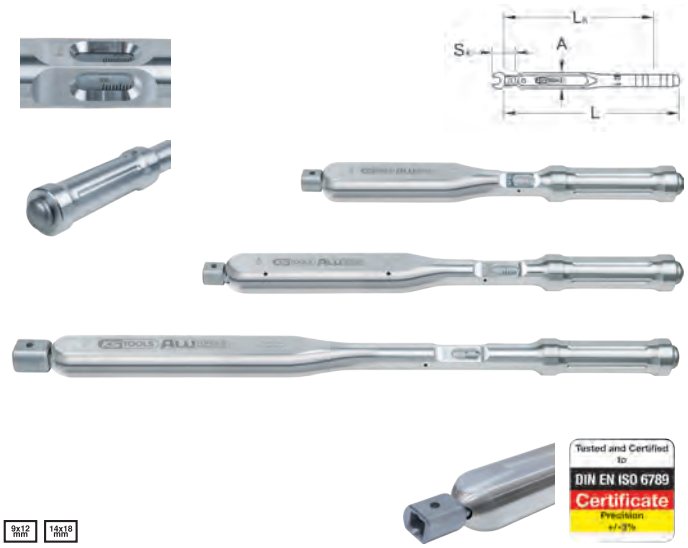
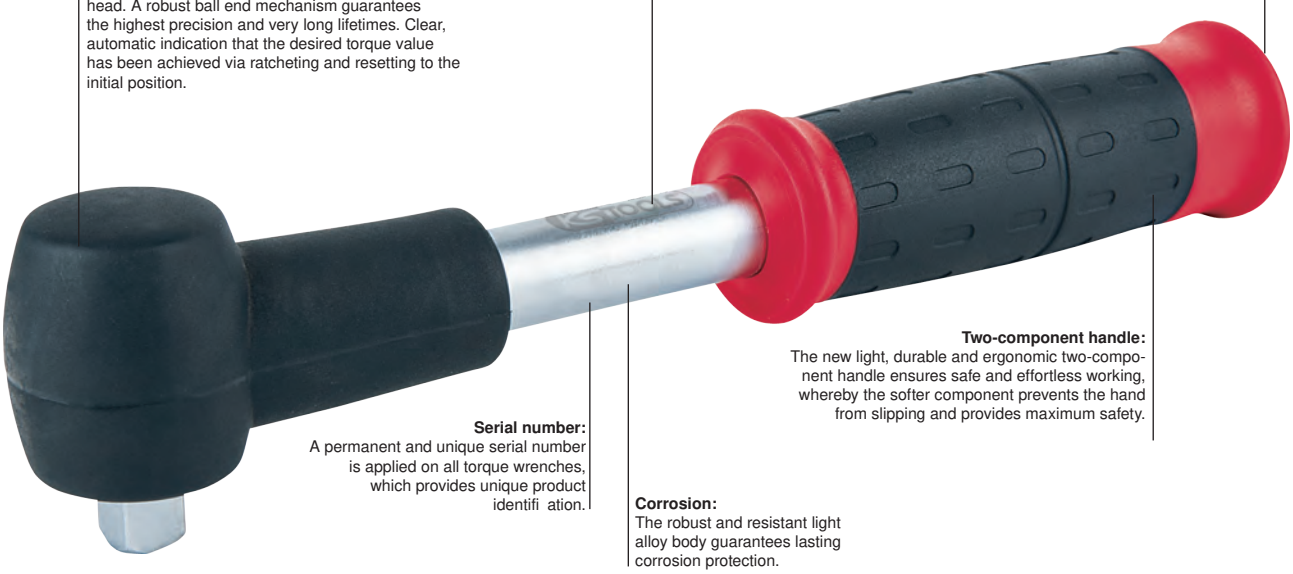


9x12 mm² 14x18 mm²

	□	N·m	Division N·m	lbf·in	lbf·ft	Division lbf·in	Division lbf·ft	L mm	L_k mm	S_k mm	H mm	kg
516.5085	9x12	8-40	5.00	70-350		50.0		361.0	303	17,5	35.0	0.95
516.5086	9x12	20-120	5.00		15-90		5.0	485.0	414	17,5	35.0	1.25
516.5087	14x18	50-400	5.00		35-300		5.0	653.0	582	25,0	35.0	1.70

SLIPPER TORQUE WRENCH

Fixed preset ratchet torque wrench without scale with automatic trigger via slipping function – no overtightening possible.



Head:
A highly robust 36-teeth ratchet mechanism for fastening is integrated in the powder coated ratchet head. A robust ball end mechanism guarantees the highest precision and very long lifetimes. Clear, automatic indication that the desired torque value has been achieved via ratcheting and resetting to the initial position.

Accuracy of
±4 %
of the scale reading

Handle:
Ergonomic handle designed for comforatble use

Two-component handle:
The new light, durable and ergonomic two-compo-nent handle ensures safe and effortless working, whereby the softer component prevents the hand from slipping and provides maximum safety.

Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

Corrosion:
The robust and resistant light alloy body guarantees lasting corrosion protection.

Jetzt kostengünstig auch mit DKD Zertifikat lieferbar !

Tested and Certified to DIN EN ISO 6789 Certificate Precision +/-4%

Ratcheting operating principle

When a preset value is achieved the mechanism slips over the ball end (without the possibility of overtightening).
The ratcheting torque wrench can then be used immediately again.

TECHNOLOGY

Pre-set Slipper torque wrench

- Release accuracy ±6 % tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For serial and/or conveyor assembly lines
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fi ed adjustable value
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Ergonomic and hand-friendly rubber handle
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN / ISO 6789:2003 - traceable to national standards

1/4" 3/8" 1/2"

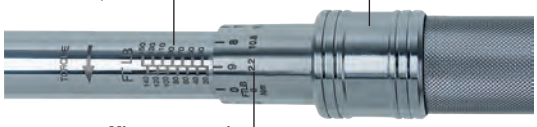
	■	Measuring range N•m	lbf•ft	L mm	D mm	H mm	kg	
516.5000	1/4"	1-5	0,8-4	182.5	15.5	34.3	0.22	
516.5001	1/4"	4-10	3-8	182.5	15.5	34.3	0.23	
516.5002	3/8"	5-20	4-19	214.0	35.0	49.5	0.48	
516.5003	3/8"	15-55	11-40	323.0	39.0	58.5	1.00	
516.5004	1/2"	25-125	19-93	464.0	40.0	67.3	1.85	

INDUSTRIAL TORQUE WRENCH

Torque wrench made from fully chromed, slim steel construction for clockwise and counter clockwise movement

Scale:
A double scale having N•m Lbf•in and Lbf•ft divisions that can be read easily, is concealed under the chromed steel pipe which enables particularly accurate adjustment of the desired torque value.

Handle end:
The desired torque can be adjusted and set by simply pulling out and pushing in the rotating assembly.

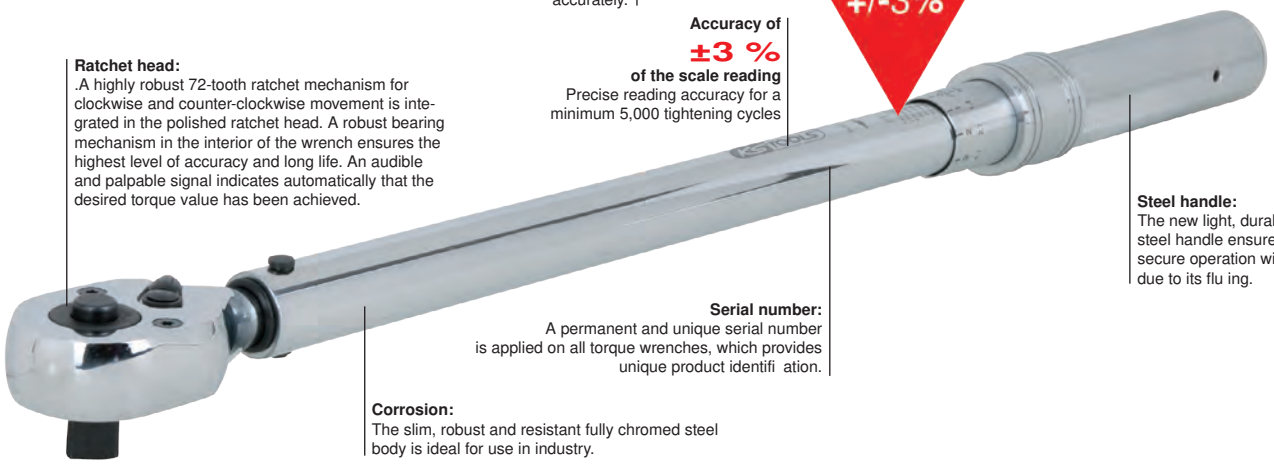


Micrometer scale:
Very precise adjustments can be made with the help of the white micrometer scale. The easily visible micrometer scale ensures optimal and simplified eading of the micrometer value. Thus, depending on the model, divisions of 5/ 1/ 0,5 N•m or lbf•in / lbf•ft can be adjusted accurately.

Accuracy of
±3 %
of the scale reading
Precise reading accuracy for a minimum 5,000 tightening cycles

+/-3%

Ratchet head:
.A highly robust 72-tooth ratchet mechanism for clockwise and counter-clockwise movement is integrated in the polished ratchet head. A robust bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.



Steel handle:
The new light, durable and ergonomic steel handle ensures simple and secure operation without any wear due to its flu ing.

Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

Corrosion:
The slim, robust and resistant fully chromed steel body is ideal for use in industry.

Tested and Certified to DIN EN ISO 6789 Certificate Precision +/-3%

Industrial torque wrench with reversible ratchet head

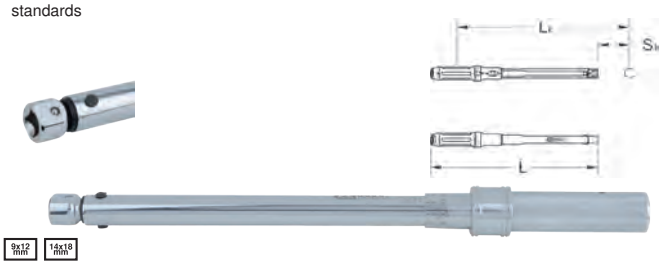
- Actuation accuracy: ±3 % tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- Use is almost all industrial production areas
- For controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division
- Including a micrometre scale in Nm divisions and lbf-ft and/or lbf-in for precise and fine a justment
- Clearly audible and noticeable torque release signal
- Setting the torque securely by turning the handle
- Secure locking function within the handle
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Square drive adaptor in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standards

1/4" 3/8" 1/2" 3/4" 1"

		Measuring range N•m	Tooth	Division N•m	lbf•in	lbf•ft	Division lbf•in	Division lbf•ft	D mm	L mm	kg
516.5150	1/4"	1-6	64	0.05	11.1-50.9		0.4		26.0	210.0	0.29
516.5151	1/4"	3-15	64	0.10	31-128		0.9		26.0	210.0	0.29
516.5152	1/4"	5-25	64	0.20	53-212		1.8		26.0	248.0	0.33
516.5153	3/8"	10-60	32	0.50		9.2-42.4		0.4	36.5	370.0	0.84
516.5154	3/8"	20-100	32	0.50		16.6-71.9		0.4	36.5	433.0	1.02
516.5155	1/2"	40-200	32	1.00		33-144		0.7	43.5	530.0	1.64
516.5156	1/2"	60-340	32	2.00		52-243		1.5	43.5	610.0	1.80
516.5157	3/4"	100-600	24	5.00		92-424		7.4	63.5	1050.0	4.98
516.5158	3/4"	150-800	24	5.00		129-572		7.4	63.5	1240.0	6.05
516.5159	3/4"	200-1000	24	5.00		166-719		7.4	63.5	1240.0	6.05
516.5160	1"	300-1500	24	10.00		258-1070		14.7	70.0	1850.0	10.51

Industrial torque wrench with plug-in tool holder

- Actuation accuracy: ±3 % tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- Use is almost all industrial production areas
- For controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division
- including a micrometre scale in Nm divisions and lbf-ft and/or lbf-in for precise and fine a justment
- Clearly audible and noticeable torque release sign
- Setting the torque securely by turning the handle
- Secure locking function within the handle
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- With lock connector for 9x12 and/or 14x18 plug-in tools
- Individual serial number for clear product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standards



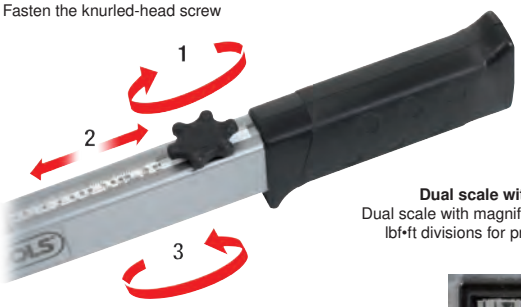
9x12 mm 14x18 mm

		Measuring range N•m	Division N•m	lbf•in	lbf•ft	Division lbf•in	Division lbf•ft	L mm	L mm	S mm	kg
516.5063	9x12	1-6	0.05	11.1-50.9		0.4		197.0	183	17,5	0.26
516.5061	9x12	3-15	0.10	31-128		0.4		197.0	183	17,5	0.26
516.5062	9x12	5-25	0.20	53-212		0.4		227.0	213	17,5	0.30
516.5064	9x12	10-60	0.50		9.2-42.4		0.4	340.0	373	17,5	1.29
516.5065	9x12	20-100	0.50		16.6-71.9		0.4	403.0	373	17,5	1.29
516.5066	14x18	10-60	0.50		9.2-42.4		0.4	362.0	402,5	25,0	1.29
516.5067	14x18	20-100	0.50		16.6-71.9		0.4	425.0	402,5	25,0	1.29
516.5068	14x18	40-200	1.00		33-144		0.7	503.0	474	25,0	1.46
516.5069	14x18	60-340	2.00		52-243		1.5	583.0	554	25,0	1.60

TORQUE WRENCH WITH QUICK-SET FEATURE

Torque wrench made from chromed rectangular steel tube construction for clockwise fastening and anticlockwise latch with quick scale setting - resetting the scale with idle condition is not necessary

1. Loosen knurled-head screw
2. Slide the scale
3. Fasten the knurled-head screw



Adjustment:
Fast adjustment is possible using the integrated opening (hex screw) without dismounting the wrench

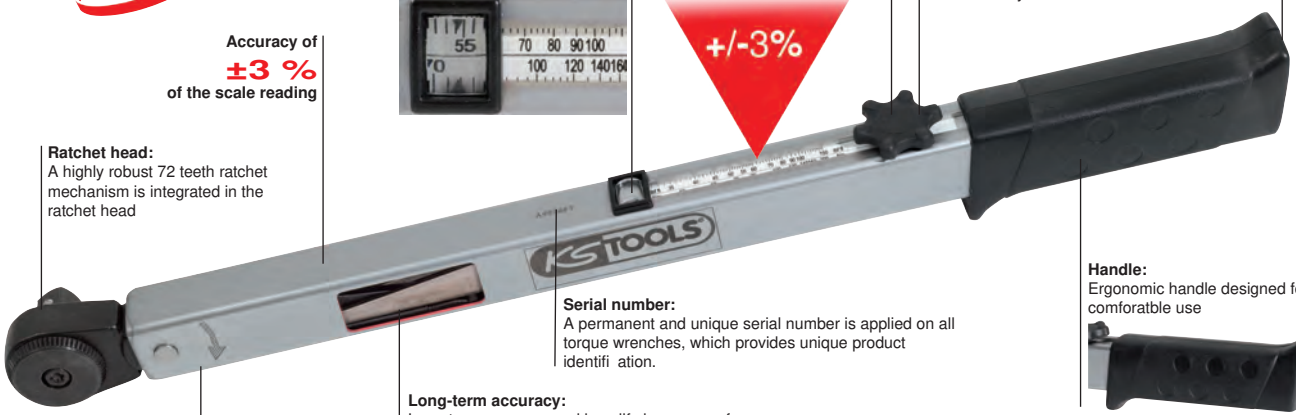
Quick setting:
Simple, effortless, quick setting of the torque by sliding the scale using the knurled-head screw

Dual scale with magnifying glass:
Dual scale with magnifying glass in N•m and lbf•ft divisions for precise adjustment and clear selection

Idle condition:
Resetting to the minimum value (0) is not necessary

Accuracy of
±3 %
of the scale reading

Ratchet head:
A highly robust 72 teeth ratchet mechanism is integrated in the ratchet head



Handle:
Ergonomic handle designed for comforatble use

Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

Long-term accuracy:
Long-term accuracy and long life by means of a wear-free release system

Corrosion:
Durable protection against corrosion using robust steel with a matt finis chrome-plated surface

Tested and Certified to DIN EN ISO 6789 Certificate Precision +/-3%

Torque wrench with quick set feature, reversible

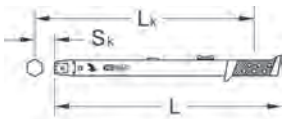
- Actuation accuracy: ±3 % tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- With idle condition, resetting to the minimum value (0) is not necessary
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Double scale in N•m and lbf•ft divisions for precise adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 72 teeth ratchet mechanism
- Torque setting is simple and quick by sliding the scale using the knurled-head screw
- Secure locking function using the integrated hex screw
- Ergonomic handle designed for comfortable use
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

1/2" 3/4"

	■	N·m	lbf·ft	L mm	D mm	H mm	kg
516.4522	1/2"	10-60	7,5 - 44	380.0	38.0	24.0	1.00
516.4532	1/2"	20-100	15 - 70	450.0	38.0	24.0	1.20
516.4542	1/2"	40-200	30 - 150	450.0	38.0	24.0	1.20
516.4572	1/2"	60-350	45 - 260	590.0	38.0	24.0	1.45
516.4590	3/4"	160-800	120 - 590	1140.0	70.0	37.0	6.70
516.4595	3/4"	200-1000	150 - 750	1340.0	70.0	37.0	7.40

Torque wrench with quick set feature and retangular tool holder

- Actuation accuracy: ±3 % tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- With idle condition, resetting to the minimum value (0) is not necessary
- For controlled fastening in clockwise and counter clockwise directions
- Easy to adjust from clockwise to counter clockwise by turning the torque wrench 180°
- Double scale in N•m and lbf•ft divisions for precise adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is simple and quick by sliding the scale using the knurled-head screw
- Secure locking function using the integrated hex screw
- Ergonomic handle designed for comfortable use
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard



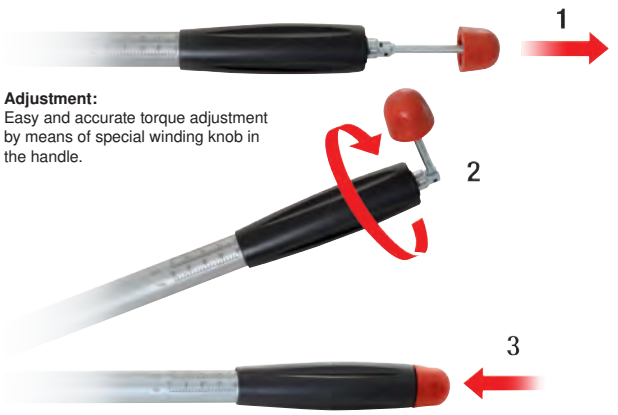
9x12 mm 14x18 mm

	□	N·m	lbf·ft	L mm	Lk mm	Sk mm	kg
516.4622	9x12	10-60	7,5 - 44	380.0	345,0	17,5	1.00
516.4632	9x12	20-100	15 - 70	445.0	410,0	17,5	1.10
516.4642	14x18	40-200	30 - 150	450.0	425,0	25,0	1.10
516.4672	14x18	60-350	45 - 260	580.0	560,0	25,0	1.40

TORQUE WRENCH WITH CLOSE-GAP RELEASE

As a result of the close-gap release, the chance of over-tightening is reduced and, in addition, this mechanism enhances the accuracy when fastening the screw.

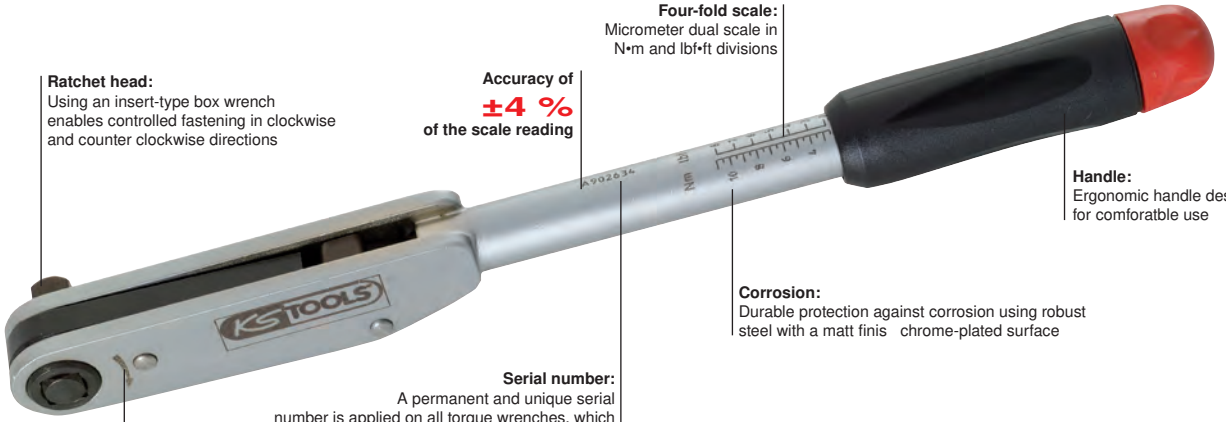
A palpable and acoustic snap indicates that the desired torque value has been achieved - in addition the mechanism resets automatically to the initial position.



Adjustment:
Easy and accurate torque adjustment by means of special winding knob in the handle.

CLOCKWISE FASTENING

COUNTER CLOCKWISE FASTENING



Four-fold scale:
Micrometer dual scale in N•m and lbf•ft divisions

Ratchet head:
Using an insert-type box wrench enables controlled fastening in clockwise and counter clockwise directions

Accuracy of
±4 %
of the scale reading

Handle:
Ergonomic handle designed for comforatble use

Corrosion:
Durable protection against corrosion using robust steel with a matt finis chrome-plated surface

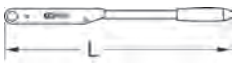
Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

Signal:
An audible and palpable snap indicates that the desired torque has been achieved

Tested and Certified to DIN EN ISO 6789 Certificate Precision

Torque wrench with close gap release

- Actuation accuracy: ±4 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Four fold scale in N•m, Kg•fm, lbf•in und lbf•ft divisions for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is easy by pulling out, adjusting and pushing in the winder in the handle
- Automatic reset in the initial position
- Ergonomic handle designed for comfortable use
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



1/4" 3/8" 1/2" 3/4" 1"

	■	N•m	lbf•ft	Division N•m	Division lbf•ft	L mm	kg	
516.3510	3/8"	2.5-11	2 - 8	0.50	0.5	300.0	0.56	
516.3515	3/8"	5-33	4 - 24	1.00	1.0	405.0	0.69	
516.3520	3/8"	12-68	10 - 50	2.00	2.0	480.0	1.00	
516.3525	1/2"	12-68	10 - 50	2.00	2.0	480.0	1.00	
516.3530	1/2"	25-150	20 - 110	5.00	2.0	575.0	1.70	
516.3535	1/2"	50-250	40 - 180	10.00	5.0	605.0	2.30	
516.3540	1/2"	70-350	50 - 260	10.00	10.0	815.0	3.00	
516.3545	3/4"	140-800	120 - 580	20.00	20.0	935.0	6.50	
516.3550	1"	200-1000	150 - 750	25.00	25.0	1030.0	9.70	
516.3555	1"	500-2000	350 - 1500	50.00	50.0	1400.0	18.00	

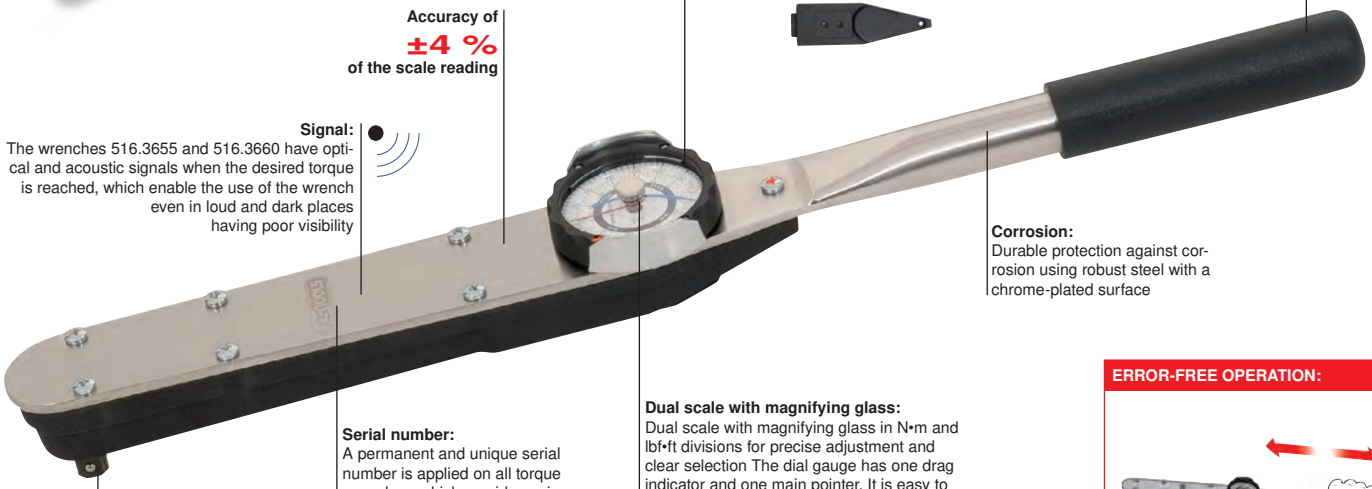
PRECISION TORQUE TESTING INSTRUMENT WITH DIAL INDICATOR

Handle:
Ergonomic handle designed for comforatble use

Adjustment:
Fast adjustment is possible using the integrated opening without dismounting the wrench

Accuracy of
±4 %
of the scale reading

Signal:
The wrenches 516.3655 and 516.3660 have optical and acoustic signals when the desired torque is reached, which enable the use of the wrench even in loud and dark places having poor visibility



Corrosion:
Durable protection against corrosion using robust steel with a chrome-plated surface

Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identifi ation.

Ratchet head:
Fixed box wrench for controlled fastening in clockwise and counter clockwise directions.

Dual scale with magnifying glass:
Dual scale with magnifying glass in N•m and lbf•ft divisions for precise adjustment and clear selection The dial gauge has one drag indicator and one main pointer. It is easy to read off the scale due to the clear design.

Tested and Certified to DIN EN ISO 6789 Certificate Precision +/-4%

ERROR-FREE OPERATION:

Using the torsion bar principle, and in contrast to conventional torque wrenches, it is possible to grip the torque wrench in any position, either using both hands or with an extension bar.
Any shift in the value is ruled out thanks to the direct measurement at the wrench head.

Dial Torque wrench with a drag indicator

- Display accuracy: ±4 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- Display type torque wrench with dial indicator and drag indicator
- Double scale in N•m and lbf•ft divisions for precise adjustment
- Large vision panel for precise adjustment
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

1/4" 3/8" 1/2" 3/4" 1"

	■	N·m	In·lb	lbf·ft	Division N·m	Division in·lb	Division lbf·ft	L mm	Signal	kg	
516.3610	1/4"	0,7-3,5	6-30		0.10	1.0		270.0	-	0.73	
516.3615	1/4"	1,8-9	15-75		0.20	1.0		270.0	-	0.73	
516.3620	3/8"	3,6-18	30-150		0.50	2.0		270.0	-	0.73	
516.3625	3/8"	6-30	50-250		0.50	5.0		270.0	-	0.73	
516.3630	3/8"	14-70		10-50	2.00		1.0	270.0	-	0.73	
516.3635	1/2"	50-250		34-170	5.00		5.0	560.0	-	1.40	
516.3640	1/2"	70-350		50-250	10.00		5.0	560.0	-	1.40	
516.3645	3/4"	96-480		70-350	10.00		10.0	675.0	-	3.20	
516.3650	3/4"	160-800		120-600	25.00		10.0	1180.0	-	4.50	
516.3655	1"	280-1400		200-1000	25.00		20.0	1970.0	+	9.00	
516.3660	1"	560-2800		400-2000	50.00		40.0	3200.0	+	21.00	

ACCESSORIES - PLUG-IN TOOLS

We have a diverse range of plug-in tools within our range:

- Open
- Ring
- Ratchet
- Torx®
- Push-fit squa e mount
- Bit holder

In case our range does not have what you need, we would be pleased to manufacture push-fit ools based on your specifi ations.

INFO:

In case our range does not have what you need, we would be pleased to manufacture push-fit ools based on your specifi ations.

CAUTION:
The maximum torque loads of the push-fit ools are in line with DIN 899 and can be less than the maximum torque of the tool used.

CALCULATION OF CORRECTED DISPLAY AND SET VALUES

Push-fit j w wrench

- With a locking pin
- Chrome-plated

Code	□	d mm	S mm	B mm	H mm	d
516.2213	14 x 18	13	25.0	30.0	7.0	120
516.2214	14 x 18	14	25,0	35.0	8.0	120
516.2215	14 x 18	15	25,0	35.0	8.0	120
516.2216	14 x 18	16	25,0	38.0	9.0	125
516.2217	14 x 18	17	25,0	38.0	9.0	130
516.2218	14 x 18	18	25,0	42.0	10.0	130
516.2219	14 x 18	19	25,0	42.0	10.0	130
516.2221	14 x 18	21	25,0	50.0	11.0	155
516.2222	14 x 18	22	27,5	50.0	11.0	150
516.2224	14 x 18	24	30,0	53.0	12.0	170
516.2226	14 x 18	26	30,0	60.0	13.0	180
516.2227	14 x 18	27	30,0	60.0	13.0	185
516.2229	14 x 18	29	30,0	66.0	14.0	210
516.2230	14 x 18	30	30,0	66.0	14.0	220
516.2232	14 x 18	32	32,5	66.0	14.0	239
516.2234	14 x 18	34	32,5	66.0	14.0	246
516.2236	14 x 18	36	32,5	74.0	15.0	265
516.2238	14 x 18	38	32,5	74.0	15.0	275
516.2241	14 x 18	41	32,5	82.0	15.0	307

9x12 mm | 14x18 mm

Code	□	N·m	lbf·ft	Division N·m	L mm	L$_k$ mm	S$_k$ mm	d
516.1612	9 x 12	1 - 25	0,8 - 18	0.1	280.0	245,0	17,5	300
516.1622	9 x 12	5 - 50	4 - 37	0.3	335.0	295,0	17,5	450
516.1632	9 x 12	10 - 100	8 - 75	0.5	375.0	335,0	17,5	600
516.1633	14 x 18	10 - 100	8 - 75	0.5	375.0	335,0	17,5	600
516.1642	9 x 12	20 - 200	15 - 150	1.0	465.0	425,0	17,5	850
516.1652	14 x 18	20 - 200	15 - 150	1.0	470.0	435,0	25,0	900
516.1672	14 x 18	60 - 320	45 - 236	1.0	565.0	530,0	25,0	1200
516.1682	14 x 18	80 - 420	60 - 310	1.0	650.0	435,0	25,0	1600

Example: 516.2232 + 516.1672

Desired torque = 230 N•m

$$X_w = \frac{P_d \cdot L_k}{L_k - S_k + S} = \frac{230\ \text{N·m} \cdot 530\ \text{mm}}{530\ \text{mm} - 25\ \text{mm} + 32{,}5\ \text{mm}} = \frac{121900}{537{,}5} = 226{,}8\ \text{N·m}$$

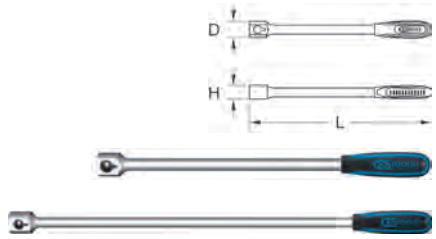
Corrected set value: **226,8 N•m**

PUSH FIT TOOLS

CAUTION:
The maximum torque loads of the push-fit ools are in line with DIN 899 and can be less than the maximum torque of the tool used.

ERGOTORQUE®*plus* universal wrench without torque function - with retangular tool holder

- Ideal for loosening jammed screw connections
- Can untighten without any torque restraint
- Made of solid material
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools

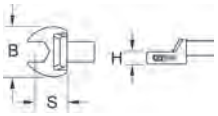


9x12 mm | 14x18 mm

	□	L mm	D mm	H mm	g
516.4890	9x12	405.0	26.0	20.0	872
516.4895	14x18	635.0	28.0	26.0	1350

Push fit fl ed wrench

- With a locking pin
- Chrome plated

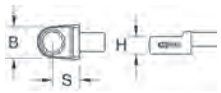


9x12 mm

	□	mm	S mm	B mm	H mm	g
516.2107	9x12	7	17,5	22.0	5.0	35
516.2108	9x12	8	17,5	22.0	5.0	35
516.2109	9x12	9	17,5	26.0	5.5	35
516.2110	9x12	10	17,5	26.0	5.5	35
516.2111	9x12	11	17,5	26.0	5.5	35
516.2112	9x12	12	17,5	30.0	7.0	35
516.2113	9x12	13	17,5	30.0	7.0	35
516.2114	9x12	14	17,5	35.0	8.0	40
516.2115	9x12	15	17,5	35.0	8.0	40
516.2116	9x12	16	20,0*	38.0	8.5	45
516.2117	9x12	17	20,0*	38.0	8.5	50
516.2118	9x12	18	20,0*	42.0	9.0	60
516.2119	9x12	19	20,0*	42.0	9.0	60

Push fit ing spanner (box wrench)

- With a locking pin
- Chrome plated

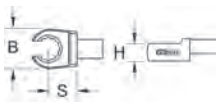


9x12 mm

	□	mm	S mm	B mm	H mm	g
516.2307	9x12	7	17,5	13.0	8.0	30
516.2308	9x12	8	17,5	14.2	8.0	30
516.2310	9x12	10	17,5	17.2	9.0	30
516.2311	9x12	11	17,5	18.5	9.0	30
516.2312	9x12	12	17,5	20.0	12.0	35
516.2313	9x12	13	17,5	21.5	12.0	35
516.2314	9x12	14	17,5	23.0	12.0	40
516.2315	9x12	15	17,5	24.2	12.0	40
516.2316	9x12	16	17,5	25.7	13.0	40
516.2317	9x12	17	17,5	27.2	13.0	40
516.2318	9x12	18	17,5	28.5	13.0	40
516.2319	9x12	19	17,5	30.3	13.0	40
516.2321	9x12	21	17,5	33.0	15.0	50
516.2322	9x12	22	17,5	34.5	15.0	50

Open push fit ing spanner (box wrench)

- With a locking pin
- Chrome plated



9x12 mm

	□	mm	S mm	B mm	g
516.2510	9x12	10	17,5	21.0	40
516.2511	9x12	11	17,5	22.5	40
516.2512	9x12	12	17,5	23.7	40
516.2513	9x12	13	17,5	25.2	40
516.2514	9x12	14	17,5	27.0	50
516.2517	9x12	17	17,5	31.5	65
516.2518	9x12	18	17,5	33.0	65
516.2519	9x12	19	17,5	34.5	65
516.2522	9x12	22	20,0*	39.0	65

TX-E push fit ing spanner (box wrench)

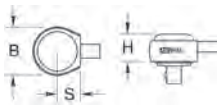
- With a locking pin
- Chrome plated

9x12 mm

	□		S mm	B mm	H mm	g
516.3006	9x12	E 6	17,5	13.0	8.0	40
516.3008	9x12	E 8	17,5	14.2	8.0	45
516.3010	9x12	E 10	17,5	17.2	9.0	50
516.3012	9x12	E 12	17,5	18.5	9.0	50
516.3014	9x12	E 14	17,5	21.5	10.0	60

Push fit fine oothed reversible ratchet head

- With a locking pin
- Fine toothed
- With release feature
- Chrome plated



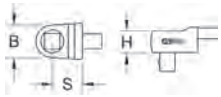
9x12 mm

1/4" 3/8" 1/2"

	□	■	S mm	B mm	H mm	g
516.2614	9x12	1/4"	17,5	27.0	25.0	75
516.2638	9x12	3/8"	17,5	35.0	35.0	152
516.2612	9x12	1/2"	17,5	43.0	40.0	228

Push fit squa e mount

- With a locking pin
- Chrome plated



9x12 mm

1/4" 3/8" 1/2"

	□	■	S mm	B mm	H mm	g
516.2814	9x12	1/4"	17,5	20.0	14.0	70
516.2838	9x12	3/8"	17,5	20.0	14.0	76
516.2812	9x12	1/2"	17,5	20.0	14.0	80

* Please note the changed values on the torque wrench!

Push fit bit holde

- With a locking pin
- Chrome plated

9x12 mm

5/16" 1/4"

			S mm	B mm	H mm	g	
516.2005	9x12	1/4"	17,5	14.0	10.0	47	
516.2010	9x12	5/16"	17,5	16.0	12.5	47	

Push fit j w wrench

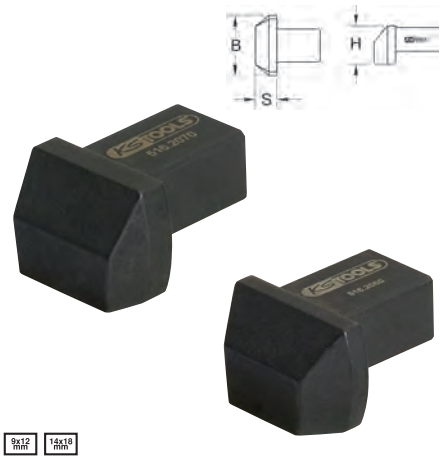
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- With a locking pin
- Chrome plated

9x12 mm 14x18 mm

			S mm	B mm	H mm	g	
516.2040	9x12	14 x 18	30,5*	31.0	26.0	120	
516.2050	14x18	9 x 12	27,0*	28.0	21.0	120	

Push fit eld on head

- With a locking pin
- Burnished

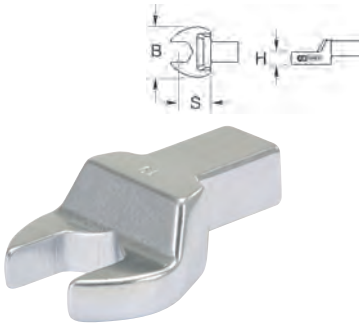


9x12 mm 14x18 mm

		Weld dimension mm	S mm	B mm	H mm	g	
516.2060	9x12	8 x 14	14,5*	14.0	14.5	47	
516.2070	14x18	11 x 25	12,0*	25.0	21.5	100	

Push fit fl ed wrench

- With a locking pin
- Chrome plated



14x18 mm

		mm	S mm	B mm	H mm	g	
516.2213	14x18	13	25,0	30.0	7.0	120	
516.2214	14x18	14	25,0	35.0	8.0	120	
516.2215	14x18	15	25,0	35.0	8.0	120	
516.2216	14x18	16	25,0	38.0	9.0	125	
516.2217	14x18	17	25,0	38.0	9.0	130	
516.2218	14x18	18	25,0	42.0	10.0	130	
516.2219	14x18	19	25,0	42.0	10.0	130	
516.2221	14x18	21	25,0	50.0	11.0	155	
516.2222	14x18	22	25,0	50.0	11.0	160	
516.2224	14x18	24	27,5*	53.0	12.0	170	
516.2226	14x18	26	30,0*	60.0	13.0	180	
516.2227	14x18	27	30,0*	60.0	13.0	185	
516.2229	14x18	29	30,0*	66.0	14.0	210	
516.2230	14x18	30	30,0*	66.0	14.0	220	
516.2232	14x18	32	32,5*	66.0	14.0	239	
516.2234	14x18	34	32,5*	66.0	14.0	246	
516.2236	14x18	36	32,5*	74.0	15.0	265	
516.2238	14x18	38	32,5*	74.0	15.0	275	
516.2241	14x18	41	32,5*	82.0	15.0	307	

Push fit ing spanner (box wrench)

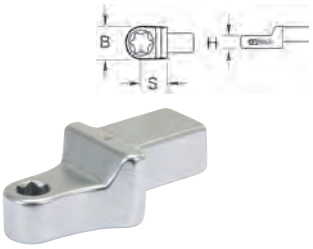
- With a locking pin
- Chrome plated

14x18 mm

		mm	S mm	B mm	H mm	g	
516.2413	14x18	13	25,0	21.5	11.0	120	
516.2414	14x18	14	25,0	23.0	11.0	120	
516.2415	14x18	15	25,0	24.2	11.0	115	
516.2416	14x18	16	25,0	25.7	12.0	125	
516.2417	14x18	17	25,0	27.2	12.0	125	
516.2418	14x18	18	25,0	28.5	12.0	125	
516.2419	14x18	19	25,0	30.5	12.0	125	
516.2421	14x18	21	25,0	33.0	15.0	140	
516.2422	14x18	22	25,0	34.5	15.0	140	
516.2424	14x18	24	25,0	37.5	15.0	140	
516.2427	14x18	27	25,0	41.5	17.0	150	
516.2430	14x18	30	25,0	45.0	19.0	160	
516.2432	14x18	32	25,0	47.5	19.0	165	
516.2434	14x18	34	28,0*	50.5	19.0	195	
516.2436	14x18	36	28,0*	53.0	19.0	195	
516.2441	14x18	41	30,0*	59.0	20.0	225	

TX-E Push fit ing spanner (box wrench)

- With a locking pin
- Chrome plated



14x18 mm

			S mm	B mm	H mm	g	
516.3114	14x18	E 14	25,0	22.5	11.0	130	
516.3118	14x18	E 18	25,0	24.0	11.0	135	
516.3120	14x18	E 20	25,0	29.0	13.0	150	
516.3124	14x18	E 24	25,0	30.5	13.0	150	

Push fit fine oothed reversible ratchet head

- With a locking pin
- Fine toothed
- With release feature
- Chrome plated

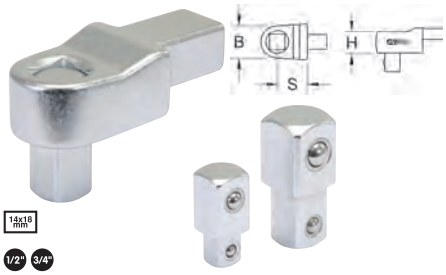
14x18 mm

1/2" 3/4"

			S mm	B mm	H mm	g	
516.2712	14x18	1/2"	25,0	43.0	43.0	260	
516.2734	14x18	3/4"	25,0	70.0	60.0	795	

Push fit squa e mount

- With a locking pin
- Chrome plated



14x18 mm

1/2" 3/4"

			S mm	B mm	H mm	g	
516.2912	14x18	1/2"	25,0	27.0	18.0	210	
516.2934	14x18	3/4"	25,0	40.0	25.0	400	

Push fit bit holde

- With a locking pin
- Chrome plated

14x18 mm

5/16"

			S mm	B mm	H mm	g	
516.2020	14x18	5/16"	25,0	16.0	12.5	115	

* Please note the changed values on the torque wrench!

PUSH FIT TOOLKIT

Air conditioning toolkit 10-100 N•m

- Set contents ideal for air conditioning and refrigeration engineers
- With snap lock retangular tool holder for 14x18 range of end tools
- Supplied in a metal carrying case with the tools clearly organised

14x18 mm 1/2"

			kg
516.1225	8 pcs	Air conditioning toolkit 10-100 N•m	3.40
1 x		10 - 100 N•m	
6 x		17 - 22 - 24 - 26 - 27 - 29 mm	
1 x		1/2"	

Torque tool set with plug in tools

- Set contents for universal applications
- With snap lock retangular tool holder for 9x12 range of end tool
- Supplied in a metal carrying case with the tools clearly organised

9x12 mm 3/8"

			kg
516.1720	29 pcs	Torque tool set with plug in tools	2.20
1 x		5 - 50 N•m	
11 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 mm	
10 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 mm	
6 x		10 - 11 - 12 - 13 - 14 - 17 mm	
1 x		3/8"	

Torque tool set with plug in tools

- Set contents for universal applications
- With snap lock retangular tool holder for 14x18 range of end tools
- Supplied in a metal carrying case with the tools clearly organised

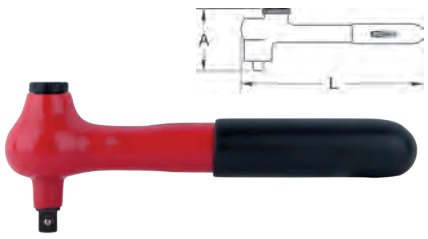
14x18 mm 1/2"

			kg
516.1730	31 pcs	Torque tool set with plug in tools	5.80
1 x		20 - 200 N•m	
13 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 22 - 24 - 27 - 30 - 32 mm	
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm	
1 x		1/2"	

VDE TORQUE WRENCH

Insulated pre set torque wrench

- Actuation accuracy: ±3 % tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fi ed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

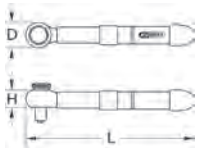


3/8" 1/2"

	■	N•m	A mm	L mm	ϟ	g
117.3922	3/8"	5-35	78.0	210.0	1000V	420
117.1001	1/2"	5-35	78.0	250.0	1000V	420

Insulated mini torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

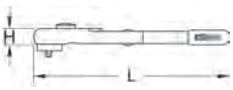


1/4" 3/8" 1/2"

	■	N•m	D mm	H mm	L mm	ϟ	g
117.1400	1/4"	2-12	40.0	41.0	200.0	1000V	400
117.1402	1/4"	5-25	40.0	41.0	200.0	1000V	420
117.1184	3/8"	5-25	40.0	42.0	200.0	1000V	440
117.1185	1/2"	5-25	40.0	42.0	200.0	1000V	440

Insulated torque wrench with reversible ratchet head

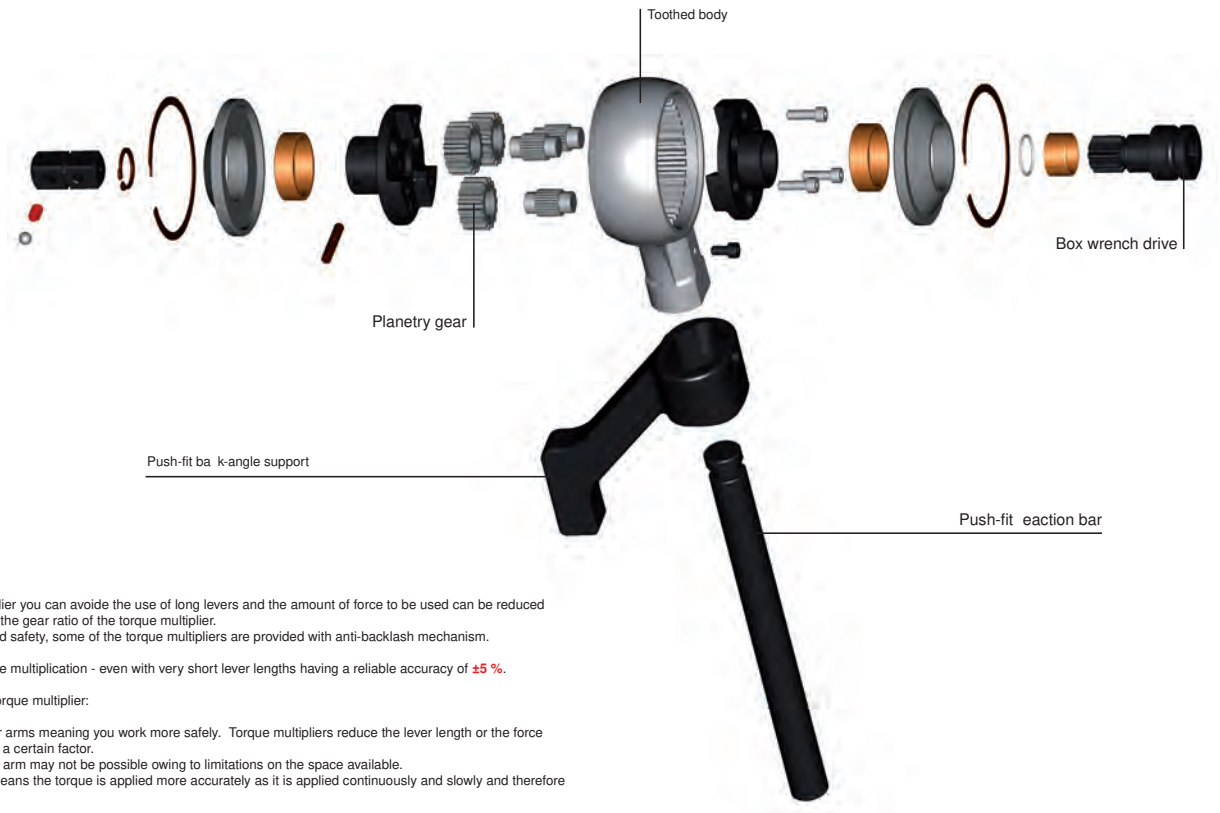
- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N•m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



3/8" 1/2"

	■	N•m	H mm	L mm	ϟ	kg
117.3805	3/8"	2-27	51.0	280.0	1000V	0.92
117.3810	3/8"	5-50	51.0	370.0	1000V	1.07
117.1301	1/2"	2-27	61.0	280.0	1000V	0.93
117.1300	1/2"	5-50	61.0	370.0	1000V	1.10
117.1302	1/2"	20-100	61.0	460.0	1000V	1.20
117.1303	1/2"	40-220	61.0	530.0	1000V	1.30

TORQUE CONVERTOR



By using a torque multiplier you can avoide the use of long levers and the amount of force to be used can be reduced by a factor equivalent to the gear ratio of the torque multiplier.
For the sake of enhanced safety, some of the torque multipliers are provided with anti-backlash mechanism.

Ideal for controlled torque multiplication - even with very short lever lengths having a reliable accuracy of **±5 %**.

Advantages of using a torque multiplier:

- Avoidance of long lever arms meaning you work more safely. Torque multipliers reduce the lever length or the force required by the user by a certain factor.
- The use of a long lever arm may not be possible owing to limitations on the space available.
- The torque multiplier means the torque is applied more accurately as it is applied continuously and slowly and therefore more accuratly.

Torque multiplier set

- Robust loosening
- Designed for use with the crank handle supplied
- With integrated, adjustable support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 3.800 N•m maximum output torque
- Includes sockets and extension
- Indispensable as essential equipment on service vehicles
- Not suited for use in industry
- Not suited for use with impact wrenches
- In durable plastic storage case

1"

			kg	
516.1180	7 pcs	Torque multiplier set	8.00	

consists of:

516.1181	Toque multiplier, 1:64	5.98	
516.1182	1" socket, hexagonal, SW27	0.55	
516.1184	1" socket, hexagonal, SW30	0.59	
516.1185	1" socket, hexagonal, SW32	0.65	
516.1186	1" socket, hexagonal, SW33	0.65	
516.1187	Extensions	0.30	
516.1188	Adapter nut	0.35	

Torque multiplier set

- Robust loosening
- Designed for use with the crank handle supplied
- With intergrated support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 4,000 N•m maximum output torque
- Including crank handle and one extension
- Indispensable as essential equipment on service vehicles
- Ideal for trucks, construction machines and agricultural machines
- Not suited for use with impact wrenches
- In durable plastic storage case

1"

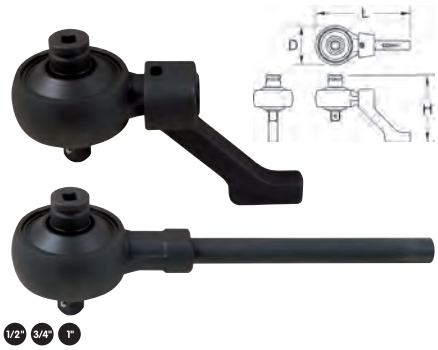
			kg	
516.1151	3 pcs	Torque multiplier set	8.54	

consists of:

516.1152	Crank handle for Impact torque converter	0.50	
516.1153	Extension for Impact torque converter, 210 mm	0.30	

Universal torque convertor

- Accuracy: ±5 % Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- Single stage precision planetary gear for both directions
- Two support devices
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Not suited for use with impact wrenches
- Supplied in a metal storage case

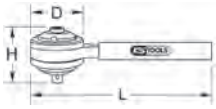


1/2" 3/4" 1"

	□	○	■	→ Nm	⟲ Nm	D mm	L mm	H mm	kg	
516.3700	1/2"	5 : 1	3/4"	260	1300	110.0	395.0	127.0	4.20	
516.3705	3/4"	5 : 1	1"	540	2700	110.0	395.0	127.0	4.40	

Torque convertor, 1680 N•m

- High accuracy: ±5 % Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With straight strut
- Housing with angle scale ring
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 3/4"

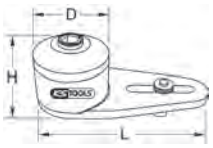
	□	○	■	→ Nm	← Nm	D mm	L mm	H mm	kg
516.3740	1/2"	6:1	3/4"	280	1680	100.0	128.0	106.0	4.90

accessories:

		kg
516.3742	Spare square for 516.3740	0.10
516.3743	Straight strut for 516.3740	1.00
516.3744	Extension for straight strut for 516.3740	1.17

Torque convertor, 3500 N•m

- High accuracy: ±5 % Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- Moving strut with 1" socket mounting
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



3/4" 1"

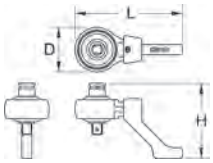
	□	○	■	→ Nm	← Nm	D mm	L mm	H mm	kg
516.3750	3/4"	4,5:1	1"	770	3500	108.0	264.0	130.0	7.30

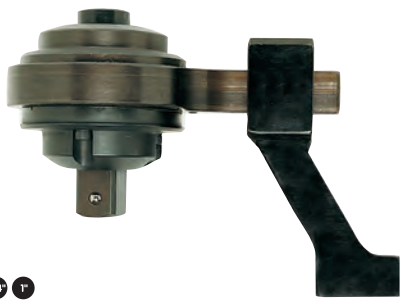
accessories:

		g
516.3752	Spare square for 516.3750	280

Torque convertor, 2700 N•m

- High accuracy: ±5 % Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With adjustable angular strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism





3/4" 1"

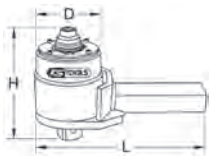
	□	○	■	→ Nm	← Nm	D mm	L mm	H mm	kg
516.3745	3/4"	5,4:1	1"	500	2700	115.0	201.0	126.0	6.34

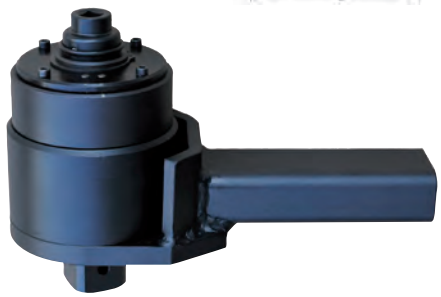
accessories:

		kg
516.3747	Spare square for 516.3745	0.24
516.3748	Angular strut for 516.3745	1.42

Torque convertor, 4500 N•m

- High accuracy: ±5 % Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With straight strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



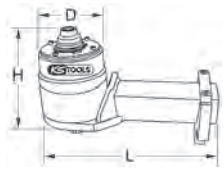


1/2"

	□	○	■	→ Nm	← Nm	D mm	L mm	H mm	kg
516.3755	1/2"	20:1	1.1/2"	225	4500	120.0	312.0	204.8	8.30

Torque convertor, 6000 N•m

- High accuracy: ±5 % Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing with backstop
- With adjustable strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 1 1/2"

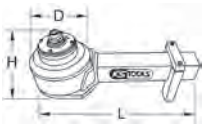
	□	○	■	→ Nm	← Nm	D mm	L mm	H mm	kg	
516.3760	1/2"	26:1	1.1/2"	230	6000	130.0	328.0	216.3	15.70	

accessories:

		kg	
516.3762	Replacement shear pin for 516.3760	0.01	

Torque convertor, 9500 N•m

- High accuracy: ±5 % Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing with backstop
- With adjustable strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 1 1/2"

	□	○	■	→ Nm	← Nm	D mm	L mm	H mm	kg	
516.3765	1/2"	26:1	1.1/2"	365	9500	184.0	505.0	214.9	30.30	

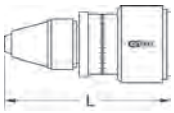
accessories:

		kg	
516.3767	Replacement shear pin for 516.3765	0.01	

TEST EQUIPMENT

Precision torque testing instrument with dial indicator and drag indicator

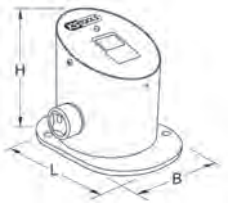
- Display accuracy: ±6 % tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- For testing, measuring, checking and making adjustments
- Display torque testing instrument with drag indicator
- Large vision panel for precise adjustment
- Tool mounting using a three jaw chuck
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



	Measuring range mN•m	Measuring range cN•m	Division mN•m	Division cN•m	Tightening chuck Ø mm	L mm	kg	
516.3310	1-9		0,2		1-6,5	83.0	290	
516.3315	2-15		0,2		1-6,5	83.0	290	
516.3320	4-30		0,5		1-6,5	83.0	290	
516.3325	5-60		1		1-6,5	83.0	290	
516.3330	10-120		2		1-6,5	83.0	290	
516.3335	20-240		5		1-6,5	83.0	290	
516.3410		1-15		0.2	1-8,5	102.0	600	
516.3415		2-24		0.2	1-8,5	102.0	600	
516.3420		4-36		0.5	1-8,5	102.0	600	
516.3425		5-60		1.0	1-8,5	102.0	600	
516.3430		10-90		2.0	1-8,5	102.0	600	
516.3435		10-150		2.0	1-8,5	102.0	600	

Electronic workshop tester for torque wrenches

- High display accuracy: +1 % tolerance of the scale values, +/- 1 digit
- For checking or adjusting torque wrenches and torque screwdrivers
- For controlled display in a clockwise and counter clockwise direction
- Simple electronic tester with integrated torsion transducer
- Digital scale in N·m divisions for precise adjustment
- Display mode: First Peak (detection of fi st peak)
- Large LCD display for clear reading of the values
- With automatic reset and automatic shutdown
- Simple and comfortable operating
- Square drive by means of square adaptor
- Individually marked with serial number - unique product identifi ation
- Including test certifi ate in accordance with DIN EN ISO 6789:2003 national standard
- No main power required – includes 4 x AA 1.5 V LR46 batteries
- Includes reinforcement screw
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4" 1"

		Measuring range N•m	L mm	B mm	H mm	kg	
516.0100	1/4" + 3/8" + 1/2" + 3/4"	5 - 500	180,0	130.0	147.0	4.82	
516.0200	1/4" + 3/8" + 1/2" + 3/4"	500-1000	180,0	130.0	147.0	5.40	

KS TOOLS®

Innovation is our mission!

TORQUE TOOLS

ALU TORQUE PRECISION

ULTIMATE PRECISION

ERGOTORQUE plus PRECISION

4 BITS

KSTOOLS®

Innovation is our mission!

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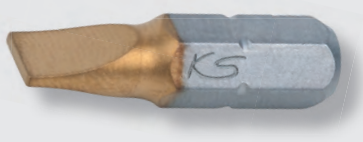
BITS Composition

- Cold formed
- S2 special steel for optimal hardness and elasticity
- Good torque transmission
- Optimal positive seating in DIN screws
- Grooved for fixi g into a holder
- Suited for all screw applications for manual and machine usage
- Precision finished a cording to DIN/ISO

- With torsion zone
- To cushion high level torque
- Longer service life
- Turned and precision milled
- S2 special steel for optimal hardness and elasticity
- Highest torque transmission
- Optimal positive seating in DIN screws
- With colour coding for quick Identifi ation of the suitable profil
- Grooved for fixi g into a holder
- Suited for all screw applications for manual and machine usage
- Precision finished a cording to DIN/ISO



- Good torque transmission
- Especially for constant load during industrial applications
- Cold formed
- S2 special steel for optimal hardness and elasticity
- Optimal positive seating in DIN screws
- Grooved for fixi g into a holder
- Suited for all screw applications for manual and machine usage
- Precision finished a cording to DIN/ISO

Surfaces

Phosphate

- Phosphating = chemical /electro-chemical process
- Dip coating or spraying method
- Intention is the generation of phosphate layer, which is immovable on the base metal
- The surface receives therefore a very good absorption capacity for oil and wax
- Reliable corrosion protection
- To be bound to phosphated tools when oiled

Nickel plated

- The chrome layer is manufactured by electroplating in a electro bath process
- There are several steps that are passed through
- Nickel offers avery good corresion protection and is resistant against air, water, diluted acids and most treatments of alkaline solution.
- The light gold optics are typical

TiN coated

- A titanium nitride coating is applied to the tough steel core
- There are several steps that are passed through
- For heavy loading in permanent use
- The gold optics are typical

Bit case

- Quick and direct bit adaptor
- Practical pocket sized
- With switchable, fin -toothed ratchet mechanism
- Ideal for work on assembly lines and frameworks
- Spring loaded design

Bit profil

MICRO

- Surface nickel-plated
- Manufactured from S2 special steel
- Cold formed
- Extra short execution
- Precision finished a cording to DIN/ISO

CLASSIC

- Surface sand-blasted, phosphate or nickel plated
- Manufactured from S2 special steel
- Cold formed
- Precision finished a cording to DIN/ISO

TORSION power

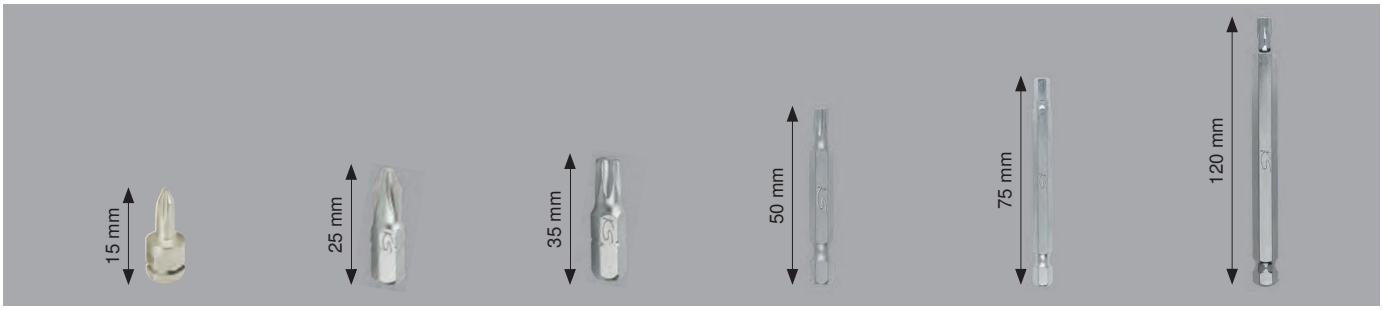
- Surface nickel-plated
- Turned and precision milled
- Manufactured from S2 special steel
- Precision finished a cording to DIN/ISO

TINBits

- Titanium nitride coated
- Turned and precision milled
- Manufactured from S2 special steel
- Precision finished a cording to DIN/ISO

Bits that are too hard break, those that are too soft wear out.
The screw and the bit must be compatible. If this is not the case, even the best bit or screw is ruined.
This basic rule is unfortunately neglected time and again by many tradesmen.
The increase in variety of screw types does not make it easy.
Therefore you can find a omprehensive range of bits and bit holders on the following pages.

For all areas of application:

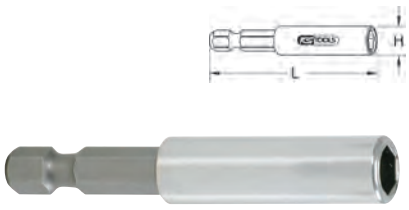


Drive profil

BIT HOLDERS

Magnetic bit holder

- DIN 7427
- Magnetic
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fi tings in trade and industry
- Special steel



1/4"

	⬢	○	H mm	L mm	g	
514.1102	1/4"	1/4"	10.0	50.0	50	
514.1103	1/4"	1/4"	10.0	100.0	60	

Magnetic bit holder with depth adjustment

- Ideally suited for working in dry lining
- Magnetic
- Depth adjustment
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fi tings in trade and industry
- Special steel

1/4"

	⬢	○	H mm	L mm	g	
514.1109	1/4"	1/4"	15.0	57-63	20	

Magnetic quick release bit holder

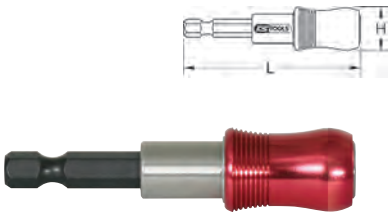
- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fi tings in trade and industry
- Special steel

1/4"

	⬢	○	H mm	L mm	g	
514.1104	1/4"	1/4"	15.0	50.0	50	
514.1110	1/4"	1/4"	15.0	150.0	130	
514.1111	1/4"	1/4"	15.0	305.0	250	

Magnetic quick release bit holder

- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fi tings in trade and industry
- Special steel

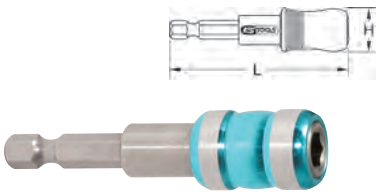


1/4"

	⬢	○	H mm	L mm	g	
514.1114	1/4"	1/4"	16.0	65.0	50	

STAINLESS STEEL quick release bit holder

- With quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fi tings in trade and industry
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/4"

	⬢	○	H mm	L mm	g	
910.1114	1/4"	1/4"	16.0	65.0	50	

Auto slimlock magnetic quick release bit holder

- Extremely slim design - ideal for hard to access areas
- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fi tings in trade and industry
- Special steel

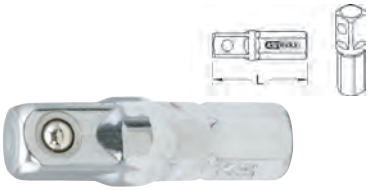
1/4"

	⬢	○	H mm	L mm	g	
514.1113	1/4"	1/4"	11.5	68.0	30	

ADAPTOR

Square drive adaptor

- External hexagon drive
- 1/4" square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideally suited for fi tings in trade and industry
- Chrome plated
- Special steel

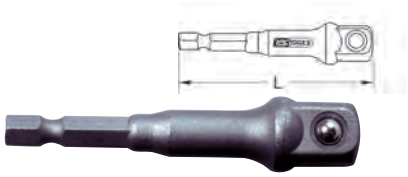


1/4"

	⬢	■	L mm	g	
911.1452	1/4"	1/4"	25.0	10	
503.8232	5/16"	1/4"	21.0	8	
503.8233	10,0	1/4"	24.5	10	

Square drive adaptor

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Square drive adaptor to DIN3120 / ISO 1174 with ball lock
- Ideally suited for fi tings in trade and industry
- For using in electric drivers and drills
- Sand blasted
- Special steel



1/4"

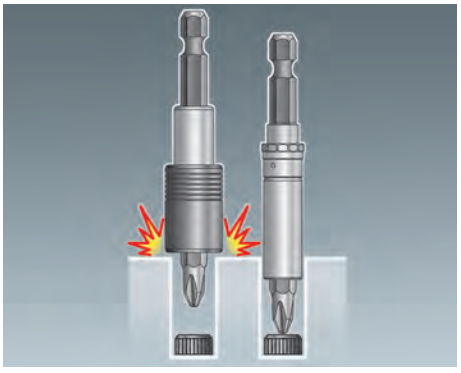
	■	⬢	L mm	g	
514.1106	1/4"	1/4"	65.0	20	
514.1107	3/8"	1/4"	65.0	30	
514.1108	1/2"	1/4"	70.0	40	

Socket drive adaptor set

- External hexagon drive to DIN 3126 / ISO 1173
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideally suited for fi tings in trade and industry
- For using in electric drivers and drills
- Sand blasted
- Special steel

1/4"

			g	
514.1105	3 pcs	1/4" - 3/8" - 1/2"	100	



Magnetic SDS bit holder

- SDS adaptor
- Magnetic
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Ideally suited for fi tings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Special steel

1/4"

	○	H mm	L mm	g	
514.1130	1/4"	11.0	75.0	35	

Magnetic SDS quick release bit holder

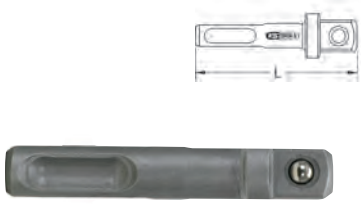
- SDS adaptor
- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Ideally suited for fi tings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Special steel

1/4"

	○	H mm	L mm	g	
514.1131	1/4"	14.0	78.0	40	

SDS socket drive adaptor

- SDS adaptor
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideally suited for fi tings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Sand blasted
- Special steel



	■	L mm	g	
514.1132	3/8"	60.0	20	
514.1133	1/2"	65.0	50	

SDS chuck adaptor

- SDS adaptor
- Thread 1/2" x 20 Pitch
- Ideally suited for fi tings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Special steel

	H mm	L mm	g	
514.1134	18.0	65.0	40	

SCREWDRIVER BITS

ERGOTORQUE® bit screwdriver

- Extra short execution
- Magnetic
- One component handle
- Optimal power transmission
- 1/4" hexagonal holder for bits
- Hanging hole

1/4"

	○	L mm	g	
911.1190	1/4"	63.0	30	

ERGOTORQUE® bit screwdriver

- One component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

1/4"

	○	L1 mm	L2 mm	L3 mm	g	
911.1198	1/4"	200.0	100.0	100.0	90	
911.1199	1/4"	250.0	150.0	100.0	100	

ERGOTORQUE® quick change bit screwdriver

- Locking and fast change device
- One component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

1/4"

	○	L1 mm	L2 mm	L3 mm	g	
911.1145	1/4"	200.0	100.0	100.0	100	

ERGOTORQUE® bit screwdriver

- Flexible
- Limited torque
- Double spiral shaft
- One component handle
- Plastic protective coating
- 1/4" hexagonal holder for bits
- Hanging hole

1/4"

	○	L1 mm	L2 mm	L3 mm	L4 mm	g	
911.1129	1/4"	200.0	150.0	50.0	8.0	200	

ERGOTORQUE*plus*® bit screwdriver, extra long

- Flexible blade with double spiral shaft
- Limited torque
- For bits to DIN 3126 / C 6,3
- Plastic protective coating
- Two component handle
- Hanging hole

1/4"

	○	L1 mm	L2 mm	L3 mm	L4 mm	g	
911.1172	1/4"	614.0	500.0	114.0	43.0	280	

ERGOTORQUE*plus*® bit screwdriver

- Two component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

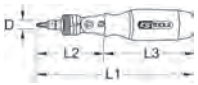
1/4"

	○	L1 mm	L2 mm	L3 mm	g	
159.1198	1/4"	205.0	100.0	105.0	90	

RATCHET BIT SCREWDRIVER

Ratchet bit screwdriver

- Robust gearing with 24 teeth
- Ratchet function
- 180° multi ajustable blade
- For bits to DIN 3126 / C 6,3
- Magnetic
- Integrated bit magazine with 13 bits
- Ergonomically designed handle

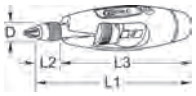


1/4"

	○	D mm	L1 mm	L2 mm	L3 mm	g
911.2470	1/4"	10.0	190.0	82.0	108.0	380

T-handle ratchet bit screwdriver

- Robust gearing with 24 teeth
- Ratchet function
- Locking and fast change device
- 45° two way revolving head
- For bits to DIN 3126 / C 6,3
- Fast change bit stop function
- Magnetic
- Integrated bit magazine with 5 bits
- Two component handle



1/4"

	○	D mm	L1 mm	L2 mm	L3 mm	g
911.2475	1/4"	15.0	140.0	26.0	114.0	380

Mini ratchet screwdriver

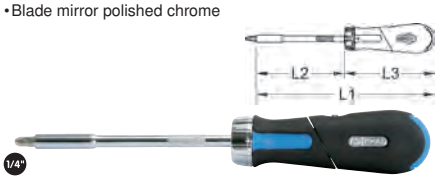
- Exact gearing with 72 teeth
- Ratchet function
- For bits to DIN 3126 / C 6,3
- Magnetic
- Two component handle
- Blade mirror polished chrome

1/4"

	○	L1 mm	L2 mm	L3 mm	g
159.2061	1/4"	95.0	27.0	68.0	140

Revolver ratchet bit screwdriver

- Exact gearing with 72 teeth
- Ratchet function
- Handle with double function (standard and pistol handle)
- For bits to DIN 3126 / C 3,6
- Magnetic
- 40 Nm maximum torque
- Integrated bit magazine
- Two component handle
- Blade mirror polished chrome



1/4"

	○	L1 mm	L2 mm	L3 mm	g
159.2051	1/4"	260.0	130.0	130.0	450

BIT RATCHETS

Bit ratchet reversible with adaptor for sockets

- With 1/4" square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Switchable
- Gearing with 72-teeth
- Extremely fl t construction form
- Matt finished hrome
- Special steel

1/4"

	L mm	○	■	g
918.1595	2 pcs	100.0	1/4"	1/4"	170

CHROME*plus*® bit reversing ratchet

- For bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Reversible
- Gearing with 72 teeth
- Two component handle
- Chrome plated and mirror polished
- Special steel

1/4"

	A mm	D mm	L mm	Repair set	g
918.1495	18.5	22.0	115.0	914.1494	160

Bit reversing ratchet

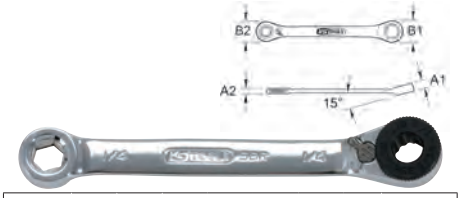
- For bits with 10 mm external hexagon drive
- Reversible
- Gearing with 72 teeth
- Two component handle
- Mirror polished
- Special steel

10 mm

	A mm	D mm	L mm	Repair set	g
914.3893	30.0	32.0	120.0	914.3494	180

GEAR*plus*® mini reversible ratcheting spanner

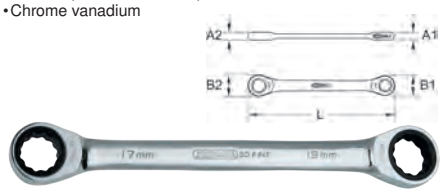
- Especially handy and compact
- Rotating assembly
- One way angled head
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



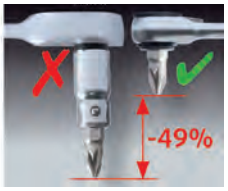
	○	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4691	1/4" x 1/4"	9.7	7.8	12.6	14.2	90.0	40

GEAR*plus*® Double ratchet ring spanner

- FlankTraction profile 12 point)
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium

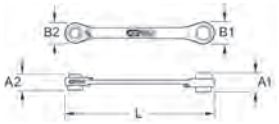


	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4511	8x10	7.3	6.5	20.0	17.0	128.0	40



GEARplus® mini reversible ratcheting spanner

- Especially handy and compact
- Rotating assembly
- One way angled head
- Exact gearing with 72 teeth
- Chrome plated and mirror polished
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4678	1/4" x 10mm	13.5	9.7	19.3	14.2	124.5	40
503.4679	1/4" x 5/16"	10.2	9.7	17.2	14.2	115.0	40

1/4" SCREWDRIVING TOOLS

CLASSIC drive socket, magnetic

- Magnetic
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- For a damage free inserting boring and unscrewing bolts
- Ideally suited for fi tings in trade and industry
- Sand blasted
- Special steel

1/4"

	mm	L mm	H mm	g
122.2171	5,0	60.0	11.0	25
122.2172	6,0	60.0	11.0	25
122.2101	7,0	60.0	11.0	30
122.2102	8,0	60.0	12.0	30
122.2103	10,0	60.0	15.0	40
122.2173	12,0	60.0	18.0	48
122.2104	13,0	60.0	18.0	50

CLASSIC stud screwdriver

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- For a damage free inserting and unscrewing bolts from floo
- Ideally suited for fi tings in trade and industry
- Sand blasted
- Special steel

1/4"

		L mm	H mm	g
122.2105	M6	50.0	12.0	20
122.2106	M8	50.0	12.0	20
122.2107	M10	50.0	12.0	20
122.2108	M12	50.0	14.0	20

CLASSIC bit and drive socket set

- Ideal set of compilation for plumbing heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting borin and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

			kg
122.2100	31 pcs	CLASSIC bit and drive socket set	0.67

4 x		7 - 8 - 10 - 13 mm
4 x		M6 - M8 - M10 - M12
1 x		50 mm
5 x		PH1 - 3 x PH2 - PH3
5 x		PZ1 - 3 x PZ2 - PZ3
2 x		5,5 - 6,5 mm
3 x		4 - 5 - 6 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40

CLASSIC bit and drive socket display

- Ideal set of compilation for plumbing heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting boring and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Special steel
- Supplied in counter sales display

1/4"

			kg
122.2100D	10 pcs	10 x 122.2100	7.00

MICRO BITS

Micro bit for slotted screws

- Slotted
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

	mm		L mm	Content	g
503.8221	4.0	8,0	15.0	1	10

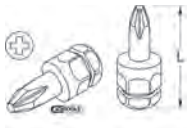
Micro bit for hexagon screws

- Hexagon socket
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

	mm		L mm	Content	g
503.8131	4,0	8,0	15.0	1	10
503.8132	5,0	8,0	15.0	1	10
503.8133	6,0	10,0	15.0	1	10
503.8134	7,0	10,0	15.0	1	10
503.8135	8,0	10,0	15.0	1	10

Micro bit for phillips screws PH

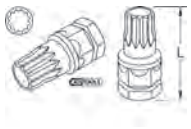
- PH
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



			L mm	Content	g
503.8101	PH0	8,0	20.0	1	10
503.8102	PH1	8,0	20.0	1	10
503.8103	PH2	8,0	20.0	1	10

Micro bit for spline screws

- Spline
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



		○	L mm	Content	
503.8152	M5	8,0	23.0	1	10
503.8153	M6	10,0	23.0	1	10
503.8154	M8	10,0	23.0	1	10
503.8155	M10	10,0	23.0	1	10

TORX® MICRO bits

- TX
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

		○	L mm	Content	
503.8170	T8	8,0	23.0	1	5
503.8171	T10	8,0	23.0	1	10
503.8172	T15	8,0	23.0	1	10
503.8173	T20	8,0	23.0	1	10
503.8174	T25	8,0	23.0	1	10
503.8175	T27	8,0	23.0	1	10
503.8176	T30	8,0	23.0	1	10
503.8177	T40	10,0	23.0	1	10
503.8178	T45	10,0	23.0	1	10

TORX® MICRO bits, tamper proof

- For tamperproof TX
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

		○	L mm	Content	
503.8200	TB8	8,0	23.0	1	5
503.8201	TB10	8,0	23.0	1	10
503.8202	TB15	8,0	23.0	1	10
503.8203	TB20	8,0	23.0	1	10
503.8204	TB25	8,0	23.0	1	10
503.8205	TB27	8,0	23.0	1	10
503.8206	TB30	8,0	23.0	1	10
503.8207	TB40	10,0	23.0	1	10
503.8208	TB45	10,0	23.0	1	10

Micro bit set

- External hexagon drive and locking ring
- For manual operation
- Includes reversing GEAR*plus*® bit ratchet ring spanner
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular micro-bits
- Nickel plated
- Special steel

503.4670	32 pcs	Micro bit set	520
1 x		8 x 10 mm	
1 x		4 mm	
3 x		PH0 - PH1 - PH2	
5 x		4 - 5 - 6 - 7 - 8 mm	
4 x		5 - 6 - 8 - 10 mm	
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 T40 - T45	
9 x		TB8 - TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40 - TB45	

1/4" CLASSIC BITS 25 mm

CLASSIC bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

	mm	L mm	Content	
911.3303	3.0	25.0	1	5
911.3304	3.0	25.0	5	35
911.3305	3.5	25.0	1	5
911.3306	3.5	25.0	5	35
911.2237	4.0	25.0	1	6
911.2238	4.0	25.0	5	40
911.2240	4.5	25.0	1	6
911.2241	4.5	25.0	5	40
911.2392	5.0	25.0	1	5
911.2492	5.0	25.0	5	35
911.2243	5.5	25.0	1	6
911.2244	5.5	25.0	5	40
911.2246	6.0	25.0	1	6
911.2247	6.0	25.0	5	40
911.2249	6.5	25.0	1	6
911.2250	6.5	25.0	5	40
911.3307	7.0	25.0	1	6
911.3308	7.0	25.0	5	40
911.2252	8.0	25.0	1	9
911.2253	8.0	25.0	5	58
911.3309	9.0	25.0	1	10
911.3310	9.0	25.0	5	66
911.3311	10.0	25.0	1	12
911.3312	10.0	25.0	5	74
911.3313	11.0	25.0	1	12
911.3314	11.0	25.0	5	74

CLASSIC bit for hexagon screws

- Hexagon socket
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

	mm		L mm	Content	
911.3558	1,5		25.0	1	6
911.3559	1,5		25.0	5	40
911.2377	2		25.0	1	5
911.3561	2		25.0	5	40
911.2386	2,5		25.0	1	5
911.3563	2,5		25.0	5	40
911.2255	3		25.0	1	6
911.2256	3		25.0	5	40
911.2258	4		25.0	1	6
911.2259	4		25.0	5	40
911.2261	5		25.0	1	6
911.2262	5		25.0	5	40
911.2264	6		25.0	1	6
911.2265	6		25.0	5	40
911.2267	7		25.0	1	8
911.2268	7		25.0	5	50
911.2270	8		25.0	1	8
911.2271	8		25.0	5	50
911.2399	10		25.0	1	10
911.3565	10		25.0	5	50
911.3566		1/16"	25.0	1	6
911.3611		1/16"	25.0	5	40
911.3567		5/64"	25.0	1	6
911.3612		5/64"	25.0	5	40
911.3568		3/32"	25.0	1	6
911.3613		3/32"	25.0	5	40
911.3569		7/64"	25.0	1	6
911.3614		7/64"	25.0	5	40
911.3570		1/8"	25.0	1	6
911.3615		1/8"	25.0	5	40
911.3571		9/64"	25.0	1	6
911.3616		9/64"	25.0	5	40
911.3572		5/32"	25.0	1	6
911.3617		5/32"	25.0	5	40
911.3573		3/16"	25.0	1	6
911.3618		3/16"	25.0	5	40
911.3574		7/32"	25.0	1	6
911.3619		7/32"	25.0	5	40
911.3575		1/4"	25.0	1	6
911.3620		1/4"	25.0	5	40
911.3576		5/16"	25.0	1	6
911.3621		5/16"	25.0	5	40
911.3577		3/8"	25.0	1	6
911.3622		3/8"	25.0	5	40

CLASSIC Bit for hexagon tamperproof screws

- Tamperproof hexagon
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

	mm		L mm	Content	
911.2934	2,0		25.0	1	6
911.2935	2,0		25.0	5	40
911.2937	2,5		25.0	1	6
911.2938	2,5		25.0	5	40
911.2940	3,0		25.0	1	6
911.2941	3,0		25.0	5	40
911.2943	4,0		25.0	1	6
911.2944	4,0		25.0	5	40
911.2946	5,0		25.0	1	6
911.2947	5,0		25.0	5	40
911.2949	6,0		25.0	1	6
911.2950	6,0		25.0	5	40
911.2952		1/8"	25.0	1	6
911.2953		1/8"	25.0	5	40
911.2955		3/32"	25.0	1	6
911.2956		3/32"	25.0	5	40
911.2958		5/32"	25.0	1	6
911.2959		5/32"	25.0	5	40
911.2961		5/64"	25.0	1	6
911.2962		5/64"	25.0	5	40
911.2964		7/64"	25.0	1	6
911.2965		7/64"	25.0	5	40
911.2967		9/64"	25.0	1	6
911.2968		9/64"	25.0	5	40
911.3582		1/16"	25.0	1	6
911.3583		1/16"	25.0	5	40
911.3584		3/16"	25.0	1	6
911.3585		3/16"	25.0	5	40
911.3586		7/32"	25.0	1	6
911.3587		7/32"	25.0	5	40
911.3588		1/4"	25.0	1	6
911.3589		1/4"	25.0	5	40
911.3590		5/16"	25.0	1	6
911.3591		5/16"	25.0	5	40
911.3592		3/8"	25.0	1	6
911.3593		3/8"	25.0	5	40

CLASSIC bit for hexagon screws with ball end

- Hexagon socket with ball end
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

	mm		L mm	Content	
911.3700	2,5		25.0	1	6
911.3701	2,5		25.0	5	40
911.3702	3		25.0	1	6
911.3703	3		25.0	5	40
911.3704	4		25.0	1	6
911.3705	4		25.0	5	40
911.3706	5		25.0	1	6
911.3707	5		25.0	5	40
911.3708	6		25.0	1	6
911.3709	6		25.0	5	40
911.3710		3/32"	25.0	1	6
911.3711		3/32"	25.0	5	40
911.4651		7/64"	25.0	1	6
911.3713		7/64"	25.0	5	40
911.3714		1/8"	25.0	1	6
911.3715		1/8"	25.0	5	40
911.4652		9/64"	25.0	1	6
911.3717		9/64"	25.0	5	40
911.3718		5/32"	25.0	1	6
911.3719		5/32"	25.0	5	40
911.3720		3/16"	25.0	1	6
911.3721		3/16"	25.0	5	40
911.3722		7/32"	25.0	1	6
911.3723		7/32"	25.0	5	40
911.3724		1/4"	25.0	1	6
911.3725		1/4"	25.0	5	40

CLASSIC bit for Phillips screws PH

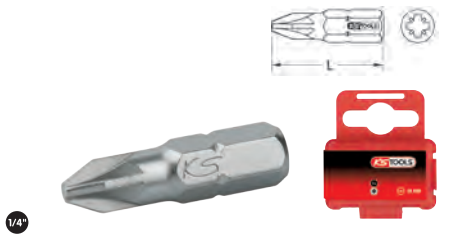
- PH
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

		L mm	Content	
911.3333	PH000	25.0	1	6
911.3334	PH000	25.0	5	40
911.3335	PH00	25.0	1	6
911.3336	PH00	25.0	5	40
911.2396	PH0	25.0	1	6
911.2394	PH0	25.0	5	40
911.2201	PH1	25.0	1	6
911.2202	PH1	25.0	5	40
911.2204	PH2	25.0	1	6
911.2205	PH2	25.0	5	40
911.2207	PH3	25.0	1	6
911.2208	PH3	25.0	5	40
911.3337	PH4	25.0	1	8
911.3338	PH4	25.0	5	50

CLASSIC bit for Phillips screws PZ

- PZ
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

		L mm	Content	g
911.2397	PZ0	25.0	1	6
911.2393	PZ0	25.0	5	40
911.2219	PZ1	25.0	1	6
911.2220	PZ1	25.0	5	40
911.2222	PZ2	25.0	1	6
911.2223	PZ2	25.0	5	40
911.2225	PZ3	25.0	1	6
911.2226	PZ3	25.0	5	40
911.3345	PZ4	25.0	1	8
911.3346	PZ4	25.0	5	50

CLASSIC bit for TX screws

- TX
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
911.3351	T1	25.0	1	6
911.3352	T1	25.0	5	40
911.3353	T2	25.0	1	6
911.3354	T2	25.0	5	40
911.3355	T3	25.0	1	6
911.3356	T3	25.0	5	40
911.3357	T4	25.0	1	6
911.3358	T4	25.0	5	40
911.3359	T5	25.0	1	6
911.3360	T5	25.0	5	40
911.2334	T6	25.0	1	6
911.2335	T6	25.0	5	40
911.2303	T7	25.0	1	6
911.2304	T7	25.0	5	40
911.2306	T8	25.0	1	6
911.2307	T8	25.0	5	40
911.2309	T9	25.0	1	6
911.2310	T9	25.0	5	40
911.2312	T10	25.0	1	6
911.2313	T10	25.0	5	40
911.2315	T15	25.0	1	6
911.2316	T15	25.0	5	40
911.2318	T20	25.0	1	6
911.2319	T20	25.0	5	40
911.2321	T25	25.0	1	6
911.2322	T25	25.0	5	40
911.2324	T27	25.0	1	6
911.2325	T27	25.0	5	40
911.2327	T30	25.0	1	8
911.2328	T30	25.0	5	50
911.2330	T40	25.0	1	8
911.2331	T40	25.0	5	50
911.3363	T45	25.0	1	8
911.3364	T45	25.0	5	50

CLASSIC bit for TX PLUS screws

- TX PLUS
- With external hexagon drive to DIN 3126 / ISO 1173 Form C 8
- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
911.3240	IP 10	30.0	1	5
911.3241	IP 15	30.0	1	6
911.3242	IP 20	30.0	1	5
911.3243	IP 25	30.0	1	5
911.3244	IP 30	30.0	1	5

CLASSIC bit for TX screws with ball end

- TX with ball end
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
911.3389	T10	25.0	1	6
911.3390	T10	25.0	5	40
911.3391	T15	25.0	1	6
911.3392	T15	25.0	5	40
911.3393	T20	25.0	1	6
911.3394	T20	25.0	5	40
911.3395	T25	25.0	1	6
911.3396	T25	25.0	5	40
911.3397	T30	25.0	1	8
911.3398	T30	25.0	5	50
911.3399	T40	25.0	1	8
911.3500	T40	25.0	5	50

CLASSIC bit for TX tamperproof screws

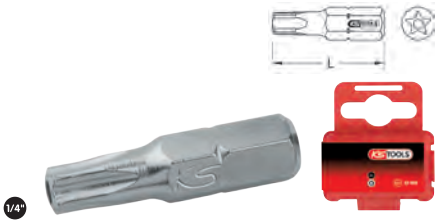
- For tamperproof TX
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
911.2833	TB5	25.0	1	6
911.2836	TB6	25.0	1	6
911.2273	TB7	25.0	1	6
911.2274	TB7	25.0	5	40
911.2276	TB8	25.0	1	6
911.2277	TB8	25.0	5	40
911.2279	TB9	25.0	1	6
911.2280	TB9	25.0	5	40
911.2282	TB10	25.0	1	6
911.2283	TB10	25.0	5	40
911.2285	TB15	25.0	1	6
911.2286	TB15	25.0	5	40
911.2288	TB20	25.0	1	6
911.2289	TB20	25.0	5	40
911.2291	TB25	25.0	1	6
911.2292	TB25	25.0	5	40
911.2294	TB27	25.0	1	6
911.2295	TB27	25.0	5	40
911.2297	TB30	25.0	1	8
911.2298	TB30	25.0	5	50
911.2300	TB40	25.0	1	8
911.2301	TB40	25.0	5	50

CLASSIC Bit for tamperproof fi e star bits

- Five star bit, tamperproof
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

		L mm	Content	g
911.3101	TS10	30.0	1	6
911.3111	TS10	30.0	5	40
911.3102	TS15	30.0	1	6
911.3112	TS15	30.0	5	40
911.3103	TS20	30.0	1	6
911.3113	TS20	30.0	5	40
911.3104	TS25	30.0	1	6
911.3114	TS25	30.0	5	40
911.3105	TS27	30.0	1	6
911.3115	TS27	30.0	5	40
911.3106	TS30	30.0	1	8
911.3116	TS30	30.0	5	50
911.3107	TS40	30.0	1	8
911.3117	TS40	30.0	5	50

CLASSIC bit for spline screws

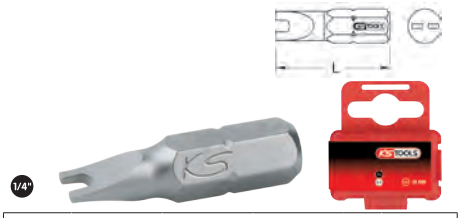
- Spline
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
911.2341	M4	25.0	1	6
911.2342	M4	25.0	5	40
911.2344	M5	25.0	1	6
911.2345	M5	25.0	5	40
911.2347	M6	25.0	1	8
911.2348	M6	25.0	5	50
911.2350	M8	25.0	1	8
911.2351	M8	25.0	5	50
911.2353	M10	25.0	1	8

CLASSIC bit for security screws

- Security
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

	mm	L mm	Content	g
911.2910	4.0	25.0	1	6
911.2911	4.0	25.0	5	40
911.2913	6.0	25.0	1	6
911.2914	6.0	25.0	5	40
911.2916	8.0	25.0	1	8
911.2917	8.0	25.0	5	50
911.2919	10.0	25.0	1	8
911.2920	10.0	25.0	5	50
911.3594	12.0	25.0	1	8
911.3595	12.0	25.0	5	50

CLASSIC bit for RIBE® screws

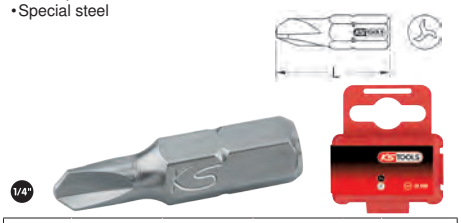
- RIBE®
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Phosphate finis
- Special steel

1/4"

		L mm	Content	g
911.5260	M4	25.0	1	10
911.5261	M5	25.0	1	10
911.5262	M6	25.0	1	10
911.5263	M7	25.0	1	10
911.5264	M8	25.0	1	10
911.5265	M9	25.0	1	10

CLASSIC bit for TRIWING® screws

- TRIWING®
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

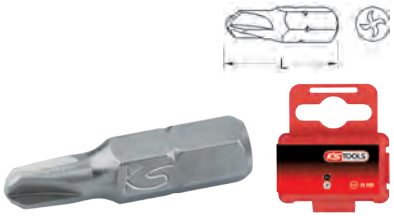


1/4"

	mm	L mm	Content	g
911.3625	1,0	25.0	1	6
911.3626	1,0	25.0	5	40
911.3627	2,0	25.0	1	6
911.3628	2,0	25.0	5	40
911.3629	3,0	25.0	1	6
911.3630	3,0	25.0	5	40
911.2922	4,0	25.0	1	6
911.2923	4,0	25.0	5	40
911.3596	5,0	25.0	1	6
911.3597	5,0	25.0	5	40
911.2925	6,0	25.0	1	6
911.2926	6,0	25.0	5	40
911.2928	8,0	25.0	1	8
911.2929	8,0	25.0	5	50
911.2931	10,0	25.0	1	8
911.2932	10,0	25.0	5	50

CLASSIC bit for Torq® screws

- Torq®
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

	mm	L mm	Content	g
911.3631	1.0	25.0	1	6
911.3632	1.0	25.0	5	40
911.3633	2.0	25.0	1	6
911.3634	2.0	25.0	5	40
911.3635	3.0	25.0	1	6
911.3636	3.0	25.0	5	40
911.3637	4.0	25.0	1	6
911.3638	4.0	25.0	5	40
911.3639	5.0	25.0	1	6
911.3640	5.0	25.0	5	40
911.2901	6.0	25.0	1	6
911.2902	6.0	25.0	5	40
911.2904	8.0	25.0	1	8
911.2905	8.0	25.0	5	50
911.2907	10.0	25.0	1	8
911.2908	10.0	25.0	5	50

1/4" CLASSIC BIT SETS 25 mm

CLASSIC mini bit case

- Compact and handy design - fi s into shirt or trouser pocket
- Ergonomic form for fatigue free working
- Integrated hexagon drive in the magazine can be used as an auxiliary screwdriver
- Folding bit magazine
- Includes AUTO SLIMLOCK bitholder with magnet and extension
- Extremly slim ideal in confined spa es
- Precise and orderly arrangement of the popular 1/4" bits
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Nickel plated bits
- Bits made of special steel
- Box made from impact resistant plastic

1/4"

			g
911.2840	11 pcs	CLASSIC mini bit case	130
2 x		5,5 - 6,5 mm	
4 x		PH1 - 2 x PH2 - PH3	
4 x		PZ1 - 2 x PZ2 - PZ3	
1 x		1/4"	

CLASSIC mini bit case display

- Compact and handy design - fi s into shirt or trouser pocket
- Ergonomic form for fatigue free working
- Integrated hexagon drive in the magazine can be used as an auxiliary screwdriver
- Folding bit magazine
- Includes AUTO SLIMLOCK bitholder with magnet and extension
- Extremly slim ideal in confined spa es
- Precise and orderly arrangement of the popular 1/4" bits
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Nickel plated bits
- Bits made of special steel
- Box made from impact resistant plastic
- Supplied in counter sales display

1/4"

			kg
911.2840D	12 pcs	12 x 911.2840D	1.85

CLASSIC mini bit case

- Compact and handy design - fi s into shirt or trouser pocket
- Ergonomic form for fatigue free working
- Integrated hexagon drive in the magazine can be used as an auxiliary screwdriver
- Folding bit magazine
- Includes AUTO SLIMLOCK bitholder with magnet and extension
- Extremly slim ideal in confined spa es
- Precise and orderly arrangement of the popular 1/4" bits
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Nickel plated bits
- Bits made of special steel
- Box made from impact resistant plastic

1/4"

			g
911.2845	11 pcs	CLASSIC mini bit case	130
4 x		T15 - T20 - T25 - T30	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
1 x		1/4"	

CLASSIC mini bit case display

- Compact and handy design - fi s into shirt or trouser pocket
- Ergonomic form for fatigue free working
- Integrated hexagon drive in the magazine can be used as an auxiliary screwdriver
- Folding bit magazine
- Includes AUTO SLIMLOCK bitholder with magnet and extension
- Extremly slim ideal in confined spa es
- Precise and orderly arrangement of the popular 1/4" bits
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Nickel plated bits
- Bits made of special steel
- Box made from impact resistant plastic
- Supplied in counter sales display

1/4"

			kg
911.2845D	12 pcs	12 x 911.2845	1.85

CHROME*plus*® bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes reversing GEARplus® bit ratchet ring spanner and 1/4" socket adaptor
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Chrome plated
- Special steel
- Includes mirror polished chrome box

1/4"

			kg
918.4520	20 pcs	CHROME*plus*® bit set	0.32
1 x		1/4" x 1/4"	
1 x		1/4"	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
3 x		4,5 - 5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
6 x		TB10 - TB15 - TB20 - TB25 - TB30 - TB40	

CHROME*plus*® bit set display

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes reversing GEARplus® bit ratchet ring spanner and 1/4" socket adaptor
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Chrome plated
- Special steel
- Includes mirror polished chrome box
- Supplied in counter sales display

1/4"

			kg
918.4520D	12 pcs	12 x 918.4520	3.20

CHROME*plus*® bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special steel
- Includes mirror polished chrome box

1/4"

			kg
911.2070	30 pcs	CHROME*plus*® bit set	0.26
1 x		1/4"	
1 x		1/4"	
4 x		PH1 - 2 x PH2 - PH3	
4 x		PZ1 - 2 x PZ2 - PZ3	
3 x		4,5 - 5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Practical belt holder
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special steel
- In durable plastic storage case

1/4"

			kg
911.2060	32 pcs	CLASSIC bit set	0.30
1 x		1/4"	
1 x		1/4"	
3 x		PH1 - PH2 - PH3	
6 x		2 x PZ1 - 2 x PZ2 - 2 x PZ3	
3 x		5,5 - 6,5 - 8 mm	
3 x		4 - 5 - 6 mm	
15 x		2 x TB10 - 3 x TB15 - 2 x TB20 - 3 x TB25 - 3 x TB30 - 2 x TB40	

CHROME*plus*® bit set

- Can be used by hand or with an electric screwdriver
- Ideally suited for fi tings in trade and industry
- Precise arrangement of the popular 1/4" bits
- Exact gearing with 72 teeth
- Offset angle 5°
- Matt finis
- Chrome vanadium
- In high quality chrome box

1/4"

			kg
918.4600	31 pcs	CHROME*plus*® bit set	0.60
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
4 x		PH 1 - 2 x PH 2 - PH 3	
4 x		PZ 1 - 2 x PZ 2 - PZ 3	
3 x		4,5 - 5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 TB30 - TB40	

CHROME*plus*® bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes CHROMEplus® mini bit eversing ratchet and 1/4" socket adaptor
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Chrome plated
- Special steel
- Includes mirror polished chrome box

1/4"

			kg
918.4500	31 pcs	CHROME*plus*® bit set	0.60
1 x		1/4“ x 1/4“	
1 x		1/4“	
1 x		1/4“	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
3 x		4,5 - 5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

CHROME*plus*® bit set display

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes CHROMEplus® bit eversing ratchet and 1/4" socket adaptor
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Chrome plated
- Special steel
- Includes mirror polished chrome box and belt pouch
- Supplied in counter sales display

1/4"

		kg
918.4500D	11 pcs	11 x 918.4500	6.60

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes quick release screwdriver bits and 1/4" socket adapter
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" security bits
- Nickel plated
- Special steel
- In durable steel storage case

1/4"

			kg
911.2029	29 pcs	CLASSIC bit set	0.88
1 x		1/4“	
1 x		1/4“	
9 x		TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm	
4 x		4 - 6 - 8 - 10 mm	
4 x		4 - 6 - 8 - 10 mm	
3 x		6 - 8 - 10 mm	
1 x		1/4“	

CLASSIC bit and drive socket set

- Ideal set of compilation for plumbing heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting borin and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

			kg
122.2100	31 pcs	CLASSIC bit and drive socket set	0.67
4 x		7 - 8 - 10 - 13 mm	
4 x		M6 - M8 - M10 - M12	
1 x		50 mm	
5 x		PH1 - 3 x PH2 - PH3	
5 x		PZ1 - 3 x PZ2 - PZ3	
2 x		5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

CLASSIC bit and drive socket display

- Ideal set of compilation for plumbing heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting boring and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Special steel
- Supplied in counter sales display

1/4"

		kg
122.2100D	10 pcs	10 x 122.2100	7.00

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes bitholder and 1/4" socket adapter
- Ideally suited for fi tings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

			kg
911.2026	100 pcs	CLASSIC bit set	0.75
1 x		50 mm	
2 x		30 - 50 mm	
1 x		1/4"	
1 x		1/4"	
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm	
8 x		PH0 - PH1 - 5 x PH2 - PH3	
8 x		PZ0 - PZ1 - 5 x PZ2 - PZ3	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm	
10 x		1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"	
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm	
6 x		5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32"	
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40	
3 x		M5 - M6 - M8	
3 x		#1 - #2 - #3	
4 x		#1 - #2 - #3 - #4	
4 x		4 - 6 - 8 - 10 mm	
3 x		6 - 8 - 10 mm	
4 x		#0 - #1 - #2 - #3	

CLASSIC bit set

- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes bit holder, bit ratchet, 1/4" socket adaptor and 1/4" mini-bit-screwdriver
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Sand-blasted
- Special steel
- In durable plastic storage case

1/4"

			kg
911.2080	99 pcs	CLASSIC bit set	0.75
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm	
8 x		PH0 - PH1 - 5 x PH2 - PH3	
8 x		PZ0 - PZ1 - 5 x PZ2 - PZ3	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm	
10 x		5/64" - 7/64" - 9/64" - 3/32" - 5/32" - 7/32" - 3/16" - 1/16" - 1/8" - 1/4"	
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm	
6 x		5/64" - 7/64" - 9/64" - 3/32" - 1/8" - 5/32"	
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40	
3 x		M5 - M6 - M8	
3 x		#1 - #2 - #3	
4 x		#1 - #2 - #3 - #4	
4 x		4 - 6 - 8 - 10 mm	
3 x		6 - 8 - 10 mm	
4 x		#0 - #1 - #2 - #3	

CLASSIC Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes bit holder, bit ratchet, 1/4" socket adaptor and 1/4" bit screwdriver
- Ideally suited for fi tings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

			kg
911.2085	122 pcs	CLASSIC Bit set	1.15
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
2 x		30 - 50 mm	
1 x		1/4"	
10 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 1/2"	
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm	
5 x		PH0 - PH00 - PH1 - PH2 - PH3	
5 x		PZ0 - PZ00 - PZ1 - PZ2 - PZ3	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm	
10 x		1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"	
6 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 mm	
13 x		T5 - T6 - T7- T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40	
3 x		M5 - M6 - M8	
3 x		#1 - #2 - #3	
4 x		4 - 6 - 8 - 10 mm	
4 x		4 - 6 - 8 - 10 mm	
3 x		6 - 8 - 10 mm	
4 x		#0 - #1 - #2 - #3	
9 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50	

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes bitholder and 1/4" socket adapter
- Ideally suited for fi tings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

			kg
911.2027	99 pcs	CLASSIC bit set	0.75
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8	
5 x		PH0 - PH1 - 2 x PH2 - PH3	
5 x		PZ0 - PZ1 - 2 x PZ2 - PZ3	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8	
6 x		2 - 2,5 - 3 - 4 - 5 - 6	
6 x		5/64" - 3/32" - 7/64" -1/8" - 9/64" - 5/32"	
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40	
3 x		M5 - M6 - M8	
3 x		#1 - #2 - #3	
4 x		#1 - #2 - #3 - #4	
4 x		4 - 6 - 8 - 10 mm	
3 x		6 - 8 - 10 mm	
4 x		#0 - #1 - #2 - #3	
3 x		4 - 5 - 6 mm	
3 x		TB15 - TB20 - TB30	
4 x		#1 - #2 - #3 - 4 #	
4 x		4 - 6 - 8 - 10 mm	
3 x		6 - 8 - 10 mm	

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes quick release bit holder
- Ideally suited for fi tings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

			kg
911.2031	113 pcs	CLASSIC bit set	1.17
1 x		1/4"	
1 x		1/4"	
3 x		PH2	
3 x		PZ2	
7 x		T10 - T15 - 3 x T20 - T25 - T30	
14 x		7 x 4 - 7 x 6 mm	
21 x		7 x PH1 - 7 x PH2 - 7 x PH3	
21 x		7 x PZ1 - 7 x PZ2 - 7 x PZ3	
21 x		7 x 4 - 7 x 5 - 7 x 6 mm	
14 x		2 x T10 - 2 x T15 - 2 x T20 - 2 x T25 - 2 x T27 - 2 x T30 - 2 x T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	

CLASSIC bit display

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Contains the most current 1/4" bits and bit holder
- Nickel plated
- Special steel
- In durable plastic storage bit magazine
- 30 Drawers with labels
- Magazine can be placed or can secured to the wall
- Polypropylene housing
- Drawers out of polystyrene

1/4"

			kg
911.2200	280 pcs	CLASSIC bit display	6.60
10 x		5 x 50 - 5 x 100 mm	
5 x		65 mm	
5 x		65 mm	
30 x		10 x 4 - 10 x 5,5 - 10 x 6,5 mm	
30 x		10 x 4 - 10 x 5 - 10 x 6 mm	
30 x		10 x PH1 - 10 x PH2 - 10 x PH3	
30 x		10 x PZ1 - 10 x PZ2 - 10 x PZ3	
70 x		10 x (T10 - T15 - T20 - T25 - T27 - T30 - T40)	
70 x		10 x (TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40)	

CLASSIC bit display

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Contains the most current 1/4" bits and bit holder
- Nickel plated
- Special steel
- In durable clear acrylic counter display with a push cover

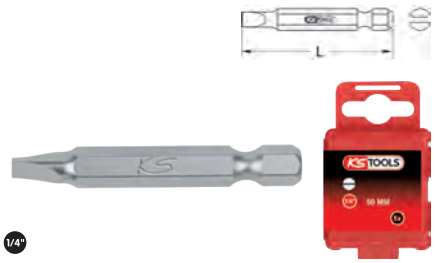
1/4"

			kg
911.2000	1580 pcs	CLASSIC bit display	10.10
10 x		60 mm	
10 x		65 mm	
200 x		50 x PH1 - 100 x PH2 - 50 x PH3	
200 x		50 x PZ1 - 100 x PZ2 - 50 x PZ3	
230 x		50 x 4 mm - 100 x 5,5 mm - 50 x 6,5 mm - 30 x 8 mm	
230 x		50 x (3 - 4 - 5 - 6 mm) - 30 x 8 mm	
350 x		50 x (T10 - T15 - T20 - T25 - T27 T30 - T40)	
350 x		50 x (TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40)	

1/4“ CLASSIC BITS 50 mm

CLASSIC bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

	mm	L mm	Content	g	
911.3315	1.5	50.0	1	10	
911.3316	1.5	50.0	5	60	
911.3317	2.0	50.0	1	10	
911.3318	2.0	50.0	5	60	
911.3319	2.5	50.0	1	10	
911.3320	2.5	50.0	5	60	
911.2746	3.0	50.0	1	10	
911.2747	3.0	50.0	5	60	
911.3321	3.5	50.0	1	10	
911.3322	3.5	50.0	5	60	
911.2749	4.0	50.0	1	10	
911.2750	4.0	50.0	5	60	
911.2752	4.5	50.0	1	10	
911.2753	4.5	50.0	5	60	
911.2755	5.0	50.0	1	10	
911.2756	5.0	50.0	5	60	
911.2758	5.5	50.0	1	10	
911.2759	5.5	50.0	5	60	
911.2761	6.0	50.0	1	10	
911.2762	6.0	50.0	5	60	
911.2764	6.5	50.0	1	12	
911.2765	6.5	50.0	5	70	
911.2767	7.0	50.0	1	12	
911.2768	7.0	50.0	5	70	
911.3323	8.0	50.0	1	12	
911.3324	8.0	50.0	5	70	
911.3325	9.0	50.0	1	12	
911.3326	9.0	50.0	5	70	
911.3327	10.0	50.0	1	12	
911.3328	10.0	50.0	5	70	
911.3329	11.0	50.0	1	12	
911.3330	11.0	50.0	5	70	
911.3331	12.0	50.0	1	12	
911.3332	12.0	50.0	5	70	

CLASSIC bit for hexagon screws

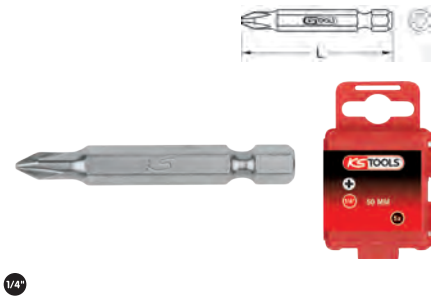
- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

	mm	L mm	Content	g	
911.2800	1,5	50.0	1	10	
911.2801	1,5	50.0	5	60	
911.2803	2,0	50.0	1	10	
911.2804	2,0	50.0	5	60	
911.2806	2,5	50.0	1	10	
911.2807	2,5	50.0	5	60	
911.2809	3,0	50.0	1	10	
911.2810	3,0	50.0	5	60	
911.2812	4,0	50.0	1	10	
911.2813	4,0	50.0	5	60	
911.2815	5,0	50.0	1	10	
911.2816	5,0	50.0	5	60	
911.2818	5,5	50.0	1	10	
911.2819	5,5	50.0	5	60	
911.2821	6,0	50.0	1	10	
911.2822	6,0	50.0	5	60	
911.2824	7,0	50.0	1	12	
911.2825	7,0	50.0	5	70	
911.3578	8,0	50.0	1	12	
911.3579	8,0	50.0	5	70	
911.3580	10,0	50.0	1	12	
911.3581	10,0	50.0	5	70	

CLASSIC bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

		L mm	Content	g	
911.3339	PH0	50.0	1	10	
911.3340	PH0	50.0	5	60	
911.2210	PH1	50.0	1	10	
911.2211	PH1	50.0	5	60	
911.2213	PH2	50.0	1	10	
911.2214	PH2	50.0	5	60	
911.2216	PH3	50.0	1	10	
911.2217	PH3	50.0	5	60	
911.3341	PH4	50.0	1	12	
911.3342	PH4	50.0	5	70	

CLASSIC bit for phillips screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fi tings in trade and industry
- Can be used by hand or with and electric screwdriver
- Nickel plated
- Special steel

1/4"

		L mm	Content	g	
911.3347	PZ0	50.0	1	10	
911.3348	PZ0	50.0	5	60	
911.2228	PZ1	50.0	1	10	
911.2229	PZ1	50.0	5	60	
911.2231	PZ2	50.0	1	10	
911.2232	PZ2	50.0	5	60	
911.2234	PZ3	50.0	1	10	
911.2235	PZ3	50.0	5	60	
911.3349	PZ4	50.0	1	12	
911.3350	PZ4	50.0	5	70	

CLASSIC bit for spline screws

- Spline
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fi tings in trade and industry
- Can be used by hand or with and electric screwdriver
- Nickel plated
- Special steel

1/4"

		L mm	Content	g	
911.2701	M3	50.0	1	10	
911.2702	M3	50.0	5	60	
911.2704	M4	50.0	1	10	
911.2705	M4	50.0	5	60	
911.2707	M5	50.0	1	10	
911.2708	M5	50.0	5	60	
911.2710	M6	50.0	1	12	
911.2711	M6	50.0	5	70	
911.2713	M8	50.0	1	12	
911.2714	M8	50.0	5	70	

CLASSIC bit for TX screws

- TX
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fi tings in trade and industry
- Can be used by hand or with and electric screwdriver
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
911.3365	T1	50.0	1	10
911.3366	T1	50.0	5	60
911.3367	T2	50.0	1	10
911.3368	T2	50.0	5	60
911.3369	T3	50.0	1	10
911.3370	T3	50.0	5	60
911.3371	T4	50.0	1	10
911.3372	T4	50.0	5	60
911.3373	T5	50.0	1	10
911.3374	T5	50.0	5	60
911.3375	T6	50.0	1	10
911.3376	T6	50.0	5	60
911.2716	T7	50.0	1	10
911.2717	T7	50.0	5	60
911.2719	T8	50.0	1	10
911.2720	T8	50.0	5	60
911.2722	T9	50.0	1	10
911.2723	T9	50.0	5	60
911.2725	T10	50.0	1	10
911.2726	T10	50.0	5	60
911.2728	T15	50.0	1	10
911.2729	T15	50.0	5	60
911.2731	T20	50.0	1	10
911.2732	T20	50.0	5	60
911.2734	T25	50.0	1	10
911.2735	T25	50.0	5	60
911.2737	T27	50.0	1	10
911.2738	T27	50.0	5	60
911.2740	T30	50.0	1	12
911.2741	T30	50.0	5	70
911.2743	T40	50.0	1	12
911.2744	T40	50.0	5	70

CLASSIC bit for TX tamperproof screws

- For tamperproof TX
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fi tings in trade and industry
- Can be used by hand or with and electric screwdriver
- Nickel plated
- Special steel

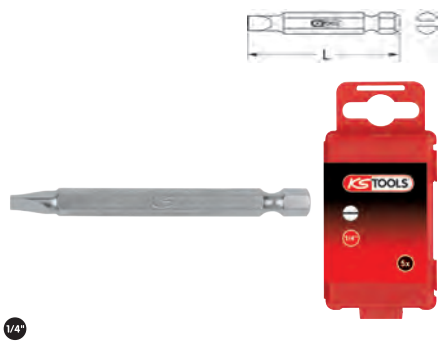
1/4"

		L mm	Content	g
911.2770	TB7	50.0	1	10
911.2771	TB7	50.0	5	60
911.2773	TB8	50.0	1	10
911.2774	TB8	50.0	5	60
911.2776	TB9	50.0	1	10
911.2777	TB9	50.0	5	60
911.2779	TB10	50.0	1	10
911.2780	TB10	50.0	5	60
911.2782	TB15	50.0	1	10
911.2783	TB15	50.0	5	60
911.2785	TB20	50.0	1	10
911.2786	TB20	50.0	5	60
911.2788	TB25	50.0	1	10
911.2789	TB25	50.0	5	60
911.2791	TB27	50.0	1	10
911.2792	TB27	50.0	5	60
911.2794	TB30	50.0	1	12
911.2795	TB30	50.0	5	70
911.2797	TB40	50.0	1	12
911.2798	TB40	50.0	5	70

1/4“ CLASSIC BITS 75 mm

CLASSIC bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

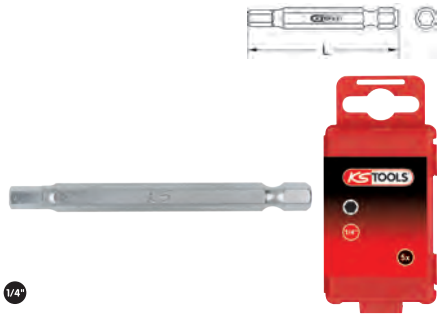


1/4"

	mm	L mm	Content	g
911.7533	3.0	75.0	1	20
911.7733	3.0	75.0	5	110
911.7534	4.0	75.0	1	20
911.7734	4.0	75.0	5	110
911.7535	5.0	75.0	1	20
911.7735	5.0	75.0	5	110
911.7536	6.0	75.0	1	20
911.7736	6.0	75.0	5	110
911.7537	7.0	75.0	1	25
911.7737	7.0	75.0	5	140

CLASSIC bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

	mm	L mm	Content	g
911.7558	2,0	75.0	1	20
911.7758	2,0	75.0	5	110
911.7559	2,5	75.0	1	20
911.7759	2,5	75.0	5	110
911.7560	3,0	75.0	1	20
911.7760	3,0	75.0	5	110
911.7561	4,0	75.0	1	20
911.7761	4,0	75.0	5	110
911.7562	5,0	75.0	1	20
911.7762	5,0	75.0	5	110
911.7563	6,0	75.0	1	20
911.7763	6,0	75.0	5	110

CLASSIC bit for phillips screws PH

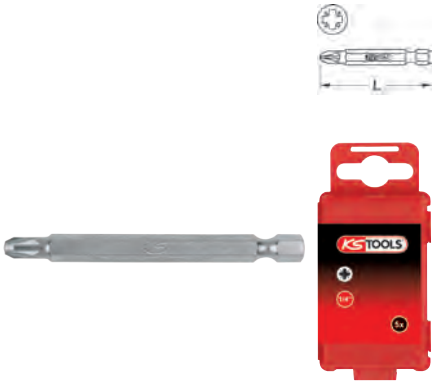
- PH
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
911.7530	PH1	75.0	1	20
911.7730	PH1	75.0	5	110
911.7531	PH2	75.0	1	20
911.7731	PH2	75.0	5	110
911.7539	PH3	75.0	1	20
911.7739	PH3	75.0	5	110

CLASSIC bit for phillips screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

		L mm	Content	g	
911.7527	PZ1	75.0	1	20	
911.7727	PZ1	75.0	5	110	
911.7528	PZ2	75.0	1	20	
911.7728	PZ2	75.0	5	110	
911.7529	PZ3	75.0	1	20	
911.7729	PZ3	75.0	5	110	

CLASSIC bit for TX screws

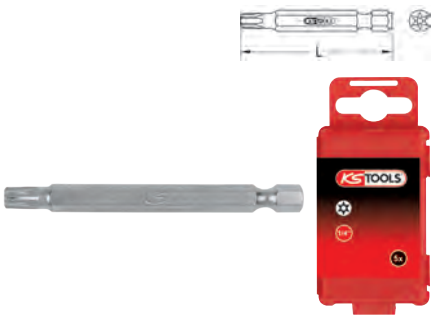
- TX
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

		L mm	Content	g	
911.3377	T7	75.0	1	20	
911.3378	T7	75.0	5	110	
911.3379	T8	75.0	1	20	
911.3380	T8	75.0	5	110	
911.3381	T9	75.0	1	20	
911.3382	T9	75.0	5	110	
911.7551	T10	75.0	1	20	
911.7751	T10	75.0	5	110	
911.7552	T15	75.0	1	20	
911.7752	T15	75.0	5	110	
911.7553	T20	75.0	1	20	
911.7753	T20	75.0	5	110	
911.7554	T25	75.0	1	20	
911.7754	T25	75.0	5	110	
911.7555	T27	75.0	1	20	
911.7755	T27	75.0	5	110	
911.7556	T30	75.0	1	25	
911.7756	T30	75.0	5	140	
911.7557	T40	75.0	1	25	
911.7757	T40	75.0	5	140	

CLASSIC bit for TX tamperproof screws

- For tamperproof TX
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

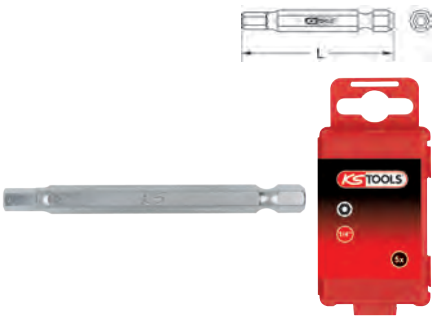


1/4"

		L mm	Content	g	
911.7501	TB8	75.0	1	20	
911.7701	TB8	75.0	5	110	
911.7502	TB10	75.0	1	20	
911.7702	TB10	75.0	5	110	
911.7503	TB15	75.0	1	20	
911.7703	TB15	75.0	5	110	
911.7504	TB20	75.0	1	20	
911.7704	TB20	75.0	5	110	
911.7505	TB25	75.0	1	20	
911.7705	TB25	75.0	5	110	
911.7506	TB27	75.0	1	20	
911.7706	TB27	75.0	5	110	
911.7507	TB30	75.0	1	25	
911.7707	TB30	75.0	5	140	
911.7508	TB35	75.0	1	25	
911.7708	TB35	75.0	5	140	
911.7509	TB40	75.0	1	25	
911.7709	TB40	75.0	5	140	

CLASSIC bit for hexagon tamperproof screws

- Tamperproof hexagon
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

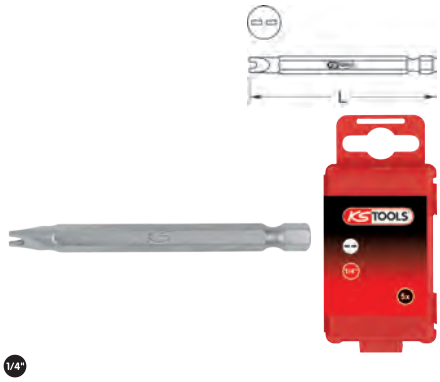


1/4"

	mm	L mm	Content	g	
911.7510	2,0	75.0	1	20	
911.7710	2,0	75.0	5	110	
911.7511	2,5	75.0	1	20	
911.7711	2,5	75.0	5	110	
911.7512	3,0	75.0	1	20	
911.7712	3,0	75.0	5	110	
911.7513	4,0	75.0	1	20	
911.7713	4,0	75.0	5	110	
911.7514	5,0	75.0	1	20	
911.7714	5,0	75.0	5	110	
911.7515	6,0	75.0	1	20	
911.7715	6,0	75.0	5	110	

CLASSIC bit for security screws

- Security
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel



1/4"

	mm	L mm	Content	g	
911.7523	4.0	75.0	1	20	
911.7723	4.0	75.0	5	110	
911.7524	6.0	75.0	1	20	
911.7724	6.0	75.0	5	110	
911.7525	8.0	75.0	1	25	
911.7725	8.0	75.0	5	140	
911.7526	10.0	75.0	1	25	
911.7726	10.0	75.0	5	140	

CLASSIC bit for Torq® screws

- Torq®
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

	mm	L mm	Content	g	
911.7516	6.0	75.0	1	20	
911.7716	6.0	75.0	5	110	
911.7517	8.0	75.0	1	25	
911.7717	8.0	75.0	5	140	
911.7518	10.0	75.0	1	25	
911.7718	10.0	75.0	5	140	

CLASSIC bit for TRIWING® screws

- TRIWING®
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Nickel plated
- Special steel

1/4"

	mm	L mm	Content	g
911.7519	4,0	75.0	1	20
911.7719	4,0	75.0	5	110
911.7520	6,0	75.0	1	20
911.7720	6,0	75.0	5	110
911.7521	8,0	75.0	1	18
911.7721	8,0	75.0	5	18
911.7522	10,0	75.0	1	18
911.7722	10,0	75.0	5	20

1/4“ CLASSIC BIT SETS 75 mm

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special steel
- In durable plastic storage case

1/4"

		kg
911.7550	32 pcs CLASSIC bit set	0.67
4 x	4 - 5 - 6 - 7 mm	
6 x	1 x PH1 - 3 x PH2 - 2 x PH3	
9 x	2 x PZ1 - 4 x PZ2 - 3 x PZ3	
6 x	2 - 2,5 - 3 - 4 - 5 - 6 mm	
7 x	T10 - T15 - T20 - T25 - T27 - T30 - T40	

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Orderly arrangement of the popular 1/4" security bits
- Nickel plated
- Special steel
- In durable plastic storage case

1/4"

		kg
911.7532	32 pcs CLASSIC bit set	0.65
1 x	6 mm	
2 x	PH1 - PH2	
3 x	PZ1 - PZ2 - PZ3	
6 x	2 - 2,5 - 3 - 4 - 5 - 6 mm	
9 x	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40	
4 x	#1 - #2 - #3 - #4	
4 x	4 - 6 - 8 - 10 mm	
3 x	6 - 8 - 10 mm	

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes quick release bit holder
- Ideally suited for fi tings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

		kg
911.2031	113 pcs CLASSIC bit set	1.17
1 x	1/4“	
1 x	1/4“	
3 x	PH2	
3 x	PZ2	
7 x	T10 - T15 - 3 x T20 - T25 - T30	
14 x	7 x 4 - 7 x 6 mm	
21 x	7 x PH1 - 7 x PH2 - 7 x PH3	
21 x	7 x PZ1 - 7 x PZ2 - 7 x PZ3	
21 x	7 x 4 - 7 x 5 - 7 x 6 mm	
14 x	2 x T10 - 2 x T15 - 2 x T20 - 2 x T25 - 2 x T27 - 2 x T30 - 2 x T40	
7 x	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	

CLASSIC bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Includes bitholder and 1/4” socket adapter
- Ideally suited for fi tings in trade and industry
- Orderly arrangement of the popular 1/4” bits
- Sand blasted
- Special steel
- In durable plastic storage case

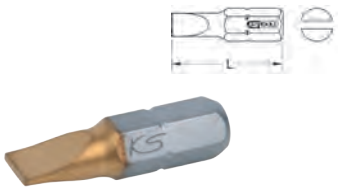
1/4"

		kg
911.2027	99 pcs CLASSIC bit set	0.75
1 x	1/4“	
1 x	1/4“	
1 x	1/4“	
9 x	3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8	
5 x	PH0 - PH1 - 2 x PH2 - PH3	
5 x	PZ0 - PZ1 - 2 x PZ2 - PZ3	
9 x	1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8	
6 x	2 - 2,5 - 3 - 4 - 5 - 6	
6 x	5/64“ - 3/32“ - 7/64“ -1/8“ - 9/64“ - 5/32“	
9 x	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
9 x	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40	
3 x	M5 - M6 - M8	
3 x	#1 - #2 - #3	
4 x	#1 - #2 - #3 - #4	
4 x	4 - 6 - 8 - 10 mm	
3 x	6 - 8 - 10 mm	
4 x	#0 - #1 - #2 - #3	
3 x	4 - 5 - 6 mm	
3 x	TB15 - TB20 - TB30	
4 x	#1 - #2 - #3 - 4 #	
4 x	4 - 6 - 8 - 10 mm	
3 x	6 - 8 - 10 mm	

1/4" TIN BITS 25 mm

TIN bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fittings in t ade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special steel

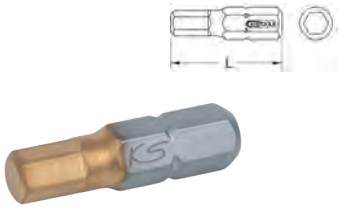


1/4"

		L mm	Content	g
911.2620	4,0	25.0	1	6
911.2621	4,0	25.0	5	40
911.2622	5,5	25.0	1	6
911.2623	5,5	25.0	5	40
911.2632	6,5	25.0	1	8
911.2633	6,5	25.0	5	50
911.2634	8,0	25.0	1	8
911.2635	8,0	25.0	5	50

TIN bit for hexagon screws

- Hexagon socket
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in t ade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special steel

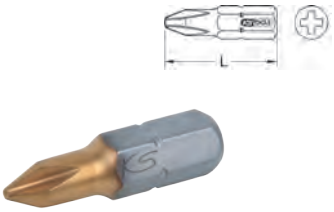


1/4"

	mm	L mm	Content	g
911.3664	2,0	25.0	1	6
911.3665	2,0	25.0	5	40
911.3666	2,5	25.0	1	6
911.3667	2,5	25.0	5	40
911.3668	3,0	25.0	1	6
911.3669	3,0	25.0	5	40
911.3670	4,0	25.0	1	6
911.3671	4,0	25.0	5	40
911.3672	5,0	25.0	1	6
911.3673	5,0	25.0	5	40
911.3674	6,0	25.0	1	6
911.3675	6,0	25.0	5	40
911.3676	8,0	25.0	1	8
911.3677	8,0	25.0	5	50
911.3678	10,0	25.0	1	8
911.3679	10,0	25.0	5	50

TIN bit for Phillips screws PH

- PH
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in t ade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special steel

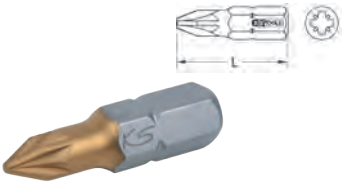


1/4"

		L mm	Content	g
911.2636	PH1	25.0	1	6
911.2637	PH1	25.0	5	40
911.2638	PH2	25.0	1	6
911.2639	PH2	25.0	5	40
911.2640	PH3	25.0	1	6
911.2641	PH3	25.0	5	40

TIN bit for Phillips screws PZ

- PZ
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in t ade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special steel

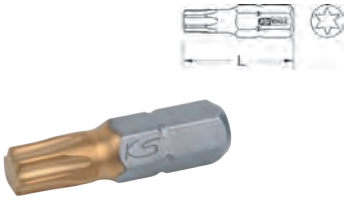


1/4"

		L mm	Content	g
911.2648	PZ1	25.0	1	6
911.2649	PZ1	25.0	5	40
911.2624	PZ2	25.0	1	6
911.2625	PZ2	25.0	5	40
911.2626	PZ3	25.0	1	6
911.2627	PZ3	25.0	5	40

TIN bit for TX screws

- TX
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in t ade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special steel



1/4"

		L mm	Content	g
911.3650	T10	25.0	1	6
911.3651	T10	25.0	5	40
911.3652	T15	25.0	1	6
911.3653	T15	25.0	5	40
911.3654	T20	25.0	1	6
911.3655	T20	25.0	5	40
911.3656	T25	25.0	1	6
911.3657	T25	25.0	5	40
911.3658	T27	25.0	1	6
911.3659	T27	25.0	5	40
911.3660	T30	25.0	1	8
911.3661	T30	25.0	5	50
911.3662	T40	25.0	1	8
911.3663	T40	25.0	5	50

1/4" TIN BITS 50 mm

TIN bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special steel

1/4"

		L mm	Content	g
911.2642	PH1	50.0	1	10
911.2643	PH1	50.0	5	60
911.2644	PH2	50.0	1	10
911.2645	PH2	50.0	5	60
911.2646	PH3	50.0	1	10
911.2647	PH3	50.0	5	60

TIN bit for phillips screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fittings in t ade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special steel

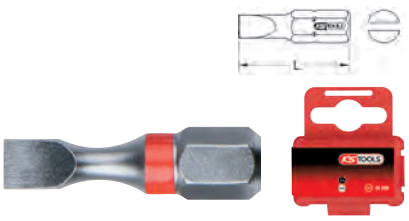
1/4"

		L mm	Content	g
911.3641	PZ1	50.0	1	10
911.3642	PZ1	50.0	5	60
911.3643	PZ2	50.0	1	10
911.3644	PZ2	50.0	5	60
911.3645	PZ3	50.0	1	10
911.3646	PZ3	50.0	5	60

1/4" TORSION*power* BITS 25 mm

TORSION*power* bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

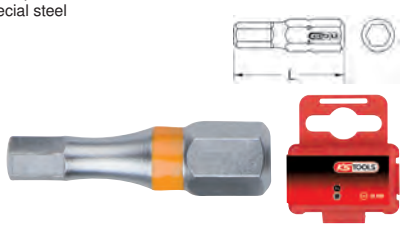


1/4"

	mm	L mm	Content	g
918.3305	3.0	25.0	1	6
918.3306	3.0	25.0	5	40
918.3310	4.0	25.0	1	6
918.3311	4.0	25.0	5	40
918.3315	5.0	25.0	1	6
918.3316	5.0	25.0	5	40
918.3320	6.0	25.0	1	6
918.3321	6.0	25.0	5	40

TORSION*power* bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

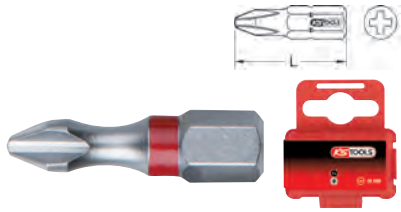


1/4"

	mm	L mm	Content	g
918.3405	3	25.0	1	10
918.3406	3	25.0	5	40
918.3410	4	25.0	1	6
918.3411	4	25.0	5	40
918.3415	5	25.0	1	6
918.3416	5	25.0	5	40
918.3420	6	25.0	1	6
918.3421	6	25.0	5	40

TORSION*power* bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

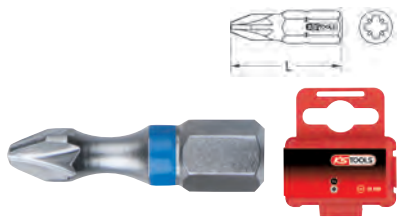


1/4"

		L mm	Content	g
918.3105	PH1	25.0	1	6
918.3106	PH1	25.0	5	40
918.3110	PH2	25.0	1	6
918.3111	PH2	25.0	5	40
918.3115	PH3	25.0	1	6
918.3116	PH3	25.0	5	40

TORSION*power* bit for phillips screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

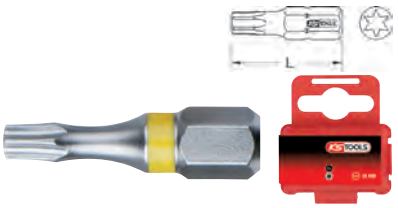


1/4"

		L mm	Content	g
918.3205	PZ1	25.0	1	6
918.3206	PZ1	25.0	5	40
918.3210	PZ2	25.0	1	6
918.3211	PZ2	25.0	5	40
918.3215	PZ3	25.0	1	6
918.3216	PZ3	25.0	5	40

TORSION*power* bit for TX screws

- TX
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

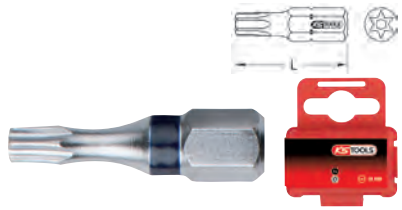


1/4"

		L mm	Content	g
918.3505	T10	25.0	1	6
918.3506	T10	25.0	5	40
918.3510	T15	25.0	1	6
918.3511	T15	25.0	5	40
918.3515	T20	25.0	1	6
918.3516	T20	25.0	5	40
918.3520	T25	25.0	1	6
918.3521	T25	25.0	5	40
918.3525	T27	25.0	1	6
918.3526	T27	25.0	5	40
918.3530	T30	25.0	1	8
918.3531	T30	25.0	5	50
918.3535	T40	25.0	1	8
918.3536	T40	25.0	5	50

TORSION*power* bit for TX tamperproof screws

- For tamperproof TX
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Tamperproof
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel



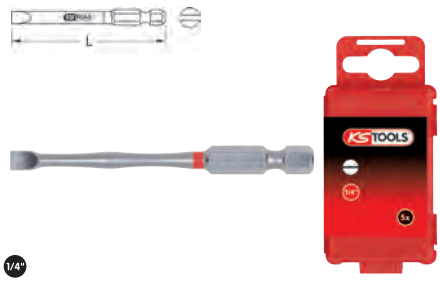
1/4"

		L mm	Content	g
918.3605	TB10	25.0	1	6
918.3606	TB10	25.0	5	40
918.3610	TB15	25.0	1	6
918.3611	TB15	25.0	5	40
918.3615	TB20	25.0	1	6
918.3616	TB20	25.0	5	40
918.3620	TB25	25.0	1	6
918.3621	TB25	25.0	5	40
918.3625	TB27	25.0	1	6
918.3626	TB27	25.0	5	40
918.3630	TB30	25.0	1	8
918.3631	TB30	25.0	5	50
918.3635	TB40	25.0	1	8
918.3636	TB40	25.0	5	50

1/4" TORSION*power* BITS 75 mm

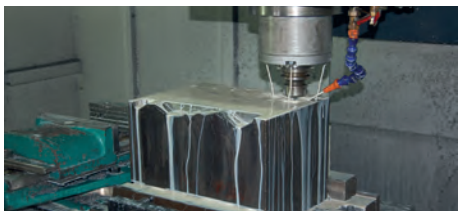
TORSION*power* bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel



1/4"

	mm	L mm	Content	g
918.3350	3.0	75.0	1	20
918.3351	3.0	75.0	5	110
918.3355	4.0	75.0	1	20
918.3356	4.0	75.0	5	110
918.3360	5.0	75.0	1	20
918.3361	5.0	75.0	5	110
918.3365	6.0	75.0	1	20
918.3366	6.0	75.0	5	110



TORSION*power* bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

1/4"

	mm	L mm	Content	g
918.3450	3	75.0	1	20
918.3451	3	75.0	5	110
918.3455	4	75.0	1	20
918.3456	4	75.0	5	110
918.3460	5	75.0	1	20
918.3461	5	75.0	5	110
918.3465	6	75.0	1	20
918.3466	6	75.0	5	110

TORSION*power* bit for phillips screws PH

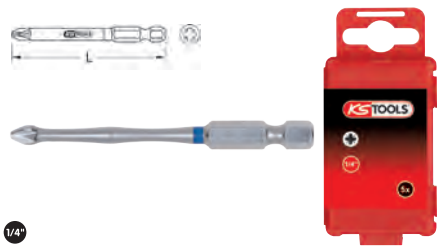
- PH
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
918.3150	PH1	75.0	1	20
918.3151	PH1	75.0	5	110
918.3155	PH2	75.0	1	20
918.3156	PH2	75.0	5	110
918.3160	PH3	75.0	1	20
918.3161	PH3	75.0	5	110

TORSION*power* bit for phillips screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel



1/4"

		L mm	Content	g
918.3250	PZ1	75.0	1	20
918.3251	PZ1	75.0	5	110
918.3255	PZ2	75.0	1	20
918.3256	PZ2	75.0	5	110
918.3260	PZ3	75.0	1	20
918.3261	PZ3	75.0	5	110

TORSION*power* bit for TX screws

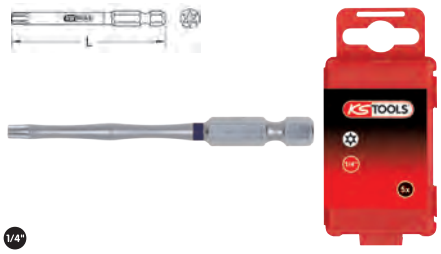
- TX
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel

1/4"

		L mm	Content	g
918.3550	T10	75.0	1	20
918.3551	T10	75.0	5	110
918.3555	T15	75.0	1	20
918.3556	T15	75.0	5	110
918.3560	T20	75.0	1	20
918.3561	T20	75.0	5	110
918.3565	T25	75.0	1	20
918.3566	T25	75.0	5	110
918.3570	T27	75.0	1	20
918.3571	T27	75.0	5	110
918.3575	T30	75.0	1	25
918.3576	T30	75.0	5	140
918.3580	T40	75.0	1	25
918.3581	T40	75.0	5	140

TORSION*power* bit for TX tamperproof screws

- For tamperproof TX
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Tamperproof
- Colour coding
- Ideally suited for fittings in t ade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special steel



1/4"

		L mm	Content	g
918.3650	TB10	75.0	1	20
918.3651	TB10	75.0	5	110
918.3655	TB15	75.0	1	20
918.3656	TB15	75.0	5	110
918.3660	TB20	75.0	1	20
918.3661	TB20	75.0	5	110
918.3665	TB25	75.0	1	20
918.3666	TB25	75.0	5	110
918.3670	TB27	75.0	1	20
918.3671	TB27	75.0	5	110
918.3675	TB30	75.0	1	25
918.3676	TB30	75.0	5	140
918.3680	TB40	75.0	1	25
918.3681	TB40	75.0	5	140

1/4" TORSION*power* BIT SETS

TORSION*power* Bit-Box

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Colour coding
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Ideally suited for fi tings in trade and industry
- Practical belt holder
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special steel
- Includes durable two component storage case

1/4"

918.3010	32 pcs	TORSION*power* Bit-Box	360

1 x		1/4“
1 x		1/4“
4 x		3 - 4 - 5 - 6 mm
4 x		1 x PH1 - 2 x PH2 - 1 x PH3
4 x		1 x PZ1 - 2 x PZ2 - 1 x PZ3
4 x		3 - 4 - 5 - 6 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40
7 x		TB10 - TB15 - TB20 - TB25 - TB27 TB30 - TB40

5/16“ CLASSIC BITS

CLASSIC bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel

5/16"

	mm	L mm	Content	
911.3680	5.5	30.0	1	10
911.3681	6.5	30.0	1	10
911.3682	7.0	30.0	1	10
911.5141	8.0	30.0	1	10
911.3683	9.0	30.0	1	10
911.5142	10.0	30.0	1	10
911.5143	12.0	30.0	1	10
911.3684	14.0	30.0	1	10
911.3685	16.0	30.0	1	10
911.3686	18.0	30.0	1	10
911.3687	20.0	30.0	1	10

CLASSIC bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel

5/16"

		L mm	Content	
911.5132	PH1	30.0	1	10
911.5133	PH2	30.0	1	10
911.5134	PH3	30.0	1	10
911.5135	PH4	30.0	1	10

CLASSIC bit for phillips screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel

5/16"

		L mm	Content	
911.5121	PZ1	30.0	1	10
911.5122	PZ2	30.0	1	10
911.5123	PZ3	30.0	1	10
911.5124	PZ4	30.0	1	10

CLASSIC bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel

5/16"

	mm	L mm	Content	
911.3695	3,0	30.0	1	10
911.3696	4,0	30.0	1	10
911.3697	5,0	30.0	1	10
911.5126	6,0	30.0	1	10
911.5127	7,0	30.0	1	10
911.5128	8,0	30.0	1	10
911.5129	10,0	30.0	1	10
911.5130	12,0	30.0	1	10
911.5131	14,0	30.0	1	10

CLASSIC bit for spline screws

- Spline
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel

5/16"

		L mm	Content	
911.5154	M4	30.0	1	10
911.5155	M5	30.0	1	10
911.5156	M6	30.0	1	10
911.5157	M8	30.0	1	10
911.5158	M10	30.0	1	10
911.5159	M12	30.0	1	10
911.3698	M14	30.0	1	10

CLASSIC bit for TX screws

- TX
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steela

5/16"

		L mm	Content	
911.3688	T20	30.0	1	10
911.3689	T25	30.0	1	10
911.3690	T27	30.0	1	10
911.3691	T30	30.0	1	10
911.5144	T40	30.0	1	10
911.5145	T45	30.0	1	10
911.5146	T50	30.0	1	10
911.5147	T55	30.0	1	10
911.5148	T60	30.0	1	10
911.5149	T70	30.0	1	15

CLASSIC bit for TX tamperproof screws

- For tamperproof TX
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Nickel plated
- Special steel

5/16"

		L mm	Content	
911.3692	TB25	30.0	1	10
911.3693	TB27	30.0	1	10
911.3694	TB30	30.0	1	10
911.5136	TB40	30.0	1	10
911.5137	TB45	30.0	1	10
911.5138	TB50	30.0	1	10
911.5139	TB55	30.0	1	10
911.5140	TB60	30.0	1	10
911.5152	TB70	30.0	1	15

CLASSIC bit for RIBE® screws

- RIBE®
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Phosphate finis
- Special steel

5/16"

		L mm	Content	g
911.3699	M4	38.0	1	10
911.5165	M5	38.0	1	10
911.5166	M6	38.0	1	10
911.5167	M7	38.0	1	10
911.5168	M8	38.0	1	20
911.5169	M10	38.0	1	20
911.5170	M12	38.0	1	30
911.3754	M14	38.0	1	30

CLASSIC bit for RIBE® screws

- RIBE®
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Phosphate finis
- Special steel

5/16"

		L mm	Content	g
911.5171	M7	100.0	1	40
911.5172	M8	100.0	1	50
911.5173	M9	100.0	1	60
911.5174	M10	100.0	1	70
911.5175	M12	100.0	1	80
911.5176	M13	100.0	1	90
911.5177	M14	100.0	1	100

5/16“ CLASSIC BIT SETS

CLASSIC Bit set

- Ideal set compilation for RIBE® screws
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Precise arrangement of the popular 5/16" RIBE® bits
- Phosphate finis
- Special steel
- In durable plastic storage case

5/16"

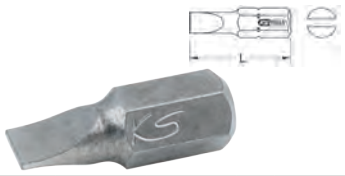
			kg
911.4306	14 pcs	CLASSIC Bit set	0.82

1 x		1/2“
6 x		M5 - M6 - M7 - M8 - M10 - M12
7 x		M7 - M8 - M9 - M10 - M12 - M13 M14

10 mm CLASSIC BITS 30 mm

CLASSIC bit for slotted screws

- Slotted
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Sand-blasted
- Special steel



10 mm

	mm	L mm	Content	g
930.3015	8.0	30.0	1	40
930.3016	10.0	30.0	1	40

CLASSIC bit for phillips screws PH

- PH
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced executionv
- Sand-blasted
- Special steel

10 mm

		L mm	Content	g
930.3019	PH1	30.0	1	40
930.3017	PH2	30.0	1	40
930.3018	PH3	30.0	1	40

CLASSIC bit for phillips screws PZ

- PZ
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Sand-blasted
- Special steel

10 mm

		L mm	Content	g
930.3020	PZ1	30.0	1	40
930.3021	PZ2	30.0	1	40
930.3022	PZ3	30.0	1	40

CLASSIC bit for hexagon screws

- Hexagon socket
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Sand-blasted
- Special steel

10 mm

	mm	L mm	Content	g
930.1004	4,0	30.0	1	40
930.1005	5,0	30.0	1	40
930.1006	6,0	30.0	1	40
930.1007	7,0	30.0	1	40
930.1008	8,0	30.0	1	40
930.1010	10,0	30.0	1	40
930.1012	12,0	30.0	1	40

CLASSIC bit for spline screws

- Spline
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Sand-blasted
- Special steel

10 mm

		L mm	Content	g
930.3005	M5	30.0	1	40
930.3006	M6	30.0	1	40
930.3008	M8	30.0	1	40
930.3010	M10	30.0	1	40
930.3012	M12	30.0	1	40

CLASSIC bit for TX screws

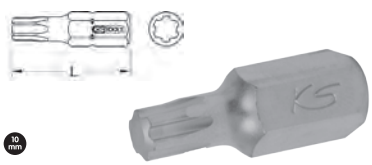
- TX
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Sand-blasted
- Special steel

10 mm

		L mm	Content	g
930.2010	T10	30.0	1	40
930.2015	T15	30.0	1	40
930.2020	T20	30.0	1	40
930.2025	T25	30.0	1	40
930.2027	T27	30.0	1	40
930.2030	T30	30.0	1	40
930.2040	T40	30.0	1	40
930.2045	T45	30.0	1	40
930.2050	T50	30.0	1	40
930.2055	T55	30.0	1	40
930.2060	T60	30.0	1	40

CLASSIC bit for TX PLUS screws

- TX PLUS
- With external hexagon drive to DIN 3126 / ISO 1173 Form C 8
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in t ade and industry
- Reinforced execution
- Sand-blasted
- Special steel



10 mm

		L mm	Content	g
911.3260	IP 40	30.0	1	13
911.3261	IP 45	30.0	1	14
911.3262	IP 50	30.0	1	16
911.3263	IP 55	30.0	1	20
911.3264	IP 60	30.0	1	25

CLASSIC bit for TX tamperproof screws

- For tamperproof TX
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Sand-blasted
- Special steel

		L mm	Content	g
930.2110	TB10	30.0	1	40
930.2115	TB15	30.0	1	40
930.2120	TB20	30.0	1	40
930.2125	TB25	30.0	1	40
930.2127	TB27	30.0	1	40
930.2130	TB30	30.0	1	40
930.2140	TB40	30.0	1	40
930.2145	TB45	30.0	1	40
930.2150	TB50	30.0	1	40
930.2155	TB55	30.0	1	40
930.2160	TB60	30.0	1	40

CLASSIC bit for tamper proof fi e star bits

- Five star bit, tamperproof
- With 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Sand-blasted
- Special steel

		L mm	Content	g
911.3121	TS40	30.0	1	40
911.3122	TS45	30.0	1	40
911.3123	TS50	30.0	1	40
911.3124	TS55	30.0	1	40
911.3125	TS60	30.0	1	40

10 mm CLASSIC BITS 75 mm

CLASSIC bit for hexagon screws

- Hexagon socket
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Sand-blasted
- Special steel

	mm	L mm	Content	g
975.1004	4,0	75.0	1	70
975.1005	5,0	75.0	1	70
975.1006	6,0	75.0	1	70
975.1007	7,0	75.0	1	70
975.1008	8,0	75.0	1	70
975.1010	10,0	75.0	1	70
975.1012	12,0	75.0	1	70

CLASSIC bit for spline screws

- Spline
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Sand-blasted
- Special steel

		L mm	Content	g
975.3005	M5	75.0	1	70
975.3006	M6	75.0	1	70
975.3008	M8	75.0	1	70
975.3010	M10	75.0	1	70
975.3012	M12	75.0	1	70

CLASSIC bit for TX screws

- TX
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Sand-blasted
- Special steel

		L mm	Content	g
975.2010	T10	75.0	1	70
975.2015	T15	75.0	1	70
975.2020	T20	75.0	1	70
975.2025	T25	75.0	1	70
975.2027	T27	75.0	1	70
975.2030	T30	75.0	1	70
975.2040	T40	75.0	1	70
975.2045	T45	75.0	1	70
975.2050	T50	75.0	1	70
975.2055	T55	75.0	1	70
975.2060	T60	75.0	1	70
975.2075	T70	75.0	1	70

CLASSIC bit for TX tamperproof screws

- For tamperproof TX
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Sand-blasted
- Special steel

		L mm	Content	g
975.2110	TB10	75.0	1	70
975.2115	TB15	75.0	1	70
975.2120	TB20	75.0	1	70
975.2125	TB25	75.0	1	70
975.2127	TB27	75.0	1	70
975.2130	TB30	75.0	1	70
975.2140	TB40	75.0	1	70
975.2145	TB45	75.0	1	70
975.2150	TB50	75.0	1	70
975.2155	TB55	75.0	1	70
975.2160	TB60	75.0	1	70

10 mm CLASSIC BITS 120 mm

CLASSIC bit for TX screws

- TX
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Sand-blasted
- Special steel

		L mm	Content	g
975.4040	T40	120.0	1	80
975.4045	T45	120.0	1	80
975.4050	T50	120.0	1	80
975.4055	T55	120.0	1	80

10 mm CLASSIC BIT SETS

CLASSIC bit set

- Ideal set compilation for TX screws
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 1/2" socket adapter for 10 mm bits
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 10 mm TX bits
- Sand-blasted
- Special steel
- In durable metal case

			kg
911.5020	15 pcs	CLASSIC bit set	0.58
1 x		1/2" x 10 mm	
7 x		T20 - T25 - T30 - T40 - T45 - T50 - T55	
7 x		T20 - T25 - T30 - T40 - T45 - T50 - T55	

CLASSIC bit set

- Ideal set compilation for hexagon socket screws
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 1/2" socket adapter for 10 mm bits
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 10 mm hexagon socket bits
- Sand-blasted
- Special steel
- In durable metal case

10 mm

				kg
911.5040	15 pcs	CLASSIC bit set		0.58
1 x			1/2“ x 10 mm	
7 x			4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
7 x			4 - 5 - 6 - 7 - 8 - 10 - 12 mm	

CLASSIC bit set

- Ideal set for spline screws
- With 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 1/2" socket adapter for 10 mm bits
- Ideally suited for fi tings in trade and industry
- Sand-blasted
- Special steel
- In durable plastic storage case

10 mm

				kg
911.5030	11 pcs	CLASSIC bit set		0.60
1 x			1/2“ x 10 mm	
5 x			M5 - M6 - M8 - M10 - M12	
5 x			M5 - M6 - M8 - M10 - M12	

CLASSIC bit set

- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 3/8" + 1/2" socket adapter for 10 mm bits
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 10 mm bits
- Sand-blasted
- Special steel
- In durable metal case

10 mm

				kg
911.4304	42 pcs	CLASSIC bit set		1.60
2 x			3/8“ - 1/2“	
7 x			4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
8 x			T20 - T25 - T30 - T40 - T45 - T50 T55 - T60	
5 x			M5 - M6 - M8 - M10 - M12	
2 x			8 - 10 mm	
2 x			PH2 - PH3	
4 x			5 - 6 - 8 - 10 mm	
8 x			T20 - T25 - T30 - T40 - T45 - T50 T55 - T60	
4 x			M6 - M8 - M10 - M12	

TX Socket and bit set

- Matt finis
- Chrome vanadium
- In durable plastic case

1/4“ 3/8“ 1/2“

				kg
911.4305	57 pcs	TX Socket and bit set		2.00
2 x			3/8“ x 10mm - 1/2“ x 1/4“	
12 x			1/4“: E4 - E5 - E6 - E7 - E8; 3/8“: E10 - E11 - E12 - E14;1/2“: E16 - E18 - E20	
7 x			4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
9 x			TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	
5 x			M5 - M6 - M8 - M10 - M12	
2 x			8 - 10 mm	
2 x			PH2 - PH3	
5 x			5 - 6 - 7 - 8 - 10 mm	
9 x			T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	
4 x			M6 - M8 - M10 - M12	

CLASSIC bit set

- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 10 mm reversing ratchet
- Ideally suited for fi tings in trade and industry
- Reinforced execution
- Rrecise arrangement of the popular 10 mm bits and sockets
- Sand-blasted
- Special steel
- In durable ABS storage case

10 mm

				kg
911.4310	37 pcs	CLASSIC bit set		1.60
1 x			10 mm	
6 x			5 - 6 - 7 - 8 - 10 - 12 mm	
8 x			TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55	
5 x			M5 - M6 - M8 - M10 - M12	
2 x			PH2 - PH3	
8 x			T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55	
4 x			M6 - M8 - M10 - M12	
3 x			T40 - T45 - T50	

KS TOOLS®

Innovation is our mission!

BITS

MICRO

CLASSIC

TORSION power

TIN Bits

5 HEXAGON KEY WRENCHES

KSTOOLS®

Innovation is our mission!

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HEXAGON KEY WRENCHES Composition

Hexagon key wrenches

- Wrench with a narrow bend radius drawn out hexagon profil
- Wrench made of S2 special steel - continuous hardened and matt chrome finis
- Precision finished a cording to DIN/ISO
- Surface finished in m tt chrome
- Extra long execution for high leverage
- Ball head with a working angle of up to 20° which allows working in narrow areas

Folding holder

- Hanger for storage
- Foldable through 270° - pivot mechanism
- Perfect for mobile use

2 Component handle

- Hard blue core with soft black component with micro structured surface
- Blade surface chrome plated and mirror polished

T handle wrench

- Wrench made of S2 special steel - continuous hardened and matt chrome finish
- Black blade tip for high precision

2 Component handle

- Hard blue core with soft black component with micro structured surface
- Blade surface finished in matt chrome
- Hanging eyelet

Surfaces

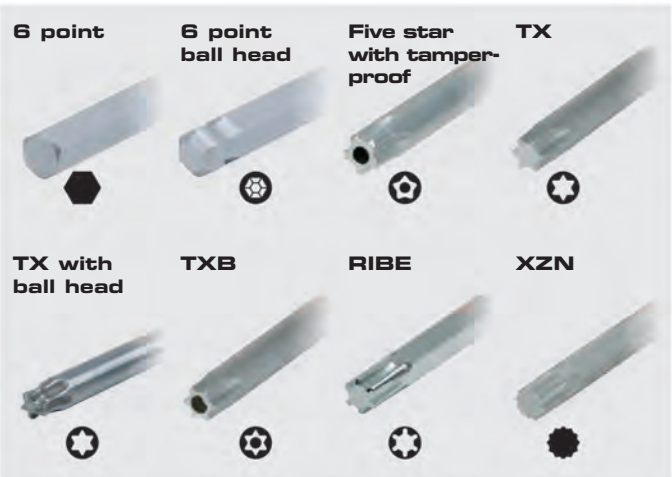
Phosphate

- Phosphating = chemical /electro-chemical process
- Dip coating or spraying method
- Intention is the generation of phosphate layer, which is immovable on the base metal
- The surface receives therefore a very good absorption capacity for oil and wax
- Reliable corrosion protection
- To be bound to phosphated tools when oiled

Nickel plated

- The chrome layer is manufactured by electroplating in a electro bath process
- There are several steps that are passed through
- Nickel offers avery good corresion protection and is resistant against air, water, diluted acids and most treatments of alkaline solution.
- The light gold optics are typical

Profil s



Hexagon key wrench profil

CLASSIC

- Surface finished in m tt chrome
- Blade manufactured from S2 special steel
- Precision finished a cording to DIN/ISO

CHROME plus

- Surface finished in mir or polished chrome
- 2 Component handle
- Black/Blue
- Handle with hanging eyelet
- Blade manufactured from S2 special steel
- Precision finished a cording to DIN/ISO

Holder

System holder

Round holder 3 in 1

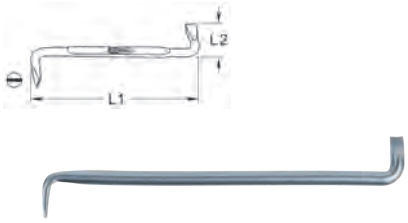
Multi handle holder 3 in 1

Folding holder

OFFSET SCREWDRIVER

Offset screwdriver, slotted

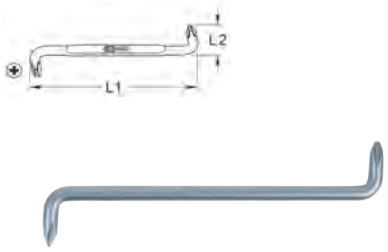
- Short execution
- DIN / ISO 8764
- Continuous hardened
- Matt chrome
- Special steel



	D mm	L1 mm	L2 mm	g
151.2674	3,5	90.0	12.4	10
151.2675	4,0	100.0	15.3	12
151.2676	5,5	125.0	20.4	25
151.2677	8,0	150.0	24.8	50
151.2678	10,0	175.0	32.8	135
151.2679	12,0	200.0	42.4	228

Offset screwdriver, PH

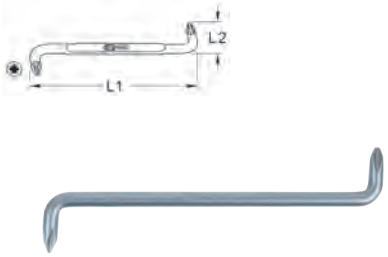
- Short execution
- DIN / ISO 8764
- Continuous hardened
- Matt chrome
- Special steel



		L1 mm	L2 mm	g
151.2680	PH 1 - PH 2	100.0	25.4	40
151.2681	PH 2 - PH 3	150.0	33.1	77
151.2682	PH 3 - PH 4	200.0	38.6	77

Offset screwdriver, PZ

- Short execution
- DIN / ISO 8764
- Continuous hardened
- Matt chrome
- Special steel

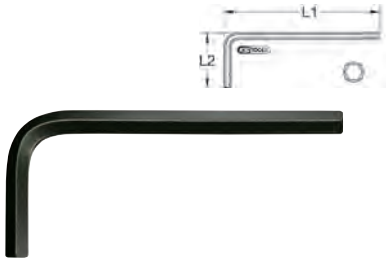


		L1 mm	L2 mm	g
151.2683	PZ 1 - PZ 2	125.0	24.4	40
151.2684	PZ 3 - PZ 4	200.0	37.9	156

HEXAGON KEY WRENCHES

Hexagon key wrench

- Short execution
- In accordance to DIN / ISO 2936
- Continuous hardened
- Phosphate finis
- Special steel



	mm		L1 mm	L2 mm	g
151.26007	0,7		33.0	7.0	10
151.26009	0,9		33.0	11.0	10
151.26013	1,3		41.0	13.0	10
151.26015	1,5		46.5	15.5	10
151.2602	2,0		52.0	18.0	10
151.26025	2,5		58.5	20.5	10
151.2603	3,0		66.0	23.0	10
151.26035	3,5		69.5	25.5	10
151.2604	4,0		74.0	29.0	10
151.26045	4,5		80.0	30.5	20
151.2605	5,0		85.0	33.0	20
151.26055	5,5		90.0	35.0	20
151.2606	6,0		96.0	38.0	30
151.2607	7,0		102.0	41.0	40
151.2608	8,0		108.0	44.0	60
151.2609	9,0		114.0	47.0	80
151.2610	10,0		122.0	50.0	110
151.2611	11,0		129.0	53.0	150
151.2612	12,0		137.0	57.0	170
151.2613	13,0		145.0	63.0	250
151.2614	14,0		154.0	70.0	270
151.2616	16,0		168.0	76.0	400
151.2617	17,0		177.0	80.0	440
151.2618	18,0		188.0	84.0	600
151.2619	19,0		199.0	89.0	630
151.2621	21,0		211.0	96.0	700
151.2622	22,0		222.0	102.0	750
151.2624	24,0		248.0	114.0	820
151.2650	27,0		277.0	127.0	1802
151.2651	30,0		315.0	142.0	2522
151.2652	32,0		347.0	157.0	3175
151.2653	36,0		391.0	176.0	4521
151.2654		3/64"	45.0	14.0	10
151.2630		1/32"	45.0	14.0	10
151.2631		1/16"	45.0	15.0	10
151.2632		5/64"	50.0	16.0	10
151.2633		3/32"	51.0	17.0	10
151.2634		7/64"	54.0	20.0	10
151.2635		1/8"	57.0	22.0	10
151.2636		9/64"	63.0	23.0	10
151.2637		5/32"	65.0	25.0	10
151.2638		3/16"	70.0	29.0	20
151.2639		7/32"	80.0	32.0	30
151.2640		1/4"	87.0	32.0	40
151.2655		9/32"	95.0	35.0	43
151.2641		5/16"	98.0	40.0	80
151.2642		3/8"	110.0	45.0	110
151.2643		7/16"	124.0	48.0	130
151.2644		1/2"	133.0	50.0	150
151.2645		9/16"	152.0	57.0	250
151.2646		5/8"	160.0	59.0	400
151.2647		3/4"	180.0	70.0	620
151.2648		7/8"	200.0	80.0	740
151.2649		1"	248.0	114.0	820

Hexagon key wrench

- Short execution
- DIN / ISO 2936
- Continuous hardened
- Matt chrome
- Special steel

	mm		L1 mm	L2 mm	g
151.20213	1,3		41.0	13.0	10
151.20215	1,5		46.5	15.5	10
151.2022	2,0		52.0	18.0	10
151.20225	2,5		58.5	20.5	10
151.2023	3,0		66.0	23.0	10
151.20235	3,5		69.5	25.5	10
151.2024	4,0		74.0	29.0	10
151.20245	4,5		80.0	30.5	10
151.2025	5,0		85.0	33.0	20
151.20255	5,5		90.0	35.0	20
151.2026	6,0		96.0	38.0	30
151.2027	7,0		102.0	41.0	40
151.2028	8,0		108.0	44.0	60
151.2029	9,0		114.0	47.0	80
151.2030	10,0		122.0	50.0	110
151.2031	12,0		137.0	57.0	170
151.2038	13,0		145.0	63.0	250
151.2032	14,0		154.0	70.0	270
151.2039	16,0		168.0	76.0	400
151.2033	17,0		177.0	80.0	440
151.2034	19,0		199.0	89.0	630
151.2036	22,0		222.0	102.0	750
151.2082		1/16"	45.0	15.0	10
151.2083		5/64"	50.0	16.0	10
151.2084		3/32"	51.0	17.0	10
151.2085		7/64"	54.0	20.0	10
151.2086		1/8"	57.0	22.0	10
151.2087		9/64"	63.0	23.0	10
151.2088		5/32"	65.0	25.0	10
151.2089		3/16"	70.0	29.0	20
151.2090		7/32"	80.0	32.0	30
151.2091		1/4"	87.0	32.0	40
151.2092		5/16"	98.0	40.0	80
151.2093		3/8"	110.0	45.0	110
151.2094		7/16"	124.0	48.0	130
151.2095		1/2"	133.0	50.0	150
151.2096		9/16"	152.0	57.0	250
151.2097		5/8"	160.0	59.0	400
151.2098		3/4"	180.0	70.0	620
151.2099		7/8"	200.0	80.0	740

Hexagon key wrench, long

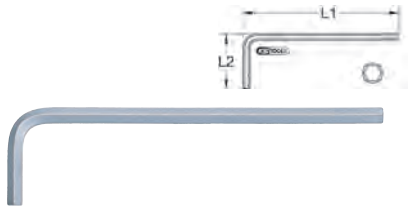
- Long execution
- In accordance to DIN ISO 2936
- Continuous hardened
- Phosphate finis
- Special steel

	mm		L1 mm	L2 mm	g
151.27013	1,3		70.0	15.0	10
151.27015	1,5		75.0	15.0	10
151.2702	2,0		83.0	17.0	10
151.27025	2,5		90.0	20.0	10

	mm		L1 mm	L2 mm	g	
151.2703	3,0		97.0	20.0	10	
151.27035	3,5		100.0	22.0	10	
151.2704	4,0		110.0	27.0	20	
151.27045	4,5		116.0	26.0	30	
151.2705	5,0		122.0	29.0	30	
151.2706	6,0		140.0	34.0	40	
151.2707	7,0		151.0	36.0	60	
151.2708	8,0		162.0	38.0	80	
151.2709	9,0		170.0	40.0	110	
151.2710	10,0		185.0	45.0	150	
151.2656	11,0		210.0	51.0	240	
151.2712	12,0		217.0	56.0	250	
151.2714	14,0		240.0	65.0	390	
151.2717	17,0		200.0	69.0	620	
151.2719	19,0		210.0	77.0	880	
151.2720		1/16"	75.0	16.0	10	
151.2721		5/64"	82.0	17.0	10	
151.2722		3/32"	90.0	18.0	10	
151.2723		7/64"	93.0	20.0	10	
151.2724		1/8"	103.0	24.0	10	
151.2725		9/64"	100.0	23.0	10	
151.2726		5/32"	111.0	26.0	10	
151.2727		3/16"	120.0	25.0	20	
151.2728		7/32"	129.0	32.0	30	
151.2729		1/4"	139.0	36.0	40	
151.2730		5/16"	163.0	40.0	80	
151.2731		3/8"	180.0	44.0	110	
151.2732		1/2"	192.0	58.0	150	
151.2733		9/16"	194.0	62.0	250	
151.2734		5/8"	200.0	63.0	390	
151.2735		3/4"	210.0	78.0	620	

Hexagon key wrench, long

- Long execution
- DIN / ISO 2936
- Continuous hardened
- Matt chrome
- Special steel



	mm		L1 mm	L2 mm	g	
151.20413	1,3		63.5	13.0	10	
151.20415	1,5		63.5	15.5	10	
151.2042	2,0		77.0	18.0	10	
151.20425	2,5		87.5	20.5	10	
151.2043	3,0		93.0	23.0	10	
151.20435	3,5		98.5	25.5	10	
151.2044	4,0		104.0	29.0	10	
151.20445	4,5		114.5	30.5	20	
151.2045	5,0		120.0	33.0	30	
151.20455	5,5		128.0	35.0	30	
151.2046	6,0		141.0	38.0	40	
151.2047	7,0		147.0	41.0	60	
151.2048	8,0		158.0	44.0	80	
151.2049	9,0		169.0	47.0	110	
151.2050	10,0		180.0	50.0	150	
151.2052	12,0		202.0	57.0	250	
151.2054	14,0		229.0	70.0	390	
151.2057	17,0		262.0	80.0	620	
151.2059	19,0		290.0	89.0	880	
151.2061		1/16"	63.0	15.5	10	
151.2062		5/64"	77.0	18.0	10	
151.2063		3/32"	87.5	20.5	10	
151.2064		7/64"	93.0	23.0	10	
151.2065		1/8"	93.0	23.0	10	
151.2066		9/64"	98.5	25.5	10	
151.2067		5/32"	104.0	29.0	10	
151.2068		3/16"	120.0	33.0	20	
151.2069		7/32"	128.0	35.0	30	
151.2071		1/4"	141.0	38.0	40	
151.2072		5/16"	158.0	44.0	80	
151.2073		3/8"	180.0	50.0	110	
151.2074		1/2"	202.0	57.0	150	
151.2075		9/16"	229.0	70.0	250	
151.2076		5/8"	240.0	76.0	390	
151.2077		3/4"	290.0	89.0	620	

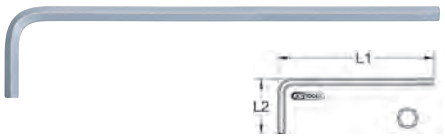
Hexagon key wrench, extra long

- Extra long execution
- In accordance to DIN / ISO 2936
- Continuous hardened
- Phosphate finis
- Special steel

	mm		L1 mm	L2 mm	g	
151.28015	1,5		91.5	15.5	10	
151.2802	2,0		102.0	18.0	10	
151.28025	2,5		114.5	20.5	10	
151.2803	3,0		129.0	23.0	10	
151.2804	4,0		144.0	29.0	20	
151.2805	5,0		156.0	30.5	30	
151.28055	5,5		165.0	33.0	40	
151.2806	6,0		186.0	38.0	50	
151.2807	7,0		197.0	41.0	80	
151.2808	8,0		208.0	44.0	100	
151.2657	9,0		219.0	47.0	110	
151.2810	10,0		234.0	50.0	180	
151.2812	12,0		262.0	57.0	290	
151.2814	14,0		294.0	70.0	460	
151.2817	17,0		337.0	80.0	750	
151.2819	19,0		360.0	89.0	1070	
151.2820		1/16"	91.0	15.5	10	
151.2821		5/64"	102.0	18.0	10	
151.2822		3/32"	114.5	20.5	10	
151.2823		1/8"	129.0	23.0	20	
151.2824		5/32"	144.0	29.0	20	
151.2825		3/16"	156.0	30.5	30	
151.2826		1/4"	186.0	38.0	50	
151.2827		5/16"	208.0	44.0	80	
151.2828		3/8"	234.0	50.0	150	
151.2829		1/2"	267.0	63.0	300	
151.2830		9/16"	294.0	70.0	460	

Hexagon key wrench, extra long

- Extra long execution
- DIN / ISO 2936
- Continuous hardened
- Matt chrome
- Special steel



	mm		L1 mm	L2 mm	g	
151.31315	1,5		91.5	15.5	10	
151.3132	2,0		102.0	18.0	10	
151.31325	2,5		114.5	20.5	10	
151.3133	3,0		129.0	23.0	10	
151.3134	4,0		144.0	29.0	20	
151.3135	5,0		156.0	30.5	30	
151.3136	6,0		186.0	38.0	50	
151.3137	7,0		197.0	41.0	80	
151.3138	8,0		208.0	44.0	100	
151.2658	9,0		219.0	47.0	143	
151.3140	10,0		234.0	50.0	180	
151.3142	12,0		262.0	57.0	290	
151.3144	14,0		294.0	70.0	460	
151.3147	17,0		337.0	80.0	750	
151.3149	19,0		360.0	89.0	1070	
151.3150		1/16"	91.0	15.5	10	
151.3151		5/64"	102.0	18.0	10	
151.3152		3/32"	114.5	20.5	10	
151.3153		1/8"	129.0	23.0	20	
151.3154		5/32"	144.0	29.0	20	
151.3155		3/16"	156.0	30.5	30	
151.3170		7/32"	165.0	33.0	40	
151.3156		1/4"	186.0	38.0	50	
151.3157		5/16"	208.0	44.0	80	
151.3158		3/8"	234.0	50.0	180	
151.3159		1/2"	267.0	63.0	300	
151.3160		9/16"	294.0	70.0	460	

HEXAGON KEY WRENCH SETS

CHROME*plus*® Hexagon key wrench set

- In accordance to DIN / ISO 2936
- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

			g	
158.3540	8 pcs	2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	440	

Hexagon key wrench set in a folding holder

- Short execution
- DIN / ISO 2936
- Continuous hardened
- Matt chrome
- Special steel

			g	
151.3210	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	260	

3 in 1 Hexagon key wrench set

- Short execution
- DIN / ISO 2936
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel
- In a folding holder with two component handle

			g	
920.2000	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	350	

3 in 1 Hexagon key wrench set

- Short execution
- DIN / ISO 2936
- Imperial sizes
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel
- In a folding holder with two component handle

			g	
920.2050	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	500	

Hexagon key wrench set on a ring

- In accordance to DIN / ISO 2936
- Storage ring
- Continuous hardened
- Phosphate finis
- Special steel

151.3250	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	330

3 in 1 Hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

151.2040	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	340

3 in 1 Hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Imperial sizes
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

151.2070	8 pcs	5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	360

3 in 1 Hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel
- In a folding holder with two component handle

920.2100	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	700

3 in 1 Hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Imperial sizes
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel
- In a folding holder with two component handle

920.2150	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	800

3 in 1 Hexagon key wrench set

- Extra long execution
- DIN / ISO 2936
- Handle with double function (holder / T handle)
- Continuous hardened
- Matt chrome
- Special steel

151.2080	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	420

3 in 1 Hexagon key wrench set

- Extra long execution
- DIN / ISO 2936
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel
- In a folding holder with two component handle

920.2300	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	800

3 in 1 Hexagon key wrench set

- Extra long execution
- DIN / ISO 2936
- Imperial sizes
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel
- In a folding holder with two component handle

920.2350	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	800

HEXAGON SOCKET KEY WRENCH DISPLAYS

CHROME*plus*® Hexagon key wrench display

- In accordance to DIN / ISO 2936
- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

158.3540D	12 pcs	12 x 158.3540	4.98

3 in 1 Hexagon key wrench display

- Long execution
- DIN / ISO 2936
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

151.2040D	24 pcs	24 x 151.2040	9.00

3 in 1 Hexagon key wrench display

- Long execution
- DIN / ISO 2936
- Imperial sizes
- Handle with double function (holder / T handle)
- Continuous hardened
- Matt chrome
- Special steel

151.2070D	24 pcs	24 x 151.2070	9.00

3 in 1 Hexagon key wrench display

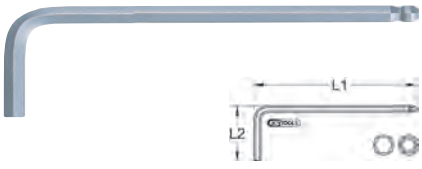
- Extra long execution
- DIN / ISO 2936
- Handle with double function (holder / T handle)
- Continuous hardened
- Matt chrome
- Special steel

			kg	
151.2080D	18 pcs	18 x 151.2080	8.00	

BALL ENDED HEXAGON KEY WRENCHES

Ball ended hexagon key wrench, short

- Short execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Special steel



	mm		L1 mm	L2 mm	g	
151.21615	1,5		46.5	15.5	10	
151.2162	2,0		52.0	18.0	10	
151.21625	2,5		58.5	20.5	10	
151.2163	3,0		66.0	23.0	10	
151.2164	4,0		74.0	29.0	10	
151.2165	5,0		85.0	33.0	20	
151.2166	6,0		96.0	38.0	30	
151.2168	8,0		108.0	44.0	60	
151.2170	10,0		122.0	50.0	110	
151.2172	12,0		137.0	57.0	170	
151.2174	14,0		154.0	70.0	270	

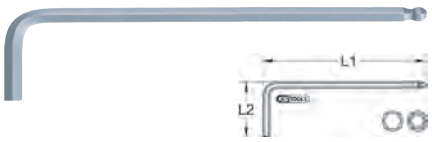
Ball ended hexagon key wrench, long

- Long execution
- In accordance to DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Phosphate finis
- Special steel

	mm		L1 mm	L2 mm	g	
151.29013	1,3		63.5	13.0	10	
151.29015	1,5		63.5	15.5	10	
151.2902	2,0		77.0	18.0	10	
151.29025	2,5		87.5	20.5	10	
151.2903	3,0		93.0	23.0	10	
151.29035	3,5		98.5	25.5	10	
151.2904	4,0		104.0	29.0	10	
151.29045	4,5		114.5	30.5	10	
151.2905	5,0		120.0	33.0	30	
151.29055	5,5		128.0	35.0	30	
151.2906	6,0		141.0	38.0	40	
151.2907	7,0		147.0	41.0	40	
151.2908	8,0		158.0	44.0	80	
151.2910	10,0		180.0	50.0	150	
151.2912	12,0		202.0	57.0	250	
151.2914	14,0		229.0	70.0	260	
151.2920		1/16"	63.5	15.5	10	
151.2921		5/64"	77.0	18.0	10	
151.2922		3/32"	87.5	20.5	10	
151.2923		7/64"	93.0	23.0	10	
151.2924		1/8"	93.0	23.0	20	
151.2925		9/64"	98.5	25.5	20	
151.2926		5/32"	104.0	29.0	30	
151.2927		3/16"	120.0	33.0	30	
151.2928		7/32"	128.0	35.0	30	
151.2929		1/4"	141.0	38.0	50	
151.2930		5/16"	158.0	44.0	50	
151.2931		3/8"	180.0	50.0	140	
151.2932		1/2"	202.0	57.0	160	
		9/16"	229.0	70.0	270	

Ball ended hexagon key wrench, long

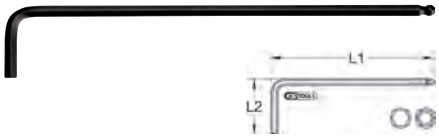
- Long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Special steel



	mm		L1 mm	L2 mm	g	
151.21013	1,3		63.5	13.0	10	
151.21015	1,5		63.5	15.5	10	
151.2102	2,0		77.0	18.0	10	
151.21025	2,5		87.5	20.5	10	
151.2103	3,0		93.0	23.0	10	
151.21035	3,5		98.5	25.5	10	
151.2104	4,0		104.0	29.0	10	
151.21045	4,5		114.5	30.5	10	
151.2105	5,0		120.0	33.0	30	
151.21055	5,5		128.0	30.0	30	
151.2106	6,0		141.0	38.0	40	
151.2107	7,0		147.0	41.0	40	
151.2108	8,0		158.0	44.0	80	
151.2110	10,0		180.0	50.0	150	
151.2112	12,0		202.0	57.0	250	
151.2114	14,0		229.0	70.0	260	
151.2131		1/16"	63.5	15.5	10	
151.2132		5/64"	77.0	18.0	10	
151.2133		3/32"	87.5	20.5	10	
151.2134		7/64"	93.0	23.0	10	
151.2135		1/8"	93.0	23.0	20	
151.2136		9/64"	98.5	25.5	20	
151.2137		5/32"	104.0	29.0	30	
151.2138		3/16"	120.0	33.0	30	
151.2139		7/32"	128.0	35.0	30	
151.2140		1/4"	141.0	38.0	50	
151.2141		5/16"	158.0	44.0	50	
151.2142		3/8"	180.0	50.0	140	
151.2143		1/2"	202.0	57.0	160	
151.2144		9/16"	229.0	70.0	270	

Ball ended hexagon key wrench, extra long

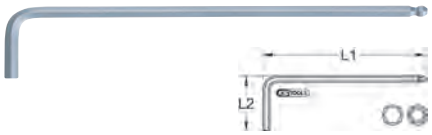
- Extra long execution
- In accordance to DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Phosphate finis
- Special steel



	mm		L1 mm	L2 mm	g	
151.30013	1,3		81,0	13,0	10	
151.30015	1,5		91,5	15,5	10	
151.3002	2,0		102,0	18,0	10	
151.30025	2,5		114,5	20,5	20	
151.3003	3,0		129,0	23,0	20	
151.30035	3,5		140,0	25,5	20	
151.3004	4,0		144,0	29,0	20	
151.30045	4,5		156,0	30,5	20	
151.3005	5,0		165,0	33,0	30	
151.30055	5,5		165,0	33,0	40	
151.3006	6,0		186,0	38,0	50	
151.3007	7,0		197,0	41,0	60	
151.3008	8,0		208,0	44,0	80	
151.3010	10,0		234,0	50,0	150	
151.3012	12,0		262,0	57,0	250	
151.3014	14,0		294,0	70,0	350	
151.3017	17,0		337,0	80,0	350	
151.3019	19,0		360,0	89,0	400	
151.3020		1/16"	91,0	15,5	10	
151.3021		5/64"	102,0	18,0	10	
151.3022		3/32"	114,5	20,5	10	
151.3023		7/64"	129,0	23,0	30	
151.3024		1/8"	129,0	23,0	50	
151.3025		9/64"	140,0	25,5	50	
151.3026		5/32"	144,0	29,0	80	
151.3027		3/16"	156,0	30,5	120	
151.3028		7/32"	165,0	33,0	150	
151.3029		1/4"	186,0	38,0	180	
151.3030		5/16"	208,0	35,0	200	
151.3031		3/8"	234,0	50,0	220	
151.3032		1/2"	267,0	63,0	250	
151.3033		9/16"	294,0	70,0	350	

Ball ended hexagon key wrench, extra long

- Extra long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Special steel



	mm		L1 mm	L2 mm	g	
151.31013	1,3		81,0	13,0	10	
151.31015	1,5		91,5	15,5	10	
151.3102	2,0		102,0	18,0	10	
151.31025	2,5		114,5	20,5	10	
151.3103	3,0		129,0	23,0	10	
151.3104	4,0		144,0	29,0	20	
151.3105	5,0		165,0	33,0	30	
151.31055	5,5		165,0	33,0	40	

	mm		L1 mm	L2 mm	g	
151.3106	6,0		186,0	38,0	50	
151.3107	7,0		197,0	41,0	80	
151.3108	8,0		208,0	44,0	100	
151.3110	10,0		234,0	50,0	150	
151.3112	12,0		262,0	57,0	250	
151.3114	14,0		294,0	70,0	270	
151.3117	17,0		337,0	80,0	300	
151.3119	19,0		360,0	89,0	350	
151.3301		1/16"	91,0	15,5	10	
151.3302		5/64"	102,0	18,0	10	
151.3303		3/32"	114,5	20,5	10	
151.3304		7/64"	129,0	23,0	30	
151.3305		1/8"	129,0	23,0	50	
151.3306		9/64"	140,0	25,5	50	
151.3307		5/32"	144,0	29,0	80	
151.3308		3/16"	156,0	30,5	120	
151.3309		7/32"	165,0	33,0	150	
151.3311		1/4"	186,0	38,0	180	
151.3312		5/16"	208,0	44,0	200	
151.3313		3/8"	234,0	50,0	220	
151.3314		1/2"	267,0	63,0	250	
151.3315		9/16"	294,0	70,0	350	

BALL ENDED HEXAGON KEY WRENCH SETS

CHROME*plus*® Ball ended hexagon key wrench set

- In accordance to DIN / ISO 2936
- With ball end
- Ideal for diffi ult to access screws
- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

			g	
158.3520	8 pcs	2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	440	

3 in 1 Ball ended hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			g	
151.2100	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	330	

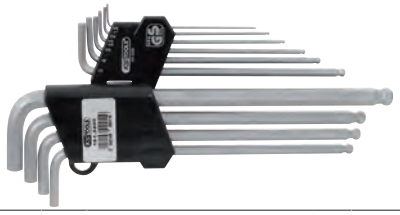
3 in 1 Ball ended hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Imperial sizes
- Ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			g	
151.2130	8 pcs	5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	310	

Ball ended hexagon key wrench set in a folding holder

- Long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Special steel



			g	
151.3200	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	500	

3 in 1 Ball ended hexagon key wrench set

- Long execution
- DIN / ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g	
920.2200	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	600	

3 in 1 Ball ended hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Imperial sizes
- With ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g	
920.2250	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	600	

3 in 1 Ball ended hexagon key wrench set

- Extra long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			g	
151.2180	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	440	

Ball ended hexagon key wrench set

- Extra long execution
- DIN/ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Chrome vanadium
- In a convenient folding holder

			g	
151.3220	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	500	

3 in 1 Ball ended hexagon key wrench set

- Extra long execution
- DIN / ISO 2936
- Imperial sizes
- With ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g	
920.2400	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	600	

Ball ended hexagon key wrench set

- Extra long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Special steel

			kg	
151.2150	10 pcs	3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm	2.38	

3 in 1 Ball ended hexagon key wrench set

- Long execution
- DIN / ISO 2936
- Imperial sizes
- With ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g
920.2450	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	600

BALL ENDED HEXAGON KEY WRENCH DISPLAYS

CHROME*plus*® Ball ended hexagon key wrench display

- In accordance to DIN / ISO 2936
- With ball end
- Ideal for diffi ult to access screws
- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

			kg
158.3520D	12 pcs	12 x 158.3520	4.98

3 in 1 Ball ended hexagon key wrench display

- Long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			kg
151.2100D	24 pcs	24 x 151.2100	8.00

Ball ended hexagon key wrench display

- Extra long execution
- In accordance to DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Special steel

			kg
151.3200D	10 pcs	10 x 151.3200	5.60

3 in 1 Ball ended hexagon key wrench display

- Long execution
- DIN / ISO 2936
- Imperial sizes
- Ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Matt chrome
- Special steel

			kg
151.2130D	24 pcs	24 x 151.2130	7.60

3 in 1 Ball ended hexagon key wrench display

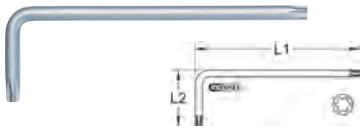
- Extra long execution
- DIN / ISO 2936
- Ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			kg
151.2180D	18 pcs	18 x 151.2180	8.00

TX-HEXAGON KEY WRENCH

TX key wrench, short

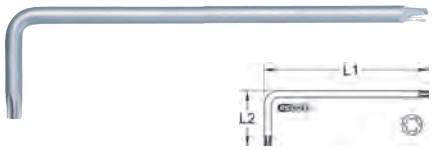
- Short execution
- Continuous hardened
- Matt chrome
- Special steel



		L1 mm	L2 mm	g
151.2341	T6	42.0	16.0	10
151.2342	T7	48.0	16.0	10
151.2343	T8	48.0	16.0	10
151.2344	T9	48.0	16.0	10
151.2345	T10	51.0	17.0	10
151.2346	T15	54.0	18.0	10
151.2347	T20	57.0	19.0	10
151.2348	T25	60.0	20.0	10
151.2349	T27	64.0	21.0	20
151.2350	T30	70.0	24.0	30
151.2351	T40	76.0	26.0	40
151.2352	T45	82.0	28.0	50
151.2353	T50	95.0	32.0	60
151.2354	T55	108.0	35.0	130
151.2355	T60	120.0	38.0	190

TX key wrench, long

- Long execution
- Continuous hardened
- Matt chrome
- Special steel



		L1 mm	L2 mm	g
151.2312	T6	66.0	16.0	10
151.2313	T7	71.0	16.0	10
151.2314	T8	76.0	16.0	10
151.2315	T9	80.0	16.0	10
151.2301	T10	86.0	17.0	10
151.2302	T15	90.0	18.0	10
151.2303	T20	95.0	19.0	10
151.2304	T25	100.0	20.0	20
151.2309	T27	105.0	21.0	30
151.2305	T30	114.0	24.0	40
151.2306	T40	124.0	26.0	70
151.2307	T45	133.0	28.0	100
151.2308	T50	152.0	32.0	140
151.2310	T55	171.0	35.0	180
151.2311	T60	190.0	38.0	280

TX key wrench, extra long

- Extra long execution
- Continuous hardened
- Matt chrome
- Special steel

		L1 mm	L2 mm	g
151.3161	T10	90.0	14.0	10
151.3162	T15	100.0	16.0	10
151.3163	T20	112.0	18.0	10
151.3164	T25	126.0	20.0	20
151.3165	T27	140.0	25.0	30
151.3166	T30	160.0	28.0	40
151.3167	T40	180.0	32.0	60
151.3168	T45	200.0	36.0	90
151.3169	T50	224.0	40.0	130

TX TAMPERPROOF HEXAGON KEY WRENCH SETS

CHROME*plus*® TX key wrench set

- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

			g
158.3510	8 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40	300

3 in 1 TX key wrench set

- Short execution
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g
920.2500	10 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	500

3 in 1 TX key wrench set

- Long execution
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g
151.2300	8 pcs	T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50	310

3 in 1 TX key wrench set

- Long execution
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g
920.2520	10 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	500

3 in 1 TX key wrench set

- Extra long execution
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g
151.2380	8 pcs	T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50	420

3 in 1 TX key wrench set

- Extra long execution
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g
920.2540	10 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	700

TX-HEXAGON KEY WRENCH DISPLAYS

CHROME*plus*® TX key wrench display

- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

			kg
158.3510D	12 pcs	12 x 158.3510	3.84

3 in 1 TX key wrench display

- Long execution
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			kg
151.2300D	24 pcs	24 x 151.2300	7.55

3 in 1 TX key wrench display

- Extra long execution
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			kg
151.2380D	18 pcs	18 x 151.2380	7.55

TX BALL ENDED HEXAGON KEY WRENCH

TX ball ended key wrench, long

- Long execution
- Continuous hardened
- Ball head on the long end
- Ideal for diffi ult to access screws
- Matt chrome
- Special steel

		L1 mm	L2 mm	g
151.2401	T10	86.0	17.0	10
151.2402	T15	90.0	18.0	10
151.2403	T20	95.0	19.0	10
151.2404	T25	100.0	20.0	20
151.2405	T30	114.0	24.0	30
151.2406	T40	124.0	26.0	50
151.2407	T45	133.0	29.0	60
151.2408	T50	152.0	32.0	90

TX BALL ENDED HEXAGON KEY WRENCH SETS

3 in 1 TX ball ended key wrench set

- Long execution
- Continuous hardened
- Ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g	
151.2400	8 pcs	T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50	310	

TX BALL ENDED HEXAGON KEY DISPLAYS

3 in 1 TX ball ended key wrench display

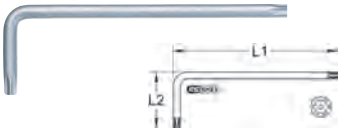
- Long execution
- Continuous hardened
- Ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			kg	
151.2400D	24 pcs	24 x 151.2400	7.65	

TX TAMPERPROOF HEXAGON KEY WRENCH

TX tamperproof key wrench, short

- Short execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special steel



		L1 mm	L2 mm	g	
151.2241	TB6	42.0	16.0	10	
151.2242	TB7	48.0	16.0	10	
151.2243	TB8	48.0	16.0	10	
151.2244	TB9	48.0	16.0	10	
151.2245	TB10	51.0	17.0	10	
151.2246	TB15	54.0	18.0	10	
151.2247	TB20	57.0	19.0	10	
151.2248	TB25	60.0	20.0	10	
151.2249	TB27	64.0	21.0	20	
151.2250	TB30	70.0	24.0	30	
151.2251	TB40	76.0	26.0	40	
151.2252	TB45	82.0	28.0	50	
151.2253	TB50	95.0	32.0	60	
151.2254	TB55	108.0	35.0	130	
151.2255	TB60	120.0	38.0	190	

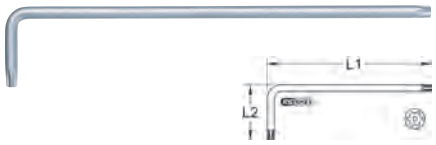
TX tamperproof key wrench, long

- Long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special steel

		L1 mm	L2 mm	g	
151.2212	TB6	66.0	16.0	10	
151.2213	TB7	71.0	16.0	10	
151.2214	TB8	76.0	16.0	10	
151.2215	TB9	80.0	16.0	10	
151.2201	TB10	86.0	17.0	10	
151.2202	TB15	90.0	18.0	10	
151.2203	TB20	95.0	19.0	10	
151.2204	TB25	100.0	20.0	20	
151.2209	TB27	105.0	21.0	30	
151.2205	TB30	114.0	24.0	40	
151.2206	TB40	124.0	26.0	70	
151.2207	TB45	133.0	28.0	100	
151.2208	TB50	152.0	32.0	140	
151.2210	TB55	171.0	35.0	180	
151.2211	TB60	190.0	38.0	280	

TX tamperproof key wrench, extra long

- Extra long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special steel



		L1 mm	L2 mm	g	
151.3181	TB10	90.0	14.0	10	
151.3182	TB15	100.0	16.0	10	
151.3183	TB20	112.0	18.0	10	
151.3184	TB25	126.0	20.0	20	
151.3185	TB27	140.0	25.0	30	
151.3186	TB30	160.0	28.0	40	
151.3187	TB40	180.0	32.0	60	
151.3188	TB45	200.0	36.0	90	
151.3189	TB50	224.0	40.0	130	

TX TAMPERPROOF KEY WRENCH SETS

TX tamperproof key wrench set

- Short execution
- With tamperproof
- Continuous hardened
- Matt chrome
- Special steel

				g	
151.4150	7 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	100	

CHROME*plus*® TX tamperproof key wrench set

- With tamperproof
- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

			g	
158.3530	8 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	300	

3 in 1 TX tamperproof key wrench set

- Short execution
- With tamperproof
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g	
920.2550	10 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	600	

3 in 1 TX tamperproof key wrench set

- Long execution
- With tamperproof
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			g	
151.2200	8 pcs	TB10 - TB15 - TB20 - TB25 - TB30 - TB40 - TB45 - TB50	250	

3 in 1 TX tamperproof key wrench set

- Long execution
- With tamperproof
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

			g	
920.2570	10 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	600	

3 in 1 TX tamperproof key wrench set

- Extra long execution
- With tamperproof
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			g
151.2280	8 pcs	TB10 - TB15 - TB20 - TB25 - TB30 - TB40 - TB45 - TB50	420

3 in 1 TX tamperproof key wrench set

- Extra long execution
- With tamperproof
- Continuous hardened
- Handle with double function (holder / T-handle)
- Matt chrome
- Special steel

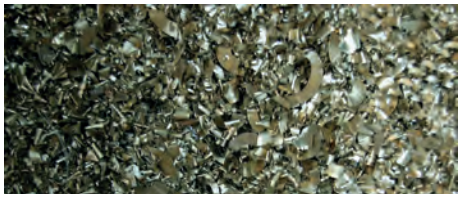
			g
920.2590	10 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	800

TX TAMPERPROOF KEY WRENCH DISPLAYS

CHROME*plus*® TX tamperproof key wrench display

- With tamperproof
- Continuous hardened
- Chrome plated and mirror polished
- Special steel
- In a durable folding holder with two component housing

			kg
158.3530D	12 pcs	12 x 158.3530	3.84



3 in 1 TX tamperproof key wrench display

- Long execution
- With tamperproof
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			kg
151.2200D	24 pcs	24 x 151.2200	8.50

3 in 1 TX tamperproof key wrench display

- Extra long execution
- With tamperproof
- Handle with double function (holder / T-handle)
- Continuous hardened
- Matt chrome
- Special steel

			kg
151.2280D	18 pcs	18 x 151.2280	7.51

FIVE STAR PROFILE TAMPERPROOF KEY WRENCH

Five star profile amperproof key wrench, extra long

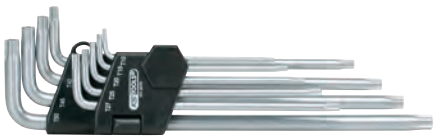
- Extra long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special steel

		L1 mm	L2 mm	g	
151.2471	TS10	94.0	18.0	10	
151.2472	TS15	104.0	20.0	10	
151.2473	TS20	116.0	22.0	10	
151.2474	TS25	130.0	25.0	20	
151.2475	TS27	133.0	30.0	30	
151.2476	TS30	167.0	34.0	40	
151.2477	TS40	190.0	38.0	60	
151.2478	TS45	190.0	44.0	90	
151.2479	TS50	245.0	50.0	130	

FIVE STAR PROFILE TAMPERPROOF KEY WRENCH SETS

Five star profile amperproof key wrench set

- Long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special steel

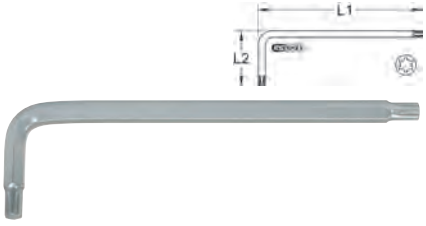


			g	
151.2470	9 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50	330	

RIBE TAMPERPROOF KEY WRENCH

RIBE® Key wrench, extra long

- Extra long execution
- Continuous hardened
- Matt chrome
- Special steel



		L1 mm	L2 mm	g	
151.2451	M4	144.0	29.0	20	
151.2452	M5	165.0	33.0	30	
151.2453	M6	186.0	38.0	50	
151.2454	M7	197.0	41.0	80	
151.2455	M8	208.0	44.0	104	
151.2456	M9	219.0	47.0	150	
151.2457	M10	234.0	50.0	170	
151.2670	M12	262.0	57.0	280	
151.2671	M14	294.0	70.0	436	
151.2672	M16	337.0	80.0	598	
151.2458	M18	379.0	89.0	1027	

RIBE HEXAGON KEY WRENCH SETS

RIBE® Key wrench set

- Long execution
- Continuous hardened
- Matt chrome
- Special steel

			g
151.2450	7 pcs	M4 - M5 - M6 - M7 - M8 - M9 - M10	310

SPLINE-HEXAGON KEY WRENCH (XZN®)

Spline key wrench, short

- Short execution
- Continuous hardened
- Matt chrome
- Special steel

		L1 mm	L2 mm	g
151.4101	M4	63.0	20.0	10
151.4102	M5	72.0	24.0	10
151.4103	M6	76.0	26.0	20
151.4104	M8	82.0	28.0	40
151.4105	M10	93.0	31.0	80
151.4106	M12	106.0	34.0	80
151.4107	M14	125.0	45.0	80
151.4108	M16	140.0	55.0	80
151.2673	M18	178.0	81.0	333

SPLINE-HEXAGON KEY WRENCH SETS (XZN®)

Spline key wrench set

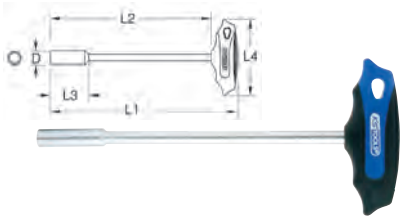
- Short execution
- Continuous hardened
- Matt chrome
- Special steel

			g
151.4100	5 pcs	M5 - M6 - M8 - M10 - M12	150

T-HANDLE NUT SCREWDRIVER

CHROME*plus*® T-handle socket screwdriver, long

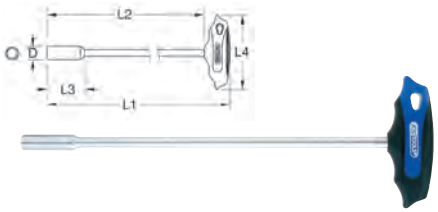
- 6 point
- Two component handle
- With hanging hole
- Chrome plated and mirror polished
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
158.50055	5,5	9.9	264.0	230.0	10.0	95.0	80
158.5006	6	9.9	264.0	230.0	10.0	95.0	100
158.5007	7	10.1	264.0	230.0	10.0	95.0	120
158.5008	8	12.5	270.0	230.0	14.0	115.0	140
158.5009	9	13.6	270.0	230.0	12.0	115.0	150
158.5010	10	14.5	270.0	230.0	14.0	115.0	160
158.5011	11	15.7	270.0	230.0	15.0	115.0	180
158.5012	12	16.7	270.0	230.0	15.0	115.0	180
158.5013	13	17.6	270.0	230.0	16.0	115.0	180
158.5014	14	19.2	270.0	230.0	15.0	115.0	190

CHROME*plus*® T-handle socket screwdriver, extra long

- 6 point
- Two component handle
- With hanging hole
- Chrome plated and mirror polished
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
158.5408	8	12.6	390.0	350.0	13.0	115.0	180
158.5409	9	13.6	390.0	350.0	14.0	115.0	190
158.5410	10	14.7	390.0	350.0	15.0	115.0	220
158.5413	13	17.7	390.0	350.0	15.0	115.0	230
158.5414	14	19.1	390.0	350.0	16.0	115.0	250

T-HANDLE NUT SCREWDRIVER SETS

CHROME*plus*® T-handle socket srewdriver set

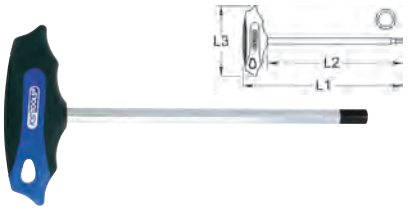
- 6 point
- Two component handle
- With hanging hole
- Chrome plated and mirror polished
- Chrome vanadium

			kg
158.5000	6 pcs	6 - 8 - 10 - 12 - 13 - 14 mm	1.40

T-HANDLE HEXAGON SOCKET KEY WRENCH

ERGOTORQUE*plus*® T-handle hexagon key wrench

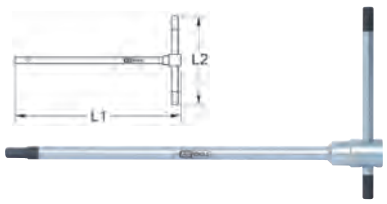
- With two component handle
- Continuous hardened
- Tip burnished
- Chrome plated and mirror polished
- Special steel



	mm	L1 mm	L2 mm	L3 mm	g
158.8032	2,0	130.0	100.0	80.0	20
158.80325	2,5	130.0	100.0	80.0	30
158.8033	3,0	130.0	100.0	80.0	30
158.8034	4,0	180.0	150.0	80.0	50
158.8035	5,0	185.0	150.0	100.0	100
158.8036	6,0	185.0	150.0	100.0	140
158.8037	7,0	185.0	150.0	100.0	157
158.8038	8,0	230.0	200.0	100.0	320
158.8040	10,0	235.0	200.0	115.0	360

3 Way T-handle hexagonal key wrench

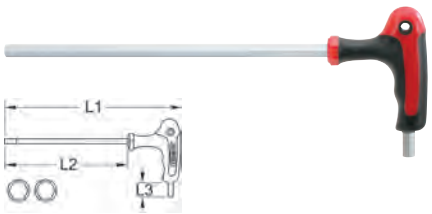
- Hexagonal profile on hree ends
- For diffi ult to access areas
- Matt finis
- Chrome finish wi h burnished tips
- Chrome vanadium



	mm	L1 mm	L2 mm	g
158.5102	2,0	125.0	65.0	23
158.51025	2,5	125.0	65.0	23
158.5103	3,0	125.0	65.0	23
158.5104	4,0	180.0	90.0	59
158.51045	4,5	180.0	90.0	59
158.5105	5,0	180.0	90.0	60
158.5106	6,0	210.0	105.0	126
158.5108	8,0	250.0	125.0	208
158.5110	10,0	300.0	145.0	384

ERGOTORQUE*plus*® T-handle hexagon key wrench

- Ideal for diffi ult to access screws
- With two component handle
- Continuous hardened
- Matt chrome
- Special steel



	mm	L1 mm	L2 mm	L3 mm	g
151.2686	2,0	142.0	100.0	12.0	12
151.2687	2,5	142.0	100.0	12.0	15
151.2688	3,0	167.0	125.0	12.0	19
151.2689	4,0	211.0	150.0	14.0	49
151.2690	4,5	211.0	150.0	14.0	60
151.2691	5,0	211.0	150.0	14.0	68
151.2692	6,0	236.0	175.0	14.0	91
151.2693	7,0	261.0	200.0	14.0	142
151.2694	8,0	279.0	200.0	16.0	175
151.2695	10,0	304.0	225.0	16.0	257

T-HANDLE HEXAGON SOCKET KEY WRENCH SETS

ERGOTORQUE*plus*® T-handle key wrench set

- In accordance to DIN / ISO 2936
- Continuous hardened
- Chrome plated and mirror polished
- Tip burnished
- Special steel
- In durable wall holder

			kg
158.8130	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	1.08

3 Way T-handle hexagonal key wrench set

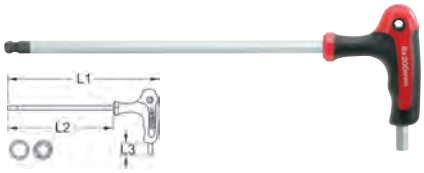
- Hexagonal profile on three ends
- For difficult to access areas
- Matt finish
- Chrome finish with burnished tips
- Chrome vanadium
- In durable plastic storage case

			kg
158.5100	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	2.00

T-HANDLE BALL ENDED-HEXAGON KEY WRENCHES

ERGOTORQUE*plus*® T-handle ball ended hexagon key wrench

- With ball head on the long end
- Ideal for difficult to access screws
- With two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special steel



	mm	L1 mm	L2 mm	L3 mm	g
151.8130	2,0	138.0	100.0	12.0	20
151.8131	2,5	140.0	100.0	13.0	30
151.8132	3,0	140.0	100.0	15.0	30
151.8133	4,0	188.0	150.0	15.0	50
151.8134	5,0	205.0	150.0	15.0	100
151.8135	6,0	205.0	150.0	15.0	140
151.8136	7,0	210.0	150.0	15.0	300
151.8137	8,0	250.0	200.0	15.0	320
151.8138	10,0	275.0	200.0	18.0	360
151.8139	12,0	275.0	200.0	20.0	420

T-HANDLE BALL ENDED HEXAGON SOCKET KEY WRENCH SETS

ERGOTORQUE*plus*® T-handle ball ended hexagon key wrench set

- With ball head on the long end
- Ideal for difficult to access screws
- With two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special steel

			kg
151.8155	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	0.44

ERGOTORQUE*plus*® T-handle ball ended hexagon key wrench set

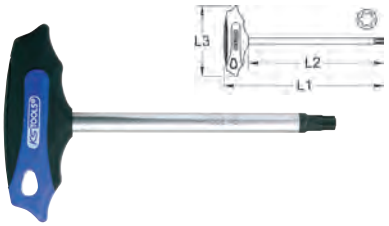
- With ball head on the long end
- Ideal for difficult to access screws
- With two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special steel
- In durable plastic storage case

			kg
151.8150	9 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 - 12 mm	1.80

T-HANDLE TX-KEY WRENCH

ERGOTORQUE*plus*® T-handle TX key wrench

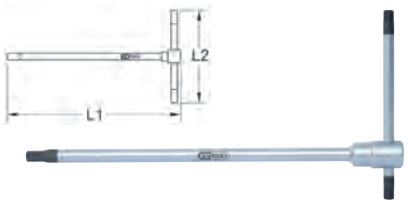
- With two component handle
- Continuous hardened
- Tip burnished
- Chrome plated and mirror polished
- Special steel



		L1 mm	L2 mm	L3 mm	g
158.8015	T5	130.0	100.0	80.0	18
158.8016	T6	130.0	100.0	80.0	18
158.8017	T7	130.0	100.0	80.0	18
158.8018	T8	130.0	100.0	80.0	33
158.8019	T9	130.0	100.0	80.0	38
158.8020	T10	130.0	100.0	80.0	38
158.8021	T15	130.0	100.0	80.0	30
158.8022	T20	130.0	100.0	80.0	30
158.8023	T25	135.0	100.0	100.0	50
158.8024	T27	135.0	100.0	100.0	100
158.8025	T30	135.0	100.0	100.0	100
158.8026	T40	235.0	200.0	100.0	300
158.8027	T45	285.0	250.0	100.0	320
158.8028	T50	290.0	250.0	115.0	360

3 Way T-handle TX key wrench

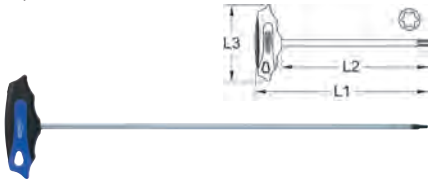
- TX profile on three ends
- For difficult to access areas
- Matt finish
- Chrome finish with burnished tips
- Chrome vanadium



		L1 mm	L2 mm	g
158.5201	T10	125.0	65.0	23
158.5202	T15	125.0	65.0	23
158.5203	T20	125.0	65.0	23
158.5204	T25	180.0	90.0	59
158.5205	T27	180.0	90.0	59
158.5206	T30	180.0	90.0	60
158.5207	T40	180.0	90.0	126
158.5208	T45	180.0	90.0	208
158.5209	T50	250.0	125.0	384

ERGOTORQUE*plus*® T-handle TX key wrench, long

- Extra long execution
- With two component handle
- Continuous hardened
- Tip burnished
- Chrome plated and mirror polished
- Special steel



		L1 mm	L2 mm	L3 mm	g
158.8051	T10	403.0	373.0	80.0	30
158.8052	T15	403.0	373.0	80.0	30
158.8053	T20	403.0	373.0	100.0	40
158.8054	T25	408.0	373.0	100.0	40
158.8055	T27	408.0	373.0	100.0	40
158.8056	T30	408.0	373.0	100.0	45

T-HANDLE TX-HEXAGON KEY WRENCH SETS

ERGOTORQUE*plus*® T-handle TX key wrench set

- Continuous hardened
- Chrome plated and mirror polished
- Tip burnished
- Special steel
- In durable wall holder

			kg	
158.8160	9 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	1.33	

3 Way T-handle TX key wrench set

- TX profile on hree ends
- For diffi ult to access areas
- Matt finis
- Chrome finish wi h burnished tips
- Chrome vanadium
- In durable plastic storage case

			kg	
158.5200	9 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	1.88	

ERGOTORQUE*plus*® T-handle TX key wrench set

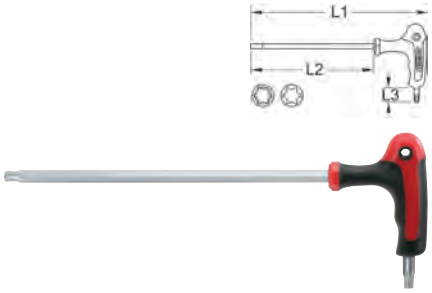
- Extra long execution
- With two component handle
- Continuous hardened
- Tip burnished
- Chrome plated and mirror polished
- Special steel

			g	
158.8050	6 pcs	T10 - T15 - T20 - T25 - T27 - T30	375	

T-HANDLE TX-BALL ENDED KEY WRENCH

ERGOTORQUE*plus*® T-handle ball ended TX key wrench

- With ball head on the long end
- Ideal for diffi ult to access screws
- With two component handle
- Continuous hardened
- Matt chrome
- Special steel

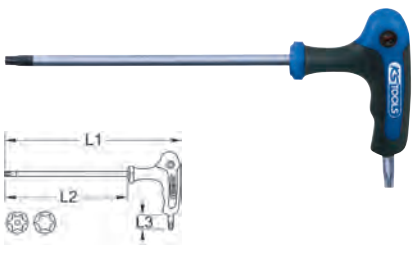


		L1 mm	L2 mm	L3 mm	g	
151.2751	T6	167.0	125.0	12.0	20	
151.2752	T7	167.0	125.0	12.0	20	
151.2753	T8	167.0	125.0	12.0	20	
151.2754	T9	167.0	125.0	12.0	25	
151.2755	T10	167.0	125.0	12.0	30	
151.2756	T15	167.0	125.0	12.0	35	
151.2757	T20	167.0	125.0	12.0	40	
151.2758	T25	211.0	150.0	14.0	50	
151.2759	T27	211.0	150.0	14.0	70	
151.2760	T30	211.0	150.0	14.0	75	
151.2761	T40	254.0	175.0	16.0	120	

T-HANDLE TX TAMPERPROOF KEY WRENCH

ERGOTORQUE*plus*® T-handle TX tamperproof key wrench

- Tamperproof
- With two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special steel



		L1 mm	L2 mm	L3 mm	g	
151.8119	TB9	100.0	100.0	13.0	20	
151.8121	TB10	140.0	100.0	13.0	20	
151.8122	TB15	140.0	100.0	15.0	30	
151.8123	TB20	140.0	100.0	15.0	30	
151.8124	TB25	208.0	150.0	15.0	50	
151.8125	TB27	208.0	150.0	15.0	100	
151.8126	TB30	208.0	150.0	15.0	140	
151.8127	TB40	260.0	200.0	15.0	300	
151.8128	TB45	260.0	200.0	18.0	320	
151.8129	TB50	280.0	200.0	20.0	360	

T-HANDLE TX TAMPERPROOF KEY WRENCH SETS

ERGOTORQUE*plus*® T-handle TX tamperproof key wrench set

- Tamperproof
- With two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special steel

			kg	
151.8165	8 pcs	TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	0.70	

ERGOTORQUE*plus*® T-handle TX tamperproof key wrench set

- Tamperproof
- With two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special steel
- In durable plastic storage case

			kg	
151.8160	9 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	1.80	

6 SCREWDRIVERS

KSTOOLS®

Innovation is our mission!

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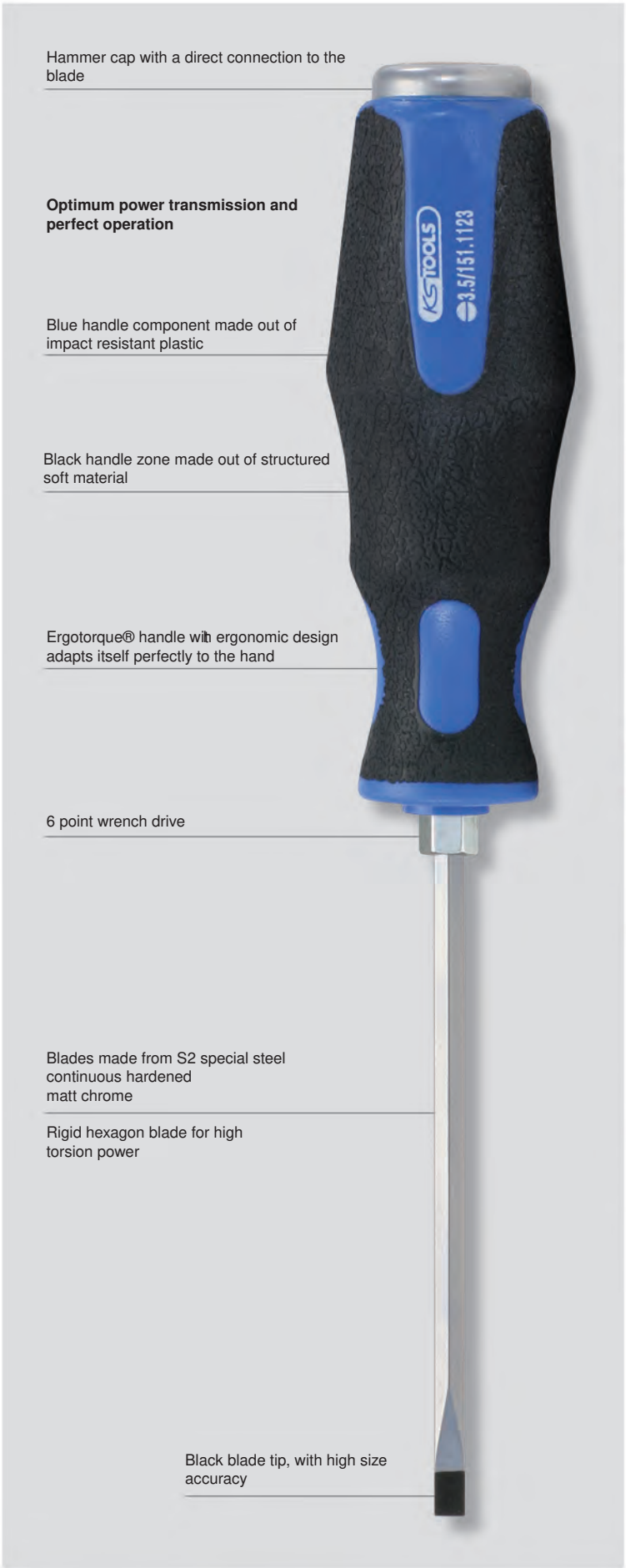
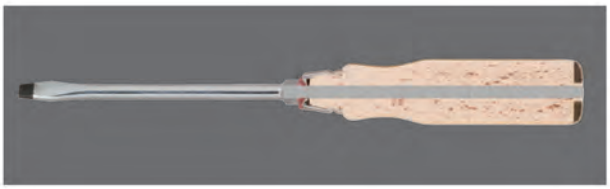
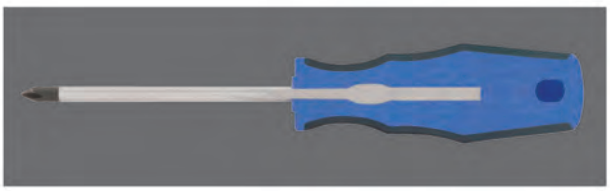
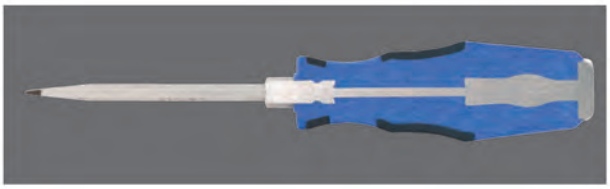
SCREWDRIVERS



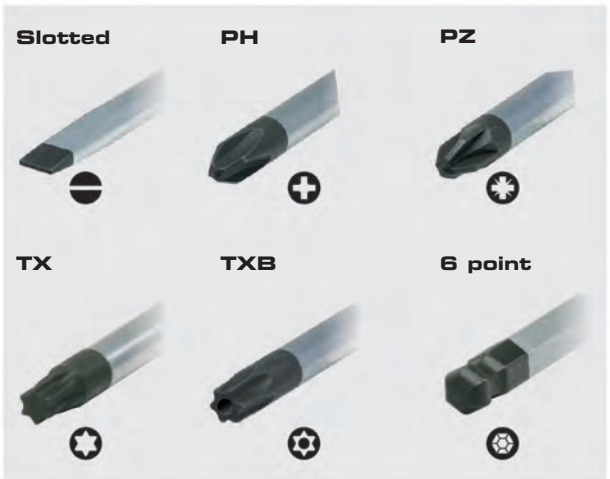
Composition







Profil s



1/4" Additional square drive for use with the T handle ratchet (duplication of the torque)

Screwdriver profil

ERGOTORQUE® Wood

- Ergonomic handle design
- Handles made of hard wood beech
- Forged hexagon spanner drive
- Blade made of special chrome molybdenum vanadium alloy

ERGOTORQUE®

- Robust 1 component plastic handle (black)
- Ergonomic handle design - with micro structured surface
- Rigid hexagonal blade
- Blade made of S2 special steel - continuous hardened and matt chrome finis

ERGOTORQUE® plus

- 2 Component comfort handle with striking cap
- Ergonomic handle design
- Hard blue core with soft black component with micro structured surface
- Rigid hexagonal blade with forged hexagon spanner drive
- Blade made out of S2 special steel - continuous hardened and matt chrome finis

ERGOTORQUE® max

- 2 Component comfort handle
- Ergonomic handle design
- Hard blue core with soft black component with micro structured surface
- Rigid round blade with forged hexagon spanner drive
- Blade made out of S2 special steel - continuous hardened and matt chrome finis

Handle variants

Wood

- Hard wood beech
- Protective leather cap for shatter protection
- Continuous blade

- Hard wood beech
- Ergonomic, convex handle contour
- Metal striking cap
- Firm connection between blade and striking cap

Plastic

- Robust 1 component plastic handle
- Black
- Ergonomic handle design
- Handle zone with micro structure surface
- Chemical and oil resistant

2 Component

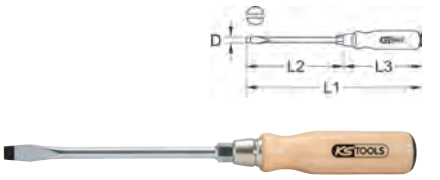
- Ergonomic handle design
- Blue handle made out of impact resistant plastic
- Black handle zone made out of structured soft material
- Handle with hanging eyelet

- Ergonomic handle design
- Blue handle made out of impact resistant plastic
- Black handle zone made out of structured soft material
- Handle end with striking cap
- Firm connection between blade and striking cap

ERGOTORQUE® WOOD SCREWDRIVER

ERGOTORQUE® WOOD screwdriver for slotted screws

- DIN 5265 / ISO 2380
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed and sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm		g
300.1001	3,5	170.0	75.0	95.0	●	50
300.1002	4,5	185.0	90.0	95.0	●	50
300.1003	5,5	200.0	100.0	100.0	●	70
300.1004	7,0	235.0	125.0	110.0	●	120
300.1005	9,0	280.0	150.0	120.0	●	170
300.1006	10,0	300.0	175.0	125.0	●	220
300.1007	12,0	330.0	200.0	130.0	●	310
300.1008	14,0	390.0	250.0	140.0	●	360

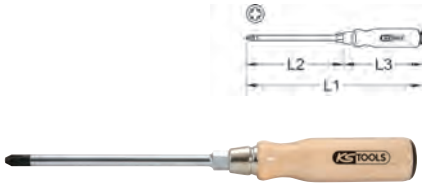
ERGOTORQUE® WOOD screwdriver for phillips screws PH

- DIN 8764
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed and sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm		g
300.1011	PH 1	175.0	80.0	95.0	●	50
300.1012	PH 2	220.0	100.0	120.0	●	90
300.1013	PH 3	270.0	150.0	120.0	●	170
300.1014	PH 4	340.0	200.0	140.0	●	330

ERGOTORQUE® WOOD screwdriver for phillips screws PZ

- DIN 8764
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		g
300.1021	PZ 1	175.0	80.0	95.0	●	50
300.1022	PZ 2	220.0	100.0	120.0	●	90
300.1023	PZ 3	270.0	150.0	120.0	●	170
300.1024	PZ 4	340.0	200.0	140.0	●	330

ERGOTORQUE® WOOD screwdriver set

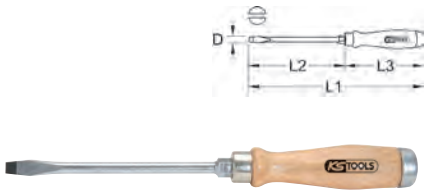
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
300.1100	6 pcs	ERGOTORQUE® WOOD screw-driver set	420

4 x		3,5 - 4,5 - 5,5 - 7 mm
2 x		PH1 - PH2

ERGOTORQUE® WOOD*max* screwdriver for slotted screws

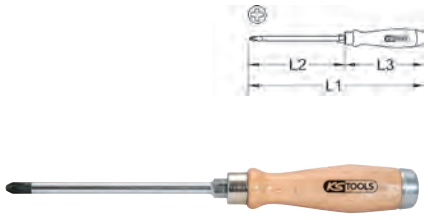
- DIN 5265
- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm		g
300.1051	3,5	175.0	75.0	100.0	●	50
300.1052	4,5	190.0	90.0	100.0	●	50
300.1053	5,5	205.0	100.0	105.0	●	70
300.1054	7,0	240.0	125.0	115.0	●	120
300.1055	8,0	275.0	150.0	125.0	●	170

ERGOTORQUE® WOOD*max* screwdriver for phillips screws PH

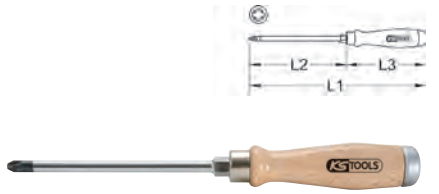
- DIN / ISO 8764
- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	L1 mm	L2 mm	L3 mm		g
300.1061	PH 1	180.0	80.0	100.0	●	50
300.1062	PH 2	225.0	100.0	125.0	●	90
300.1063	PH 3	275.0	150.0	125.0	●	170

ERGOTORQUE® WOOD*max* screwdriver for phillips screws PZ

- DIN / ISO 8764
- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		g
300.1071	PZ 1	180.0	80.0	100.0	●	50
300.1072	PZ 2	225.0	100.0	125.0	●	90
300.1073	PZ 3	275.0	150.0	125.0	●	170

ERGOTORQUE® WOOD*max* screwdriver set

- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
300.1050	6 pcs	ERGOTORQUE® WOOD*max* screwdriver set	500

4 x		3,5 - 4,5 - 5,5 - 7 mm
2 x		PH1 - PH2

ERGOTORQUE® SCREWDRIVER

ERGOTORQUE® screwdriver for slotted screws, stubby

- DIN 5265
- Extra short blade
- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

	D mm	L1 mm	L2 mm	L3 mm	g
911.3755	4,0	75.0	25.0	50.0	35
911.3756	5,0	75.0	25.0	50.0	36
911.1141	6,0	90.0	38.0	52.0	40
911.3757	6,5	75.0	25.0	50.0	39
911.3758	8,0	75.0	25.0	50.0	44

ERGOTORQUE® screwdriver for phillips screws PH, stubby

- DIN / ISO 8764
- Extra short blade
- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
911.3759	PH 1	75.0	25.0	50.0	42
911.1132	PH 2	90.0	38.0	52.0	40

ERGOTORQUE® screwdriver for phillips screws PZ, stubby

- DIN / ISO 8764
- Extra short blade
- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
911.3760	PZ 1	75.0	25.0	50.0	42
911.1136	PZ 2	90.0	38.0	52.0	40

ERGOTORQUE® screwdriver for slotted screws

- DIN 5265
- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

	D mm	L1 mm	L2 mm	L3 mm	g
911.1146	3,2	175.0	75.0	100.0	20
911.1641	3,5	180.0	80.0	100.0	30
911.1138	4,5	175.0	100.0	75.0	30
911.1181	4,0	205.0	125.0	80.0	30
911.1182	4,0	280.0	200.0	80.0	40
911.1183	5,0	175.0	75.0	100.0	40
911.1184	5,0	250.0	150.0	100.0	40
911.1185	5,0	350.0	250.0	100.0	40
911.1139	5,5	200.0	100.0	100.0	40
911.1147	6,5	200.0	100.0	100.0	40
911.1142	6,5	225.0	125.0	100.0	40
911.1642	6,5	250.0	150.0	100.0	108
911.1144	8,0	260.0	150.0	110.0	40
911.1186	8,0	310.0	200.0	110.0	40
911.1643	10,0	285.0	175.0	110.0	229
911.1644	12,0	310.0	200.0	110.0	250
911.1645	14,0	345.0	225.0	120.0	286

ERGOTORQUE® screwdriver for phillips screws PH

- DIN / ISO 8764
- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
911.1646	PH 0	140.0	60.0	80.0	33
911.1130	PH 1	175.0	75.0	100.0	40
911.1187	PH 1	350.0	250.0	100.0	140
911.1131	PH 2	200.0	100.0	100.0	60
911.1188	PH 2	350.0	250.0	100.0	140
911.1133	PH 3	255.0	150.0	105.0	60
911.1647	PH 4	310.0	200.0	110.0	252

ERGOTORQUE® screwdriver for phillips screws PZ

- DIN / ISO 8764
- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
911.1648	PZ 0	140.0	60.0	80.0	33
911.1134	PZ 1	175.0	75.0	100.0	40
911.1135	PZ 2	200.0	100.0	100.0	60
911.1137	PZ 3	260.0	150.0	100.0	140
911.1649	PZ 4	310.0	200.0	110.0	252

ERGOTORQUE® screwdriver for TX screws

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
911.1651	T5	130.0	60.0	70.0	35
911.1652	T6	130.0	60.0	70.0	36
911.1653	T7	130.0	60.0	70.0	36
911.1150	T8	150.0	75.0	75.0	40
911.1158	T9	150.0	75.0	75.0	40
911.1151	T10	200.0	100.0	100.0	40
911.1152	T15	200.0	100.0	100.0	40
911.1153	T20	200.0	100.0	100.0	40
911.1154	T25	200.0	100.0	100.0	40
911.1155	T27	200.0	100.0	100.0	40
911.1156	T30	200.0	100.0	100.0	40
911.1157	T40	200.0	100.0	100.0	40
911.1654	T45	240.0	130.0	110.0	102

ERGOTORQUE® screwdriver for TX screws, long

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
911.1670	T15	330.0	250.0	80.0	60
911.1671	T20	343.0	250.0	93.0	60
911.1672	T25	345.0	250.0	95.0	70
911.1673	T30	360.0	250.0	110.0	70

ERGOTORQUE® screwdriver for TX screws, tamperproof

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
911.1674	TB7	130.0	60.0	70.0	25
911.1160	TB8	175.0	75.0	100.0	40
911.1168	TB9	200.0	100.0	100.0	40
911.1161	TB10	175.0	75.0	100.0	40
911.1162	TB15	200.0	100.0	100.0	40
911.1163	TB20	200.0	100.0	100.0	40
911.1164	TB25	200.0	100.0	100.0	40
911.1165	TB27	200.0	100.0	100.0	40
911.1166	TB30	200.0	100.0	100.0	40
911.1167	TB40	200.0	100.0	100.0	40

ERGOTORQUE® screwdriver for hexagon screws with ball end

- One component handle
- Optimal power transmission
- With hanging hole
- Incorporates hexagon blade
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

	mm	L1 mm	L2 mm	L3 mm	g
911.1191	2,0	175.0	100.0	75.0	30
911.1192	2,5	175.0	100.0	75.0	30
911.1193	3,0	175.0	100.0	75.0	30
911.1194	4,0	175.0	100.0	75.0	30
911.1195	5,0	195.0	100.0	95.0	30
911.1196	6,0	195.0	100.0	95.0	30
911.1197	8,0	210.0	100.0	110.0	30

ERGOTORQUE® bit screwdriver

- Extra short execution
- Magnetic
- One component handle
- Optimal power transmission
- 1/4" hexagonal holder for bits
- Hanging hole

1/4"

	○	L mm	g
911.1190	1/4"	63.0	30

ERGOTORQUE® bit screwdriver

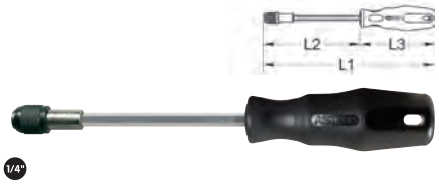
- One component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

1/4"

	○	L1 mm	L2 mm	L3 mm	g
911.1198	1/4"	200.0	100.0	100.0	90
911.1199	1/4"	250.0	150.0	100.0	100

ERGOTORQUE® quick change bit screwdriver

- Locking and fast change device
- One component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium



1/4"

	○	L1 mm	L2 mm	L3 mm	g
911.1145	1/4"	200.0	100.0	100.0	100

ERGOTORQUE® soldering tip 4.5mm, diagonal

- One component handle
- Includes clamping ring
- For bits to DIN 3126
- Optimal power transmission
- With hanging hole

1/4"

	○	L mm	g
911.1170	1/4"	110.0	50

ERGOTORQUE® bit screwdriver

- Flexible
- Limited torque
- Double spiral shaft
- One component handle
- Plastic protective coating
- 1/4" hexagonal holder for bits
- Hanging hole

1/4"

	○	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1129	1/4"	200.0	150.0	50.0	8.0	200

ERGOTORQUE® Square screwdriver

- Flexible blade with double spiral shaft
- Limited torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Plastic protective coating
- One component handle
- With hanging hole

1/4"

	■	D mm	L1 mm	L2 mm	L3 mm	g
911.1120	1/4"	15.0	200.0	150.0	50.0	150

ERGOTORQUE® socket screwdriver

- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- With hanging hole
- Chrome vanadium

	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1126	6	10.8	259.0	150.0	109.0	9.3	150
911.1127	7	11.7	259.0	150.0	109.0	10.0	200
911.1128	8	11.9	259.0	150.0	109.0	10.0	200
911.1125	10	12.5	279.0	170.0	109.0	14.3	250

ERGOTORQUE® SCREWDRIVER SETS

ERGOTORQUE® screwdriver set

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
911.2110	6 pcs	ERGOTORQUE® screwdriver set	600
3 x		4,5 - 5 - 6 mm	
3 x		PH1 - PH2 - PH3	

ERGOTORQUE® screwdriver set

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
911.2120	6 pcs	ERGOTORQUE® screwdriver set	630
3 x		4,5 - 5 - 6 mm	
3 x		PZ1 - PZ2 - PZ3	

ERGOTORQUE® screwdriver set

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
911.2130	7 pcs	ERGOTORQUE® screwdriver set	630
3 x		5 - 6 - 8 mm	
2 x		PH1 - PH2	
1 x		6 mm	
1 x		PH2	

ERGOTORQUE® screwdriver set

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

911.2125	7 pcs	ERGOTORQUE® screwdriver set	630
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	

ERGOTORQUE® screwdriver set

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

911.2115	7 pcs	ERGOTORQUE® screwdriver set	630
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

ERGOTORQUE® screwdriver and bit set

- One component handle
- Optimal power transmission
- With hanging hole
- Contains also the most current 1/4" bits
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In durable plastic storage case

911.2101	25 pcs	ERGOTORQUE® screwdriver and bit set	1.25
4 x		4,5 - 5,5 - 6,5 - 8 mm	
2 x		PH1 - PH2	
1 x		1/4“	
1 x		PH3	
3 x		PZ1 - PZ2 - PZ3	
7 x		2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

ERGOTORQUE® double ended blade set

- Double ended blades
- Includes screwdriver handle
- Interchangeable through clamping ring
- Hardened blade
- Matt finis
- Chrome vanadium
- In durable plastic storage case

911.2400	9 pcs	ERGOTORQUE® double ended blade set	750
1 x			
1 x		5 x 6 mm	
1 x		PH1 x PH2	
1 x		PZ1 x PZ2	
2 x		3 x 4 mm - 5 x 6 mm	
3 x		T10 x T15 - T20 x T25 - T30 x T40	

ERGOTORQUE® screwdriver and bit set

- One component handle
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In durable plastic storage case

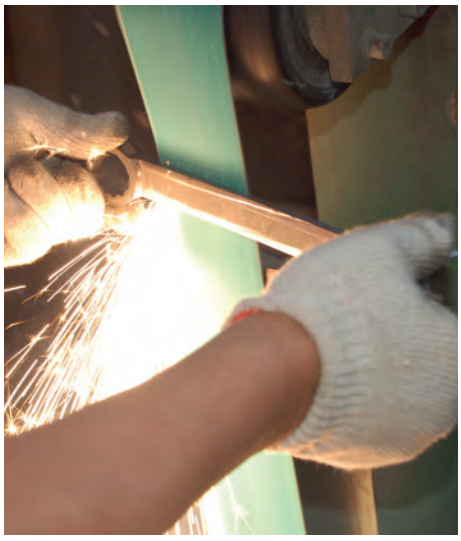
911.2150	50 pcs	ERGOTORQUE® screwdriver and bit set	1.50
3 x		5,5 - 6,5 - 8 mm	
3 x		PH1 - PH2 - PH3	
1 x		6 mm	
1 x		PH2	
1 x		1/4“	
3 x		2 - 2,4 - 3 mm	
2 x		PH00 - PH0	
2 x		T15 - T20	
1 x		1/4“	
1 x		1/4“	
1 x		1/4“	
1 x		140 mm	
4 x		3 - 4 - 5 - 6 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
6 x		2,5 - 3 - 4 - 5 - 6 - 7 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	

ERGOTORQUE® SCREWDRIVER DISPLAYS

ERGOTORQUE® screwdriver display

- One component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In display stand

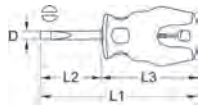
			kg
911.0136	136 pcs	ERGOTORQUE® screwdriver display	21.22
20 x		5 x (3 - 4 - 5 - 6 mm)	
15 x		5 x (PH1 - PH2 - PH3)	
15 x		5 x (PZ1 - PZ2 - PZ3)	
45 x		5 x (T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40)	
5 x		6 mm	
5 x		PH2	
5 x		PZ2	
15 x		5 x (4 - 5 - 8 mm)	
5 x		PH2	
5 x		100 mm	



ERGOTORQUE*plus*® SCREWDRIVER

ERGOTORQUE*plus*® screwdriver for slotted screws, stubby

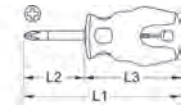
- DIN 5265
- Extra short blade
- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	g
159.1001	6,0	98.0	38.0	60.0	40

ERGOTORQUE*plus*® screwdriver for phillips screws PH, stubby

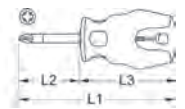
- DIN / ISO 8764
- Extra short blade
- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	g
159.1026	PH 2	98.0	38.0	60.0	40

ERGOTORQUE*plus*® screwdriver for phillips screws PZ, stubby

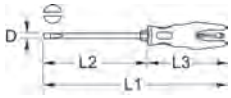
- DIN / ISO 8764
- Extra short blade
- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	g
159.1046	PZ 2	98.0	38.0	60.0	40

ERGOTORQUE*plus*® screwdriver for slotted screws

- DIN 5265
- Two component handle
- Hexagon drive
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm		g
159.1002	3,0	155.0	75.0	80.0		40
159.1003	4,0	155.0	75.0	80.0		40
159.1004	4,0	180.0	100.0	80.0		50
159.1005	5,5	205.0	100.0	105.0		50
159.1006	5,5	230.0	125.0	105.0		50
159.1007	5,5	255.0	150.0	105.0		60
159.1008	6,5	230.0	125.0	105.0	●	60
159.1009	6,5	255.0	150.0	105.0	●	90
159.1010	8,0	265.0	150.0	115.0	●	130
159.1011	8,0	315.0	200.0	115.0	●	150
159.1012	10,0	315.0	200.0	115.0	●	180
159.1013	10,0	365.0	250.0	115.0	●	190

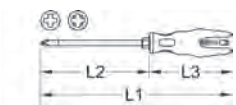
ERGOTORQUE*plus*® screwdriver for slotted screws, extra long

- DIN 5265
- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

	D mm	L1 mm	L2 mm	L3 mm	g
159.1107	5,5	405.0	300.0	105.0	100

6 in 1 ERGOTORQUE*plus*® screwdriver

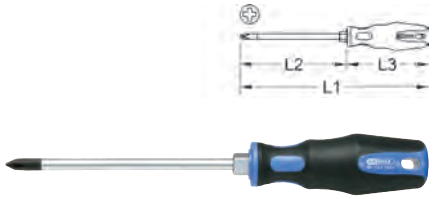
- DIN / ISO 8764
- Two component handle
- Hexagon drive
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadiumUniversal use for Phillips screws PH1, PH2 and PH3 as well as for PZ1, PZ2 and PZ3.



	L1 mm	L2 mm	L3 mm		g
159.1100	230.0	125.0	105.0	●	30

ERGOTORQUE*plus*® screwdriver for phillips screws PH

- DIN / ISO 8764
- Two component handle
- Hexagon drive
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		g	
159.1027	PH 0	155.0	75.0	80.0		30	
159.1020	PH 1	180.0	75.0	105.0		40	
159.1029	PH 1	205.0	100.0	105.0		70	
159.1021	PH 2	205.0	100.0	105.0	●	70	
159.1022	PH 2	230.0	125.0	105.0	●	80	
159.1023	PH 2	255.0	150.0	105.0	●	90	
159.1028	PH 2	305.0	200.0	105.0	●	110	
159.1024	PH 3	265.0	150.0	115.0	●	130	
159.1025	PH 3	315.0	200.0	115.0	●	150	

ERGOTORQUE*plus*® screwdriver for phillips screws PH, extra long

- DIN / ISO 8764
- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g	
159.1128	PH 2	405.0	300.0	105.0	100	

ERGOTORQUE*plus*® screwdriver for phillips screws PZ

- DIN / ISO 8764
- Two component handle
- Hexagon drive
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm		g	
159.1047	PZ 0	155.0	75.0	80.0		30	
159.1040	PZ 1	180.0	75.0	105.0		30	
159.1049	PZ 1	205.0	100.0	105.0		30	
159.1041	PZ 2	205.0	100.0	105.0	●	30	
159.1042	PZ 2	230.0	125.0	105.0	●	60	
159.1043	PZ 2	255.0	150.0	105.0	●	60	
159.1044	PZ 3	265.0	150.0	115.0	●	130	
159.1048	PZ 2	305.0	200.0	105.0	●	110	
159.1045	PZ 3	315.0	200.0	115.0	●	150	

ERGOTORQUE*plus*® screwdriver for TX screws

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
159.1030	T8	205.0	100.0	105.0	50
159.1031	T9	205.0	100.0	105.0	50
159.1032	T10	205.0	100.0	105.0	50
159.1033	T15	205.0	100.0	105.0	50
159.1034	T20	205.0	100.0	105.0	50
159.1035	T25	205.0	100.0	105.0	60
159.1036	T27	205.0	100.0	105.0	60
159.1037	T30	205.0	100.0	105.0	60
159.1038	T40	205.0	100.0	105.0	80

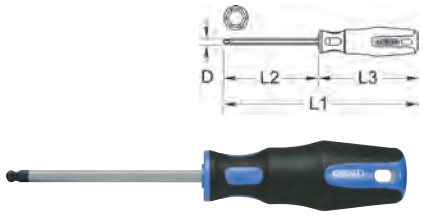
ERGOTORQUE*plus*® screwdriver for TX screws, tamperproof

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g
159.1050	TB8	205.0	100.0	105.0	50
159.1051	TB9	205.0	100.0	105.0	50
159.1052	TB10	205.0	100.0	105.0	50
159.1053	TB15	205.0	100.0	105.0	50
159.1054	TB20	205.0	100.0	105.0	50
159.1055	TB25	205.0	100.0	105.0	60
159.1056	TB27	205.0	100.0	105.0	60
159.1057	TB30	205.0	100.0	105.0	60
159.1058	TB40	205.0	100.0	105.0	80

ERGOTORQUE*plus*® screwdriver for hexagon screws with ball end

- Two component handle
- Optimal power transmission
- With hanging hole
- Incorporates hexagon blade
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	g
159.1060	2,5	180.0	100.0	80.0	20
159.1061	3,0	180.0	100.0	80.0	20
159.1062	4,0	180.0	100.0	80.0	20
159.1063	5,0	205.0	100.0	105.0	60
159.1064	6,0	205.0	100.0	105.0	70
159.1065	8,0	205.0	100.0	105.0	130

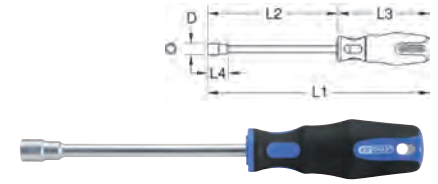
ERGOTORQUE*plus*® bit screwdriver

- Two component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

	○	L1 mm	L2 mm	L3 mm	g
159.1198	1/4"	205.0	100.0	105.0	90

ERGOTORQUE*plus*® socket screwdriver

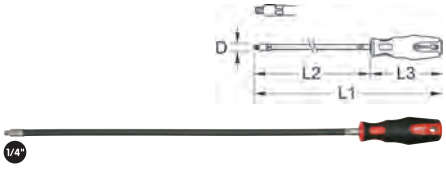
- 6 point
- Two component handle
- With hanging hole
- Matt finis
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
159.1201	4	6.6	255.0	150.0	105.0	4.3	60
159.1202	5	7.6	255.0	150.0	105.0	4.4	70
159.1203	5,5	8.2	255.0	150.0	105.0	4.8	80
159.1204	6	8.8	255.0	150.0	105.0	5.5	80
159.1205	7	10.0	255.0	150.0	105.0	6.8	110
159.1206	8	11.2	264.0	150.0	114.0	7.0	110
159.1207	9	13.9	264.0	150.0	114.0	9.3	110
159.1208	10	15.0	264.0	150.0	114.0	9.9	120
159.1209	11	16.5	264.0	150.0	114.0	10.3	130
159.1210	12	17.6	264.0	150.0	114.0	11.2	180
159.1211	13	17.6	264.0	150.0	114.0	11.6	180
159.1212	14	18.9	264.0	150.0	114.0	13.0	180

ERGOTORQUE*plus*® square screwdriver, extra long

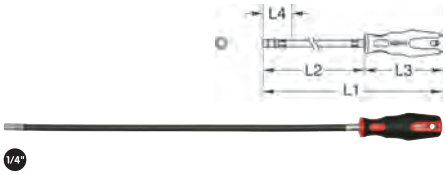
- Flexible blade with double spiral shaft
- Limited torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Plastic protective coating
- Two component handle
- With hanging hole



	■	D mm	L1 mm	L2 mm	L3 mm	g
911.1171	1/4"	12.0	614.0	500.0	114.0	280

ERGOTORQUE*plus*® bit screwdriver, extra long

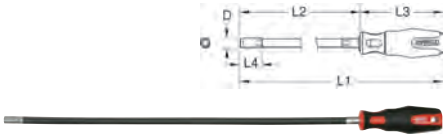
- Flexible blade with double spiral shaft
- Limited torque
- For bits to DIN 3126 / C 6,3
- Plastic protective coating
- Two component handle
- Hanging hole



	○	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1172	1/4"	614.0	500.0	114.0	43.0	280

ERGOTORQUE*plus*® socket screwdriver, extra long

- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Two component handle
- With hanging hole
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1175	5	11.9	614.0	500.0	114.0	8.9	270
911.1176	6	10.9	614.0	500.0	114.0	11.3	280
911.1177	7	11.7	614.0	500.0	114.0	11.3	280
911.1178	8	11.7	614.0	500.0	114.0	11.3	280

ERGOTORQUE*plus*® SCREWDRIVER SETS

ERGOTORQUE*plus*® bit set

- Two component handle
- Optimal power transmission
- Power screwdriver handle with fast change device
- With hanging hole
- Hardened blade
- Nickel plated
- Blade made of chrome vanadium
- In practical folding case

			g
159.2010	17 pcs	ERGOTORQUE*plus*® bit set	750
1 x		1/4“	
1 x		5,5 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
4 x		3 - 4 - 5 - 6 mm	
5 x		TB10 - TB15 - TB20 - TB25 - TB30	

ERGOTORQUE*plus*® screwdriver set

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
159.0005	5 pcs	ERGOTORQUE*plus*® screwdriver set	270
3 x		4 - 5,5 - 6,5 mm	
2 x		PH1 - PH2	

ERGOTORQUE*plus*® screwdriver set

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
159.0010	6 pcs	ERGOTORQUE*plus*® screwdriver set	708
4 x		3 - 4 - 5,5 - 6,5 mm	
2 x		PH1 - PH2	

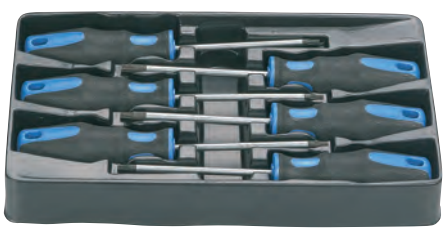
ERGOTORQUE*plus*® screwdriver set

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
159.0020	6 pcs	ERGOTORQUE*plus*® screwdriver set	580
4 x		3 - 4 - 5,5 - 6,5 mm	
2 x		PZ1 - PZ2	

ERGOTORQUE*plus*® screwdriver set

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



			g
159.0030	6 pcs	ERGOTORQUE*plus*® screwdriver set	580
6 x		T10 - T15 - T20 - T25 - T30 - T40	

ERGOTORQUE*plus*® screwdriver set

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			g
159.0040	6 pcs	ERGOTORQUE*plus*® screwdriver set	580
6 x		TB10 - TB15 - TB20 - TB25 - TB30 - TB40	

ERGOTORQUE*plus*® screwdriver and bit set

- Two component handle
- Optimal power transmission
- Includes the most current 1/4" bits, bit holder and screwdriver bits
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Chrome vanadium
- In durable plastic storage case

			kg
159.0100	39 pcs	ERGOTORQUE*plus*® screwdriver and bit set	2.91
6 x		3 - 4 - 5,5 - 6,5 - 8 - 10 mm	
4 x		PH0 - PH1 - PH2 - PH3	
4 x		PZ0 - PZ1 - PZ2 - PZ3	
1 x		6 mm	
1 x		PH2	
1 x		100 mm	
1 x		1/4“	
7 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 TB30 - TB40	

ERGOTORQUE*plus*® socket screwdriver set

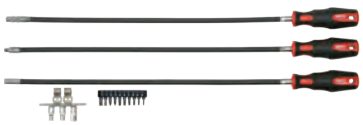
- 6 point
- Two component handle
- With hanging hole
- Matt finis
- Chrome vanadium

159.1200	8 pcs	ERGOTORQUE*plus*® socket screwdriver set	800

8 x	5 - 6 - 7 - 8 - 10 - 11 - 12 - 13 mm

ERGOTORQUE® screwdriver set

- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating
- Two component handle
- With hanging hole
- Contains also the most current 1/4" bits and sockets
- In display box



911.1180	16 pcs	ERGOTORQUE® screw3driver set	1.30

1 x	1/4"
1 x	1/4"
1 x	7 mm
3 x	5 - 6 - 8 mm
2 x	5.5 - 6.5 mm
2 x	PH1 - PH2
6 x	T10 - T15 - T20 - T25 - T27 - T30

ERGOTORQUE*plus*® SCREWDRIVER DISPLAYS

ERGOTORQUE*plus*® screwdriver display

- Two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In display stand

159.0136	136 pcs	ERGOTORQUE*plus*® screwdriver display	26.00

30 x	5 x (3 - 4 - 5,5 - 6,5 - 8 - 10 mm)
15 x	5 x (PH1 - PH2 - PH3)
15 x	5 x (PZ1 - PZ2 - PZ3)
45 x	5 x (T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40)
5 x	6 mm
5 x	PH2
5 x	PZ2
5 x	5,5 mm
5 x	PH2
5 x	100 mm

ERGOTORQUE®*max*

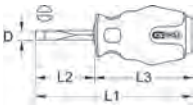
ERGOTORQUE®*max* T-handle ratchet

- DIN 3122 / ISO 3315
- Reversible
- 1/4" square drive adaptor to DIN 3120 / ISO 1174
- With ball lock
- Exact gearing with 45 teeth
- Two component handle
- With hanging hole
- Handy and compact
- Matt finis
- Chrome vanadium

		B mm	L1 mm	L2 mm	
151.1109	1/4"	115.0	110.0	55.0	40

ERGOTORQUE®*max* hammer cap screwdriver for slotted screws, stubby

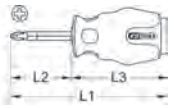
- DIN 5265
- Extra short blade
- Two component handle
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	
151.1131	6,0	98.0	38.0	60.0	40

ERGOTORQUE®*max* hammer cap screwdriver for phillips screws PH, stubby

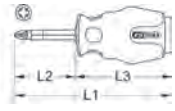
- DIN / ISO 8764
- Extra short blade
- Two component handle
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
151.1107	PH 2	98.0	38.0	60.0	40

ERGOTORQUE®*max* hammer cap screwdriver for phillips screws PZ, stubby

- DIN / ISO 8764
- Extra short blade
- Two component handle
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
151.1147	PZ 2	98.0	38.0	60.0	40

ERGOTORQUE®*max* hammer cap screwdriver for slotted screws

- DIN 5265
- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

	D mm	L1 mm	L2 mm	L3 mm		g
151.1123	3,5	185.0	80.0	105.0		70
151.1125	4,5	195.0	90.0	105.0		70
151.1128	5,5	205.0	100.0	105.0	●	150
151.1132	7,0	230.0	125.0	105.0	●	240
151.1133	8,0	230.0	125.0	105.0	●	240
151.1134	10,0	230.0	125.0	105.0	●	300

ERGOTORQUE®*max* hammer cap screwdriver for phillips screws PH

- DIN / ISO 8764
- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm		g
151.1101	PH 0	165.0	60.0	105.0		120
151.1102	PH 1	185.0	80.0	105.0	●	150
151.1104	PH 2	205.0	100.0	105.0	●	220
151.1105	PH 3	255.0	150.0	105.0	●	250
151.1106	PH 4	305.0	200.0	105.0	●	280

ERGOTORQUE®*max* hammer cap screwdriver for phillips screws PZ

- DIN / ISO 8764
- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm		g
151.1141	PZ 0	165.0	60.0	105.0	●	120
151.1142	PZ 1	185.0	80.0	105.0	●	150
151.1144	PZ 2	205.0	100.0	105.0	●	230
151.1145	PZ 3	255.0	150.0	105.0	●	250
151.1146	PZ 4	305.0	200.0	105.0	●	280

ERGOTORQUE®*max* SCREWDRIVER SETS

ERGOTORQUE®*max* hammer cap screwdriver set

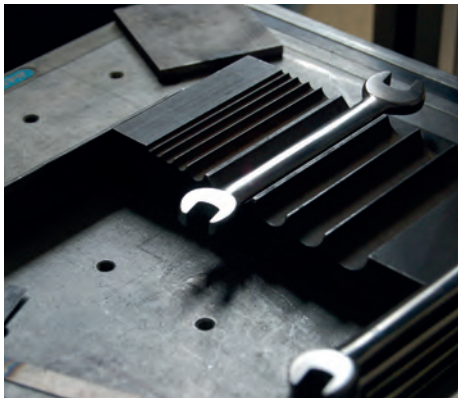
- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			kg
151.1160	6 pcs	ERGOTORQUE®*max* hammer cap screwdriver set	1.33
3 x		5,5 - 7 - 8 mm	
3 x		PH1 - PH2 - PH3	

ERGOTORQUE®*max* hammer cap screwdriver set

- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			kg
151.1165	6 pcs	ERGOTORQUE®*max* hammer cap screwdriver set	1.13
3 x		5,5 - 7 - 8 mm	
3 x		PZ1 - PZ2 - PZ3	



ERGOTORQUE®*max* hammer cap screwdriver set

- Two component handle
- Hexagon drive
- Includes T-handle ratchet
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

			kg
151.1100	7 pcs	ERGOTORQUE®*max* hammer cap screwdriver set	0.98
4 x		3,5 - 4,5 - 5,5 - 7 mm	
2 x		PH1 - PH2	
1 x		1/4“	

ERGOTORQUE®*max* hammer cap screwdriver set

- Two component handle
- Hexagon drive
- Includes T-handle ratchet
- Protective cap on the handle end
- Optimal power transmission
- Hardened blade
- Blade made of chrome vanadium
- In durable plastic storage case

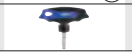
			kg
151.1150	13 pcs	ERGOTORQUE®*max* hammer cap screwdriver set	2.70
5 x		3,5 - 5,5- 7 - 8 - 10 mm	
5 x		PH0 - PH1 - PH2 - PH3 - PH4	
1 x		6 mm	
1 x		PH2	
1 x		1/4“	

ERGOTORQUE®*max* SCREWDRIVER DISPLAYS

ERGOTORQUE®*max* hammer cap screwdriver - display stand

- Two component handle
- Hexagon drive
- Includes T-handle ratchet
- Protective cap on the handle end
- Optimal power transmission
- Hardened blade
- In display stand

			kg
151.1170	100 pcs	ERGOTORQUE®*max* hammer cap screwdriver - display stand	32.00

30 x		5 x (3,5 - 4,5 - 5,5 - 7 - 8 - 10 mm)
25 x		5 x (PH0 - PH1 - PH2 - PH3 - PH4)
25 x		5 x (PZ0 - PZ1 - PZ2 - PZ3 - PZ4)
5 x		6 mm
5 x		PH2
5 x		PZ2
5 x		1/4“

VDE

ERGOTORQUE® VDE screwdriver for slotted screws

- Slotted
- In accordance to DIN 5264 / DIN ISO 2380
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel

	D mm	L1 mm	L2 mm	L3 mm		g
117.0502	2,5	155.0	75.0	80.0		32
117.0504	3,0	180.0	100.0	80.0		35
117.0506	3,5	180.0	100.0	80.0		38
117.0508	4,0	180.0	100.0	80.0		41
117.0512	5,5	230.0	125.0	105.0		92
117.0514	6,5	255.0	150.0	105.0		111
117.0516	8,0	290.0	175.0	115.0		164
117.0518	10,0	315.0	200.0	115.0		230

You can find mo e screwdrivers in the VDE section

ERGOTORQUE® VDE screwdriver for phillips screws PH

- PH
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel

		L1 mm	L2 mm	L3 mm		g
117.0522	PH 0	140.0	60.0	80.0		32
117.0524	PH 1	185.0	80.0	105.0		38
117.0526	PH 2	205.0	100.0	105.0		95
117.0528	PH 3	265.0	150.0	115.0		152

ERGOTORQUE® VDE screwdriver for Phillips screws PZ

- PZ
- In accordance to DIN 7438 / DIN ISO 8764
- insulated to IEC 60900
- With two component handle
- Burnished
- S2 special steel

		L1 mm	L2 mm	L3 mm		g
117.0532	PZ 0	140.0	60.0	80.0		32
117.0534	PZ 1	185.0	80.0	105.0		38
117.0536	PZ 2	205.0	100.0	105.0		95
117.0538	PZ 3	265.0	150.0	115.0		152

Insulated screwdriver for internal TX screws

- TX
- Insulated to IEC 60900
- Burnished tip
- Special steel

		L1 mm	L2 mm	L3 mm		g
117.0551	T10	170.0	80.0	90.0		27
117.0552	T15	170.0	80.0	90.0		28
117.0553	T20	190.0	100.0	90.0		36
117.0554	T25	190.0	100.0	90.0		61
117.0555	T27	205.0	115.0	90.0		74
117.0556	T30	205.0	115.0	90.0		93

Insulated Socket Screwdriver

- 6 point
- In accordance to DIN 7445
- Insulated to IEC 60900
- Chrome vanadium

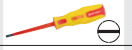
	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm		g
117.1177	3	10.0	215.0	125.0	90.0	37.0		65
117.1178	3,5	10.0	215.0	125.0	90.0	37.0		70
117.1179	4	10.0	215.0	125.0	90.0	37.0		70
117.1181	4,5	10.0	215.0	125.0	90.0	37.0		70
117.1235	5	11.5	215.0	125.0	90.0	37.0		75
117.1182	5,5	15.5	215.0	125.0	90.0	37.0		70
117.1236	6	12.5	215.0	125.0	90.0	37.0		75
117.1237	7	14.5	225.0	125.0	100.0	37.0		115
117.1238	8	15.5	225.0	125.0	100.0	37.0		115
117.1239	9	16.5	225.0	125.0	100.0	37.0		155
117.1240	10	17.0	225.0	125.0	100.0	37.0		120
117.1241	11	19.5	235.0	125.0	110.0	37.0		160
117.1242	12	20.5	235.0	125.0	110.0	37.0		170
117.1243	13	21.5	235.0	125.0	110.0	37.0		170
117.1244	14	23.5	235.0	125.0	110.0	37.0		170
117.1247	17	26.5	235.0	125.0	110.0	37.0		190

VDE SCREWDRIVER SETS

ERGOTORQUE® VDE screwdriver set

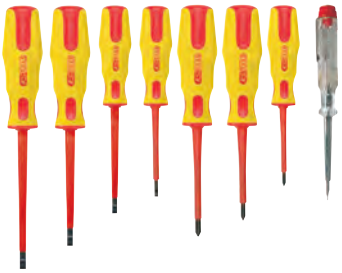
- In accordance to DIN 5264 / 7437 / 7438 / 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel

			g
117.0540	5 pcs	ERGOTORQUE® VDE screwdriver set	200

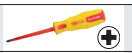
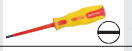
1 x		PH1
3 x		2,5 - 4,0 - 5,5 mm
1 x		3,0 mm

ERGOTORQUE® VDE screwdriver set

- In accordance to DIN 5264 / 7437 / 7438 / 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



			g
117.0550	8 pcs	ERGOTORQUE® VDE screwdriver set	430

3 x		PH0 - PH1 - PH2
4 x		2,5 - 4,0 - 5,5 - 6,5 mm
1 x		3,0 mm

Insulated socket screwdriver set

- 6 point
- In accordance to DIN 7445
- Insulated handle to IEC 60900
- Chrome vanadium

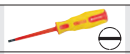
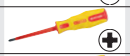
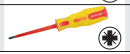
			g
117.1255	5 pcs	Insulated socket screwdriver set	630

5 x		5,5 - 7 - 8 - 10 - 13 mm

VDE SCREWDRIVER DISPLAYS

ERGOTORQUE® VDE screwdriver display

- Insulated to IEC 60900
- Two component handle
- Includes voltage tester
- Burnished tip
- Blades made from S2 special steel
- In display stand

			kg
117.0560	120 pcs	ERGOTORQUE® VDE screwdriver display	6.75
50 x		5 x 2,5 - 5 x 3,0 - 5 x 3,5 - 5 x 4,0 10 x 5,5 - 10 x 6,5 - 5 x 8,0 - 5 x 10,0 mm	
20 x		3,0 mm	
25 x		5 x PH0 - 5 x PH1 - 10 x PH2 - 5 x PH3	
25 x		5 x PZ0 - 5 x PZ1 - 10 x PZ2 - 5 x PZ3	

KEY WRENCH

Offset screwdriver, slotted

- Short execution
- DIN / ISO 8764
- Continuous hardened
- Matt chrome
- Special steel

	D mm	L1 mm	L2 mm	g
151.2674	3,5	90.0	12.4	10
151.2675	4,0	100.0	15.3	12
151.2676	5,5	125.0	20.4	25
151.2677	8,0	150.0	24.8	50
151.2678	10,0	175.0	32.8	135
151.2679	12,0	200.0	42.4	228

Offset screwdriver, PH

- Short execution
- DIN / ISO 8764
- Continuous hardened
- Matt chrome
- Special steel

		L1 mm	L2 mm	g
151.2680	PH 1 - PH 2	100.0	25.4	40
151.2681	PH 2 - PH 3	150.0	33.1	77
151.2682	PH 3 - PH 4	200.0	38.6	77

Offset screwdriver, PZ

- Short execution
- DIN / ISO 8764
- Continuous hardened
- Matt chrome
- Special steel

		L1 mm	L2 mm	g
151.2683	PZ 1 - PZ 2	125.0	24.4	40
151.2684	PZ 3 - PZ 4	200.0	37.9	156

1/4" BIT SCREWDRIVERS

ERGOTORQUE® bit screwdriver

- Extra short execution
- Magnetic
- One component handle
- Optimal power transmission
- 1/4" hexagonal holder for bits
- Hanging hole

1/4"

	○	L mm	g
911.1190	1/4"	63.0	30

ERGOTORQUE® bit screwdriver

- One component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

1/4"

	○	L1 mm	L2 mm	L3 mm	g
911.1198	1/4"	200.0	100.0	100.0	90
911.1199	1/4"	250.0	150.0	100.0	100

ERGOTORQUE® quick change bit screwdriver

- Locking and fast change device
- One component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

1/4"

	○	L1 mm	L2 mm	L3 mm	g
911.1145	1/4"	200.0	100.0	100.0	100

ERGOTORQUE® bit screwdriver

- Flexible
- Limited torque
- Double spiral shaft
- One component handle
- Plastic protective coating
- 1/4" hexagonal holder for bits
- Hanging hole

1/4"

	○	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1129	1/4"	200.0	150.0	50.0	8.0	200

ERGOTORQUE*plus*® bit screwdriver

- Two component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Hanging hole
- Blade made of chrome vanadium

1/4"

	○	L1 mm	L2 mm	L3 mm	g
159.1198	1/4"	205.0	100.0	105.0	90

ERGOTORQUE*plus*® bit screwdriver, extra long

- Flexible blade with double spiral shaft
- Limited torque
- For bits to DIN 3126 / C 6,3
- Plastic protective coating
- Two component handle
- Hanging hole

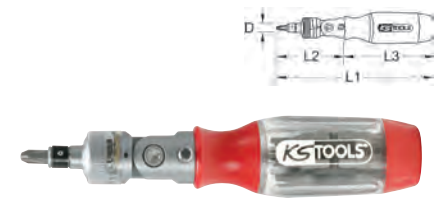
1/4"

	○	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1172	1/4"	614.0	500.0	114.0	43.0	280

1/4" RATCHET BIT SCREWDRIVERS

Ratchet bit screwdriver

- Robust gearing with 24 teeth
- Ratchet function
- 180° multi ajustable blade
- For bits to DIN 3126 / C 6,3
- Magnetic
- Integrated bit magazine with 13 bits
- Ergonomically designed handle

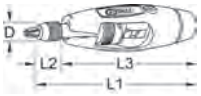


1/4"

	○	D mm	L1 mm	L2 mm	L3 mm	g
911.2470	1/4"	10.0	190.0	82.0	108.0	380

T-handle ratchet bit screwdriver

- Robust gearing with 24 teeth
- Ratchet function
- Locking and fast change device
- 45° two way revolving head
- For bits to DIN 3126 / C 6,3
- Fast change bit stop function
- Magnetic
- Integrated bit magazine with 5 bits
- Two component handle

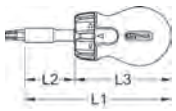


1/4"

	○	D mm	L1 mm	L2 mm	L3 mm	g
911.2475	1/4"	15.0	140.0	26.0	114.0	380

Mini ratchet screwdriver

- Exact gearing with 72 teeth
- Ratchet function
- For bits to DIN 3126 / C 6,3
- Magnetic
- Two component handle
- Blade mirror polished chrome

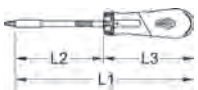


1/4"

	○	L1 mm	L2 mm	L3 mm	g
159.2061	1/4"	95.0	27.0	68.0	140

Revolver ratchet bit screwdriver

- Exact gearing with 72 teeth
- Ratchet function
- Handle with double function (standard and pistol handle)
- For bits to DIN 3126 / C 3,6
- Magnetic
- 40 Nm maximum torque
- Integrated bit magazine
- Two component handle
- Blade mirror polished chrome



1/4"

	○	L1 mm	L2 mm	L3 mm	g
159.2051	1/4"	260.0	130.0	130.0	450

GEARplus® ratchet screwdriver set

- Exact gearing with 72 teeth
- Ratchet function
- For bits to DIN 3126 / C 6,3
- Magnetic
- 40 Nm maximum torque
- Integrated bit magazine
- Two component handle
- Chrome plated and mirror polished
- In durable plastic storage case

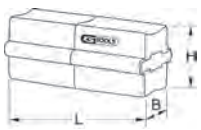
1/4"

			g
159.2050	58 pcs	GEARplus®ratchet screwdriver set	1200
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"	
1 x		1/4"	
1 x		1/4" x 1/4"	
1 x		300 mm	
1 x		250 mm	
2 x		150 - 250 mm	
3 x		4 - 5,5 - 7 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	

MAGNETISING AND DE-MAGNETISING ATTACHMENT

Magnetizer and demagnetizer

- Easy to use
- To magnetise by pulling the blade through
- To demagnetise by pulling the blade over the recess
- For screwdrivers, tweezers and similar tools made of steel
- Plastic housing



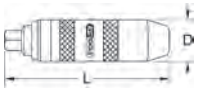
	B mm	H mm	L mm	g
550.1126	15.0	20.0	47.0	70

You can find p ecision screwdrivers in the Precision Mechanics section

1/2" HAND IMPACT SCREWDRIVER

Hand-impact screwdriver

- Reversible
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 1/4 Revolution of the impact screwdriver through hammer blow (Parable mechanism)
- Optimal feed rate
- No slippage of the blade bit possible
- Ideal for loosening jammed screw connections
- Ideally suited for the automotive area
- Special steel



1/2"

	■	D mm	L mm	g
515.1004	1/2"	35.0	135.0	950

Hand impact screwdriver set

- Reversible
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 1/4 Revolution of the impact screwdriver through hammer blow (Parable mechanism)
- Optimal feed rate
- No slippage of the blade bit possible
- Ideal for loosening jammed screw connections
- Ideally suited for the automotive area
- Includes the most current impact bits, impact bit adaptor
- Special steel
- In durable plastic storage case

1/2"

			kg
515.1003	11 pcs	Hand impact screwdriver set	1.00

consists of:

		g
515.1004	1/2" Hand impact screwdriver 1/2"	950
911.4351	1/2" x 5/16" Bit adaptor steel ball type	25
911.1283-1	5/16" Impact bit PH1	10
911.1268-1	5/16" Impact bit PH2	10
911.1284-1	5/16" Impact bit PH3	10
911.1276	5/16" Slotted impact bit 5 mm	10
911.1271	5/16" Slotted impact bit 6 mm	10
911.1286	5/16" Slotted impact bit 8 mm	10
911.1287	5/16" Slotted impact bit 10 mm	10
911.5143	5/16" Slotted bit, 12 mm	10
911.1275	5/16" Slotted impact bit 14 mm	20

7 PLIERS

KS TOOLS®

Innovation is our mission!

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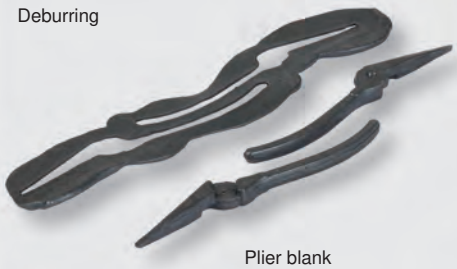
PLIERS

Manufacturing and fabrication steps

Raw material blank

Forging of the plier blank

Deburring



Plier blank

Preparing of the joint rivet reception and the pliers head profil

Hardening and tempering

Riveting and arranging of the pliers arms and surface refinement of he pliers head

Attaching of the handle sheath

Plier joints

Lay-on joint

The two halves of the pliers are placed on top of each other and riveted - without being milled out. e.g.: End cutting pliers

Lap joint

One of the pliers arms revolves in the milled edge and the other arm around the joint bolt. e.g.: Combination pliers

Box joint

Joint which is pushed through in the arm of the pliers by an opening in the other arm. e.g: Water pump plier

Surfaces

Polished head

Titan finis

Handle designs

Dipped handle

2 component handle

Plier profil

CLASSIC

- Dip coated handle
- Hot forged and tempered
- Ground heads
- Precise machined, oil hardened and tempered
- Cutting edges inductively hardened
- High cutting performance
- Special quenched and tempered steel

Handle colour: red

ERGOTORQUE®

- 2 Component handle with ergonomic hand protection
- Hot forged and tempered
- Ground heads
- Precise machines, oil hardened and tempered
- Cutting edges inductively hardened
- Perfect torque transmission
- High cutting performance
- Special quenched and tempered steel

Handle colour: black / red

ULTIMATE PLUS

- 2 Component handle with ergonomic hand protection
- Hot forged and tempered
- Head chrome plated titan finishe
- Precise machined, oil hardened and tempered
- Cutting edges inductively hardened
- Perfect torque transmission
- Excellent cutting performance
- Special quenched and tempered steel

Handle colour: black / red

GRIPXtreme

- Forged gripping jaws
- Prevents slipping even at high forces
- Well thought through jaw teeth
- Size adjustment using the adjustment wheel
- With loosening lever
- No fla ing under the strongest loads
- Nickel-plated

ESD pliers

Can be found in the Precision Mechanics section

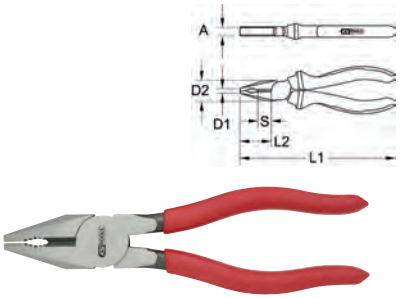
Insulated pliers

Can be found in the VDE and general electrician tool kits section

COMBINATION PLIERS

Combination pliers

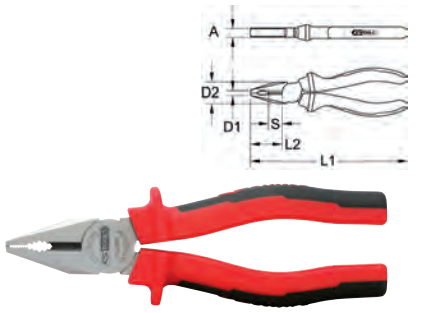
- In accordance to DIN ISO 5748
- Long cutting edge
- Suitable for wire
- Inductively hardened precision cutting edges
- With PVC dipped handle
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
115.1320	11.0	7.0	25.0	165.0	34.0	15,0	150
115.1321	12.0	8.0	28.0	180.0	36.0	16,0	290
115.1322	12.0	9.0	33.0	200.0	41.0	20,0	380

ERGOTORQUE® combination pliers

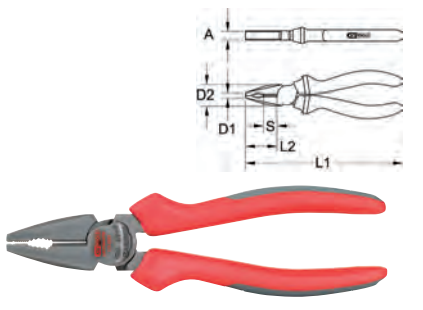
- In accordance to DIN ISO 5748
- Long cutting edge
- Suitable for wire
- Inductively hardened precision cutting edges
- With two component handle
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
115.1020	11.0	7.0	24.0	160.0	35.0	15,0	300
115.1021	12.0	7.0	28.0	180.0	36.0	15,0	300
115.1022	12.0	7.0	32.0	200.0	41.0	20,0	390

ULTIMATE*plus* combination pliers

- In accordance to DIN / ISO 5748
- Long cutting edge
- Suitable for wire
- Inductively hardened precision cutting edges
- With two component handle
- Titanium coated surface
- Special tool steel

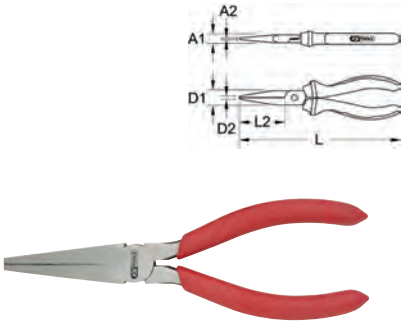


	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
119.2020	11.0	7.0	24.0	160.0	35.0	15,0	300
119.2021	12.0	7.0	28.0	180.0	36.0	15,0	300
119.2022	12.0	7.0	32.0	200.0	41.0	20,0	400

FLAT PLIERS

Flat pliers

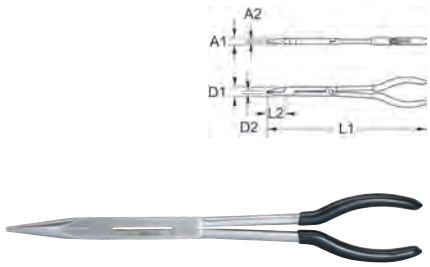
- In accordance to DIN / ISO 5232
- With locking jaw opening
- With adjusting screw and spring
- With two component handle
- For wires from 0,5 - 4,0 mm²
- Titanium coated surface
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
115.1316	11.0	7.0	19.0	7.0	165.0	51.0	150
115.1317	13.0	7.0	20.0	7.0	200.0	63.0	230

Double jointed fl t pliers, extra long

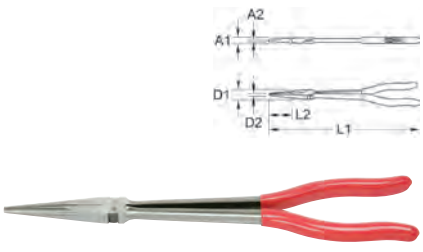
- Serrated execution
- With double joint
- Extremely narrow design
- For diffi ult to access areas
- With PVC dipped handle
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7062	11.0	3.0	18.0	5.0	335.0	65.0	450

Telephone pliers, extra long

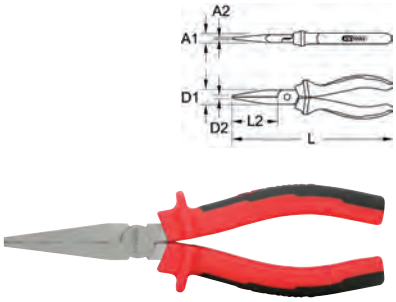
- Long nosed jaws
- Serrated execution
- With PVC dipped handle
- Extra long execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7051	11.0	4.0	18.0	7.0	270.0	70.0	330

ERGOTORQUE® fl t pliers

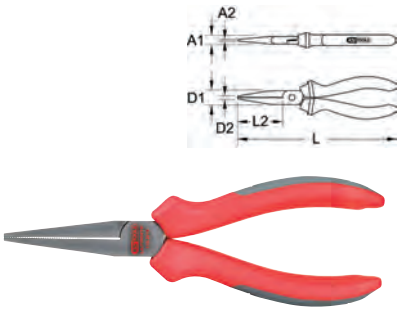
- In accordance to DIN ISO 5745
- Serrated execution
- With two component handle
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
115.1016	9.0	6.0	18.0	5.0	160.0	51.0	250
115.1017	13.0	8.0	20.0	7.0	200.0	65.0	260

ULTIMATE*plus* fl t pliers

- In accordance to DIN / ISO 5745
- Serrated execution
- With two component handle
- Titanium coated surface
- Special tool steel

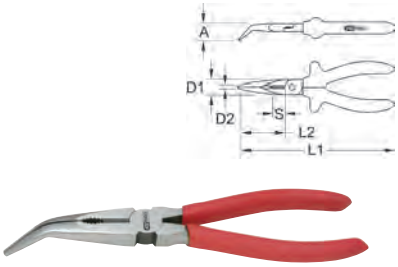


	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
119.2016	9.0	6.0	18.0	5.0	160.0	51.0	250

NEEDLE NOSE PLIERS

Long nosed pliers, curved

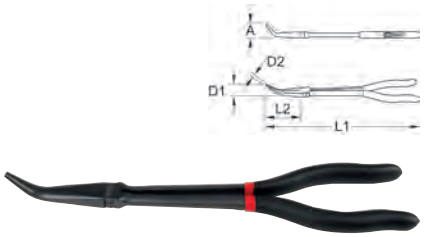
- In accordance to DIN / ISO 5745
- With PVC dipped handle
- 45° curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
115.1318	14.0	19.0	5.0	165.0	50.0	11,0	150
115.1319	24.0	22.0	5.0	200.0	68.0	14,0	230

Telephone pliers 45° curved, extra long

- Long nosed jaws
- Serrated execution
- 45° curved jaws
- With PVC dipped handle
- Extra long execution
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7052	26.0	18.0	7.0	270.0	70.0	330

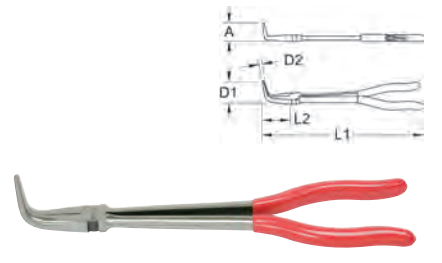
Double jointed long nosed pliers 45° curved, extra long

- Serrated execution
- With double joint
- Extremely narrow design
- 45° curved jaws
- With PVC dipped handle
- For diffi ult to access areas
- Matt chrome
- Special tool steel

	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7063	22.0	17.0	5.0	330.0	60.0	450

Telephone pliers 90° curved, extra long

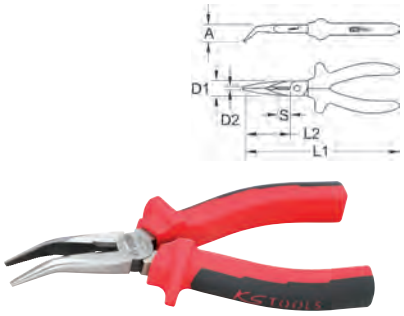
- Long nosed jaws
- Serrated execution
- 90° curved jaws
- With PVC dipped handle
- Extra long execution
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7053	46.0	18.0	7.0	270.0	42.0	330

ERGOTORQUE® long nosed pliers, curved

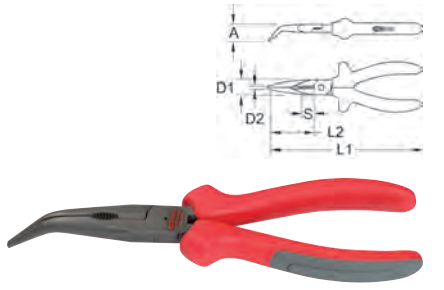
- In accordance to DIN / ISO 5745
- With two component handle
- 45° curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
115.1018	18.0	18.0	3.0	165.0	50.0	11,0	250
115.1019	27.0	22.0	5.0	210.0	67.0	16,0	260

ULTIMATE*plus* long nosed pliers, curved

- In accordance to DIN / ISO 5745
- With two component handle
- 45° curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Titanium coated surface
- Special tool steel

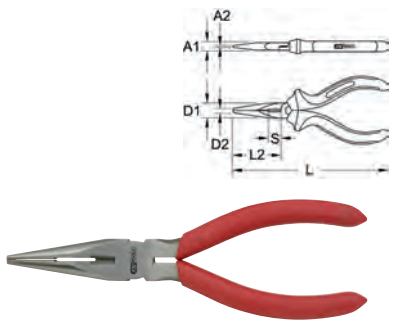


	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
119.2018	18.0	18.0	3.0	165.0	50.0	11,0	250
119.2019	27.0	22.0	5.0	210.0	67.0	16,0	270

TELEPHONE PLIERS

Telephone pliers

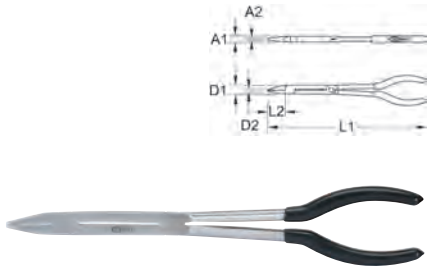
- In accordance to DIN ISO 5745
- Long nosed jaws
- Serrated execution
- With PVC dipped handle
- With intergrated cutting edge
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
115.1323	9.0	3.0	18.0	5.0	165.0	51.0	11,0	150
115.1324	11.0	3.0	22.0	5.0	200.0	75.0	15,0	230

Double jointed telephone pliers, extra long

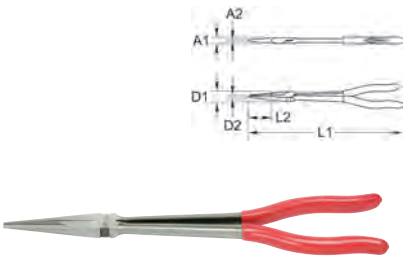
- Serrated execution
- With double joint
- Extremely narrow design
- With PVC dipped handle
- For diffi ult to access areas
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7061	10.0	10.0	18.0	3.0	300.0	32.0	450

Telephone pliers, extra long

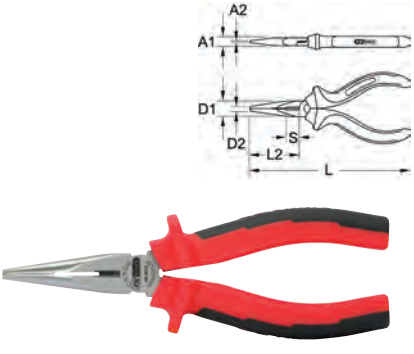
- Long nosed jaws
- Serrated execution
- With PVC dipped handle
- Extra long execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7051	11.0	4.0	18.0	7.0	270.0	70.0	330

ERGOTORQUE® telephone pliers

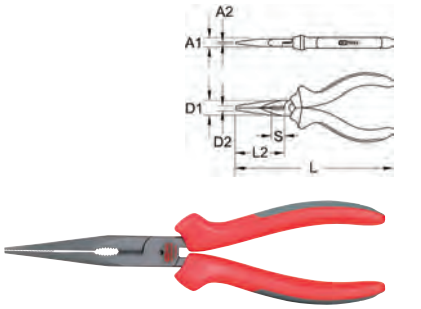
- In accordance to DIN ISO 5745
- Long nosed jaws
- Serrated execution
- With two component handle
- With intergrated cutting edge
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
115.1023	9.0	3.0	18.0	4.0	160.0	49.0	12,0	153
115.1024	11.0	3.0	22.0	4.0	200.0	75.0	16,0	230

ULTIMATE*plus* telephone pliers

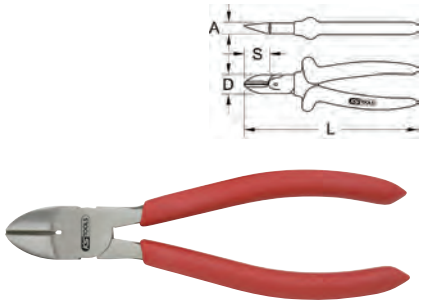
- In accordance to DIN / ISO 5745
- Long nosed jaws
- Serrated execution
- With two component handle
- With intergrated cutting edge
- Titanium coated surface
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
119.2023	9.0	3.0	18.0	4.0	160.0	49.0	12,0	150
119.2024	11.0	3.0	22.0	4.0	200.0	75.0	16,0	230

Diagonal side cutter

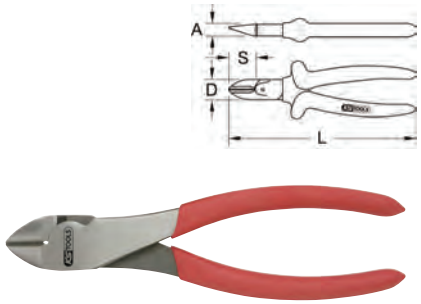
- In accordance to DIN ISO 5749
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With PVC dipped handle
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	g
115.1311	20.0	19.0	130.0	5,0	110
115.1312	20.0	22.0	165.0	5,0	160

High leverage side cutter

- In accordance to DIN ISO 5749
- 30° angled head
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With PVC dipped handle
- Matt chrome
- Special tool steel

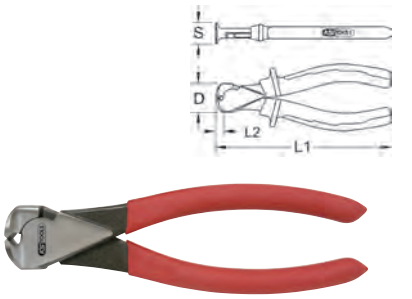


	A mm	D mm	L mm	S mm	g
115.1313	13.0	28.0	180.0	18,0	230

CUTTING PLIERS AND SIDE CUTTERS

Cutting pliers

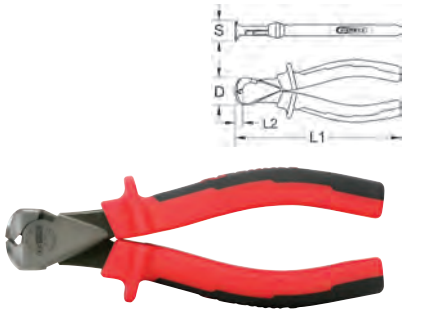
- In accordance to DIN ISO 5748
- Suitable for various types of wire
- Induction-hardened precision cutting
- With PVC dipped handle
- Matt chrome
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	g
115.1315	31.0	165.0	18.0	39,0	180

ERGOTORQUE® cutting pliers

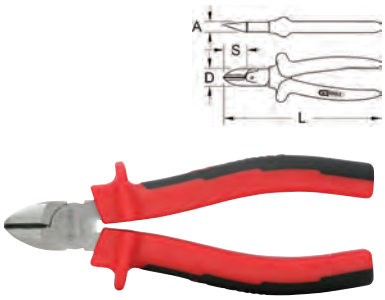
- In accordance to DIN ISO 5748
- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Matt chrome
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	g
115.1015	31.0	160.0	7.0	24,0	270

ERGOTORQUE® diagonal side cutter

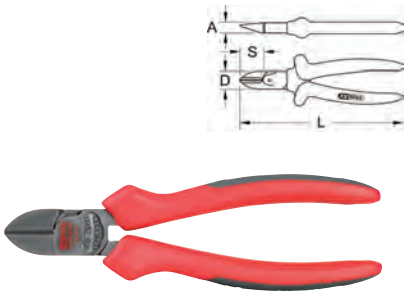
- In accordance to DIN ISO 5749
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	g
115.1011	9.0	18.0	125.0	18,0	140
115.1012	11.0	22.0	160.0	20,0	260

ULTIMATE*plus* diagonal side cutter

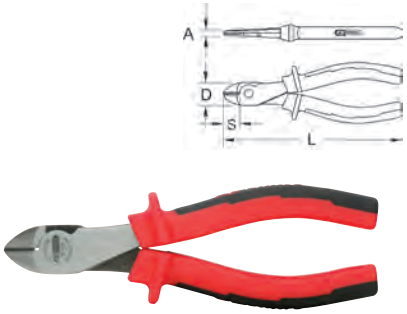
- In accordance to DIN / ISO 5749
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Titanium coated surface
- Special tool steel



	A mm	D mm	L mm	S mm	g
119.2011	10.0	20.0	145.0	20,0	140
119.2012	11.0	22.0	170.0	24,0	260

ERGOTORQUE® high leverage side cutter

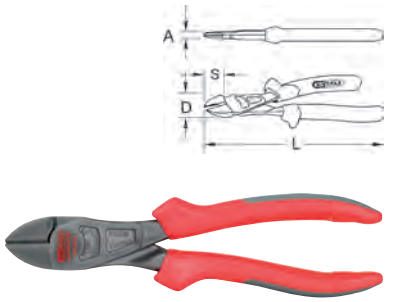
- In accordance to DIN ISO 5749
- 30° angled head
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	g
115.1013	12.0	29.0	180.0	21,0	260

ULTIMATE*plus* high leverage side cutter

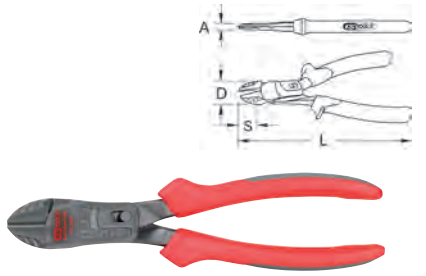
- In accordance to DIN / ISO 5749
- 30° angled head
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Titanium coated surface
- Special tool steel



	A mm	D mm	L mm	S mm	g
119.2013	12.0	29.0	180.0	21,0	260

ULTIMATE*plus* high leverage side cutter

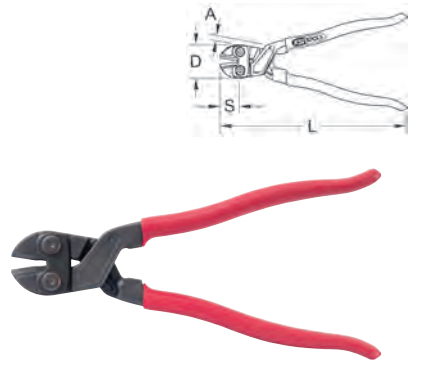
- Long cutting edge
- Induction-hardened precision cutting
- With two component handle
- Suitable for various types of wire
- Extremely robust execution
- Titanium coated surface
- Special tool steel



	A mm	D mm	L mm	S mm	g	
119.2025	17.0	30.0	210.0	23,0	300	

Mini bolt cutter, self-releasing

- Cutting performance up to 60-63 HRC
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate
- Chrome molybdenum

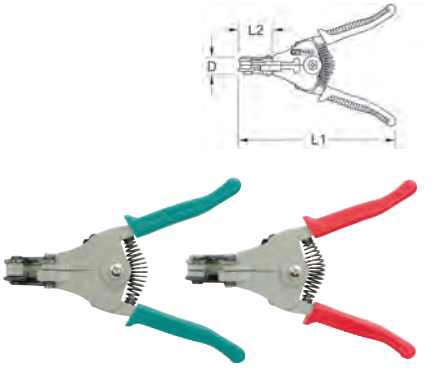


	L mm	S mm	D mm	A mm	g	
118.0015	205.0	14,0	34.0	17.0	270	

WIRE STRIPPER

Automatic wire stripper

- Plastic handle
- For damage free Stripping
- Durable clamping jaw for the adherence of the wire
- Self closing due to the spring mechanics



	Ø mm	AWG	D mm	L1 mm	L2 mm	g	
115.1028	0,5-2,0	2,0-0,5	20.0	170.0	35.0	280	
115.1029	1,0-3,2	3,2-1,0	20.0	170.0	35.0	280	

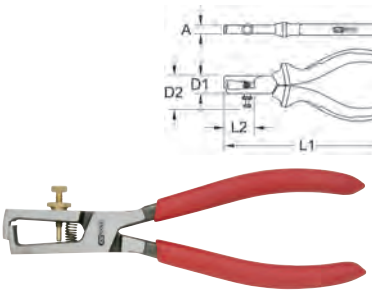
Self regulating wire stripper

- Easily interchangeable knife modules
- Cutting function
- Light weight
- Exact adjustment possible for safe stripping
- For damage free stripping
- Length stop for 0,02 - 10,0 mm
- Smooth running mechanics

	mm²	AWG	D mm	L1 mm	L2 mm	Replacement blades	g	
115.1244	0,1-4	28-12	48.0	190.0	73.0	115.1247	130	
115.1245	0,02-10	34-8	48.0	190.0	73.0	115.1246	130	
115.1249	4-16	12-6	48.0	190.0	73.0	115.1248	130	

Wire stripper

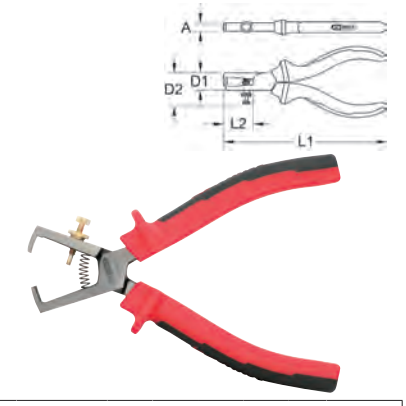
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- PVC dipped handle
- For wires from 0,5 - 4.0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
115.1314	9.0	20.5	33.0	176.0	39.0	170	

ERGOTORQUE® wire stripper

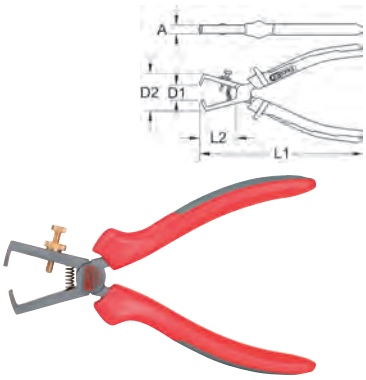
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,5 - 4.0 mm²
- Matt Chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
115.1014	9.0	20.5	33.0	179.0	39.0	300	

ULTIMATE*plus* wire strippers

- In accordance to DIN / ISO 5232
- With locking jaw opening
- With adjusting screw and spring
- With two component handle
- For wires from 0,5 - 4,0 mm²
- Titanium coated surface
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
119.2014	9.0	20.5	33.0	180.0	40.0	220	

UNIVERSAL PLIER SETS

Pliers set, extra long

- Serrated execution
- With PVC dipped handle
- Extra long execution
- Matt chrome
- Special tool steel

			kg	
500.7050	3 pcs	Pliers set, extra long	1.20	
1 x		270 mm		
1 x		270 mm		
1 x		270 mm		

Double jointed pliers set, extra long

- Serrated execution
- With double joint
- Extremely narrow design
- With PVC dipped handle
- For diffi ult to access areas
- Matt chrome
- Special tool steel

			kg	
500.7060	3 pcs	Double jointed pliers set, extra long	1.40	
1 x		300 mm		
1 x		340 mm		
1 x		335 mm		

Plier set

- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With PVC dipped handle
- Matt chrome
- Special tool steel

			kg
115.1310	3 pcs	Plier set	0.90
1 x		165 mm	
1 x		180 mm	
1 x		205 mm	

Plier set

- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- With PVC dipped handle
- Matt chrome
- Special tool steel

			kg
115.1304	4 pcs	Plier set	1.70
1 x		165 mm	
1 x		180 mm	
1 x		200 mm	
1 x		256 mm	

ERGOTORQUE® plier set

- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Matt chrome
- Special tool steel

			kg
115.1010	3 pcs	ERGOTORQUE® plier set	0.90
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	

ERGOTORQUE® plier set

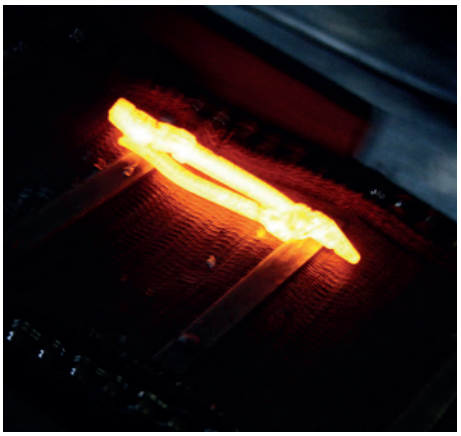
- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Matt chrome
- Special tool steel

			kg
115.1004	4 pcs	ERGOTORQUE® plier set	1.44
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	
1 x		240 mm	

ULTIMATE*plus* plier set

- In accordance to DIN ISO 5748
- Suitable for various types of wire
- Induction-hardened precision cutting
- With two component handle
- Titanium coated surface
- Special tool steel

			kg
119.2010	3 pcs	ULTIMATE*plus* plier set	1.00
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	



ULTIMATE*plus* plier set

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- Induction-hardened precision cutting
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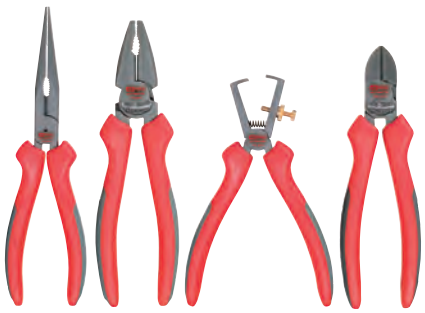
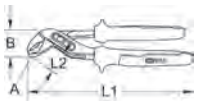


			kg
119.2004	4 pcs	ULTIMATE*plus* plier set	1.00
1 x		160 mm	
1 x		180 mm	
1 x		180 mm	
1 x		165 mm	

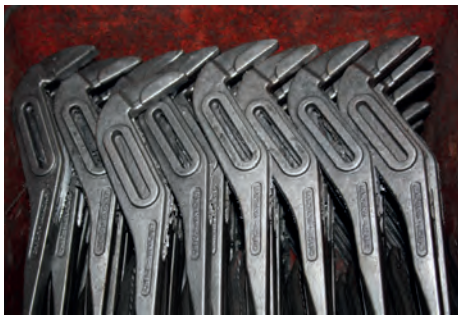
WATER PUMP PLIERS

Water pump pliers

- In accordance to DIN 8976
- Toothed gripping surfaces
- Optimum power transfer
- Industrial and ground heads
- Red powder coating
- Chrome vanadium

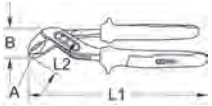


	A mm	B mm	L1 mm	L2 mm	g
115.1000	35.0	30.0	175.0	30.0	160
115.2000	45.0	35.0	240.0	36.0	310
115.3000	55.0	40.0	300.0	42.0	620



Water pump pliers

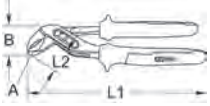
- In accordance to DIN 8976
- With PVC dipped handle
- Toothed gripping surfaces
- Optimum power transfer
- Industrial and ground heads
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
115.2001	36.0	46.0	240.0	34.0	350

Water pump pliers, black

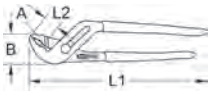
- In accordance to DIN 8976
- With PVC dipped handle
- Toothed gripping surfaces
- Optimum power transfer
- With grooved handle adjustment
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
115.7000	45.0	55.0	250.0	40.0	340

Professional water pump pliers

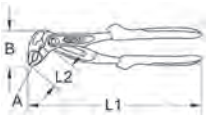
- Toothed gripping surfaces
- Optimum power transfer
- With grooved handle adjustment
- Progressive teeth
- With PVC dipped handle
- Chrome vanadium



	Industrial	A mm	B mm	L1 mm	L2 mm	g
115.1350	7	46.0	45.0	265.0	50.0	380
115.1351	7	66.0	60.0	330.0	60.0	920
115.1352	11	77.0	74.0	420.0	74.0	1150

ULTIMATE*plus* waterpump pliers

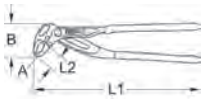
- In accordance to DIN 8976
- With two component handle
- 10 stage adjustment
- Optimum power transfer
- Toothed gripping surfaces
- Industrial and ground heads
- Titanium coated surface
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
119.2027	50.0	55.0	260.0	38.0	355

Water pump pliers

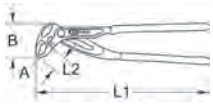
- With accurate industrial adjustment
- With safety clamping protection
- Optimum power transfer
- Asymmetric grip profile wi h offset teeth
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
115.2011	35.0	38.0	175.0	20.0	160
115.2010	45.0	47.0	240.0	25.0	360
115.2012	55.0	53.0	300.0	30.0	560

Water pump pliers

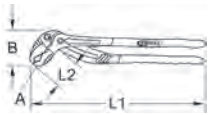
- With accurate industrial adjustment
- With safety clamping protection
- Optimum power transfer
- Double sided gripping jaws
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
115.8502	36.0	44.0	175.0	26.5	185
115.8000	51.0	54.0	250.0	33.5	340
115.8500	61.5	65.0	300.0	41.5	510

Water pump pliers Quattro Gripp

- Maximum jaw opening approx. 40% above DIN ISO
- Push-button with 4 tooth technique
- With accurate industrial adjustment
- With safety clamping protection
- Optimum power transfer
- Substaintial precision through joint
- Ground heads
- Handle dip insulated
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
115.8520	50.0	50.0	260.0	40.0	370
115.8525	70.0	60.0	320.0	50.0	630
115.8530	100.0	90.0	400.0	65.0	1250

WATER PUMP PLIER SETS

Water pump pliers set

- In accordance to DIN 8976
- Toothed gripping surfaces
- Optimum power transfer
- 7 stage adjustment
- Industrial and ground heads
- Red powder coating
- Chrome vanadium

			kg
115.0000	3 pcs	175 - 240 - 300 mm	1.20

Water pump pliers set

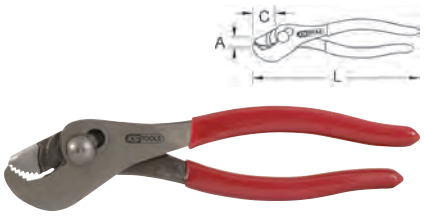
- With accurate industrial adjustment
- With safety clamping protection
- Optimum power transfer
- Double sided gripping jaws
- Ground heads
- With PVC dipped handle
- Chrome vanadium

115.8501	2 pcs	250 - 300 mm	960

PIPE WRENCHES

Special pipe wrench

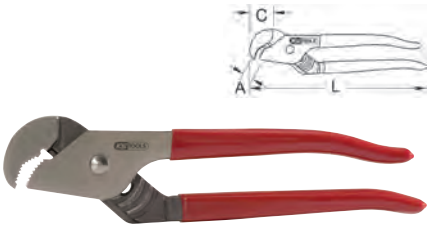
- 2-stage adjustment
- PVC dipped handle
- Ideal for round turned pipe fi tings
- Polished surface
- Chrome vanadium



	A mm	L mm	C mm	
115.1361	0-16	178.0	23.0	180

Special pipe wrench

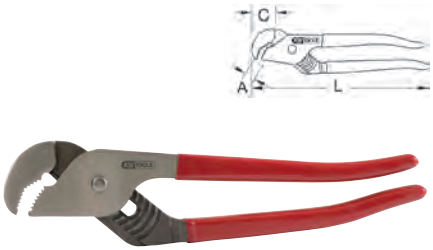
- 4 stage industrial adjustment
- PVC dipped handle
- Optimum power transfer
- Grooved handle adjustment
- Polished surface
- Ideally suited for twisting both thrust and track rods
- Usably on axle joints and exhaust pipes
- Chrome vanadium



	A mm	L mm	
115.1362	0-30	242.0	470

Special pipe wrench

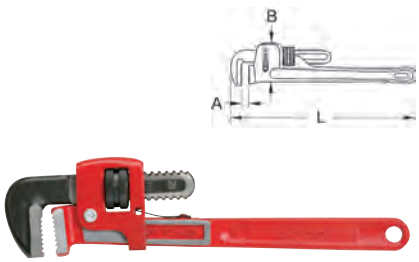
- 6 stage industrial adjustment
- PVC dipped handle
- Optimum power transfer
- Grooved handle adjustment
- Polished surface
- Ideally suited for twisting both thrust and track rods
- Usably on axle joints and exhaust pipes
- Chrome vanadium



	A mm	L mm	C mm	
115.1363	0-51	345.0	41.0	1.10

One handed pipe pliers

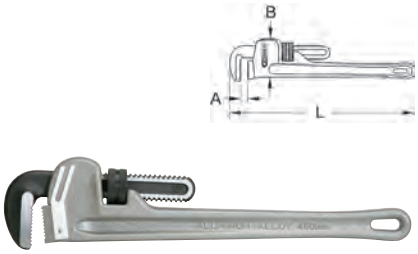
- Type "Stillson"
- Heavy execution
- Ground heads
- Infini ely variable
- Drop forged



	A	B mm	L mm	
114.0008	3/4“	50.0	200.0	0.25
114.0010	1“	64.0	250.0	0.60
114.0012	1.1/4“	68.0	300.0	0.70
114.0014	1.1/2“	82.0	350.0	1.10
114.0018	2“	93.0	450.0	1.75
114.0024	2.1/2“	111.0	600.0	3.50
114.0036	3.1/2“	134.0	900.0	6.25

One handed pipe pliers

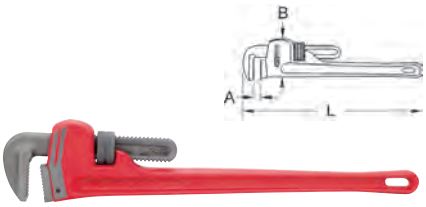
- Type "Stillson"
- Aluminium cast body
- Ground heads
- Infini ely variable
- Aluminium drop forged



	A	B mm	L mm	
111.3100	1.1/2“	75.0	350.0	0.88
111.3200	2“	90.0	450.0	1.46
111.3300	2.1/2“	100.0	600.0	2.44

One handed steel pipe pliers

- Type "Stillson"
- Ground heads
- Infini ely variable
- Die forged head
- Handle of steel



	A	B mm	L mm	
111.3500	3/4“	50.0	200.0	0.37
111.3505	1“	60.0	250.0	0.65
111.3510	1.1/4“	65.0	300.0	0.87
111.3515	1.1/2“	70.0	350.0	1.27
111.3520	2“	85.0	450.0	1.85
111.3525	2.1/2“	95.0	600.0	3.00
111.3530	3.1/2“	125.0	900.0	5.10
111.3535	5“	150.0	1200.0	9.10

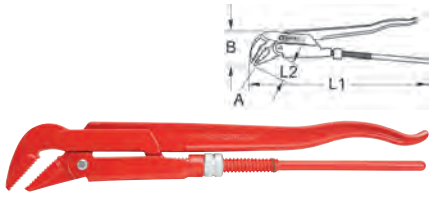
Pipe wrench with adjustable head

- Type "Stillson"
- Aluminium cast body
- Upper jaw HRC 54-57
- Lower jaw HRC 52-55
- Stepless adjustment via milled nut
- 160° revolving handle
- Aluminium handle

	A	B mm	L mm	g
111.3550	1.1/2	97.0	250.0	650

Offset pipe pliers, 45° angled

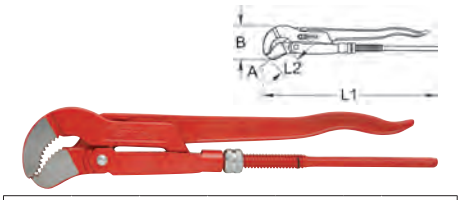
- In accordance to DIN 5234
- Swedish form
- Jaw 45° offset
- Infini ely variable
- Gear, contrary to the direction of rotation
- Red powder coating
- Chrome vanadium



	A	B mm	L1 mm	L2 mm	kg
112.1000	1"	65.0	320.0	65.0	0.75
112.1500	1.1/2"	70.0	430.0	75.0	1.38
112.2000	2"	75.0	580.0	85.0	2.75

S Jaw angled pipe plier, offset

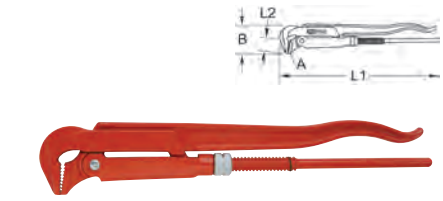
- In accordance to DIN 5234
- Jaw 45° offset
- Ground heads
- Infini ely variable
- Gear, contrary to the direction of rotation
- Red powder coating
- Drop forged
- Chrome vanadium



	A	B mm	L1 mm	L2 mm	kg
113.0500	1/2"	48.0	245.0	45.0	0.48
113.1000	1"	95.0	320.0	60.0	0.82
113.1500	1.1/2"	73.0	420.0	73.0	1.40
113.2000	2"	87.0	550.0	87.0	2.57
113.3000	3"	112.0	630.0	112.0	4.30

Offset pipe pliers, 90° angled

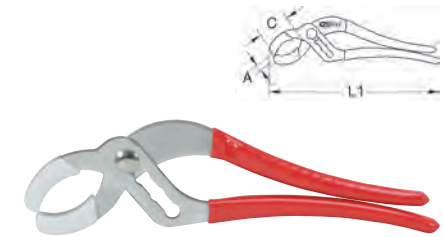
- In accordance to DIN 5234
- Swedish form
- Jaw 90° offset
- Infini ely variable
- Gear, contrary to the direction of rotation
- Red powder coating
- Chrome vanadium



	A	B mm	L1 mm	L2 mm	kg
111.1000	1"	35.0	320.0	15.0	0.79
111.1500	1.1/2"	31.0	430.0	41.0	1.40
111.2000	2"	51.0	580.0	58.0	2.69
111.3000	3"	60.0	670.0	62.0	3.45

Siphon pliers

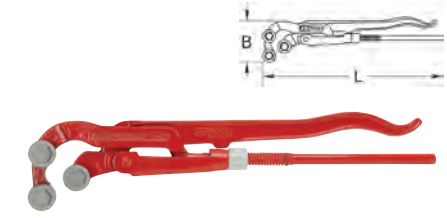
- With 4 adjustable steps
- Insulated foot for chrome fitting
- For screw fittings up o max. Ø 65 mm
- With PVC dipped handle
- For loosening pipe fitting
- Interchangeable jaw protector
- For hard to reach places
- Chrome plated and mirror polished
- Chrome vanadium



	A mm	C mm	L mm	Replacement jaws	g
116.1200	20,0 - 65,0	45.0	225.0	116.1201	320

Thread roughing pliers

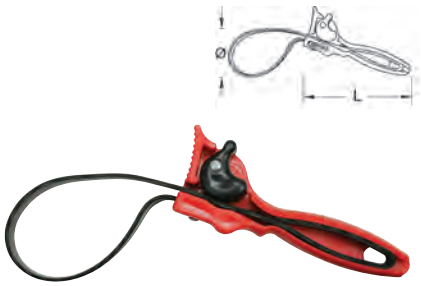
- For roughening of the thread after thread cutting
- Uniform roughening over the entire circumference
- Special tool steel



	Ø mm	Ø	B mm	L mm	kg
995.6500	12,7 - 50,8	1/2" - 2"	100.0	335.0	1.77

Strap pipe pliers

- For hard to reach places
- Especially suited for plastic pipes
- Glass fib e reinforced handle
- Belt made of reinforced, non slip rubber



	Ø mm	L mm	g
114.0150	110,0	190.0	180

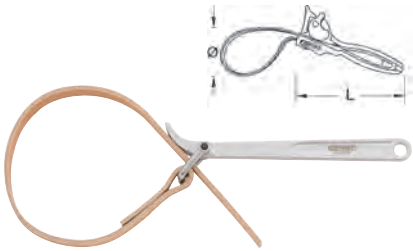
Strap pipe pliers

- With metal grip
- For hard to reach places
- Especially suited for plastic pipes
- Belt made of reinforced, non-slip rubber
- Chrome vanadium

	Ø mm	L mm	kg
114.0160	160,0	250.0	1.00

Strap wrench

- With metal handle
- For hard to reach places
- Especially suited for plastic pipes
- Belt made of reinforced, non-slip webbing
- Chrome plated
- Chrome vanadium



	mm	Ø mm	Ø	L mm	Replacement band	g
114.0170	20.0	140,0	9/64"	220.0	114.0170-1	278
114.0171	25.0	200,0	13/64"	280.0	114.0171-1	600

Chain pipe wrench

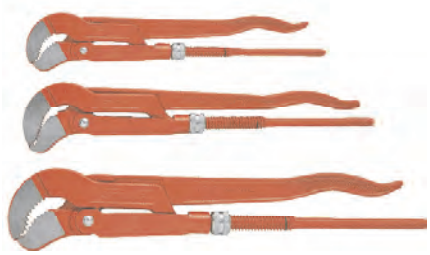
- Function is similar to a ratchet
- For hard to reach places
- Hardened teeth
- Drop-forged
- Chrome vanadium

	Ø mm	L mm	kg
114.0040	110,0	390.0	1.36

PIPE WRENCH SETS

Angled pipe pliers set

- With PVC dipped handle
- Toothed gripping surfaces
- Optimum power transfer
- With grooved handle adjustment
- Progressive teeth
- Chrome vanadium

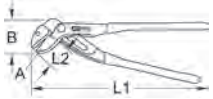


			kg
113.2100	3 pcs	1" - 1.1/2" - 2"	4.79

FITTERS PLIERS

Fitters pliers

- With accurate industrial adjustment
- With safety clamping protection
- With setting scale
- Smooth, polished head area
- Optimum power transfer
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
115.8510	53.0	50.0	250.0	60.0	350

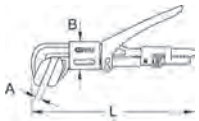
Fitters pliers, angled

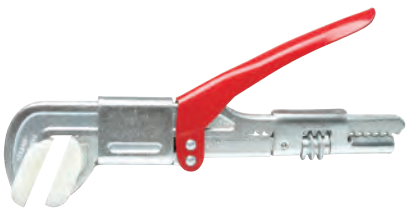
- 90° Jaw position
- Interchangeable jaw protector
- For pipe up to max. Ø 35 mm
- For mild assembly
- Infini ely variable
- Red powder coating
- Chrome vanadium

	A	A mm	B mm	L1 mm	L2 mm	Replacement jaws	g
116.1000	1"	25.4	81.0	315.0	54.0	116.1001	790

Fitters wrench

- Interchangeable jaw protector
- For screw fi tings up to max. Ø 60 mm
- Smooth, parallel adjustment jaws
- For mild assembly
- Infini ely variable
- Matt chrome
- Chrome vanadium



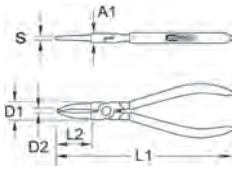


	A mm	B mm	L mm	Replacement jaws	g
116.1002	60.0	47.0	265.0	116.1003	550

CIRCLIP PLIERS FOR INTERNAL CIRCLIPS

Circlip pliers for internal circlips

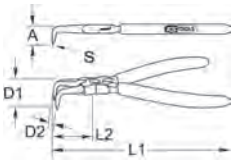
- In accordance to DIN 5254
- Durable, rolled precision tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



	mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1034	12,0 - 25,0	8.0	1.0	17.0	2.0	130.0	29.0	120
500.1035	19,0 - 60,0	10.0	1.7	18.0	2.0	160.0	40.0	150
500.1036	40,0 - 100,0	11.0	2.2	22.0	2.0	230.0	44.0	200

Circlip pliers for internal circlips, angled

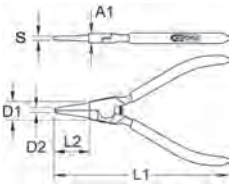
- In accordance to DIN 5256
- Durable, rolled precision tips
- 90° angled tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



	mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1031	12,0 - 25,0	11.0	1.0	15.0	2.0	130.0	21.0	120
500.1032	19,0 - 60,0	19.0	1.7	17.0	2.0	160.0	23.0	150
500.1033	40,0 - 100,0	25.0	2.2	23.0	2.0	230.0	30.0	200

Circlip pliers for internal circlips

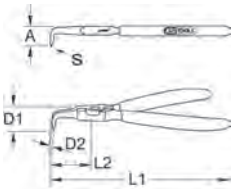
- In accordance to DIN 5254
- Slip inhibiting machined precision tips
- Durable, straight version
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
119.2053	12,0 - 25,0	7.5	1.2	15.0	2.7	135,0	30.0	80
119.2058	19,0 - 60,0	9.5	1.6	18.0	5.0	180,0	40.0	150
119.2063	40,0 - 100,0	10.0	2.5	20.0	6.0	230,0	50.0	250

Circlip pliers for internal circlips, angled

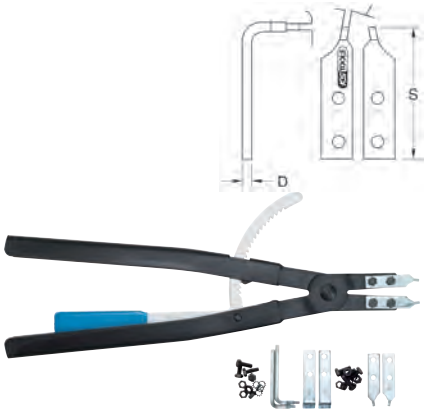
- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- 90° angled tips
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
119.2054	12,0 - 25,0	16.5	1.0	14.5	2.5	125,0	20.0	80
119.2059	19,0 - 60,0	21.0	1.5	18.0	3.0	165,0	25.0	150
119.2064	40,0 - 100,0	25.0	2.0	20.0	5.0	210,0	35.0	250

Circlip pliers for internal circlips with 0°+ 90° tips

- For internal circlips
- Interchangeable tips
- For circlips according to DIN 472 / DIN 984
- Black powder coating
- Chrome vanadium

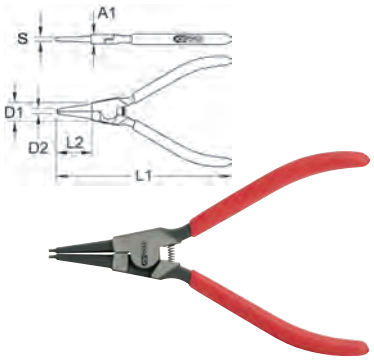


	D mm	L mm	mm	g
500.1340	3,5	540.0	122,0 - 300,0	2025

CIRCLIP PLIERS FOR EXTERNAL CIRCLIPS

Circlip pliers for external circlips

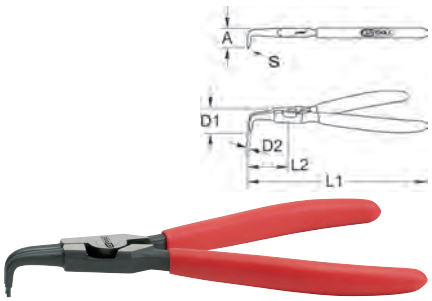
- In accordance to DIN 5254
- Durable, straight precision tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



	mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1028	10,0 - 25,0	8.0	1.0	18.0	1.0	130.0	28.0	120
500.1029	19,0 - 60,0	10.0	2.0	30.0	6.0	160.0	38.0	150
500.1030	40,0 - 100,0	11.0	3.0	33.0	6.0	230.0	44.0	200

Circlip pliers for external circlips, angled

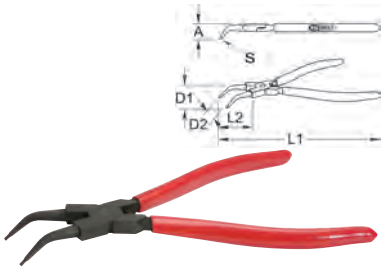
- In accordance to DIN 5254
- Durable precision tips
- 90° angled tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



	mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1025	10,0 - 25,0	13.0	1.0	12.0	2.0	130.0	18.0	120
500.1026	19,0 - 60,0	19.0	1.7	17.0	2.0	160.0	23.0	150
500.1027	40,0 - 100,0	24.0	2.2	21.0	2.0	230.0	27.0	200

Wheel bearing circlip pliers, angled

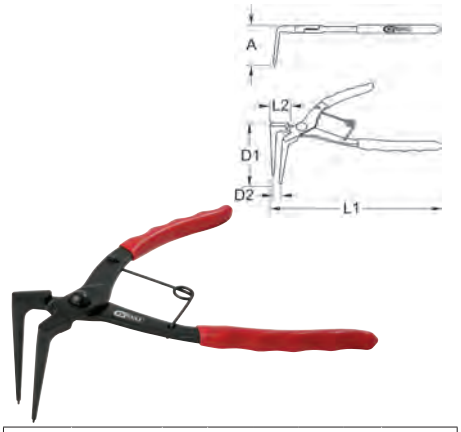
- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- 45° angled version
- Self closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1038	19,0 - 60,0	22.0	2.5	23.0	2.3	240.0	32.0	250
500.1039	19,0 - 60,0	22.0	3.0	23.0	3.0	300.0	46.0	490

Long arm circlip pliers for external circlips, angled

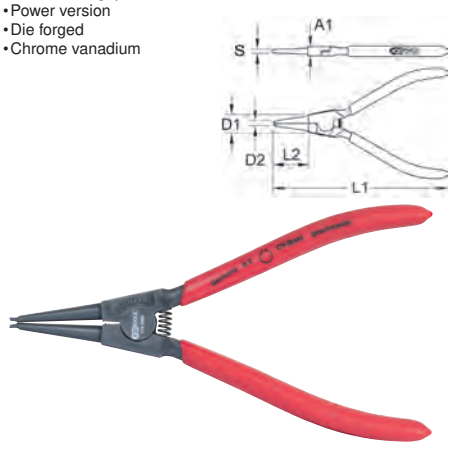
- Durable, extra long precision points
- 90° angled tips
- Self opening
- PVC dipped handle
- Ideal for brake calliper and transmission work
- Chrome vanadium



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1037	63.0	18.0	4.0	185.0	18.0	190

Circlip pliers for external circlips

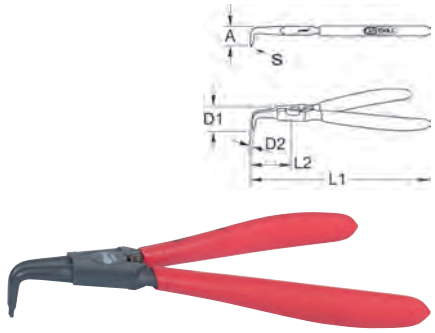
- In accordance to DIN 5254
- Slip inhibiting machined precision tips
- Durable, straight design
- Self closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
119.2051	10,0 - 25,0	8.0	1.0	13.5	3.5	135,0	30.0	80
119.2056	19,0 - 60,0	9.0	1.5	15.0	4.5	175,0	40.0	150
119.2061	40,0 - 100,0	10.0	2.5	20.0	6.0	230,0	50.0	250

Circlip pliers for external circlips, angled

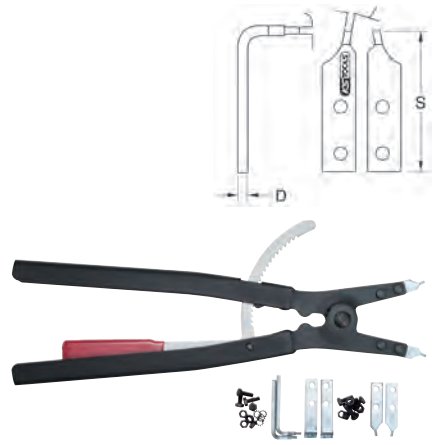
- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- 90° angled version
- Self closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g
119.2052	10,0 - 25,0	20.0	1.0	15.0	3.0	125,0	20.0	80
119.2057	19,0 - 60,0	25.0	1.5	20.0	4.5	165,0	32.0	150
119.2062	40,0 - 100,0	30.0	2.0	25.0	6.0	210,0	40.0	250

Circlip pliers for external circlips with 0°+ 90° tips

- For external security rings
- Interchangeable tips
- For circlips according to DIN 472 / DIN 984
- Black powder coating
- Chrome vanadium



	D mm	L mm	mm	g
500.1345	3,5	540.0	122,0 - 300,0	2005

CIRCLIP PLIER SETS FOR CIRCLIPS

Circlip pliers set with ratchet function

- For inside and outside circlips
- With rubber grip
- Interchangeable tips
- 6 types of pliers by reversing the tips
- Includes disassembly and assembly heads
- Chrome vanadium

Internal circlips: 78,0 mm - 159,0 mm
External circlips: 89,0 mm - 159,0 mm

			kg
500.1300	14 pcs	Circlip pliers set with ratchet function	1.80

Universal circlip pliers set

- For inside and outside circlips
- Simply plier reconfi aration
- With rubber grip
- Interchangeable tips
- 16 types of pliers by reversing the tips
- Includes disassembly and assembly heads
- Chrome vanadium

			kg
500.1320	10 pcs	Universal circlip pliers set	1.80
4 x		1,0 - 1,2 - 1,8 - 2,3 mm	
4 x		1,0 - 1,2 - 1,8 - 2,3 mm	
1 x		120 mm	
1 x		120 mm	

Circlip pliers set with ratchet function

- For inside and outside circlips
- With rubber grip
- Interchangeable tips
- 8 types of pliers by reversing the tips
- Includes disassembly and assembly heads
- Chrome vanadium

Internal circlips: 60,0 mm - 100,0 mm
External circlips: 40,0 mm - 85,0 mm

			kg
500.1350	20 pcs	Circlip pliers set with ratchet function	1.80

Circlip pliers set

- For inside and outside circlips
- With rubber grip
- 90° angled tips
- Durable, straight precision tips
- All outside circlips with opening spring
- Power version
- Chrome vanadium

			g
119.2050	4 pcs	Circlip pliers set	455

consists of:

		g
119.2051	Circlip pliers for external circlips, 10-25 mm	80
119.2052	Circlip pliers for external circlips, angled, 12-25 mm	80
119.2053	Circlip pliers for internal circlips, 12-25 mm	80
119.2054	Circlip pliers for internal circlips, angled, 12-25 mm	80

Circlip pliers set

- For inside and outside circlips
- With rubber grip
- 90° angled tips
- Durable, straight precision tips
- All outside circlips with opening spring
- Power version
- Chrome vanadium

			g
119.2055	4 pcs	Circlip pliers set	735

consists of:

		g
119.2056	Circlip pliers for external circlips, 19-60 mm	150
119.2057	Circlip pliers for external circlips, angled, 19-60 mm	150
119.2058	Circlip pliers for internal circlips, 19-60 mm	150
119.2059	Circlip pliers for internal circlips, angled, 19-60 mm	150

Circlip pliers set

- For inside and outside circlips
- With rubber grip
- 90° angled tips
- Durable, straight precision tips
- All outside circlips with opening spring
- Power version
- Chrome vanadium

			g
119.2060	4 pcs	Circlip pliers set	1000

consists of:

		g
119.2061	Circlip pliers for external circlips, 40-100 mm	250
119.2062	Circlip pliers for external circlips, angled, 40-100 mm	250
119.2063	Circlip pliers for internal circlips, 40-100 mm	250
119.2064	Circlip pliers for internal circlips, angled, 40-100 mm	250

LOCKING PLIERS

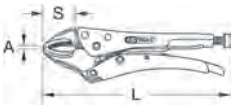
Locking pliers holder

- Alternative for a vice
- For light work
- For screwing onto workbenches, worktables etc.

	L mm	B mm	T mm	
115.2072	91.0	84.0	24.3	300

Locking pliers

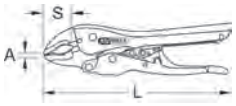
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and fl t material
- To hold when welding
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	
115.1031	0-50	140.0	19,3	180
115.1032	0-55	175.0	24,0	340
115.1033	0-60	220.0	27,5	520

Power locking pliers

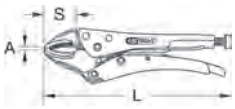
- Forged gripping jaws
- Prevents slipping even at high forces
- Well thought through jaw teeth
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and fl t material
- To hold when welding
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	
115.1196	0-40	175.0	30,0	400
115.1197	0-50	220.0	37,0	600

Locking pliers with quick-release lever

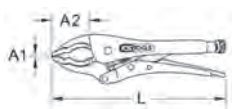
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and fl t material
- To hold when welding
- With quick-release lever
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum
- With dual component handle



	A mm	L mm	S mm	
115.2031	0-30	125.0	21,0	300
115.2032	0-40	175.0	27,0	390
115.2033	0-55	225.0	30,0	600

Wide jaw locking pliers

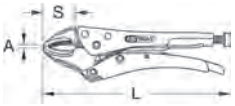
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and fl t material
- To hold when welding
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	
115.1506	0-64	235.0	50,0	600

Wide jaw locking pliers with quick-release lever

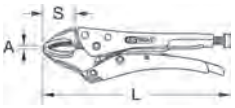
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and fl t material
- To hold when welding
- With quick-release lever
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum
- With dual component handle



	A mm	L mm	S mm	
115.2006	0-65	230.0	51,0	620

Locking pliers, straight jaws

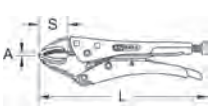
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and fl t material
- To hold when welding
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	
115.1501	0-28,5	175.0	27,0	370
115.1502	0-45,5	225.0	30,0	600

Locking pliers with quick-release lever, straight jaws

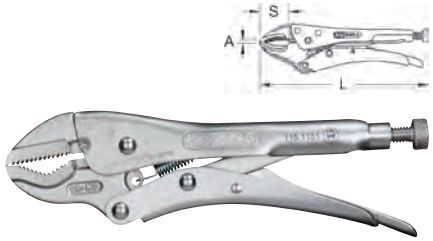
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and fl t material
- To hold when welding
- With quick-release lever
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum
- With dual component handle



	A mm	L mm	S mm	
115.3011	0-40	175.0	25,0	400
115.3012	0-50	250.0	30,0	600

Locking pliers, V jaws

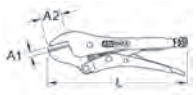
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and fl t material
- To hold when welding
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	g
115.1151	0-25	185.0	24,0	400
115.1152	0-32	225.0	27,5	600

Clamping pliers for pipes

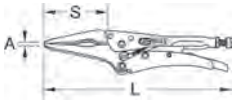
- Forged gripping jaws
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- With hexagonal nut for safe fastening
- For clamping pipes
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	g
115.1504	0-30,5	175.0	29,5	360

Clamping pliers for pipes

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For clamping pipes
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	g
115.1505	0-86	255.0	118,0	500

Round jaw locking pliers with wire cutter

- For safe gripping of nuts and screw heads
- 3 level points prevents slipping and rounding
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- Good adaptation to existing surfaces
- With wire cutting function
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum

	mm	L mm	g
115.1175	11-19	175.0	370
115.1176	16-27	240.0	700

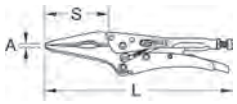
Chain grip pliers

- For fastening and clamping of different profil s
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- Ideal for confined spa es
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum

	Ø mm	L mm	Replacement chain	kg
115.1171	150,0	220.0	115.1172	0.76

Long nose locking pliers

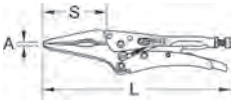
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and fl t material
- To hold when welding
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	g
115.1177	0-25	125.0	35	110
115.1034	0-35	150.0	45,0	180
115.1035	0-45	210.0	65,0	340

Long-nose locking pliers with quick-release lever

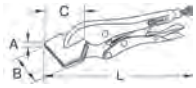
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and fl t material
- To hold when welding
- With quick-release lever
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum
- With dual component handle



	A mm	L mm	S mm	g
115.2034	0-45	170.0	45,0	300
115.2035	0-60	205.0	53,0	500

Wide and fl t jaw locking pliers

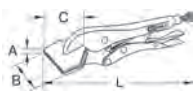
- Forged gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For clamping of fl t or bended metal sheets
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	B mm	C mm	L mm	g
115.1076	0-53	90.0	40.0	205.0	480
115.1077	0-57	100.0	45.0	245.0	650

Wide jaw fl t die locking pliers with quick-release lever

- Forged gripping jaws
- With easy locking action
- Size adjustment using the adjustment wheel
- For clamping of fl t or bended metal sheets
- With quick-release lever
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum
- With dual component handle



	A mm	C mm	L mm	B mm	g
115.2076	0-40	45.0	205.0	80.0	600
115.2077	0-55	45.0	250.0	80.0	800

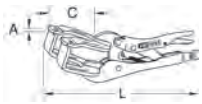
Welding gripping pliers

- With malleable cast iron jaws
- Suitable for setting the welding points between the cut outs
- With loosening lever
- Size adjustment using the adjustment wheel
- To hold and adjust sheets and profil s
- With easy locking action
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum

	A mm	C mm	L mm	g
115.1078	0-45	70.0	220.0	600
115.1079	0-55	70.0	260.0	780

Welding gripping pliers with quick-release lever

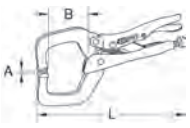
- With malleable cast iron jaws
- Suitable for setting the welding points between the cut outs
- Size adjustment using the adjustment wheel
- To hold and adjust sheets and profil s
- With easy locking action
- With quick-release lever
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome vanadium
- With dual component handle

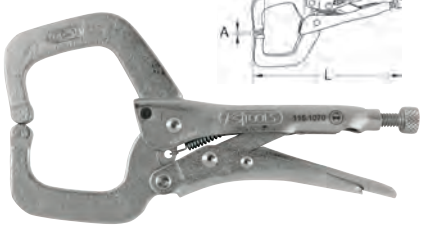


	A mm	C mm	L mm	g
115.2078	0-45	70.0	220.0	710
115.2079	0-65	70.0	260.0	875

Welding gripping pliers

- Forged semi-circular gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bul y components
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum

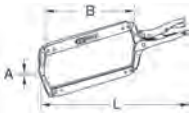




	A mm	B mm	L mm	g
115.1070	0-35	40.0	170.0	240

Welding gripping pliers, extra long

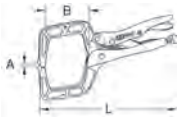
- Round forged gripping jaws
- Quick-release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bul y components
- Large clamping depth for front and rear panels
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	B mm	L mm	kg
115.1072	0-270	250.0	450.0	1.18

Welding gripping pliers

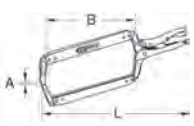
- Very good clamping capacity
- Round forged gripping jaws
- Quick-release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bul y components
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	B mm	L mm	g
115.1071	0-100	90.0	270.0	780

Welding gripping pliers, extra long

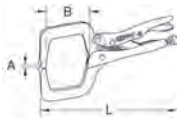
- Round forged gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bul y components
- Large clamping depth for front and rear panels
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	B mm	L mm	kg
115.0573	0-295	415.0	610.0	1.50

Welding clamp gripping pliers with quick-release lever

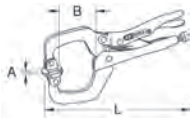
- Very good clamping capacity
- Round forged gripping jaws
- With quick-release lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bul y components
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome vanadium
- With dual component handle



	A mm	B mm	L mm	g
115.2008	0-45	45.0	165.0	300
115.2009	0-90	85.0	280.0	900

Welding gripping pliers with movable clamping jaws

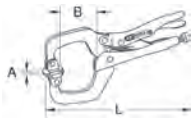
- Flat gripping jaws
- Movable clamping jaws
- Quick-release lever
- Easy locking action
- Size adjustment using the adjustment wheel
- For profiled bul y components
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	B mm	L mm	kg
115.1178	0-25	25.0	125.0	0.15
115.1073	0-35	40.0	170.0	0.24
115.1074	0-100	70.0	285.0	0.78
115.1075	0-270	240.0	420.0	1.25
115.0570	0-420	395.0	610.0	1.54

Welding gripping pliers with movable clamping jaws

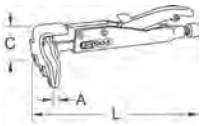
- Flat gripping jaws
- Movable clamping jaws
- With quick-release lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bul y components
- Good adaptation to existing surfaces
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum
- With dual component handle



	A mm	B mm	L mm	kg	
115.2013	0-105	115.0	170.0	0.40	
115.2014	0-420	395.0	275.0	1.00	

Welding gripping pliers

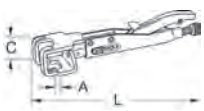
- For applications that need a straight jaw
- Jaws from special steel
- Easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- Ideal for spot welding
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1080	0-20	56.0	205.0	548	

Welding gripping pliers

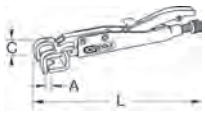
- For applications that required double curved jaws
- Jaws from special steel
- Easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- Ideal for fi ting and mounting of body parts
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1081	0-20	39.0	230.0	568	

Welding gripping pliers

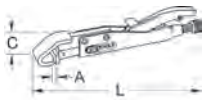
- For applications that required double curved jaws
- Jaws from special steel
- Easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- For welding of the hole between the panels
- Also suitable for U-profil
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1082	0-15	26.0	215.0	562	

Welding gripping pliers

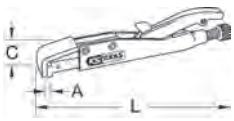
- For applications that need a angled jaw
- Jaws from special steel
- Easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- Ideal for welding in the fold
- Also suitable for U-profil
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1083	0-20	30.0	210.0	509	

Welding gripping pliers

- For applications that need a straight jaw
- Slim design
- Jaws from special steel
- Easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- For right-angled terminals in the fold
- For diffi ult to access areas
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1084	0-16	30.0	195.0	488	

Welding gripping pliers set

- For applications that need a straight jaw
- Extra slim design
- Jaws from special steel
- With easy locking action
- With quick release lever
- Size adjustment using the adjustment wheel
- For right angled terminals in the fold
- For diffi ult to access areas
- For welding of the hole between the panels
- Also suitable for U profil
- Ideal for spot welding
- Nickel plated handle
- Chrome molybdenum

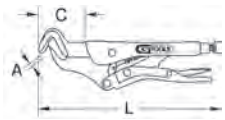
			kg	
115.1085	5 pcs	Welding gripping pliers set	2.62	

consists of:

		g	
115.1080	Welding self grip pliers, 205mm	548	
115.1081	Welding self grip pliers, 230mm	568	
115.1082	Welding self grip pliers, 215mm	562	
115.1083	Welding self grip pliers, 210mm	509	
115.1084	Welding self grip pliers, 210mm	488	

Automotive welding gripping pliers

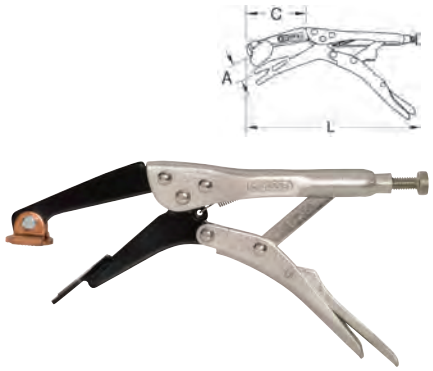
- Forged gripping jaws
- Serrated execution
- Quick-release lever
- Easy locking action
- For fla ged material
- To hold when welding
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1068	0-40	60.0	200.0	400	

Welding gripping pliers

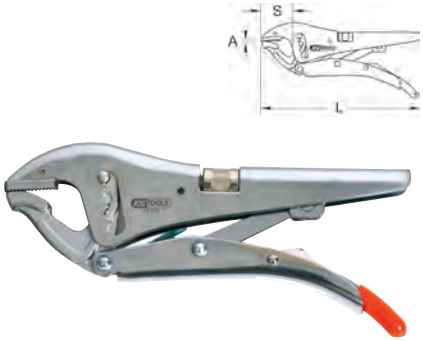
- Flat gripping jaws
- Movable clamping jaws
- Serrated execution
- No sticking to the electrode
- Quick-release lever
- Easy locking action
- Good adaptation to existing surfaces
- Copper alloy clamping jaws
- No fla ing under the strongest loads
- Loosening under continuous pressure of a spring
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1180	0-70	85.0	240.0	500

Locking pliers, serrated

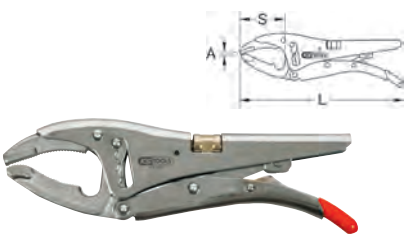
- Forged gripping jaws
- Serrated execution
- Quick release lever
- Size adjustment using the adjustment wheel
- For round and fl t material
- To hold when welding
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	g
115.1036	0-55	220.0	40,0	670

Locking pliers, serrated

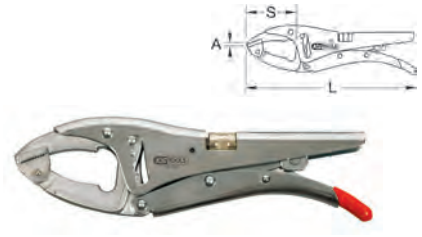
- Forged gripping jaws
- Serrated execution
- Quick release lever
- Size adjustment using the adjustment wheel
- For round and fl t material
- To hold when welding
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	g
115.1037	0-85	250.0	60,0	800

Locking pliers, serrated

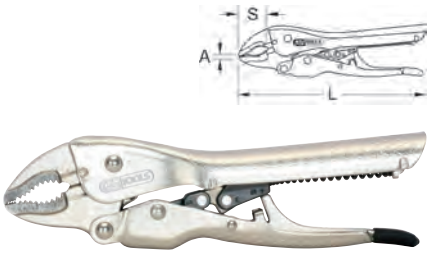
- Forged gripping jaws
- Movable clamping jaws
- Serrated execution
- Quick-release lever
- Size adjustment using the adjustment wheel
- For round and fl t material
- To hold when welding
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	g
115.1038	0-85	250.0	60,0	800

Automatic locking pliers

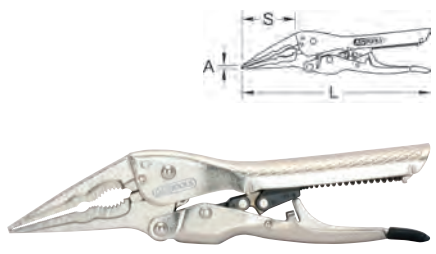
- Forged gripping jaws
- Automatic adjustment by cam mechanism
- Serrated execution
- Quick-release lever
- For round and fl t material
- Heavy but controlled clamping
- To hold when welding
- Knurled handle
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	g
115.1150	0-32	170.0	22,0	250
115.1155	0-47	250.0	29,0	620

Automatic long nosed locking pliers

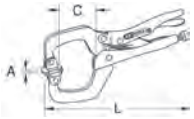
- Forged gripping jaws
- Automatic adjustment by cam mechanism
- Serrated execution
- Quick-release lever
- Heavy but controlled clamping
- For round and fl t material
- To hold when welding
- Knurled handle
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	g
115.1160	0-51	200.0	55,0	260

Automatic gripping pliers

- Flat gripping jaws
- Movable clamping jaws
- Automatic adjustment by cam mechanism
- Quick-release lever
- Heavy but controlled clamping
- For round and fl t material
- For profiled bul y components
- Good adaptation to existing surfaces
- Knurled handle
- Nickel plated
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1165	0-68	55.0	215.0	330
115.1170	0-90	90.0	310.0	860

Special clamping gripping pliers

- For the cutting of plastic pipes
- Enormous time and costs saving
- Suitable for narrow hard to access areas
- Versatile use
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- Black lacquer
- Chrome molybdenum

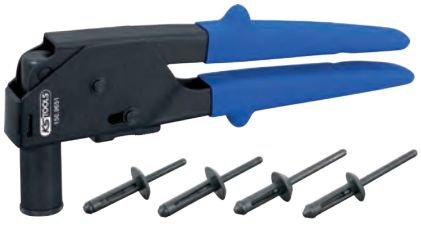
	Size mm	Ø mm	L mm	g
450.0350	1	8 / 9 / 10 / 11 / 12	260.0	775
450.0351	2	7 / 9 / 10 / 12 / 14	265.0	775
450.0352	3	15 / 16 / 18	255.0	636

RIVETING PLIERS

Plastic rivet pliers set included rivets

- Suitable for plastic rivets
- Narrow head pliers
- Can be used in hard to access areas
- 90° angled rivet head
- With rubber grip
- Includes 40 plastic rivets
- Die-cast metal body

Plastic rivets: 5.0x15.8 - 5.0x17.2 - 6.3x25.2 - 6.6x17.2 mm



			g
150.9650	41 pcs	Plastic rivet pliers set included rivets	760

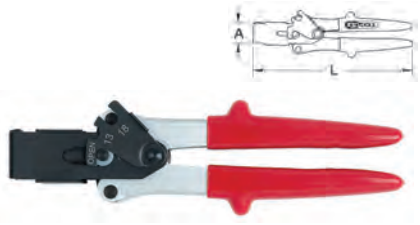
consists of:

		g
150.9651	Plastic rivet pliers	580
150.9652	Replacement rivets Pack of 10, 17,2 x 6,6 mm	20
150.9653	Replacement rivets Pack of 10, 25,2 x 6,3 mm	22
150.9654	Replacement rivets Pack of 10, 17,2 x 5 mm	15
150.9655	Replacement rivets Pack of 10, 15,8 x 5 mm	16

Anchor rivet pliers

- Suitable for anchor rivets
- With PVC dipped handle
- Die-cast metal body

Anchor rivets: 4 - 5 - 6 - 8 mm (5/32" - 3/16" - 15/64" - 5/16")

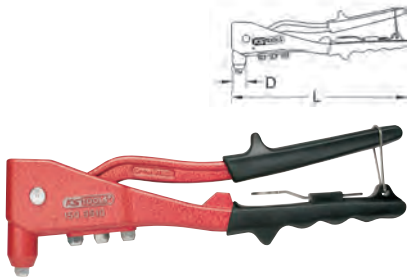


	A mm	L mm	g
150.9580	30.0	230.0	438

Standard hand riveting tool

- Suitable for blind rivets
- Including four interchangeable mouthpieces
- Magazine and key in the riveter body
- Narrow head pliers
- With safety lock on the handle end
- With rubber grip
- Die-cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



	D mm	L mm	g
150.9510	21.0	270.0	920

Standard hand riveting tool set

- Suitable for blind rivets
- Four interchangeable mouthpieces
- Magazine and key in the riveter body
- Includes 200 blind rivets
- With rubber grip
- Die-cast metal body

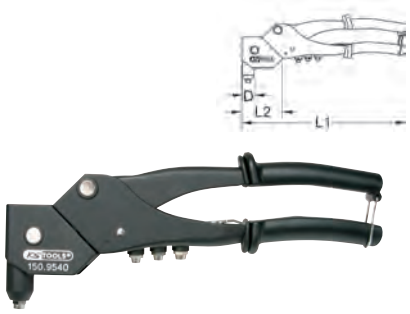
Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm

			kg
150.9520	205 pcs	Standard hand riveting tool set	1.25

Hand rivet tool

- Suitable for blind rivets
- 360° rotating head
- For diffi ult to access areas
- Narrow head pliers
- With safety lock on the handle end
- Including four interchangeable mouthpieces
- Die-cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



	D mm	L1 mm	L2 mm	g
150.9540	21.0	290.0	70.0	751

Universal hand riveting tool set

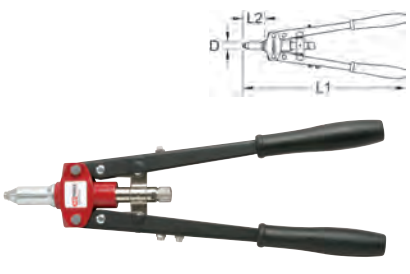
- Suitable for blind rivets and blind rivet nuts
- 360° rotating head
- For diffi ult to access areas
- Four interchangeable mouthpieces and nut rivet pulling inserts
- Die-cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm
Rivet nuts: M3 - M4 - M5 - M6

			kg
150.9610	10 pcs	Universal hand riveting tool set	1.96

Long arm hand riveting tool

- Suitable for blind rivets
- Including four interchangeable mouthpieces
- Extra long lever arms
- High power transmission
- Magazine and key in the riveter body
- With rubber grip
- Die-cast metal bodyBlind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm

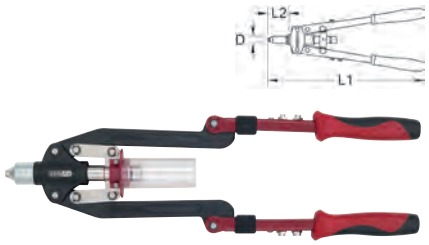


	D mm	L1 mm	L2 mm	kg
150.9530	21.0	410.0	59.0	1.50

Universal riveting tool

- Suitable for blind rivets and blind rivet nuts
- Retractable legs for increased power consumption
- Mouthpiece magazine intergrated in the handle
- With two component handle
- Die cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 - 6,4 mm



	D mm	L1 mm	L2 mm	kg
150.9633	30.0	510.0	45.0	1.60

Universal riveting tool set

- Suitable for blind rivets and blind rivet nuts
- Retractable legs for increased power consumption
- Mouthpiece magazine intergrated in the handle
- With two component handle
- Die-cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 - 6,4 mm
Rivet nuts: M4 - M5 - M6 - M8 - M10

			kg
150.9630	11 pcs	Universal riveting tool set	2.67

accessories:

		g
150.9570	Rivet holders for rivetting tool small and large, 2,4 mm	10
150.9571	Mouthpieces for riveting, 3.2 mm	10
150.9572	Mouthpieces for riveting, 4.0 mm	10
150.9573	Mouthpieces for riveting, 4.8 mm	10
150.9574	Mouthpieces for riveting, 5 mm	10
150.9575	Mouthpieces for riveting, 6.4 mm	10
150.9578	Replacement jaw grips suitable for rivet head, suitable for 150.9610	10
150.9579	Replacement gripping jaws for rivet head, for 150.9630	10
150.9620	Cavity wall fixi g rivet head, for 150.9610	160
150.9613	Rivet nut pulling spindle for small rivet tool, M3, suitable for 150.9610	30
150.9614	Rivet nut pulling spindle for riveting tools, M4	30
150.9615	Rivet nut pulling spindle for riveting tools, M5	30
150.9616	Rivet nut pulling spindle for riveting tools, M6	30
150.9634	Rivet nut pulling spindle for riveting tools, M4	40
150.9635	Rivet nut pulling spindle for riveting tools, M5	40
150.9636	Rivet nut pulling spindle for riveting tools, M6	40
150.9638	Rivet nut pulling spindle for riveting tools, M8	70
150.9640	Rivet nut pulling spindle for riveting tools, M10	70
150.9611	Spare rivet heads, suitable for 150.9610	60
150.9631	Replacement rivet heads for rivet tools, for 150.9630	100
150.9632	Replacement rivet heads for rivet tools, for 150.9630	40

CRIMPING PLIERS

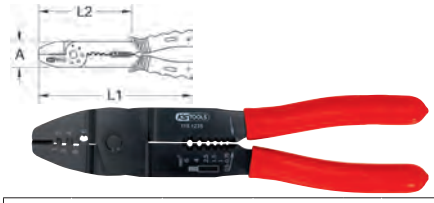
Wire end ferrule pliers

- For cable cutting and wire stripping
- For crimping cable lugs and connectors
- With PVC dipped handle
- Plier body made of fl t steel

	D mm	L mm	g	
115.1236	0,25 - 2,5	155.0	165	
115.1237	0,5 - 16,0	220.0	240	

Crimp pliers for not insulated, opened cable connector

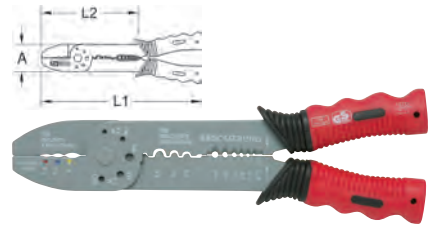
- Ideally suited for converting not insulated contacts
- For stripping of wires from 0.5 - 6.0 mm²
- Cut wires up to 6.0 mm²
- For crimping blade terminals 2.8 / 4.8 / 6.3 mm and other contacts with open crimp sleeve
- Handle dip insulated
- Plier body from special steel
- Material strength 3 mm



	A mm	L1 mm	L2 mm	g	
115.1235	38.0	220.0	120.0	196	

Multifunction pliers for insulated and non insulated cable terminals

- For professional cable cutting and stripping of wires from 0,75 - 6,0 mm²
- For crimping cable lugs and connectors of 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of fl t steel



	A mm	L1 mm	L2 mm	g	
115.1231	40.0	220.0	130.0	230	

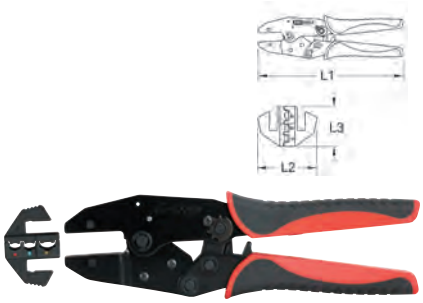
Multifunction crimping pliers set

- For insulated and un-insulated cable terminals
- Includes 270 pcs consumables
- For professional cable cutting and stripping wires from 0,75 - 6,0 mm²
- For crimping cable terminals and connectors from 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of fl t steel
- In durable plastic storage case

			g	
115.1230	271 pcs	Multifunction crimping pliers set	560	

Crimping pliers for non insulated terminals

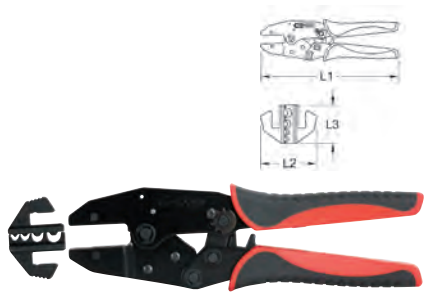
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g	
115.1425	0,5-1,0/1,5-2,5/4,0-6,0	22-18/16-14/12-10	220.0	50.0	34.0	115.1415	491	

Crimping pliers for insulated terminals

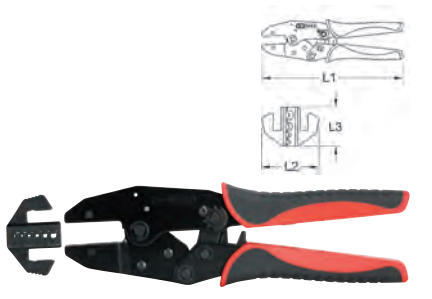
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g	
115.1430	1,5/2,5/6,0/10,0	20-18/16-14/12-10/8	220.0	50.0	34.0	115.1416	487	

Crimping pliers for pin terminals

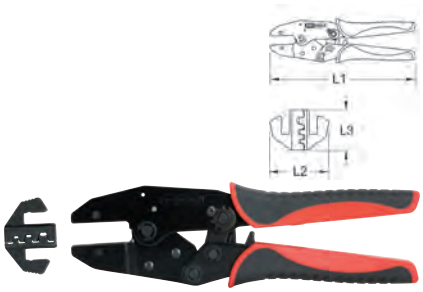
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through Precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g	
115.1440	0,5/0,75/1,0/1,5/2,5/4,0	22/20/18/16-14/12-10	220.0	50.0	34.0	115.1418	499	
115.1450	6,0/10,0/16,0	10/8/6	220.0	50.0	34.0	115.1420	499	

Crimping pliers for spade terminals

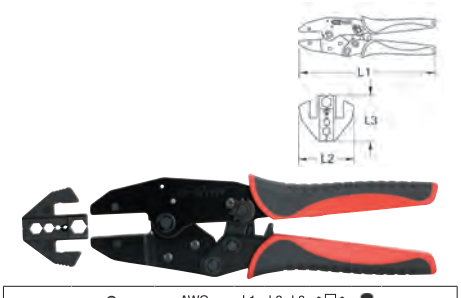
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g	
115.1435	0,5-1,0/1,5-2,5/4,0-6,0	20-18/16-14/12-10	220.0	50.0	34.0	115.1417	499	
115.1455	2,5/0,5/8,0/10,0	14-22/8-6	220.0	50.0	34.0	115.1421	505	

Crimping pliers for coaxial terminals

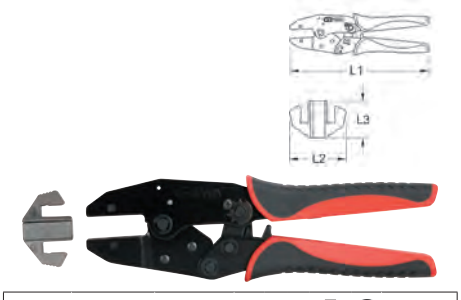
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g	
115.1445	1,72/2,50/5,40/6,48/8,23	RG58/RG59/RG62	220.0	50.0	34.0	115.1419	491	

Crimping pliers for Western terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g	
115.1460	RJ22	22-24	220.0	50.0	34.0	115.1422	500	
115.1465	RJ11/RJ12	22-24	220.0	50.0	34.0	115.1423	505	
115.1470	RJ45	22-24	220.0	50.0	34.0	115.1424	505	

Electricians crimping pliers set

- Ideal configu ation for electricians
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of fl t steel

			g
115.1480	3 pcs	Electricians crimping pliers set	910

1 x		220 mm
1 x		Ø 0,5 - 4,0 mm, H
1 x		Ø 1,5 - 10,0 mm, B

Net working crimping pliers set

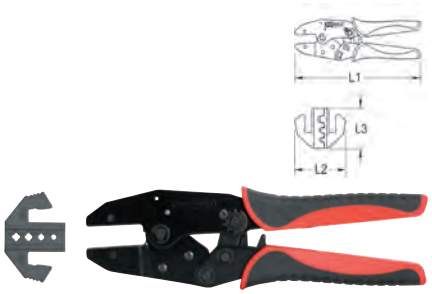
- Ideal configu ation for network cabling
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of fl t steel

			kg
115.1490	5 pcs	Net working crimping pliers set	1.05

1 x		220 mm
1 x		AWG: 22 - 14 - 6 - 8, H
1 x		AWG: 22 - 24, G1
1 x		AWG: 22 - 24, G2
1 x		AWG: 22 - 24, G3

Crimping pliers for Solarlok

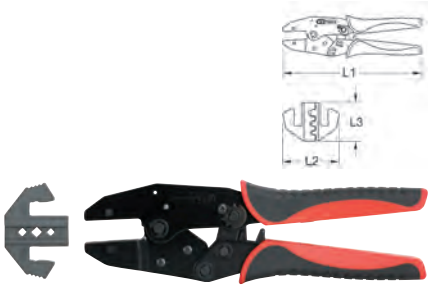
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1520	6,0 / 4,0 / 2,5 / 1,5	10 - 15	220.0	50.0	34.0	115.1412	540

Crimping plier for solar coupler MC 3

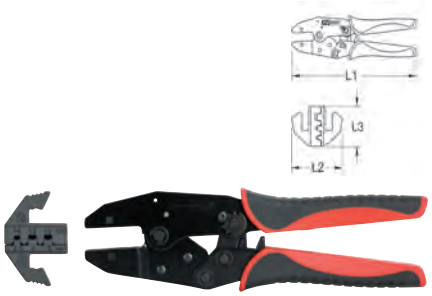
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1521	4,0 / 6,0 / 2,5	12 / 10 / 14	220.0	50.0	34.0	115.1413	545

Crimping pliers for solar coupler MC 4

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1522	2,5 / 4,0 / 6,0	14 / 12 / 10	220.0	50.0	34.0	115.1414	550

Universal crimping tool set with automatic wire stripper

- Extremely robust and reliable crimping plier
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of fl t steel
- Includes self-closing and damage free automatic wire stripper

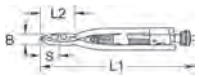
			kg
115.1400	8 pcs	Universal crimping tool set with automatic wire stripper	2.37

1 x		220 mm
1 x		Ø 0,5 - 4,0 mm, H
1 x		Ø 1,5 - 10,0 mm, B
1 x		Ø 0,5 - 6,0 mm, C
1 x		Ø 0,5 - 4,0 mm, D
1 x		RG 58 - RG 71, E
1 x		1,0 - 3,2 mm
1 x		

WIRE PROCESSING PLIERS

Wire twisting pliers

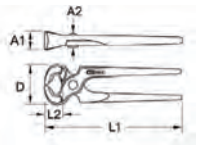
- Anticlockwise
- Serrated execution
- 30° angled jaws
- With additional cutting
- Enables precise, in seconds wire twisting
- Suitable for wire up to 1,0 mm
- Narrow nose for optimal mobility
- Burnished
- Special tool steel



	B mm	L1 mm	L2 mm	S mm	g
116.1301	10.0	215.0	40.0	10,0	230
116.1302	12.0	265.0	60.0	13,0	360

Rabitz pliers

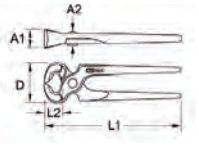
- In accordance to DIN / ISO 9242
- With PVC dipped handle
- Ground heads
- For cutting and twisting tie wire
- Oil-hardened
- Black surface
- Special tool steel



	A1 mm	A2 mm	D mm	L1 mm	L2 mm	g
116.1404	18.0	19.0	26.0	190.0	17.0	350
116.1401	20.0	19.0	29.0	220.0	17.0	400
116.1400	25.0	20.0	36.0	250.0	17.0	400
116.1403	26.0	20.0	37.0	280.0	17.0	500

Heavy pincers

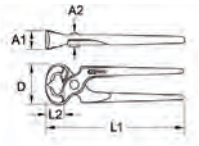
- In accordance to DIN / ISO 9243
- With PVC dipped handle
- Ground heads
- For heavy applications
- Oil-hardened
- Black surface
- Special tool steel



	A1 mm	A2 mm	D mm	L1 mm	L2 mm	g
116.1300	24.0	23.0	52.0	200.0	23.0	410

Self opening rabitz pliers

- In accordance to DIN / ISO 9242
- With PVC dipped handle
- Ground heads
- Self-opening handle with internal spring
- For cutting and twisting tie wire
- Oil-hardened
- Black surface
- Special tool steel

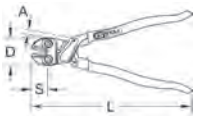


	A1 mm	A2 mm	D mm	L1 mm	L2 mm	g
116.1411	23.0	20.0	30.0	220.0	17.0	400
116.1410	27.0	22.0	36.0	250.0	19.0	400
116.1412	25.0	21.0	35.0	280.0	18.0	400

BOLT CUTTERS

Mini bolt cutter, self-releasing

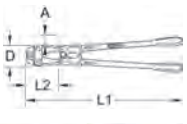
- With pipe handle
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate
- Chrome molybdenum



	L mm	S mm	D mm	A mm	g
118.0015	205.0	14,0	34.0	17.0	260

Bolt cutters

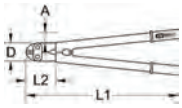
- With pipe handle
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate finis
- Special tool steel



	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	kg
118.0118	20.0	65.0	450.0	115.0	118.0119	1.50
118.0124	22.0	85.0	600.0	136.0	118.0125	2.50
118.0130	27.0	95.0	750.0	155.0	118.0131	4.88
118.0136	35.0	110.0	900.0	170.0	118.0137	6.70
118.0142	40.0	120.0	1050.0	195.0	118.0143	6.70

Bolt cutters

- With forged arms
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate finis
- Special tool steel



	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	kg
118.0218	20.0	65.0	460.0	120.0	118.0119	2.60
118.0224	25.0	82.0	610.0	135.0	118.0125	2.90
118.0230	30.0	95.0	760.0	155.0	118.0131	3.20
118.0236	35.0	110.0	900.0	170.0	118.0137	5.40

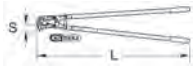
Bolt cutter display

- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate finis
- Special tool steel
- In display stand

			kg
118.0032	37 pcs	Bolt cutter display	96.16
16 x		2 x 450 - 4 x 600 - 4 x 750 - 4 x 900 - 2 x 1050 mm	
16 x		2 x 450 - 4 x 600 - 4 x 750 - 4 x 900 - 2 x 1050 mm	

Reinforcement steel mesh cutter

- Cutting performance up to 40 HRC
- With adjustable cutters
- Low separating force effort
- Limit stop with extra-large buffer area
- Unproblematic gripping of fl t lying construction steels



	S mm	L mm	kg
118.0246	45,0	820.0	2.79

SADDLER PLIERS

Seat clamp plier set

- Straps for attaching bolster clamps to vehicle seats
- For all common bolster clamps
- Includes 100 clamps
- With PVC dipped handle
- Chrome vanadium

			g
118.0160	101 pcs	Seat clamp plier set	310

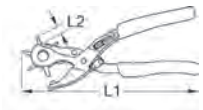
consists of:

		g
118.0161	Clamps, 100 pcs	85
118.0162	Seat clamp plier	180

REVOLVING PUNCH PLIERS

Revolving punch pliers

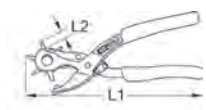
- With an ergonomic, molded handle
- With inspection panel
- Automatic locking device
- Interchangeable hole punches
- Nickel plated
- Chrome vanadium



	L1 mm	L2 mm	g
118.0041	220.0	10.0	325

Revolving punch and eyelet pliers

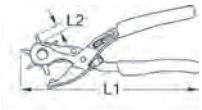
- Ideal for working with eyelets
- With an ergonomic, molded handle
- With inspection panel
- Automatic locking device
- Interchangeable hole punches
- Nickel plated
- Chrome vanadium



	L1 mm	L2 mm	g
118.0042	220.0	10.0	325

Revolving punch pliers, normal hand

- Up to 70% power savings
- With an ergonomic, molded handle
- With inspection panel
- Automatic locking device
- Interchangeable hole punches
- Nickel plated
- Chrome vanadium

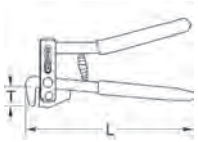


	L1 mm	L2 mm	g
118.0043	250.0	10.0	430

PUNCHED HOLE AND JOGGLER PLIERS

Mini joggler pliers

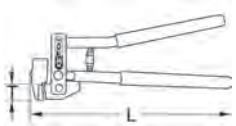
- Self opening
- For the fla ging of sheet metal and body parts
- Up to 1 mm thickness
- Particularly suitable for thin sheet metal edges, curves and arches
- Requires light expenditure of energy
- Hardened fla ging jaws
- Special tool steel



	L mm	T mm	g
118.0056	220.0	13.0	900

Joggler pliers

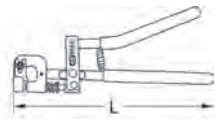
- Self opening
- For the fla ging of sheet metal and body parts
- Up to 1 mm thickness
- Requires light expenditure of energy
- Hardened fla ging jaws
- Special tool steel



	L mm	T mm	kg
118.0058	280.0	13.0	1.00

Joggler pliers

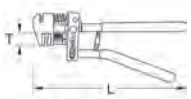
- Self opening
- For punching straight and bent sheet metal
- Up to 1.25 mm thickness
- Radius to 40,0 mm
- Hole diameter 5 mm
- Requires light expenditure of energy
- Special tool steel



	L mm	hole diameter	kg
118.0057	300.0	max. 5 mm	1.00

Punched hole and joggler pliers

- Self opening
- Fast conversion by simply turning the head
- For the fla ging and punching sheet metal and body parts
- Punching up to 1,25 mm thickness
- Hole diameter 5 mm
- Requires light expenditure of energy
- Special tool steel

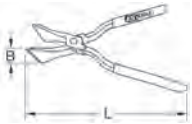


	L mm	T mm	hole diameter	kg
118.0055	285.0	13.0	max. 5 mm	1.23

PLUMBER PLIERS

Seaming pliers

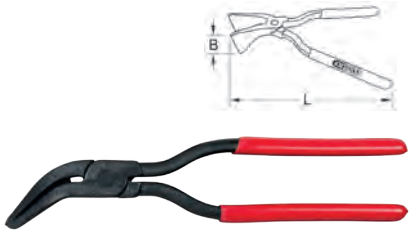
- For folding of sheet metal
- Straight design
- Insulated handle
- Cast iron



	L mm	B mm	g
222.1601	280.0	52.0	660

Seaming pliers

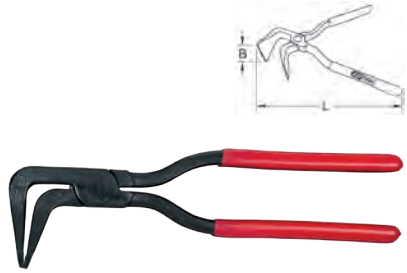
- For folding of sheet metal
- 45° angled jaws
- Insulated handle
- Cast iron



	L mm	B mm	g	
222.1602	260.0	52.0	670	

Seaming pliers

- For folding of sheet metal
- 90° angled jaws
- Insulated handle
- Cast iron

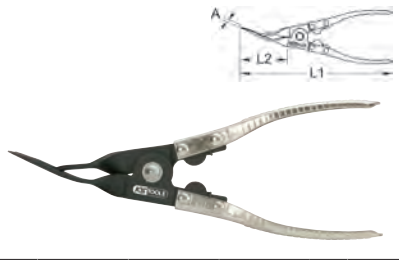


	L mm	B mm	g	
222.1603	260.0	52.0	760	

AUTOMOTIVE CLIP REMOVAL PLIERS

Door panel rivet tool

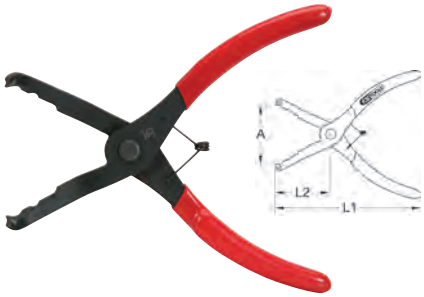
- For the gentle release of clips of all kinds on the entire vehicle
- Through the gentle release of the clips can be reused
- Self-closing
- With spring clip
- Head burnished
- Chromed vanadium



	A mm	L1 mm	L2 mm	g	
115.1051	32,0	240.0	80.0	240	

Trim clip pliers

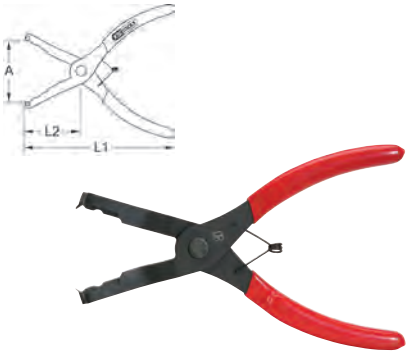
- 35° angled tips
- With various profil s
- For the removal of re-usable plastic rivets and clips
- Self opening
- Chrome vanadium



	A mm	L1 mm	L2 mm	g	
115.1087	0-82	190.0	60.0	180	

Trim clip pliers

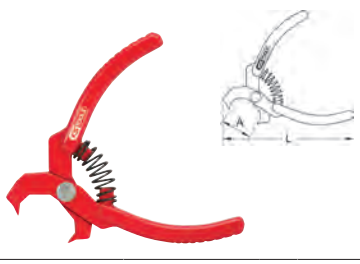
- 80° angled tips
- With various profil s
- For the removal of re-usable plastic rivets and clips
- Self opening
- Chrome vanadium



	A mm	L1 mm	L2 mm	g	
115.1088	0-72	200.0	66.0	190	

Rivet removal pliers, offset

- For the removal of two piece plastic rivets
- Self opening
- Plastic



	A mm	L mm	g	
115.1097	0-28	100.0	20	

Rivet removal tool

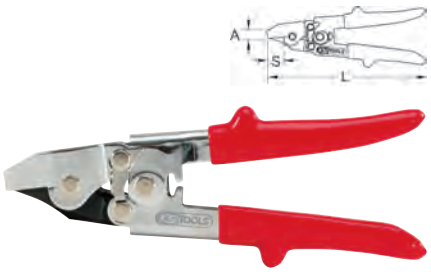
- For the removal of two piece plastic rivets
- Self opening
- Plastic

	A mm	L mm	g	
115.1098	0-20	100.0	20	

CARTRIDGE TIP PLIERS

Cartridge tip pliers

- PVC dipped handle
- Very versitile
- Safety locking device
- Clean V-cut in the cartridge tip
- Cut from solid steel
- Chrome vanadium

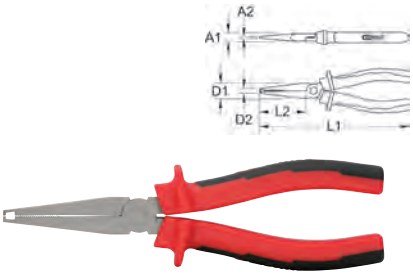


	A mm	L mm	S mm	g	
140.2220	33.0	210.0	20,0	420	

WHEELS & TYRES PLIERS

Wheel nut cap pliers

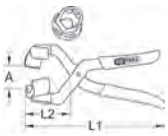
- For the disassembly and assembly of nut caps
- Two component handle
- Easy removal due to the special mouth pliers
- Chrome vanadium

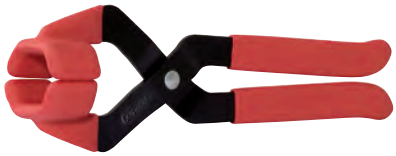


	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
150.2023	0,0-11,5	6.5	20.0	7.0	200.0	64.0	260	

HGV wheel nut cap pliers

- PVC dipped handle
- For removing of wheel nut caps
- No slipping through specially coated jaws
- Ideally suited for commercial vehicles
- Special tool steel

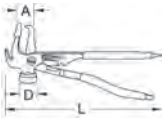


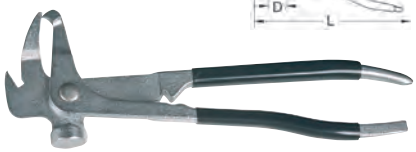


	A mm	L1 mm	L2 mm	g	
150.1995	28-60	250.0	72.0	305	

Wheel balance weight pliers

- Dipped covered handles
- For cutting off the balance weights
- With additional function for opening and closing the spring clips
- Chrome vanadium

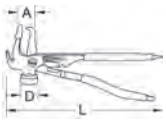


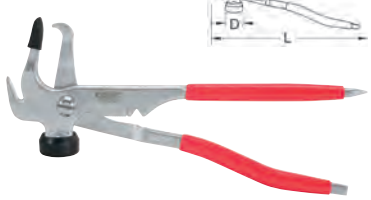


	A mm	D mm	L mm	g	
150.2025	26,0	22.0	250.0	450	

Wheel balance weight pliers, self opening

- Dipped covered handles
- For cutting off the balance weights
- Pliers and Hammer plastic covered
- Suitable for alloy wheels
- With additional function for opening and closing the spring clips
- Chrome vanadium





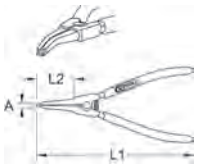
	A mm	D mm	L mm	g	
150.2024	32,0	28.0	250.0	380	

CHASSIS & BRAKE PLIERS

Drive shaft removal pliers

- 30° angled
- With PVC dipped handle
- Self-closing
- Plier head with cut out and ring stop body
- For the disassembly and assembly of nut caps without lug retainer
- Chrome vanadium

Application range: For the dismantling of the external (bellow joints in the exchange of the axle boots and / or the drive shaft sleeves). e.g.: for Audi, Opel, VW (Golf, T4), Fiat, Mitsubishi.

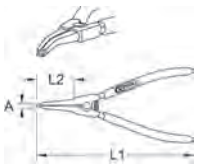


	A mm	L1 mm	L2 mm	g	
115.0991	0-33	210.0	50.0	215	

Drive shaft removal pliers

- Slightly angled
- With PVC dipped handle
- Self-closing
- Checkered plier head
- For the disassembly and assembly of drive shaft circlips without lug retainer
- Slip proof
- Chrome vanadium

Application range: For the removal of external circlips e.g. on synchronisation joints

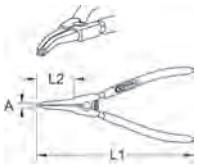


	A mm	L1 mm	L2 mm	g	
115.0992	0-37	210.0	50.0	220	

Drive shaft removal pliers

- Straight form
- With PVC dipped handle
- Self-closing
- Checkered plier head
- For the disassembly and assembly of drive shaft circlips without lug retainer
- Slip proof
- Chrome vanadium

Application range: For the removal of external circlips e.g. on drive shafts, transmissions, etc



	A mm	L1 mm	L2 mm	g	
115.0993	0-37	210.0	48.0	220	

Lockring pliers, serrated

- With PVC dipped handle
- Serrated and angular tip
- With self closing mechanism
- For the dismantling and assembly lockring
- For external security rings
- No sliping due to the serrated tips
- Chrome molybdenum

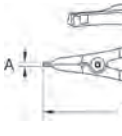
Ideally suited for the dismantling and assembly of lockring on drive shafts on for example VW, MB and Opel.

	A mm	L mm	g	
115.1048	0-20	210.0	220	

Lockring pliers, fully formed tips

- With PVC dipped handle
- Fully formed tips
- With self closing mechanism
- For the dismantling and assembly lockring
- For external security rings
- No sliping due to the serrated tips
- Chrome molybdenum

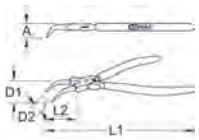
Ideally suited for the dismantling and assembly of lockring on drive shafts on for example VW, MB, Opel, BMW and Ford.



	A mm	L mm	g	
115.1049	0-20	240.0	600	

Wheel bearing circlip pliers, angled

- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- 45° angled version
- Self closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium

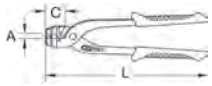


	mm	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1038	19,0 - 60,0	22.0	23.0	2.3	240.0	32.0	250
500.1039	19,0 - 60,0	22.0	23.0	3.0	300.0	46.0	490

BRAKE PLIERS

Brake pipe bending pliers, 2 in 1

- For 4,75 and 6,00 mm brake pipes
- With plastic handle
- Ideally suitable for bending pipes directly
- Suitable for copper, steel, and plastic coated brake pipes
- Burnished
- Special tool steel



	A mm	L mm	C mm	g
120.2000	0-27,5	240.0	37.0	400

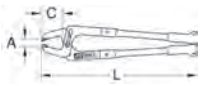
Car brake spring pliers

- For attaching and dismantaling the brake shoes retaining spring
- For glued and riveted brake shoes
- Special surround
- Chrome vanadium

	A mm	L mm	g
150.2211	130.0	325.0	335

Grease cap pliers

- Hard rubber handle
- For the damage free drawing off of grease caps
- 2x6 moveable adjustable steps
- Wedge shaped jaw profil
- Head burnished
- Special tool steel



	A mm	C mm	L mm	kg
450.0210	0-100	85.0	500.0	1.20

Brake spring pliers

- For the disassembly and assembly of hand brake cables
- Allows a safe working environment
- Chrome vanadium

Application range: VW, Audi, BMW, Citröen, Nissan, Peugeot, Renault, Rover, Seat etc.

	L mm	g
150.2118	225.0	175

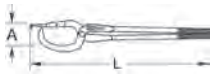
Car brake spring pliers

- For attaching and dismantaling the brake shoes retaining spring
- For glued and riveted brake shoes
- Special surround
- Chrome vanadium

	A mm	L mm	g
150.2116	130	220.0	340

HGV brake spring pliers

- For attaching and dismantaling the brake shoes retaining spring
- For glued and riveted brake shoes
- Special surround
- Interchangeable tip
- Knurled handle
- Chrome vanadium



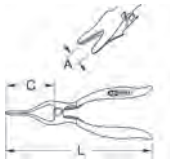
	A mm	L mm	Replacement tip	kg
450.0320	205.0	500.0	450.0321	1.25

OIL & FUEL SERVICE PLIERS

Special hose pliers

- With PVC dipped handle
- Extra fl t jaws to the end
- For dismantling and assembly
- For removing of hose connections from hose tails
- Special tool steel

Ideally suited in e.g. fuel vacuum hoses, low pressure systems and water hoses.

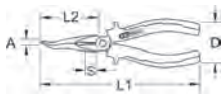


	A mm	L mm	C mm	g
115.1044	0-30	195.0	70.0	190

Fuel pipe pliers

- Two component handle
- Cranked execution
- Integrated cutting edge
- For loosening and tightening on fuel lines that are diffi ult to reach
- No damage of the overfl w pipe
- Matt chrome
- Chrome vanadium

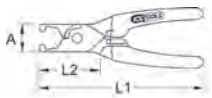
Ideally usably in security ring at fuel directions and change valve on BMW motorcycles with 2 valve technology Suitable e.g. for VW/Audi, Mercedes Benz, Ford, Opel, Peugeot, Volvo, Daihatsu, Mazda and Toyota.



	A mm	L1 mm	L2 mm	S mm	g
115.1067	0-75	200.0	75.0	15,0	220

Fuel connection pliers

- PVC dipped handle
- For unbolting of fuel pipe siezed connections
- Suitable for service and maintenance works
- Special tool steel



	A mm	L1 mm	L2 mm	g
115.1094	0-30	160.0	50.0	220

Fuel pipe pliers, offset

- PVC dipped handle
- 90° angled head
- For the correct unbolting of the siezed connections with rest tongues
- Suitable for service and maintenance works on the fuel tank
- For diffi ult to access areas
- Painted black
- Aluminium

	A mm	L1 mm	L2 mm	g	
115.1099	0-24	220.0	39.0	280	

Fuel pipe connection pliers

- For opening and closing the coupling on fuel pipe connections
- Is required for fuel fil er changes and/or engine repairs
- With two component handle
- Chrome vanadium

Application range: Volkswagen Audi, Fiat, GM, Opel, Mercedes (e.g. M class petrol engine) etc.

	L mm	g	
115.0900	230.0	310	

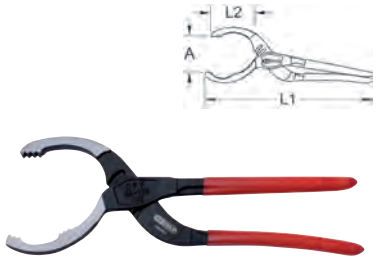
Fuel connection pliers

- PVC dipped handle
- For opening the coupling on fuel pipe connections
- Blue and green: for compression couplings connected fuel pipe
- Red: with 2 noses 6,5 mm x 6,0 mm for GM and Opel fuel pipe
- Special tool steel

	A mm	L2 mm	L1 mm	g	
115.1091	20,0	35.0	120.0	80	
115.1092	22,0	35.0	120.0	80	
115.1093	22,0	35.0	120.0	80	

Oil fil er pliers

- With PVC dipped handle
- 5-stage industrial adjustment
- Universal usage
- Special tool steel
- Safety stop on the external diameter
- Special tool steel

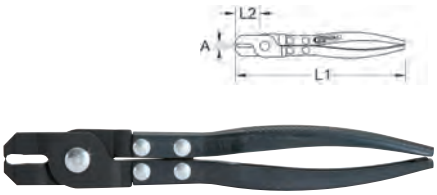


	A mm	L1 mm	L2 mm	g	
150.9317	50-125	290.0	110.0	500	

HOSE CLAMP PLIERS

Hose clamp pliers, ear type

- Knurled handle
- To the dismantling and assembly of "ear type" hose clamp
- For connections on axle boots, coolers and fuel hoses
- Universal usage
- Chrome molybdenum



	A mm	L1 mm	L2 mm	g	
115.1039	0-60	230.0	25.0	320	

Hose clamp pliers, ear type

- With PVC dipped handle
- For the fi ting of ear clamps
- No sticking up of the ears during the press process
- Uniform compressing of the ear piece
- No damage to the sleeve
- Nickel-plated finis
- Chrome molybdenum

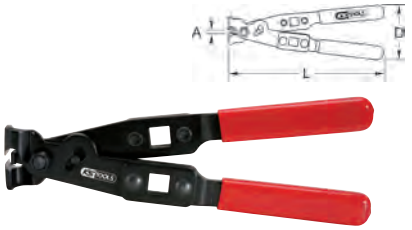
Application range: Axle boots, coolant and fuel hoses for Volkswagen, Audi, Opel, BMW, Mercedes, Honda, Nissan and Mazda

	A mm	L mm	g	
115.1050	0-22	260.0	380	

Hose clamp pliers

- With PVC dipped handle
- With 3/8" drive for use with a torque wrench
- For the fi ting and clamping of ear clamps
- 1/2" 4-point recess in the handle for use with torque wrench
- Chrome molybdenum

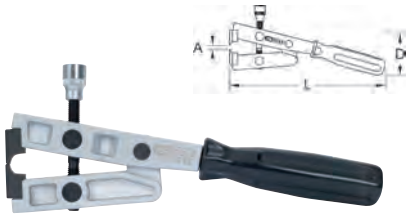
Application range: Volkswagen, Opel, Seat, GM, Ford, Nissan, Mercedes, Mazda, Honda, Chrysler, BMW and Audi



	A mm	L mm	g	
115.1053	0-17	240.0	540	

Hose clamp pliers for torque wrench

- Black plastic handle
- 3/8" drive for use with a torque wrench
- Enables clamping and/or copressing of the hose clamps
- Suitable for the stainless steel hose clamps on drive shafts
- Robust cast steel construction

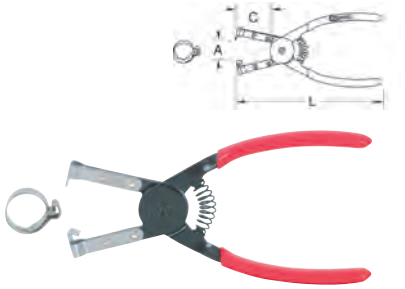


	A mm	L mm	g	
115.1056	0-45	270.0	880	

HOSE CLAMP PLIERS

Click hose clamp pliers

- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with fl t 3 pinch ends
- With PVC dipped handle
- Self-opening
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1040	0-25	40.0	160.0	120	

Hose clamp pliers with bowden cable

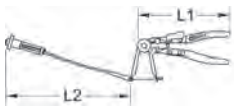
- PVC dipped handle
- For spring pipe clamps
- 650 mm bowden cable
- Includes locking mechanism
- Internal spring
- For diffi ult to reach clamps
- Chrome molybdenum

	Ø mm	L1 mm	L2 mm		g
115.1041	0 - 60	200.0	650.0	115.1041-1	470

Spring band clamp pliers with gooseneck

- For actuation of self tensioning spring band clamps
- For cooling and heating systems
- Semi rigid, plastic coated gooseneck
- Convenient one handed operation in deep regions
- Fixing of the clamp by micro teeth
- Ideal for confined spa es
- Working head with raised grippers and wide opening
- Working head with slide guide and retraction spring
- With two component handle
- Chrome molybdenum

Application area: NORMA FBS, MUB FBS-STD, FBS-RSV, etc.



	Ø mm	L1 mm	L2 mm		g
115.1190	18-54	220.0	660.0	115.1190-1	620

Hose clamp pliers type MU3

- For secure and correct dismantling and assembly of clamps
- Suitable for fl t fi ting and eccentric clamps
- With 600 mm bowden cable
- Adjustable length bowden cable
- Includes locking mechanism and ratchet function
- For diffi ult to reach clamps
- For new type and hard to access steel band clamps
- Special tool steelSuitable for VAG 2,0 TDI / MC:BKD, Volkswagen Passat from 2005,Touran, Golf V, Skoda Octavia, Audi A3.

	Ø mm	L1 mm	L2 mm		g
115.1064	0 - 50	240.0	600.0	115.1066	540

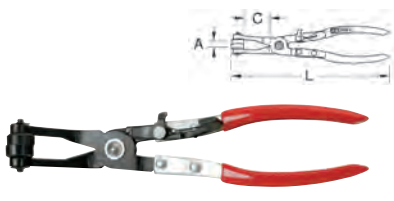
Hose clamp pliers with double bowden cable

- PVC dipped handle
- For spring pipe clamps
- 600 mm bowden cable
- Adjustable length bowden cable
- Includes locking mechanism
- For diffi ult to reach clamps
- Special tool steel

	Ø mm	L1 mm	L2 mm		g
115.1065	0 - 70	270.0	600.0	115.1065-1	540

Hose clamp pliers, angled

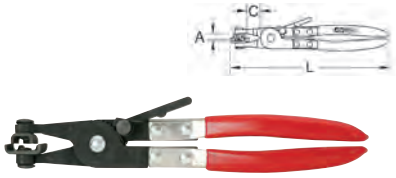
- 45° angled head
- With variable jaws
- For diffi ult to reach clamps
- Includes locking mechanism
- With PVC dipped handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1042	0-65	55.0	220.0	210

Universal hose clamp pliers

- Universal crown profil
- For diffi ult to reach clamps
- With PVC dipped handle
- Includes locking mechanism
- Versitile usage
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1043	0-48,5	40.0	220.0	240

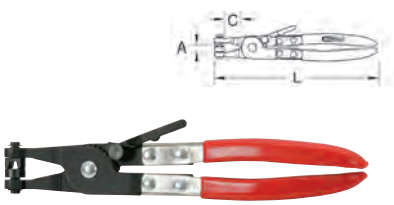
Click hose clamp pliers, forged

- Suitable for the correct assembly and disassembly of Click, Click-R and Cobra clamps
- Also suitable for self-tensioning hose clamps with fl t 3 pinch ends
- Re-usable V2A-clamps
- With PVC dipped handle
- With self-opening mechanism
- Chrome molybdenum

	A mm	C mm	L mm	g
115.1045	0-38	25.0	180.0	215

Hose clamp pliers

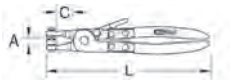
- PVC dipped handle
- For spring pipe clamps
- Includes locking mechanism and ratchet function
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1046	0-45	37.0	220.0	230

Hose clamp pliers

- PVC dipped handle
- For spring pipe clamps
- Includes locking mechanism and ratchet function
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1047	0-45	37.0	220.0	230	

Hose clamp pliers

- Work side
- For compressing locking hose clips
- With PVC dipped handle
- Chrome vanadium

	L mm	g	
115.1185	240.0	335	

Hose clamp pliers with prism reception

- For self-tensioning hose clamps with flat 3- erminal ends
- In particular for fuel lines, cooling and washing water hoses
- Prism reception
- Self opening
- Surface nickel-plated
- Special steelApplication range: VW, Audi, Mercedes Benz, Toyota etc.

	Clamping range mm	L mm	g	
115.1187	8-18	195.0	170	

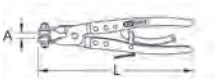
Hose clamp pliers with swivel prism reception

- For self-tensioning hose clamps with flat 3- erminal ends
- In particular for fuel lines, cooling and washing water hoses
- Swivel prism reception
- Self opening
- Surface nickel-plated
- Special steelApplication range: VW, Audi, Mercedes Benz, Toyota etc.

	Clamping range mm	L mm	g	
115.1188	8-18	210.0	200.0	

Hose clamp pliers type MU1

- For secure and correct dismantling and assembly of clamps
- Suitable for flat fitting and eccen ic clamps
- Includes locking mechanism and ratchet function
- For difficult o reach clamps
- For new type and hard to access steel band clamps
- Special tool steelSuitable for VAG



	A mm	L mm	g	
115.1062	0-30	235.0	390	

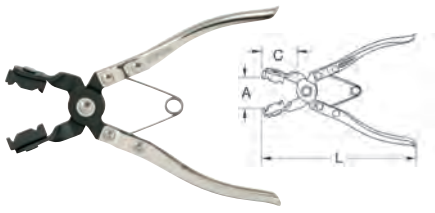
Hose clamp pliers type MU2

- For secure and correct dismantling and assembly of clamps
- Suitable for flat fitting and eccen ic clamps
- Includes locking mechanism and ratchet function
- For difficult o reach clamps
- For new type and hard to access steel band clamps
- Special tool steelSuitable for VAG 2,0 TDI / MC: BKD, VW Passat from 2005, Touran, Golf V, Skoda Oktavia, Audi A3 etc.

	A mm	L mm	g	
115.1063	0-40	295.0	470	

Hose clamp pliers

- Variable jaws
- 45° angled head
- For opening and closing of click and click R hose clamps
- Especially suitable for narrow hard to access areas
- Chrome molybdenum



	A mm	C mm	L mm	g	
115.1057	0-30	45.0	200.0	180	

Hose clamp gripping plier

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- Quick release lever
- Easy locking action
- For round and flat ma erial
- Nickel plated
- Chrome vanadium

	Clamping range mm	L mm	g	
115.1126	18-36	175.0	231	
115.1127	18-54	230.0	420	

HOSE CLAMP PLIER SETS

Hose clamp gripping plier set

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- Quick release lever
- Easy locking action
- For round and flat ma erial
- Nickel plated
- Chrome vanadium

			g	
115.1125	2 pcs	175 - 230 mm	653	

Automotive hose clamp plier set

- Handle dip insulated
- Ideal for clamps low down in the engine
- Includes locking mechanism
- For self tensioning spring pipe clamps with 3 point mounting
- Self opening
- For opening and closing re/useable clic hose clamps, type Clic + Clic-R
- For difficult o reach clamps
- Special tool steel

Application area: For connecting and removing fuel, immersed ventilation, coolant, washer water and vacuum hoses, etc.

Application range: VW, Audi, Mercedes Benz, Toyota etc.

			kg	
115.1104	4 pcs	Automotive hose clamp plier set	1.12	

consists of:

		g	
115.1045	Click hose clamp plier, forged, 180mm	240	
115.1042	Hose clamp plier, angled, 220mm	210	
115.1187	Hose clamp plier with prism reception, 8-18mm	170	
115.1065	Hose clamp plier with double bowden cable, 600mm	550	

Automotive hose clamp plier set

- PVC dipped handle
- For opening and closing of cobra hose clamps
- Swivel pressed jaws
- Includes locking mechanism and ratchet function
- Self opening mechanism
- For the dismantling and assembly of hose clamps
- Includes bowden cable
- Chrome molybdenum

			kg
115.1055	7 pcs	Automotive hose clamp plier set	4.00

consists of:

		g
115.1041	Hose clamp plier with bowden cable, 650 mm	470
115.1042	Hose clamp plier, angled, 220mm	210
115.1043	Hose clamp plier, lockable, with swivel jaw (crown profile	240
115.1044	Tube loosening plier	190
115.1045	Click hose clamp plier, forged, 180mm	240
115.1046	Hose clamp plier standard execution, lock-able, straight	230
115.1047	Hose clamp plier standard execution, lock-able, straight	230

HOSE STRP CUTTER PLIERS

Hose strap cutter, angled

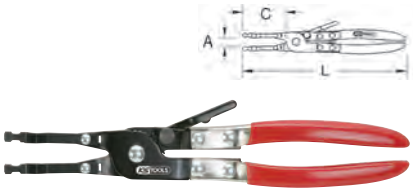
- To be sliced from earless hose clamps
- For connections on axle boots, coolers and fuel hoses
- Dipped covered handle
- Chrome vanadium

	L mm	g
115.1186	220.0	345

SOLDERING WIRE HOLDING FORCEPS

Soldering wire pliers

- With PVC dipped handle
- For the safe fixing of b aded wire
- With self opening internal spring
- Includes locking mechanism
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1052	78,0	65.0	245.0	260

INCANDESCENT BULB PLIERS

Incandescent bulbs plier

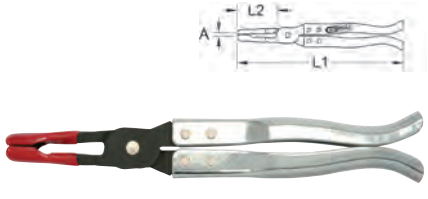
- With protecting foam material
- For the removal and replacement of incandescent bulbs
- With internal spring
- Plier jaws with foam protection material
- Suited for glass socket lamps of 4,0 mm until 6,0 mm
- Special plastic

	A mm	C mm	L mm	g
115.1054	0-32	45.0	160.0	70

VALVE AND PISTON PLIERS

Valve shaft removal pliers

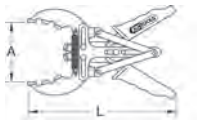
- Slim execution
- Plastic coated jaws
- Knurled handle
- With self opening mechanism
- Quick and easy removal of valves from the valve shaft
- For the extension of the valve spring lever
- Ideally suitable for engines with 4 valve technology
- Nickel plated execution
- Special tool steel



	A mm	L1 mm	L2 mm	g
115.1061	0-125	275,0	100.0	380

Piston ring pliers

- PVC dipped handle
- For the safe disassembly and assembly of piston rings
- Nickel plated surface
- Special tool steel



	Ø mm	A mm	L mm	g
150.1175	50-100	0-100	210.0	305
150.1176	80-120	0-120	220.0	340
150.1177	110-160	0-160	280.0	445

Piston ring pliers

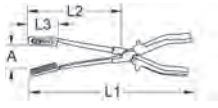
- For the removal and replacement of piston rings
- Suitable for most cars and vans
- Plastic coated handle
- Self closing pliers
- Special steel

	L mm	g
150.1179	221.0	210

IGNITION COILS AND GLOW PLUG PLIERS

Spark plug pliers

- Long, angular gripper sleeves
- Gripping sleeves with milled inner profil
- Long plier arms
- Wide safety margin to the hot assembly
- For extracting low lying spark plugs
- With two component handle
- Chrome vanadium

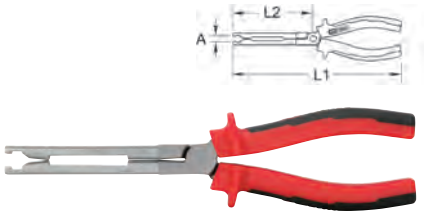


	A mm	L1 mm	L2 mm	L3 mm	g
500.7510	0-80	290.0	145.0	50.0	280

Glow plug pliers

- With two component handle
- Specially milled pliers profile or positive holding
- Suitable for very firm y seated glow plugs
- For the expert installation and removal of glow plugs
- For diffi ult to access areas
- Special tool steel

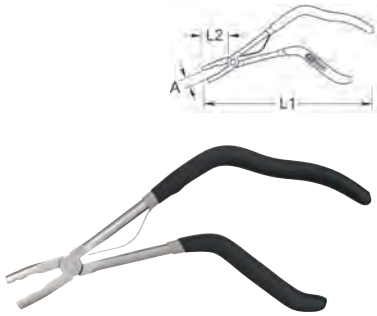
Ideally suitable for glow plugs in the newer diesel engine generation e.g. Mercedes, BMW, Volkswagen and Audi.



	A mm	L1 mm	L2 mm	g
500.7330	0-125	265.0	95.0	400

Glow plug dismantling pliers

- With rubber dipped handle
- Serrated jaws
- Length wise mounted handle arranged at the plier jaw
- With self opening mechanism
- In order to pull out the glow plugs from the glow plug canal in the cylinder head
- Range also possible to extract incompleted glow plugs
- Optimum power transmission with rotary and train movements
- Special tool steel

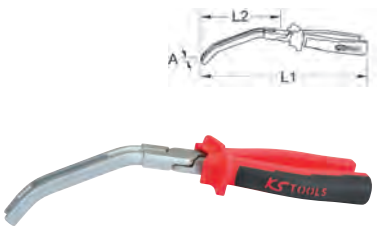


	A mm	L1 mm	L2 mm	g
500.7335	0-35	260.0	40.0	280

Glow plug pliers, angled

- With two component handle
- Angled head
- Specially milled plier profile or positive holding
- Suitable for very firm y seated glow plugs
- For the expert installation and removal of glow plugs
- For diffi ult to access areas
- Special tool steel

Ideally suitable for glow plugs in the newer diesel engine generation e.g. Mercedes, BMW, Volkswagen and Audi.

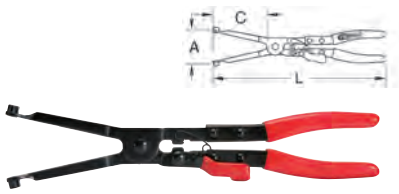


	A mm	L1 mm	L2 mm	g
500.7310	0-105	235.0	120.0	400

EXHAUST PLIERS

Exhaust clamp pliers PSA

- With PVC dipped handle
- Includes locking mechanism
- With self opening mechanism
- For the dismantling and assembly of exhaust clamps
- Plier points-guide sleeve prevents slippage
- No tension loss when holding
- Chrome molybdenum



	A mm	C mm	L mm	g
150.1535	0-55	95.0	310.0	430

Exhaust rubber unhooking tool

- For removal of rubber exhaust holders
- A 25° angle
- For all common vehicle types
- Plastic coated handle
- Chrome vanadium

	L mm	g
150.1245	280.0	345

CIRCUIT STOPPER PLIERS

ALLinONE Hose clamp pliers set

- Simple sealing of pipe lines, 4.75 mm (3/16“) to 14.0 mm (9/16“)
- Rotary magazine with 4 slots for the corresponding pipe size
- Ideal for maintenance work with gasoline, oil, water and antifreeze
- Protects against ingress of moisture and dirt
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Special plastic

		Ø mm	A mm	L mm	g
122.1295	2 pcs	4,75-14	38.0	120.0	149

consists of:

		g
122.1296	ALLinONE Fluidstopper Ø 4,75 - 14 mm	60
122.1297	Replaceable plastic plugs for 122.1296 pipe stopper pliers	50

Hose clamp pliers set

- For simple clamping of fl xible for hoses from 15.9 mm (5/8") up to 60.0 mm (2.3/8")
- For stopping the fl w
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Ideal for maintenance work with gasoline, oil, water and antifreeze
- Protects against leakage of fuel, oil, water and antifreeze
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 ° C
- Plastic

			g
115.5050	3 pcs	Hose clamp pliers set	370

consists of:

		g
115.5052	Clamping pliers 150 mm for hoses up to Ø 15 mm	80
115.5053	Clamping pliers 180 mm for hoses up to Ø 30 mm	130
115.5054	Clamping pliers 250 mm for hoses up to Ø 60 mm	160

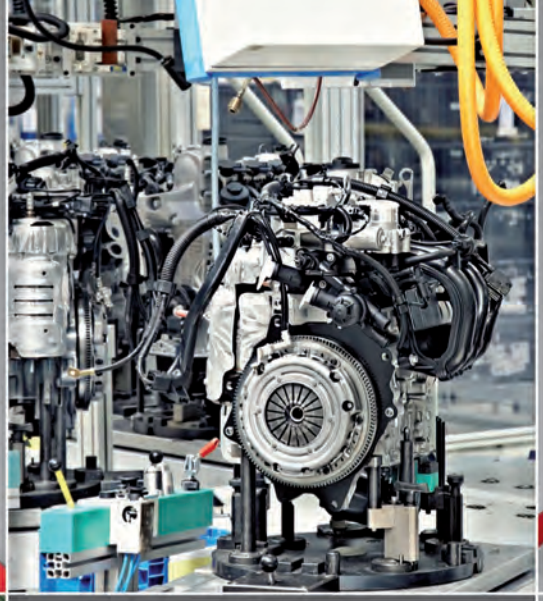
Hose clamp pliers set 90° angled

- For simple clamping of fl xible for hoses from 15.9 mm (5/8") up to 60.0 mm (2.3/8")
- Angled design for use in confined spa es
- For stopping the fl w
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Ideal for maintenance work with gasoline, oil, water and antifreeze
- Protects against leakage of fuel, oil, water and antifreeze
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 ° C
- Plastic

			g
115.5055	3 pcs	Hose clamp pliers set 90° angled	370

consists of:

		g
115.5057	Hose clamp gripper 90°, Ø 15mm	55
115.5058	Hose clamp gripper 90°, Ø 23mm	95
115.5059	Hose clamp gripper 90°, Ø 35mm	130



KS TOOLS®

Innovation is our mission!

PLIERS

CLASSIC

ERGOTORQUE®

ULTIMATE PLUS

GRIPfixXtreme

PRECISION TOOLS

KS TOOLS®

Innovation is our mission!

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PRECISION

For the protection of electrostatically endangered construction elements and in order to avoid disturbances in circuits.
These handle have as the required and relevant standards and rules (e.g., IEC TR 61340-5, DIN EN 61340-5, SP Method 2472) for slow and controlled discharging of electrical loads.

CAUTION:
ESD tools should not be used on live working i.e. the power source must be disconnected. Damages are not to be expelled by an electrical impact!

ESD standard IEC61340-5-1

Capacity :	Defini ion according to DIN EN 61340-5-1
Slightly rechargeable:	Minimisation of the load generation
Against screen properties electrostatic unloading: (protection)	Barrier or exposure which limits the current passage and the energy of an electrostatic unloading is dampend that the maximum energy of a human body model discharge from 1000 V does not exceed 50nJ.
Electrostatic conductivity:	1 x 102 Ω ≤ Ro < 1 x 105 Ω
Electrostatic sliding:	1 x 105 Ω ≤ Ro < 1 x 1011 Ω
Insulation:	Ro ≥ 1 x 1011 Ω

Applications:

ESD - electrical working (electrostatic discharge)

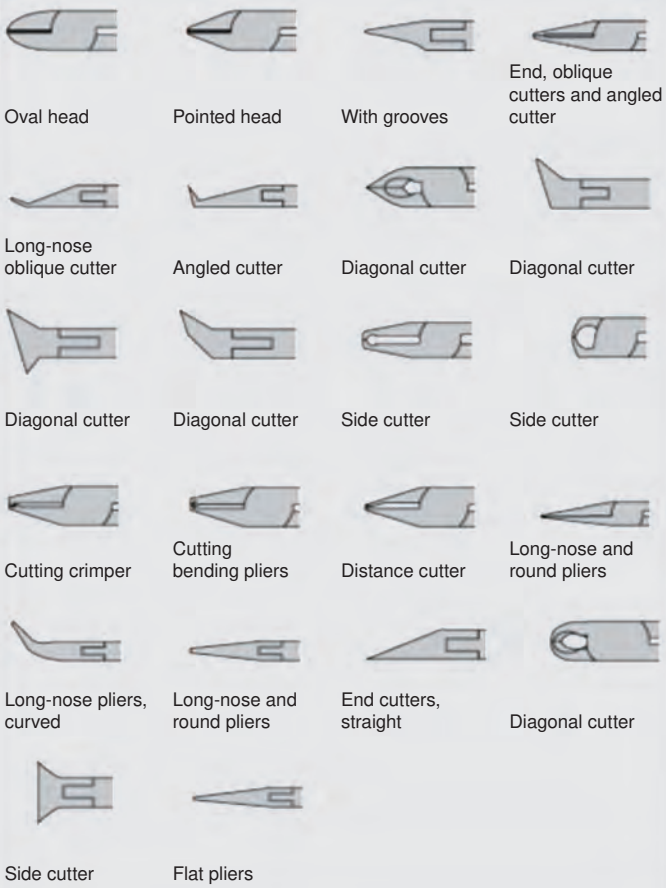
Pliers

- 2 Component handle with ergonomic design
- Hot forged and tempered
- Head with anti glare surface
- Precise machines, oil hardened and tempered
- Cutting edges inductively hardened
- Accurately worked joint for even opening with very little friction
- Self opening due to a double spring
- Perfect torque transmission
- High cutting performance
- Ideal for delicate applications inelectronics, precision mechanics as well as model construction area

Optimum power transmission and perfect operation due to the ergonomic handle design

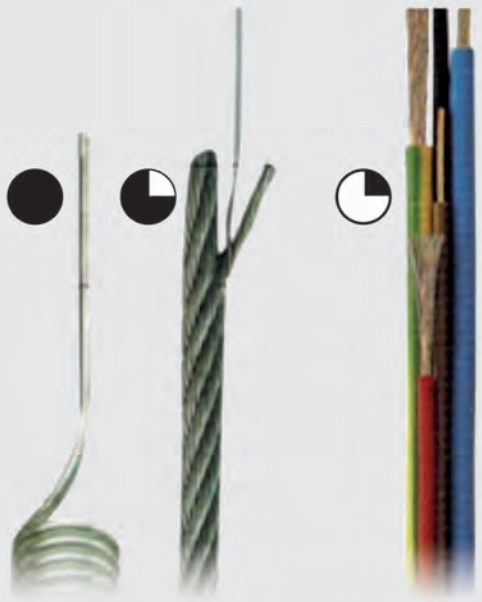
ESD protection - suitable for ESD workplace

Pliers profil



Wire classes

Material examples	Copper, plastic	Wire cable fib e, steel wire	Spring steel wire
Wire type	Flexible	Hard	Piano wire
Tensile strength			
N/mm²	220	1800	2300
kp/mm²	22	180	230



MAGNETIC LIFTER

2 in 1 Telescopic magnetic holder

- Load capacity to 0.5 kg
- Extendable telescopic function
- Cleaning needle
- Clip for the breast pocket
- Ideal for adjusting wiper nozzles
- Aluminium

	Head Ø mm	L mm	g	
550.1001	8.0	150,0 - 675,0	25	

Telescopic magnetic lifter

- Magnet power raised 35% due to energy safety cap
- Stainless steel

	Head Ø mm	L mm	g	
550.1004	13.0	178,0-675,0	70	

Telescopic magnetic lifter

- Load capacity to 1.5 kg
- Extendable telescopic function
- Magnet power raised 35% due to energy safety cap
- Stainless steel

	Head Ø mm	L mm	g	
550.1002	18.0	178,0-675,0	80	

Telescopic magnetic lifter

- Load capacity to 2 kg
- With an extendable telescopic function
- Clip for the breast pocket
- Special steel

	Head Ø mm	L mm	g	
550.1000	13.0	130,0-630,0	30	

Telescopic magnetic lifter

- Load capacity to 5 kg
- With rotary head
- With an extendable telescopic function
- Magnet power raised 35% due to energy safety cap
- Stainless steel

	Head Ø mm	L mm	g	
550.1003	18.0	200,0-700,0	90	

Flexible magnetic holder

- 200 g capacity
- Flexible shaft
- 4 mm with a very thin magnetic seat
- One component handle

	L mm	g	
550.1032	400.0	20	

Flexible magnet lifter

- Load capacity to 1 kg
- Flexible shaft
- Two component handle
- Special steel

	Head Ø mm	L mm	g	
550.1025	15.0	510.0	185	

Flexible magnet lifter

- Load capacity to 2 kg
- Detachable inner cover
- Magnet power raised 35% due to energy safety cap
- Special steel

	Head Ø mm	L mm	g	
550.1010	10.0	585.0	130	

Flexible magnet lifter

- Load capacity to 2 kg
- Flexible shaft
- Two component handle
- Special steel

	Head Ø mm	L mm	g	
550.1026	17.0	510.0	200	

Telescopic magnetic lifter

- Load capacity to 2.5 kg
- With fl xible magnetic head
- With an extendable telescopic function
- Includes cleaning needle for washer jet nozzles
- Clip for the breast pocket
- Aluminium

	Head Ø mm	L mm	g	
550.1023	11.0	150,0 - 590,0	60	

Flexible magnet lifter

- Load capacity to 3 kg
- Flexible shaft
- Two component handle
- Special steel

	Head Ø mm	L mm	g	
550.1027	19.0	510.0	200	

Flexible pick up tool

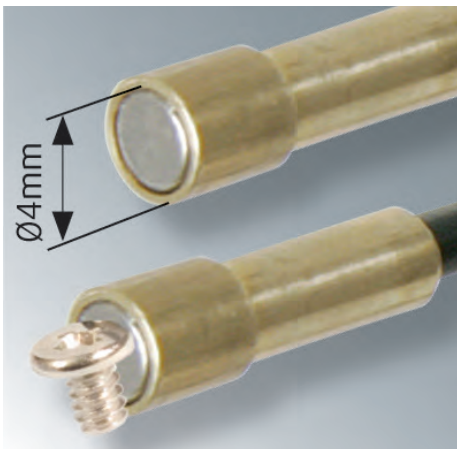
- Flexible
- Circular diameter max. 20.0 mm
- Stainless steel

	Ø mm	L mm	g	
550.1301	20	600.0	150	

Magnet lifting and claw type gripper set

- Ideally suited for picking up screws and small parts
- Load capacity to 200 g
- Flexible shaft
- 4 mm with a very thin magnetic seat
- Pick-up tool with max. diameter of 20.0 mm
- Magnet holder with one component handle
- Stainless steel pick-up tool

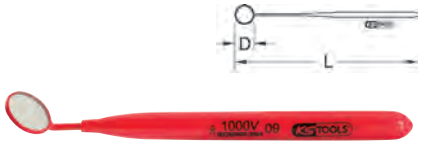
			g	
550.1050	2 pcs	Magnet lifting and claw type gripper set	182	



INSPECTION MIRRORS

Insulated inspection mirror

- Insulated handle to IEC 60900
- Insulated
- Chrome vanadium



	D mm	L mm	ϟ	g	
117.1630	22.0	175.0	1000V	20	

Mechanics mirror

- For visual monitoring and troubleshooting
- Ideal for diffi ult to access areas
- Special steel

	D mm	L mm	g	
118.0086	12.0	130.0	4	
118.0087	21.0	130.0	9	
118.0088	27.0	130.0	16	

Telescopic mechanics mirror

- Extendable telescopic function
- For visual monitoring and troubleshooting
- Double ball joint
- Head swiveling in all directions
- Clip for the breast pocket
- Ideal for diffi ult to access areas
- Special steel

	D mm	L mm	g	
550.1030	32.0	178 - 530	40	

Telescopic inspection mirror

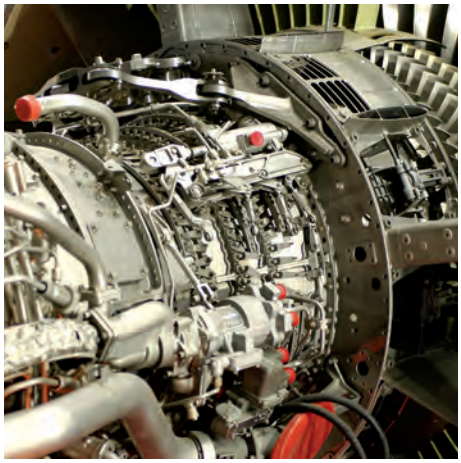
- Extendable telescopic function
- For visual monitoring and troubleshooting
- With single ball joint
- Head swivels in all directions
- Impact resistant mirror
- Stainless steel

	B mm	H mm	L mm	g	
550.1007	45.0	63.0	178,0-675,0	100	

Telescopic inspection mirror

- Extendable telescopic function
- For visual monitoring and troubleshooting
- Single ball joint
- Mirror out of stainless steel with plate-glass
- Stainless steel

	B mm	H mm	L mm	g	
550.1019	57.0	63.0	178,0-630,0	100	



Telescopic inspection mirror

- Extendable telescopic function
- For visual monitoring and troubleshootingWith single ball joint
- Stainless steel Mirror

	B mm	H mm	L mm	g	
550.1021	57.0	95.0	178,0-630,0	100	

Telescopic set TK 1000

- Extendable telescopic function
- Telescopic-Magnet up to 1.5 kg
- Magnet power raised 35% due to energy safety cap
- Telescopic-Inspection mirror, 45.0 x 63.0 mm
- Length 178,0-860,0 mm
- Special steel
- In durable plastic storage case

			g	
550.1102	2 pcs	Telescopic set TK 1000	280	

consists of:

550.1007	Telescopic-Inspection mirror, L=178-675mm, 45x63mm	100	
550.1002	Telescopic-Magnet holder up to 5,0 kg, 178 - 675 mm	80	

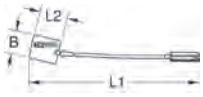
Flexible inspection lamp with magnet and mirror

- Halogen lamp
- Flexible long shaft, 400 mm
- With optional attachable fl xible mirror (35 x 20 mm)
- With optional clip-on light-flooded m gnet
- Includes extension 500 mm
- Approx: 60 hours lamp duration
- Includes 3 x AA batteries
- Impact proof housing

	L mm	D mm	Mirror size mm	Spare bulb	g	
550.1138	600.0	7.0	22 x 37	550.1188	215	

Magnetic welding mirrors

- Mirror chrome
- Flexible arm
- Special steel



	B mm	L1 mm	L2 mm	g	
903.6000	70.0	500.0	80.0	470	

Telescopic magnifying glass

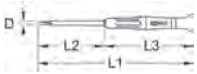
- Extendable telescopic function
- Single ball joint
- 360° revolving
- Impact proof acrylic glass
- Special steel

	B mm	H mm	L mm	g	
550.1009	44.0	63.5	178,0-660,0	50	

VDE PRECISION SCREWDRIVER

Insulated precision screwdriver for slotted screws

- Slotted
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



	D mm	L1 mm	L2 mm	L3 mm		g	
500.6138	1,5	140.0	40.0	100.0		10	
500.6139	1,8	160.0	60.0	100.0		10	
500.6140	2,0	160.0	60.0	100.0		15	
500.6141	2,5	175.0	75.0	100.0		15	
500.6142	3,0	175.0	75.0	100.0		15	

Insulated precision screwdriver for phillips screws PH

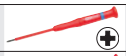
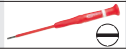
- PH
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel

		L1 mm	L2 mm	L3 mm		g	
500.6136	PH 00	175.0	75.0	100.0		15	
500.6137	PH 0	175.0	75.0	100.0		15	

VDE PRECISION SCREWDRIVER SETS

Insulated precision screwdriver set

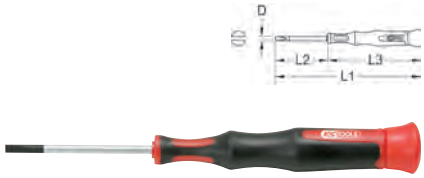
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blade made of chrome vanadium
- In durable ABS storage case

			g	
500.6165	7 pcs	Insulated precision screwdriver set	310	
2 x		PH 0 - PH 00		
5 x		1,5 - 1,8 - 2,0 - 2,5 - 3,0 mm		

PRECISION SCREWDRIVER

Precision screwdriver for slotted screws

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



	D mm	D	L1 mm	L2 mm	L3 mm	g	
500.7701	0,8	-	145.0	50.0	95.0	10	
500.7141	1,0	-	145.0	50.0	95.0	10	
500.7702	1,2	-	145.0	50.0	95.0	10	
500.7108	1,4	-	145.0	50.0	95.0	10	
500.7109	2,0	-	145.0	50.0	95.0	15	
500.7110	2,4	-	145.0	50.0	95.0	20	
500.7111	3,0	-	145.0	50.0	95.0	20	
500.7713	3,5	-	145.0	50.0	95.0	20	
500.7142	4,0	-	145.0	50.0	95.0	20	
500.7144	-	1/16"	145.0	50.0	95.0	10	
500.7145	-	3/32"	145.0	50.0	95.0	10	
500.7146	-	9/64"	145.0	50.0	95.0	20	

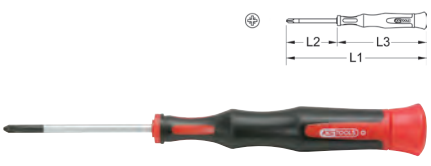
Precision screwdriver for phillips screws PH

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		Ø mm	L1 mm	L2 mm	L3 mm	g	
500.7126	PH 000	1,6	145.0	50.0	95.0	10	
500.7106	PH 00	2,0	145.0	50.0	95.0	15	
500.7107	PH 0	2,4	145.0	50.0	95.0	20	
500.7128	PH 1	3,0	145.0	50.0	95.0	20	
500.7125	PH 1	3,5	145.0	50.0	95.0	20	
500.7129	PH 1	4,0	145.0	50.0	95.0	20	

Precision screwdriver for phillips screws PZ

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium



		Ø mm	L1 mm	L2 mm	L3 mm	g	
500.7156	PZ 0	3,0	145.0	50.0	95.0	15	
500.7157	PZ 1	4,0	145.0	50.0	95.0	15	

Precision screwdriver for TX screws

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g	
500.7726	T1	145.0	50.0	95.0	15	
500.7727	T2	145.0	50.0	95.0	15	
500.7728	T3	145.0	50.0	95.0	15	
500.7729	T4	145.0	50.0	95.0	15	
500.7140	T5	145.0	50.0	95.0	10	
500.7112	T6	145.0	50.0	95.0	10	
500.7113	T7	145.0	50.0	95.0	15	
500.7114	T8	145.0	50.0	95.0	20	
500.7115	T9	145.0	50.0	95.0	20	
500.7116	T10	145.0	50.0	95.0	20	
500.7117	T15	145.0	50.0	95.0	25	
500.7124	T20	145.0	50.0	95.0	25	

Precision screwdriver for TX tamperproof screws

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

		L1 mm	L2 mm	L3 mm	g	
500.7151	TB7	145.0	50.0	95.0	20	
500.7152	TB8	145.0	50.0	95.0	20	
500.7153	TB9	145.0	50.0	95.0	20	
500.7154	TB10	145.0	50.0	95.0	20	
500.7155	TB15	145.0	50.0	95.0	25	
500.7730	TB20	145.0	50.0	95.0	18	

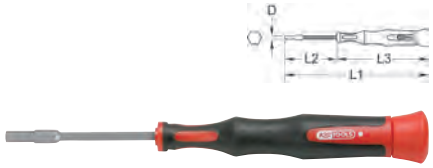
Precision screwdriver for hexagon screws

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium

	D mm	D	L1 mm	L2 mm	L3 mm	g	
500.7721	0,7	-	145.0	50.0	95.0	10	
500.7722	0,9	-	145.0	50.0	95.0	10	
500.7723	1,3	-	145.0	50.0	95.0	10	
500.7119	1,5	-	145.0	50.0	95.0	10	
500.7120	2,0	-	145.0	50.0	95.0	10	
500.7121	2,5	-	145.0	50.0	95.0	15	
500.7122	3,0	-	145.0	50.0	95.0	20	
500.7123	3,5	-	145.0	50.0	95.0	20	
500.7718	-	0,05"	145.0	50.0	95.0	15	
500.7147	-	1/16"	145.0	50.0	95.0	10	
500.7724	-	5/64"	145.0	50.0	95.0	10	
500.7148	-	3/32"	145.0	50.0	95.0	15	
500.7725	-	7/64"	145.0	50.0	95.0	15	
500.7149	-	1/8"	145.0	50.0	95.0	20	

Precision screwdriver for external hexagon screws

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Blades made from special steel



	D mm	D	L1 mm	L2 mm	L3 mm	g
500.7731	1,5	-	165.0	75.0	90.0	10
500.7130	2,0	-	165.0	75.0	90.0	10
500.7131	2,5	-	165.0	75.0	90.0	10
500.7132	3,0	-	165.0	75.0	90.0	15
500.7133	3,2	-	165.0	75.0	90.0	30
500.7134	3,5	-	165.0	75.0	90.0	30
500.7135	4,0	-	165.0	75.0	90.0	30
500.7733	4,5	-	165.0	75.0	90.0	22
500.7734	5,0	-	165.0	75.0	90.0	22
500.7735	5,5	-	165.0	75.0	90.0	25
500.7136	-	3/32"	165.0	75.0	90.0	20
500.7137	-	7/64"	165.0	75.0	90.0	20
500.7738	-	1/8"	165.0	75.0	90.0	22
500.7138	-	9/64"	165.0	75.0	90.0	30
500.7139	-	11/64"	165.0	75.0	90.0	30

PRECISION SCREWDRIVER SETS

Precision screwdriver set

- Reversible interchangeable bits
- Twist end cap
- Clip for the breast pocket
- Plastic handle
- Bits made of special steel

			g
911.2175	4 pcs	Precision screwdriver set	150
1 x		PH000 - PH00 - PH0 - PH1	
1 x		PZ000 - PZ00 - PZ0 - PZ1	
1 x		1,5 - 2,0 - 2,5 - 3,0 mm	
1 x		T6 - T7 - T8 - T9	

Precision screwdriver set TX

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In durable ABS storage case

			g
500.7160	7 pcs	Precision screwdriver set TX	100
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20	

Precision screwdriver set PH and slotted

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In durable ABS storage case

			g
500.7165	7 pcs	Precision screwdriver set PH and slotted	100
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	

Precision screwdriver set PH, slotted and TX

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In durable plastic storage case

			g
500.7170	14 pcs	Precision screwdriver set PH, slotted and TX	200
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20	

Precision screwdriver set

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- In durable plastic storage case

			kg
500.7150	37 pcs	Precision screwdriver set	1.80
6 x		PH000 - PH00 - PH0 x 3,0 - PH0 x 2,0 - PH1 x 3,5 - PH1 x 4,0	
7 x		1,0 - 2,0 - 3,0 - 4,0 mm - 1/16" - 3/32" - 9/64"	
2 x		T5 - T6	
7 x		1,5 - 2,0 - 2,5 - 3,0 - 1/16" - 3/32" - 1/8"	
10 x		2,0 - 2,5 - 3,0 - 3,2 - 3,5 - 4,0 - 3/32" - 7/64" - 9/64" - 1.1/64"	
5 x		TB7 - TB8 - TB9 - TB10 - TB15	

Precision tool set

- Electrical working
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically designed electronic handle
- Hardened blade
- Chrome finish wi h burnished surface
- Dual component handle
- Black chrome
- Blades made from special steel
- In durable plastic storage case

			g
500.7180	10 pcs	Precision tool set	400

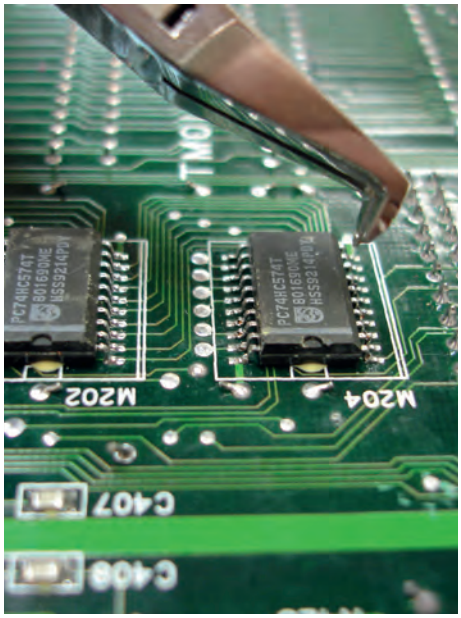
1 x		125 mm
1 x		100 mm
1 x		145 mm
3 x		PH00 - PH0 - PH1
4 x		1,4 - 2,0 - 2,4 - 3,0 mm

Precision tool set

- Electrical working
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically designed electronic handle
- Blades hardened
- Chrome finish wi h burnished surface
- Dual component handle
- Black chrome
- Blades made from special steel

			kg
500.7190	21 pcs	Precision tool set	1.40

2 x		125 - 130 mm
1 x		100 mm
1 x		100 mm
1 x		125 mm
1 x		150 mm
1 x		145 mm
3 x		PH00 - PH0 - PH1
4 x		1,4 - 2,0 - 2,4 - 3,0 mm
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20



PRECISION SCREWDRIVER DISPLAY STANDS

Precision screwdriver display stand

- Twist end cap
- Ergonomically designed electronic handle
- Two component handle
- Hardened blade
- Chrome finish wi h burnished tips
- Blade made of chrome vanadium
- Display of robust sheet steel construction

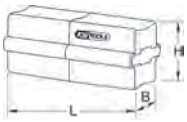
			kg
500.0190	190 pcs	Precision screwdriver display stand	1.80

30 x		5 x (PH000 - PH00 - PH0 x 3 mm - PH0 x 2 mm - PH1 x 3,5 mm - PH1 x 4 mm)
35 x		5 x (1,0 - 2,0 - 3,0 - 4,0 mm - 1/16“ - 3/32“ - 9/64“)
10 x		5 x (T5 - T6)
25 x		5 x (TB7 - TB8 - TB9 - TB10 - TB15)
35 x		5 x (1,5 - 2,0 - 2,5 - 3,0 mm - 1/16“ - 3/32“ - 5 x 1/8“)
50 x		5 x (2,0 - 2,5 - 3,0 - 3,2 - 3,5 - 4,0 mm - 3/32“ - 7/64“ - 9/64“ - 1.1/64“)
5 x		5 x 4 mm

MAGNETIZERS AND DEMAGNETIZERS

Magnetizer and demagnetizer

- Easy to use
- To magnetise by pulling the blade through
- To demagnetise by pulling the blade over the recess
- For screwdrivers, tweezers and similar tools made of steel
- Plastic housing

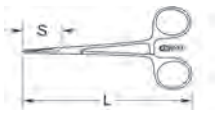


	B mm	H mm	L mm	g
550.1126	15.0	20.0	47.0	70

PRECISION PLIERS

Mounting clamp pliers

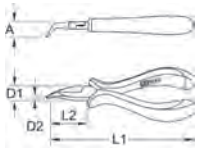
- 3 way adjustable locking
- Toothed gripping surfaces
- Anti glare - no annoying refle tion
- Matt finis
- Stainless special steel



	L mm	S mm	g
500.7006	140.0	35,0	30
500.7007	160.0	40,0	40

Precision long nosed pliers, curved

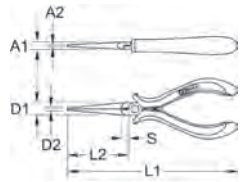
- Electrical working
- Suitable for wire
- 45° curved jaws
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7022	12.0	18.0	7.0	130.0	33.0	80

Precision telephone pliers

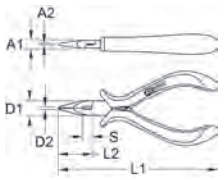
- Electrical working
- Suitable for wire
- Extra long jaws
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
500.7032	7.0	2.0	12.0	3.0	160.0	55.0	8,0	90

Precision telephone pliers

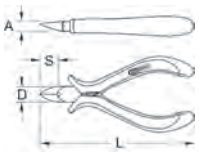
- Electrical working
- Suitable for wire
- Serrated execution
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
500.7021	7.0	2.0	12.0	3.0	130.0	29.0	8,0	80

Precision diagonal side cutter

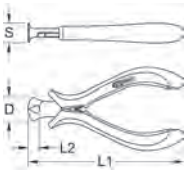
- Electrical working
- Suitable for wire
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7024	7.0	13.0	120.0	15,0	80

Precision cutting pliers

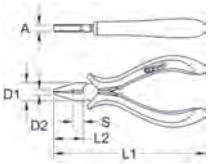
- Electrical working
- Suitable for wire
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	g
500.7025	18.0	110.0	7.5	14,0	80

Precision combination pliers

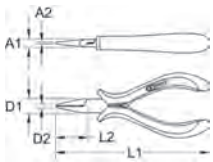
- Electrical working
- Suitable for wire
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
500.7030	7.0	10.0	15.0	120.0	22.0	8,0	90

Precision fl t pliers

- Electrical working
- Suitable for wire
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7028	7.0	2.0	13.0	3.0	125.0	27.0	80

PRECISION PLIER SETS

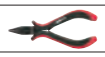
Precision plier set

- Electro static discharge - electrostatically protect
- Suitable for wire
- Serrated execution
- Induction hardened precision cutting
- Self opening double spring
- Dual component handle
- Black chrome
- Special tool steel

			g
500.7020	5 pcs	Precision plier set	420
1 x		130 mm	
1 x		120 mm	
1 x		110 mm	
1 x		120 mm	
1 x		160 mm	

Precision tool set

- Electrical working
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically designed electronic handle
- Hardened blade
- Chrome finish wi h burnished surface
- Dual component handle
- Black chrome
- Blades made from special steel
- In durable plastic storage case

			g
500.7180	10 pcs	Precision tool set	400
1 x		125 mm	
1 x		100 mm	
1 x		145 mm	
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	

Precision tool set

- Electrical working
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically designed electronic handle
- Blades hardened
- Chrome finish wi h burnished surface
- Dual component handle
- Black chrome
- Blades made from special steel

			kg
500.7190	21 pcs	Precision tool set	1.40

2 x		125 - 130 mm
1 x		100 mm
1 x		100 mm
1 x		125 mm
1 x		150 mm
1 x		145 mm
3 x		PH00 - PH0 - PH1
4 x		1,4 - 2,0 - 2,4 - 3,0 mm
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20

ESD PRECISION PLIERS

Tweezers can be found in the VDE and general electrician tool kits section.

ESD long-nose pliers – straight – without cut

- Electrical working
- Suitable for wire
- Short, straight jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7064	6.5	1.0	10.0	2.0	130.0	23.0	62

ESD long-nose pliers – straight – with cut

- Electrical working
- Suitable for wire
- Short, straight jaws
- With cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7065	6.5	1.0	10.0	2.0	130.0	23.0	62

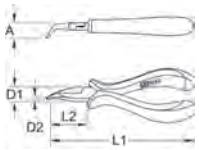
ESD long-nose pliers – curved – without cut

- Electrical working
- Suitable for wire
- Short, curved jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7066	10.0	10.0	2.0	130.0	20.0	62

ESD long-nose pliers – curved – with cut

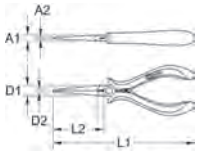
- Electrical working
- Suitable for wire
- Short, curved jaws
- With cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7067	10.0	10.0	2.0	130.0	20.0	62

ESD long-nose pliers – straight – without cut

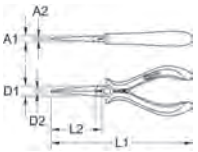
- Electrical working
- Suitable for wire
- Long, straight jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7068	6.5	1.0	10.0	2.0	140.0	32.0	68
500.7077	7.5	1.2	12.5	2.4	155.0	40.0	93

ESD long-nose pliers – straight – with cut

- Electrical working
- Suitable for wire
- Long, straight jaws
- With cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7069	6.5	1.0	10.0	2.0	140.0	32.0	68
500.7072	7.5	1.2	12.5	2.4	155.0	40.0	93

ESD long-nose pliers – curved – without cut

- Electrical working
- Suitable for wire
- Long, curved jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7070	14.0	10.0	2.0	140.0	26.0	68
500.7073	20.0	12.5	2.4	155.0	33.0	93

ESD fl t pliers

- Electrical working
- Suitable for wire
- Short jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7075	6.5	3.5	10.0	1.5	130.0	22.0	61

ESD fl t pliers

- Electrical working
- Suitable for wire
- Long jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7079	7.5	4.5	12.0	1.5	150.0	40.0	82

ESD long-nose pliers – curved – with cut

- Electrical working
- Suitable for wire
- Long, curved jaws
- With cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7071	14.0	10.0	2.0	140.0	26.0	68

ESD round pliers

- Electrical working
- Suitable for wire
- Short jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7076	6.0	1.0	10.0	2.0	130.0	20.0	62

ESD mini side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 0.8 mm/AWG 20
- Copper wire: 1.5 mm/AWG 15
- Small, oval head
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7080	6.0	9.0	120.0	9,0	55

ESD needle-nose pliers – straight – without cut

- Electrical working
- Suitable for wire
- Very fin , long jaws
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7074	7.5	1.2	11.0	2.0	150.0	37.0	74

ESD long-nose pliers – straight – without cut

- Electrical working
- Suitable for wire
- Short, straight jaws
- Ultra-fine p ecision tips for extremely fine ork
- Without cut
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7078	6.5	0.1	10.0	0.2	130.0	22.0	56

ESD mini side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 0.8 mm/AWG 20
- Copper wire: 1.5 mm/AWG 15
- Small, pointed head
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7081	6.0	9.0	120.0	9,0	55

ESD mini side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 0.8 mm/AWG 20
- Copper wire: 1.5 mm/AWG 15
- Short, pointed head with grooving
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7082	6.0	9.0	120.0	9,0	53

ESD side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.4 mm/AWG 26
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval head with wire holder
- With control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7085	7.5	11.0	125.0	13,0	75

ESD side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.7 mm/AWG 21
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval, sturdy head
- With control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7088	9.0	14.5	135.0	20,0	105

ESD side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.4 mm/AWG 26
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval head
- With control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7083	7.5	11.0	125.0	13,0	70

ESD side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.3 mm/AWG 28
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Pointed head
- With control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7086	7.5	11.0	125.0	13,0	62

ESD side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 1.5 mm/AWG 15
- Copper wire: 2.0 mm/AWG 12
- Pointed, sturdy head
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7089	9.0	14.5	135.0	18,0	105

ESD side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval head
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7084	7.5	11.0	125.0	13,0	70

ESD side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Pointed head
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7087	7.5	11.0	125.0	13,0	62

ESD carbide side cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 84-86 HRA
- Piano wire: 0.6 mm/AWG 22
- Hard wire: 1.0 mm/AWG 18
- Flexible wire: 2.0 mm/AWG 12
- Oval head
- With control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7090	7.5	11.0	125.0	10,0	62

ESD carbide side cutters

- Electrical working
- Suitable for wire
- Hard metal cutting edge in plier head for the highest cutting performance
- Induction-hardened precision cutting, 84-86 HRA
- Oval head
- With special control only for glass fib e (e.g. Keviar)
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7091	7.5	11.0	125.0	10,0	62

ESD carbide side cutters

- Electrical working
- Suitable for wire
- Hard metal cutting edge in plier head for the highest cutting performance
- Induction-hardened precision cutting, 84-86 HRA
- Piano wire: 0.4 mm/AWG 26
- Hard wire: 0.8 mm/AWG 20
- Flexible wire: 1.8 mm/AWG 13
- Pointed head with grooves for working in hard to access places
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7092	7.5	11.0	125.0	10,0	61

ESD end cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Medium wire: 0.6 mm/AWG 22
- Flexible wire: 0.8 mm/AWG 20
- Slim jaws
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7093	6.5	11.0	130.0	5,0	64

ESD mini angled cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.4 mm/AWG 26
- Medium wire: 1.0 mm/AWG 18
- Flexible wire: 1.2 mm/AWG 16
- Straight head for working in small spaces
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7094	6.5	10.0	120.0	12,0	61

ESD mini carbide oblique cutter

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 84-86 HRA
- Piano wire: 0.6 mm/AWG 22
- Hard wire: 1.0 mm/AWG 18
- Flexible wire: 2.0 mm/AWG 12
- Straight head for working in small spaces
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7095	6.5	10.0	120.0	12,0	62

ESD mini angled cutters

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.5 mm/AWG 24
- Medium wire: 1.2 mm/AWG 16
- Flexible wire: 1.6 mm/AWG 14
- Wide head with long cutters
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D mm	L mm	S mm	g
500.7096	7.5	11.0	125.0	18,0	77

ESD mini side cutter

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Medium wire: 0.6 mm/AWG 22
- Flexible wire: 0.8 mm/AWG 22
- Slim jaws with small cutting edges
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	D mm	L1 mm	L2 mm	S mm	g
500.7097	10.0	120.0	17.0	2,5	63

ESD side cutter

- Electrical working
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.5 mm/AWG 24
- Medium wire: 1.2 mm/AWG 16
- Flexible wire: 1.6 mm/AWG 14
- Wide head with long cutters
- With subtle control
- Self-opening double spring
- With dual component handle
- Special tool steel

	D mm	L1 mm	L2 mm	S mm	g
500.7098	11.0	125.0	6.0	15,0	74

ESD wire strippers

- Electrical working
- With internal brass adjusting screw
- Suitable for PVC, Teflon tc.
- Induction-hardened precision cutting
- Medium wire: 0,8 mm/AWG 20
- Self-opening double spring
- With dual component handle
- Special tool steel

	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7099	12.0	32.0	18.0	140.0	50.0	79

ESD PRECISION PLIER SETS

ESD pliers service map

- Electro static discharge - electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting
- Self-opening double spring
- With dual component handle
- Special tool steel

500.7019	6 pcs	ESD pliers service map	620

1 x		140 mm
1 x		140 mm
1 x		130mm
1 x		120 mm
1 x		125 mm
1 x		120 mm

SOLDERING TECHNOLOGY

Mini pocket soldering torch

- Gas operated micro soldering device up to 1,300 °C / 2,450 °F
- Piezo ignition
- Optimal for light soldering
- Safety lock

	L mm	
960.1110	80.0	130

Mini pocket soldering torch

- Gas operated micro soldering device up to 1,300 °C / 2,450 °F
- With piezo ignition
- For melting, hard soldering, small soldering jobs
- Filled with standard lighter gas/ISO butane gas
- Compact construction
- With child-proofi g and switch-off function

	L1 mm	L2 mm	H mm	
960.1215	75.0	50.0	110.0	112

Small soldering torch

- Gas operated micro soldering device up to 1,300 ° / 2,450 °F
- With piezo ignition
- Optimal for fine solde ing
- Table stand

	L mm	
960.1200	140.0	350

Small soldering torch with flame efle tor

- Gas operated micro soldering device up to 1,300 ° / 2,450 °F
- With piezo ignition
- Optimal for fine solde ing
- Shrink / flame efle tor
- Table stand

	L mm	
960.1210	140.0	350

Micro terminal set

- Gas operated micro soldering device up to 1,300 / 2,450 °F
- Optimal for fine orking
- Gas supply totally adjustable
- Filled with standard lighter gas / ISO butan gas
- Includes different attachments soldering wire and soldering sponge
- In durable plastic storage box

960.1150	13 pcs	Micro terminal set	200

consists of:

960.1151	Gas soldering iron	110
960.1152	Bunsen burner nozzle head	20
960.1153	Soldering head including. 6 different on screw solder tips	30
960.1154	Flat attachment for flame p otection for Bunsen burner nozzle head	10
960.1155	Attachment for Bunsen burner nozzle head	10
960.1156	Soldering sponge	6
960.1157	Soldering wire spool	24

Micro soldering terminal set

- Gas operated micro soldering device up to 1,300 °C / 2,450 °F
- With piezo ignition
- Optimal for fine orking
- Gas supply totally adjustable
- Filled with standard lighter gas / ISO butan gas
- Includes different attachments soldering wire and soldering sponge
- In durable plastic storage box

960.1160	10 pcs	Micro soldering terminal set	370

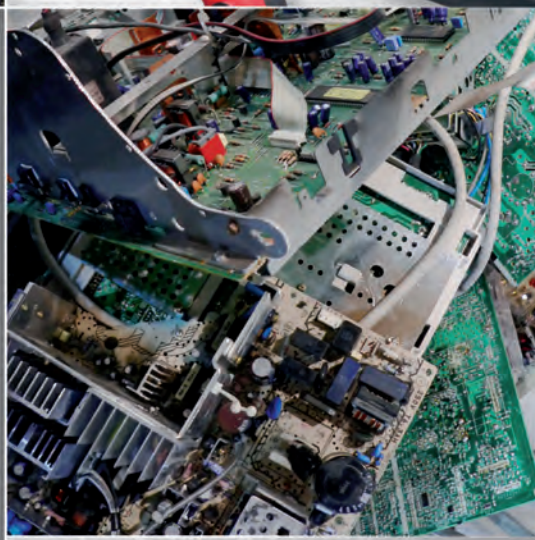
consists of:

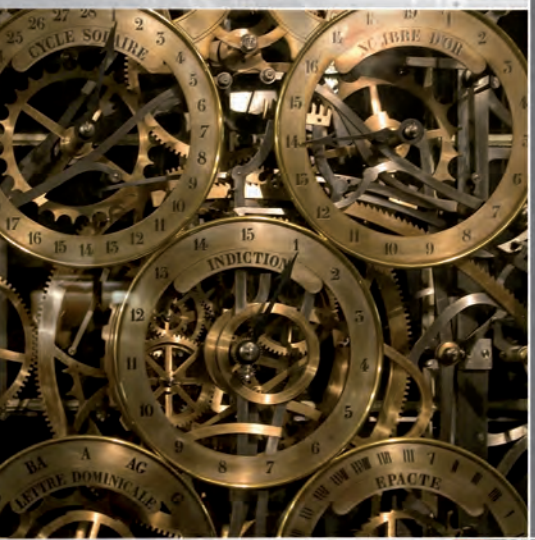
960.1161	Soldering iron with piezo ignition	80
960.1162	Soldering head for screw solder tips	9
960.1163	Soldering tip 3.5 mm, chisel	3
960.1164	Soldering tip 4.5mm, diagonal	3
960.1165	Soldering tip knife	3
960.1166	Shrink hose attachment	3
960.1167	Soldering sponge	12
960.1168	Soldering wire spool	25
960.1169	Protective cap	14
960.1170	Housing for additional adaptors for 960.1160	7

KS TOOLS

Innovation is our mission!

PRECISION TOOLS





9

NON SPARKING TOOLS

KS TOOLS®

Innovation is our mission!

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NON SPARKING TOOLS

Explosion protection after ATEX = ATmosphere EXplosible

Directive 137 (also known as directive 99/92) determines that the end user (employer) is responsible for the safety of the employees working (installing, operating or maintaining equipment) in a potentially explosive atmosphere.

The directive has been in force since July 2003.

Classification of the zon s by explosion risks

ATEX Feasibility	high	average-low	very low
Gases	**ZONE 0** is an area, in which dangerous atmosphere capable of explosion as a mixture from air and combustible gases, damping or fogs exists constantly, for long time or frequently. The notion „frequently“ is to be used for means of „ temporally mainly „, which means that explosion-endangered areas are to be assigned zone 0, if the atmosphere is capable of explosion for more than 50% during the working duration of an arrangement. Actually, this is only inside tubes and reservoirs the case.	**ZONE 1** is an area in which at normal working duration, occasionally a dangerous atmosphere is capable of explosion as a mixture from air and combustible gases, damping or fogs. If the existence of atmosphere capable of explosion comes to a duration of approximately 30 minutes per year or this appears occasionally, e.g. daily, however, it is smaller than 50% of the activity duration of the arrangement, zone 1 applies according to general opinion.	**ZONE 2** is an area in which at normal working duration, occasionally a dangerous atmosphere is capable of explosion as a mixture from air and combustible gas, damping or fogs. Among a number of experts the general consensus consists the fact that the notion corresponds „briefly“ o a duration of approximately 30 minutes per year. Furthermore it is stated that atmosphere capable of explosion is not to be expected at normal activity usually. If atmosphere capable of explosion already appears once a year briefl , the affected area should be already classified in one 2.
Dust	**ZONE 20** is an area in which dangerous atmosphere, that is capable of explosion, exists in form of a cloud in the air which contains combustible dust constantly, for long time or frequently.	**ZONE 21** is an area in which at normal activity occasionally a dangerous atmosphere capable of explosion exists in form of a cloud in the air which contains combustible dust.	**ZONE 22** is an area in which at normal activity a dangerous atmosphere capable of explosion does not appear in form of a cloud in the air which contains combustible dust usually or, however, only briefl .

Application remarks:

- Non sparking tools are softer than usual tools.
  The operation with these tools has to be carried out with accuracy and care.
  Overstraining has to be prevented.

- Only using non sparking tools as a protection measure in fi e endangered and explosion endangered areas is not enough. Please consider the instructions of local health and safety regulations for the protection of employees and accommodation.

Reworking:
- Technical marking sheets are available on request for reworking (e.g. re-sharpen).

BERYLLIUM*plus*					
Matarial	Be	Ni+Co	Impurity		
min in %	1.8	0.2			Balance
max in %	2.0	0.8	0.5		Cu
Technical properties					
Tensile strength	800-940 Mp (average value 850 Mp)				
Hardness	HRC35-42				
Specific eight	8,5 (average value)				
Magnetic characteristics	1.0004				
Electrical conduction	0,53079 S/m				
BRONZE*plus*					
Matarial	Al	Ni	Fe	Mn	
min in %	9.0	4.0	4.0	0.8	Balance
max in %	10.0	5.0	5.0	2.5	Cu
Technical properties					
Tensile strength	700-740 Mp (average value 725 Mp)				
Yield stress	120 Mp				
Hardness	HRC25-32				
Specific eight	7,5 (average value)				
Magnetic characteristics	1.348				
Electrical conduction	0,42463 S/m				

Non sparking tool - lines

BRONZE plus

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

BERYLLIUM plus

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

Applications BERYLLIUMplus / BRONZEplus

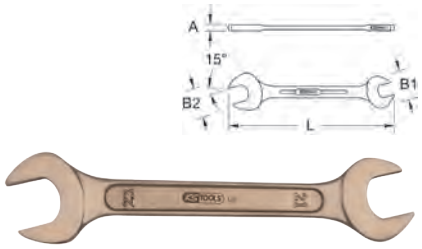
- Chemical industries
- Petro refine ies
- Oil and gas carriages
- Pipeline business
- Drilling platforms
- Fuel service (cleaning etc.)
- Gas and electricity works
- Varnishing
- Federal armed forces, army
- Civil defence and civil protection
- Fire department

You can use it on all places where sparks create potential danger of explosion and fi e. For the activities which require the use (application) of a hundred percent non-magnetic and extremely rustproof tools.

NON SPARKING OPEN ENDED SPANNER

BRONZE*plus* double open ended spanner

- In accordance to DIN 895 / ISO 3318 / ISO 1085
- Jaw 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	A mm	B1 mm	B2 mm	kg
963.7005	6x7	125.0	6.0	15.0	17.0	0.03
963.7006	6x8	125.0	6.0	15.0	17.0	0.03
963.7007	7x8	125.0	6.0	19.0	22.0	0.03
963.7008	7x9	125.0	6.0	19.0	22.0	0.04
963.7009	8x9	125.0	6.0	19.0	22.0	0.04
963.7010	8x10	125.0	6.0	19.0	22.0	0.06
963.7011	9x10	125.0	6.0	19.0	22.0	0.06
963.7012	9x11	140.0	7.0	22.0	27.0	0.09
963.7013	10x11	140.0	7.0	22.0	27.0	0.09
963.7014	10x12	140.0	7.0	22.0	27.0	0.06
963.7015	10x13	140.0	7.0	22.0	27.0	0.08
963.7016	10x14	160.0	7.5	27.0	30.0	0.18
963.7017	11x13	160.0	7.5	27.0	30.0	0.18
963.7018	11x14	160.0	7.5	27.0	30.0	0.18
963.7019	12x13	160.0	7.5	27.0	30.0	0.18
963.7020	12x14	160.0	7.5	27.0	30.0	0.17
963.7021	16x15	160.0	7.5	27.0	30.0	0.17
963.7022	14x15	200.0	8.0	30.0	36.0	0.11
963.7023	14x16	200.0	8.0	30.0	36.0	0.22
963.7024	14x17	200.0	8.0	30.0	36.0	0.22
963.7025	16x17	200.0	8.0	35.0	38.0	0.21
963.7026	16x18	200.0	8.0	35.0	38.0	0.21
963.7027	17x19	225.0	10.0	35.0	38.0	0.35
963.7028	17x22	225.0	10.0	39.0	44.0	0.32
963.7029	18x19	225.0	10.0	39.0	44.0	0.32
963.7030	18x20	225.0	10.0	39.0	44.0	0.31
963.7031	18x21	225.0	10.0	39.0	44.0	0.30
963.7032	19x22	240.0	11.0	39.0	44.0	0.44
963.7033	19x24	240.0	11.0	44.0	48.0	0.42
963.7034	20x22	240.0	11.0	44.0	48.0	0.44
963.7035	21x23	240.0	11.0	44.0	48.0	0.42
963.7036	22x24	240.0	11.0	44.0	48.0	0.42
963.7037	22x27	270.0	12.0	48.0	54.0	0.73
963.7038	23x26	270.0	12.0	48.0	54.0	0.73
963.7039	24x26	270.0	12.0	48.0	54.0	0.73
963.7040	24x27	270.0	12.0	48.0	54.0	0.73
963.7041	24x30	270.0	13.0	54.0	60.0	0.70
963.7042	25x28	270.0	13.0	54.0	60.0	0.70
963.7043	26x29	270.0	13.0	54.0	60.0	0.70
963.7044	27x29	300.0	13.0	54.0	60.0	0.81
963.7045	27x30	300.0	13.0	54.0	60.0	0.80
963.7046	27x32	300.0	14.0	59.0	62.0	0.80
963.7047	30x32	300.0	14.0	59.0	62.0	0.78
963.7048	30x34	320.0	16.0	70.0	75.0	1.24
963.7049	30x36	320.0	16.0	70.0	75.0	1.22
963.7050	32x34	320.0	16.0	70.0	75.0	1.20
963.7051	32x36	320.0	16.0	70.0	75.0	1.14
963.7052	34x36	320.0	16.0	70.0	75.0	1.10
963.7053	35x38	370.0	16.0	75.0	88.0	1.48
963.7054	36x41	370.0	16.0	75.0	88.0	1.48
963.7055	41x46	370.0	18.0	85.0	100.0	1.45
963.7056	46x50	390.0	19.0	95.0	105.0	1.40
963.7057	50x55	440.0	20.0	100.0	115.0	1.70
963.7058	50x60	440.0	22.0	110.0	125.0	1.70
963.7059	55x60	470.0	22.0	110.0	125.0	1.80
963.7060	60x65	470.0	22.0	125.0	135.0	1.80
963.7061	65x70	630.0	24.0	130.0	145.0	3.50
963.7062	70x80	630.0	24.0	140.0	155.0	3.40
963.7063	75x80	630.0	24.0	150.0	165.0	3.30
963.7065	7/32x1/4"	125.0	6.0	15.0	17.0	0.03
963.7066	1/4x5/16"	125.0	6.0	15.0	17.0	0.03
963.7067	5/16x3/8"	125.0	6.0	19.0	22.0	0.06
963.7068	3/8x7/16"	140.0	7.0	22.0	27.0	0.09
963.7069	7/16x1/2"	140.0	7.0	22.0	27.0	0.04
963.7070	1/2x5/8"	160.0	7.5	27.0	30.0	0.17
963.7071	1/2x9/16"	160.0	7.5	27.0	30.0	0.17
963.7072	1/2x11/16"	200.0	8.0	30.0	36.0	0.22
963.7073	9/16x5/8"	200.0	8.0	30.0	36.0	0.22
963.7074	9/16x3/4"	200.0	8.0	30.0	38.0	0.22
963.7075	19/32x11/16"	200.0	8.0	35.0	38.0	0.22
963.7076	19/32x25/32"	200.0	8.0	35.0	38.0	0.22
963.7077	5/8x11/16"	200.0	8.0	35.0	38.0	0.20
963.7078	5/8x3/4"	225.0	10.0	39.0	44.0	0.31
963.7079	11/16x25/32"	225.0	10.0	39.0	44.0	0.30
963.7080	11/16x7/8"	225.0	10.0	39.0	44.0	0.30
963.7082	3/4x25/32"	225.0	10.0	39.0	44.0	0.30
963.7083	3/4x13/16"	225.0	10.0	39.0	44.0	0.31
963.7084	3/4x7/8"	225.0	10.0	39.0	44.0	0.31
963.7085	25/32x13/16"	225.0	10.0	39.0	44.0	0.30
963.7086	25/32x7/8"	225.0	10.0	39.0	44.0	0.30
963.7087	13/16x7/8"	225.0	10.0	39.0	44.0	0.30
963.7088	7/8x15/16"	225.0	10.0	39.0	44.0	0.30
963.7089	7/8x31/32"	240.0	10.0	44.0	48.0	0.40
963.7090	7/8x1"	240.0	10.0	44.0	48.0	0.40
963.7091	7/8x1.1/16"	270.0	12.0	48.0	54.0	0.72
963.7092	15/16x1"	270.0	12.0	48.0	54.0	0.72
963.7093	15/16x1.1/16"	270.0	12.0	48.0	54.0	0.72
963.7094	1x1.1/8"	270.0	12.0	48.0	54.0	0.70
963.7095	1x1.5/16"	300.0	14.0	59.0	62.0	0.75
963.7096	1.1/16x1.1/4"	300.0	14.0	59.0	62.0	0.75
963.7097	1.1/8x1.5/16"	300.0	14.0	59.0	62.0	0.75
963.7098	1.1/16x1.7/16"	320.0	16.0	70.0	75.0	1.22
963.7099	1.1/8x1.1/2"	320.0	16.0	70.0	75.0	1.15
963.7100	1.1/4x1.3/8"	320.0	16.0	70.0	75.0	1.15
963.7101	1.1/4x1.7/16"	320.0	16.0	70.0	75.0	1.15
963.7102	1.5/16x1.1/2"	370.0	16.0	75.0	88.0	1.48
963.7103	1.1/4x1.5/8"	370.0	16.0	75.0	88.0	1.40
963.7104	1.3/8x1.1/2"	370.0	16.0	75.0	88.0	1.40
963.7105	1.7/16x1.5/8"	370.0	16.0	75.0	88.0	1.40
963.7106	1.1/2x1.11/16"	370.0	16.0	75.0	88.0	1.40
963.7107	1.5/8x1.1/4"	370.0	16.0	75.0	88.0	1.40
963.7108	1.5/8x1.3/4"	370.0	16.0	75.0	88.0	1.35
963.7109	1.11/16x1.7/8"	370.0	18.0	85.0	100.0	1.35
963.7110	1.11/16x2"	390.0	19.0	95.0	105.0	1.70
963.7111	1.13/16x2"	390.0	19.0	95.0	105.0	1.70
963.7112	1.3/4x2.1/16"	390.0	19.0	95.0	105.0	1.70
963.7113	2x2.3/16"	440.0	20.0	100.0	115.0	1.70
963.7114	2x2.5/16"	440.0	20.0	100.0	115.0	1.70
963.7115	2.3/16x2.3/8"	470.0	22.0	110.0	125.0	1.80
963.7116	2.1/4x2.3/8"	470.0	22.0	110.0	125.0	1.80

BRONZE*plus* double open ended spanner set

- In accordance to DIN 895
- Jaw 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			kg
963.7064	12 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x26 - 25x28 - 30x32 mm	3.50
963.7117	8 pcs	1/4x5/16 - 3/8x7/16 - 7/16x1/2 - 1/2x9/16 - 9/16x5/8 - 5/8x11/16 - 3/4x7/8 - 15/16"x1"	1.70

BRONZE*plus* Double open ended spanner

- Jaw 15° and 75° offset
- Both jaws the same size
- Extra fl t heads
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	A mm	B mm	L mm	g
963.7118	4	6.0	12.0	70.0	30
963.7119	4,5	6.0	12.0	70.0	30
963.7120	5	6.0	15.0	78.0	30
963.7121	5,5	6.0	15.0	78.0	10
963.7122	6	6.0	15.0	78.0	10
963.7123	7	6.0	19.0	91.0	10
963.7124	8	6.0	19.0	96.0	50
963.7125	9	6.0	22.0	103.0	60
963.7126	10	6.0	22.0	105.0	20
963.7127	11	7.0	25.0	116.0	20
963.7128	12	7.0	25.0	116.0	80
963.7129	13	7.0	30.0	131.0	110
963.7130	14	8.0	30.0	131.0	110

BRONZE*plus* Double open ended spanner-set

- Jaw 15° and 75° offset
- Both jaws the same size
- Extra fl t heads
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			g
963.7131	10 pcs	5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	180

BRONZE*plus* Double open ended spanner

- Jaw 15° offset
- Extra fl t heads
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	A mm	B1 mm	B2 mm	L mm	g
963.7132	3x3,5	5.0	9.0	12.0	50.0	20
963.7133	4x4,5	5.0	12.0	14.0	60.0	20
963.7134	5x5,5	6.0	12.0	14.0	70.0	20
963.7135	6x7	6.0	14.0	16.0	80.0	30
963.7136	8x9	6.0	17.0	20.0	90.0	10
963.7137	10x11	6.0	20.0	22.0	100.0	60

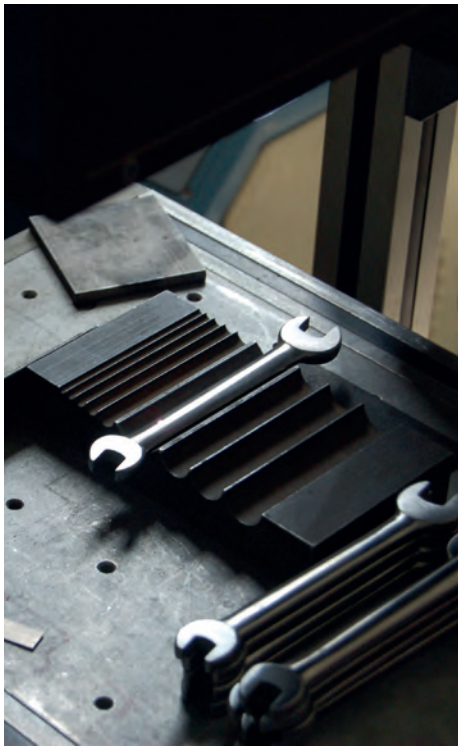
		A mm	B1 mm	B2 mm	L mm	g
963.7138	5/32x3/16“	5.0	12.0	14.0	60.0	5
963.7139	3/16x7/32“	6.0	12.0	14.0	70.0	6
963.7140	1/4x9/32“	6.0	14.0	16.0	80.0	8
963.7141	1/4x5/16“	6.0	14.0	16.0	80.0	8
963.7142	5/16x11/32“	6.0	17.0	20.0	90.0	10
963.7143	5/16x3/18“	6.0	17.0	20.0	90.0	10
963.7144	5/16x13/32“	6.0	20.0	22.0	100.0	12
963.7145	3/8x7.16“	6.0	20.0	22.0	100.0	12

BRONZE*plus* open ended spanner

- In accordance to DIN 894 / ISO 3380
- Jaw 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	A mm	B mm	L mm	kg
963.7146	6	6.0	21.0	90.0	0.01
963.7147	7	6.0	21.0	90.0	0.01
963.7148	8	6.0	21.0	90.0	0.01
963.7149	9	6.0	21.0	90.0	0.01
963.7150	10	7.0	28.0	100.0	0.03
963.7151	11	7.0	28.0	100.0	0.02
963.7152	12	7.0	33.0	140.0	0.05
963.7153	13	7.0	33.0	140.0	0.04
963.7154	14	8.0	40.0	165.0	0.08
963.7155	15	8.0	40.0	145.0	0.08
963.7156	16	8.0	40.0	165.0	0.07
963.7157	17	8.0	40.0	165.0	0.07
963.7158	18	8.0	40.0	165.0	0.07
963.7159	19	10.0	44.0	190.0	0.10
963.7160	20	10.0	44.0	190.0	0.10
963.7161	21	12.0	46.0	205.0	0.14
963.7162	22	12.0	46.0	205.0	0.13
963.7163	23	14.0	52.0	220.0	0.17
963.7164	24	14.0	52.0	220.0	0.17
963.7165	25	14.0	57.0	220.0	0.16
963.7166	26	14.0	57.0	220.0	0.16
963.7167	27	14.0	57.0	220.0	0.15
963.7168	28	15.0	63.0	250.0	0.27
963.7169	29	15.0	63.0	250.0	0.26
963.7170	30	15.0	63.0	250.0	0.25
963.7171	32	16.0	69.0	285.0	0.34
963.7172	33	16.0	69.0	285.0	0.34
963.7173	34	17.0	75.0	285.0	0.32
963.7174	35	17.0	75.0	285.0	0.32
963.7175	36	17.0	75.0	285.0	0.30
963.7176	37	17.0	75.0	285.0	0.30
963.7177	38	18.0	86.0	330.0	0.54
963.7178	41	18.0	86.0	330.0	0.52
963.7179	42	18.0	86.0	330.0	0.50
963.7180	46	21.0	95.0	360.0	0.65
963.7181	47	21.0	95.0	360.0	0.63
963.7182	50	22.0	105.0	440.0	1.10
963.7183	52	22.0	105.0	440.0	1.10
963.7184	54	23.0	117.0	440.0	1.05
963.7185	55	23.0	117.0	440.0	1.05
963.7186	56	23.0	117.0	440.0	1.00
963.7187	58	23.0	125.0	480.0	1.48
963.7188	60	23.0	125.0	480.0	1.48
963.7189	63	24.0	135.0	520.0	1.70
963.7190	65	24.0	135.0	520.0	1.70
963.7191	67	25.0	145.0	520.0	1.70
963.7192	70	25.0	145.0	540.0	1.90
963.7193	71	25.0	145.0	540.0	1.90
963.7194	75	25.0	155.0	540.0	1.80
963.7195	77	25.0	155.0	540.0	1.80
963.7196	80	27.0	165.0	630.0	2.90
963.7197	82	27.0	165.0	630.0	2.80
963.7198	85	29.0	175.0	680.0	3.40
963.7199	88	30.0	185.0	680.0	3.30
963.7200	90	30.0	185.0	680.0	3.20
963.7201	94	32.0	195.0	830.0	5.00
963.7202	95	32.0	195.0	830.0	4.80
963.7203	100	32.0	209.0	800.0	5.90
963.7204	105	33.0	210.0	850.0	8.90
963.7205	110	33.0	230.0	900.0	9.00
963.7206	115	33.0	240.0	950.0	9.30
963.7207	120	35.0	245.0	990.0	9.60
963.7208	125	35.0	250.0	1000.0	8.30
963.7209	130	35.0	270.0	1000.0	8.30
963.7210	135	35.0	275.0	1000.0	8.30

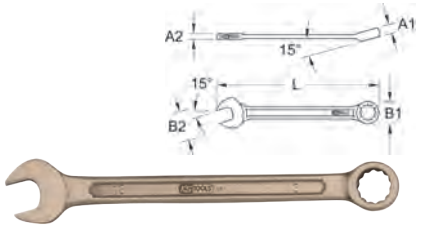
		A mm	B mm	L mm	kg
963.7211	1/4“	6.0	21.0	90.0	0.01
963.7212	5/16“	6.0	21.0	90.0	0.01
963.7213	11/32“	6.0	21.0	90.0	0.01
963.7214	3/8“	6.0	21.0	90.0	0.01
963.7215	13/32“	7.0	28.0	100.0	0.03
963.7216	7/16“	7.0	28.0	100.0	0.02
963.7217	1/2“	7.0	33.0	140.0	0.04
963.7218	9/16“	8.0	40.0	165.0	0.08
963.7219	19/32“	8.0	40.0	165.0	0.08
963.7220	5/8“	8.0	40.0	165.0	0.07
963.7221	11/16“	8.0	40.0	165.0	0.07
963.7222	3/4“	10.0	44.0	190.0	0.10
963.7223	25/32“	10.0	44.0	190.0	0.10
963.7224	13/16“	12.0	46.0	205.0	0.14
963.7225	7/8“	12.0	46.0	205.0	0.13
963.7226	15/16“	14.0	57.0	220.0	0.17
963.7227	31/32“	14.0	57.0	220.0	0.17
963.7228	1“	14.0	57.0	220.0	0.16
963.7229	1.1/16“	14.0	57.0	220.0	0.15
963.7230	1.1/8“	15.0	63.0	250.0	0.27
963.7231	1.3/16“	15.0	63.0	250.0	0.25
963.7232	1.1/4“	16.0	69.0	285.0	0.34
963.7233	1.5/16“	16.0	69.0	285.0	0.34
963.7234	1.3/8“	17.0	75.0	285.0	0.32
963.7235	1.7/16“	17.0	75.0	285.0	0.30
963.7236	1.1/2“	18.0	86.0	330.0	0.54
963.7237	1.9/16“	18.0	86.0	330.0	0.52
963.7238	1.5/8“	18.0	86.0	330.0	0.52
963.7239	1.11/16“	18.0	86.0	330.0	0.50
963.7240	1.3/4“	21.0	95.0	360.0	0.65
963.7241	1.13/16“	21.0	95.0	360.0	0.65
963.7242	1.7/8“	21.0	95.0	360.0	0.63
963.7243	2“	22.0	105.0	440.0	1.10
963.7244	2.1/16“	22.0	105.0	440.0	1.10
963.7245	2.1/8“	22.0	105.0	440.0	1.05
963.7246	2.3/16“	22.0	105.0	440.0	1.05
963.7247	2.1/4“	23.0	125.0	480.0	1.00
963.7248	2.5/16“	23.0	125.0	480.0	1.48
963.7249	2.3/8“	23.0	125.0	520.0	1.48
963.7250	2.7/16“	24.0	135.0	520.0	1.70
963.7251	2.1/2“	24.0	135.0	520.0	1.70
963.7252	2.9/16“	24.0	135.0	520.0	1.70
963.7253	2.5/8“	24.0	135.0	520.0	1.70
963.7254	2.3/4“	25.0	145.0	540.0	1.90
963.7255	2.13/16“	25.0	145.0	540.0	1.90
963.7256	2.15/16“	25.0	155.0	540.0	1.90
963.7257	3“	25.0	155.0	540.0	1.80
963.7258	3.1/8“	27.0	165.0	630.0	2.90
963.7259	3.1/4“	27.0	165.0	630.0	2.80
963.7260	3.3/8“	30.0	185.0	680.0	3.40
963.7261	3.1/2“	30.0	185.0	680.0	3.30
963.7262	3.5/8“	30.0	185.0	680.0	3.20
963.7263	3.3/4“	32.0	195.0	830.0	5.00
963.7264	3.7/8“	32.0	195.0	830.0	4.80



NON SPARKING COMBINATION SPANNER

BRONZE*plus* combination spanner, offset

- FlankTraction profil
- In accordance to DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
963.7265	6	6.0	5.0	11.0	20.0	130.0	0.05
963.7266	7	6.0	5.0	11.0	20.0	130.0	0.06
963.7267	8	7.0	6.0	15.0	17.0	135.0	0.06
963.7268	9	7.0	6.0	18.0	22.0	150.0	0.10
963.7269	10	7.0	6.0	18.0	22.0	150.0	0.09
963.7270	11	7.0	6.0	18.0	22.0	150.0	0.09
963.7271	12	9.0	7.0	20.0	25.0	190.0	0.17
963.7272	13	10.0	7.0	22.0	32.0	190.0	0.17
963.7273	14	10.0	7.0	22.0	32.0	190.0	0.16
963.7274	15	11.0	8.0	27.0	34.0	210.0	0.23
963.7275	16	11.0	8.0	27.0	34.0	210.0	0.23
963.7276	17	11.0	8.0	27.0	34.0	210.0	0.22
963.7277	18	13.0	9.0	31.0	40.0	230.0	0.33
963.7278	19	13.0	9.0	31.0	40.0	230.0	0.33
963.7279	20	13.0	9.0	31.0	40.0	230.0	0.33
963.7280	21	14.0	9.0	36.0	43.0	250.0	0.36
963.7281	22	14.0	9.0	36.0	43.0	250.0	0.36
963.7282	23	14.0	9.0	36.0	43.0	250.0	0.35
963.7283	24	15.0	10.0	38.0	48.0	270.0	0.50
963.7284	25	15.0	10.0	38.0	48.0	270.0	0.48
963.7285	26	15.0	10.0	38.0	48.0	270.0	0.47
963.7286	27	17.0	13.0	43.0	55.0	280.0	0.67
963.7287	28	17.0	13.0	43.0	55.0	280.0	0.68
963.7288	29	17.0	13.0	43.0	55.0	280.0	0.63
963.7289	30	20.0	13.0	49.0	60.0	300.0	0.73
963.7290	32	22.0	14.0	53.0	64.0	300.0	0.65
963.7291	34	22.0	14.0	53.0	64.0	320.0	0.95
963.7292	36	22.0	14.0	54.0	72.0	330.0	0.93
963.7293	38	23.0	16.0	58.0	82.0	400.0	2.15
963.7294	41	24.0	16.0	61.0	87.0	410.0	2.00
963.7295	46	24.0	18.0	67.0	95.0	410.0	1.90
963.7296	50	27.0	18.0	75.0	100.0	540.0	3.40
963.7297	55	27.0	22.0	90.0	105.0	520.0	3.50
963.7298	60	32.0	27.0	92.0	125.0	515.0	3.30
963.7299	65	34.0	28.0	95.0	140.0	500.0	3.20
963.7300	70	35.0	28.0	100.0	145.0	510.0	3.80
963.7301	75	35.0	29.0	105.0	157.0	680.0	3.90
963.7302	80	36.0	29.0	112.0	165.0	680.0	4.00

		A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
963.7307	1/4“	7.0	6.0	15.0	17.0	135.0	0.05
963.7308	5/16“	7.0	6.0	15.0	17.0	135.0	0.05
963.7309	11/32“	7.0	6.0	18.0	22.0	150.0	0.06
963.7310	3/8“	7.0	6.0	18.0	22.0	150.0	0.06
963.7311	7/16“	7.0	6.0	18.0	22.0	150.0	0.06
963.7312	1/2“	10.0	7.0	22.0	32.0	190.0	0.11
963.7313	9/16“	10.0	7.0	22.0	32.0	190.0	0.11
963.7314	19/32“	11.0	8.0	27.0	34.0	210.0	0.20
963.7315	5/8“	11.0	8.0	27.0	34.0	210.0	0.20
963.7316	11/16“	13.0	9.0	31.0	40.0	230.0	0.23
963.7317	3/4“	13.0	9.0	31.0	40.0	230.0	0.23
963.7318	25/32“	13.0	9.0	31.0	40.0	230.0	0.23
963.7319	13/16“	14.0	9.0	36.0	43.0	250.0	0.30
963.7320	7/8“	14.0	9.0	36.0	43.0	250.0	0.30
963.7321	15/16“	15.0	10.0	38.0	48.0	270.0	0.41
963.7322	31/32“	15.0	10.0	38.0	48.0	270.0	0.41
963.7323	1“	15.0	10.0	38.0	48.0	270.0	0.41
963.7324	1.1/16“	17.0	13.0	43.0	55.0	280.0	0.51
963.7325	1.1/8“	17.0	13.0	43.0	55.0	280.0	0.51
963.7326	1.3/16“	22.0	14.0	53.0	64.0	300.0	0.57
963.7327	1.1/4“	22.0	14.0	53.0	64.0	300.0	0.57
963.7328	1.5/16“	22.0	14.0	53.0	64.0	300.0	0.57
963.7329	1.3/8“	22.0	14.0	55.0	72.0	330.0	0.84

		A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg	
963.7330	1.7/16"	22.0	14.0	55.0	72.0	330.0	0.84	
963.7331	1.1/2"	22.0	14.0	55.0	72.0	330.0	0.84	
963.7332	1.9/16"	24.0	18.0	67.0	95.0	410.0	2.00	
963.7333	1.5/8"	24.0	18.0	67.0	95.0	410.0	2.00	
963.7334	1.11/16"	24.0	18.0	67.0	95.0	410.0	2.00	
963.7335	1.3/4"	24.0	18.0	67.0	95.0	410.0	1.90	
963.7336	1.13/16"	24.0	18.0	67.0	95.0	410.0	1.90	
963.7337	1.7/8"	27.0	20.0	78.0	100.0	435.0	1.60	
963.7338	2"	27.0	20.0	78.0	100.0	435.0	1.60	
963.7339	2.1/16"	27.0	20.0	78.0	100.0	435.0	1.60	
963.7340	2.1/8"	27.0	22.0	90.0	105.0	455.0	2.00	
963.7341	2.3/16"	27.0	22.0	90.0	105.0	455.0	2.00	
963.7342	2.1/4"	30.0	25.0	92.0	110.0	475.0	2.50	

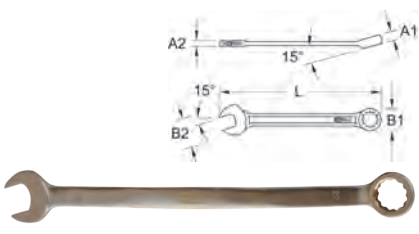
BRONZE*plus* combination spanner set, offset

- FlankTraction profil
- In accordance to DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			kg	
963.7303	8 pcs	8 - 9 - 10 - 11 - 13 - 14 - 17 - 19 mm	1.20	
963.7304	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19 - 22 mm	2.20	
963.7305	12 pcs	10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 - 24 - 27 - 30 - 32 mm	4.10	
963.7306	26 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm	8.45	
963.7343	12 pcs	1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 3/4" - 7/8" - 1" - 1.1/16" - 1.14"	3.30	

BRONZE*plus* combination spanner, extra long

- FlankTraction profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg	
963.7344	10	10.0	7.0	17.0	28.0	190.0	0.07	
963.7345	12	12.0	8.0	20.0	32.0	210.0	0.07	
963.7346	13	12.0	8.0	22.0	34.0	225.0	0.09	
963.7347	17	13.0	9.0	28.0	43.0	280.0	0.14	
963.7348	19	13.0	9.0	30.0	47.0	310.0	0.20	
963.7349	22	15.0	10.0	35.0	53.0	350.0	0.26	
963.7350	24	16.0	10.0	38.0	57.0	400.0	0.37	
963.7351	27	18.0	12.0	42.0	64.0	450.0	0.50	
963.7352	30	20.0	13.0	46.0	68.0	480.0	0.90	
963.7353	32	22.0	14.0	50.0	74.0	500.0	0.73	
963.7354	36	24.0	16.0	56.0	83.0	550.0	1.20	
963.7355	41	24.0	17.0	63.0	93.0	600.0	2.00	
963.7356	46	25.0	19.0	73.0	99.0	640.0	2.80	

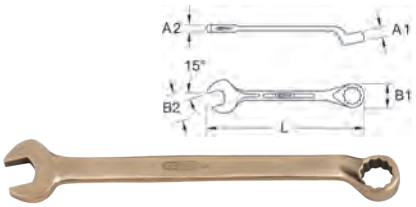
BRONZE*plus* Combination spanner set, extra long

- FlankTraction profil
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			kg	
963.7357	6 pcs	10 - 12 - 13 - 17 - 19 - 22 mm	0.83	
963.7358	10 pcs	10 - 12 - 13 - 17 - 19 - 22 - 24 - 27 - 30 - 32 mm	3.33	

BRONZE*plus* Combination spanners, offset

- FlankTraction profile (12 point
- In accordance to DIN 3113 Form B / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 70° offset
- Ring head 10° angled
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
963.7359	10	10.0	7.0	17.0	28.0	148.0	70	
963.7360	12	12.0	8.0	20.0	32.0	168.0	65	
963.7361	13	12.0	8.0	22.0	34.0	185.0	80	
963.7362	17	13.0	9.0	28.0	43.0	232.0	140	
963.7363	19	13.0	9.0	30.0	47.0	258.0	190	
963.7364	22	15.0	10.0	35.0	53.0	292.0	300	
963.7365	24	16.0	10.0	38.0	57.0	318.0	370	
963.7366	27	18.0	12.0	42.0	64.0	352.0	500	
963.7367	30	20.0	13.0	46.0	68.0	390.0	645	
963.7368	32	22.0	14.0	50.0	74.0	412.0	780	

BRONZE*plus* Combination spanners set, offset

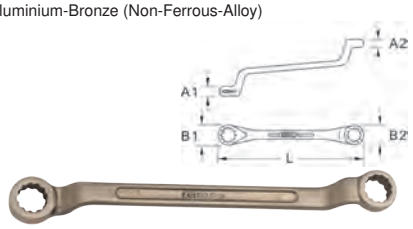
- FlankTraction profile (12 point
- In accordance to DIN 3113 Form B / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 70° offset
- Ring head 10° angled
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			kg	
963.7369	6 pcs	10 - 12 - 13 - 17 - 19 - 22 mm	0.85	
963.7370	10 pcs	10 - 12 - 13 - 17 - 19 - 22 - 24 - 27 - 30 - 32 mm	3.14	

NON SPARKING RING SPANNERS

BRONZE*plus* double ring ended spanner

- FlankTraction profil
- In accordance to DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Ring head 75° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg	
963.7371	6x7	6.0	6.0	12.0	14.0	170.0	0.11	
963.7372	6x8	6.0	6.0	12.0	14.0	170.0	0.11	
963.7373	7x8	6.0	6.0	12.0	14.0	170.0	0.10	
963.7374	7x9	7.0	7.0	15.0	18.0	170.0	0.10	
963.7375	8x9	7.0	7.0	15.0	18.0	170.0	0.10	
963.7376	8x10	7.0	7.0	15.0	18.0	180.0	0.14	
963.7377	9x10	7.0	7.0	15.0	18.0	180.0	0.13	
963.7378	9x11	8.0	8.0	17.0	20.0	180.0	0.14	
963.7379	10x11	8.0	8.0	17.0	20.0	180.0	0.15	
963.7380	10x12	8.0	8.0	17.0	20.0	180.0	0.14	
963.7381	10x13	9.0	9.0	20.0	23.0	195.0	0.18	
963.7382	10x14	9.0	9.0	20.0	23.0	195.0	0.17	
963.7383	11x13	9.0	9.0	20.0	23.0	195.0	0.19	
963.7384	11x14	9.0	9.0	20.0	23.0	195.0	0.18	
963.7385	12x13	9.0	9.0	20.0	23.0	195.0	0.18	
963.7386	12x14	9.0	9.0	20.0	23.0	195.0	0.18	
963.7387	13x14	9.0	9.0	20.0	23.0	195.0	0.18	
963.7388	13x15	10.0	10.0	22.0	26.0	230.0	0.24	
963.7389	13x16	10.0	10.0	22.0	26.0	230.0	0.24	
963.7390	13x17	10.0	10.0	22.0	26.0	230.0	0.25	
963.7391	14x15	10.0	10.0	22.0	26.0	230.0	0.25	
963.7392	14x16	10.0	10.0	22.0	26.0	230.0	0.24	
963.7393	14x17	10.0	10.0	22.0	26.0	230.0	0.23	
963.7394	16x17	10.0	10.0	24.0	26.0	230.0	0.24	
963.7395	16x18	12.0	12.0	26.0	30.0	280.0	0.42	
963.7396	17x19	12.0	12.0	26.0	30.0	280.0	0.40	
963.7397	17x22	12.0	13.0	26.0	35.0	280.0	0.38	
963.7398	18x19	12.0	12.0	26.0	30.0	280.0	0.40	
963.7399	18x20	13.0	13.0	30.0	35.0	280.0	0.39	
963.7400	18x21	13.0	13.0	30.0	35.0	280.0	0.39	
963.7401	19x22	13.0	13.0	30.0	35.0	280.0	0.37	
963.7402	19x24	14.0	14.0	35.0	37.0	290.0	0.53	
963.7403	20x22	13.0	13.0	30.0	35.0	280.0	0.38	
963.7404	21x23	14.0	14.0	35.0	37.0	290.0	0.51	
963.7405	21x24	14.0	14.0	35.0	37.0	300.0	0.51	
963.7406	22x24	14.0	14.0	35.0	37.0	300.0	0.51	
963.7407	22x27	15.0	15.0	38.0	42.0	330.0	0.65	
963.7408	23x26	15.0	15.0	38.0	42.0	330.0	0.67	
963.7409	24x26	15.0	15.0	38.0	42.0	330.0	0.68	
963.7410	24x27	15.0	15.0	38.0	42.0	330.0	0.67	
963.7411	24x30	15.0	15.0	42.0	47.0	370.0	0.93	
963.7412	25x28	15.0	15.0	38.0	42.0	330.0	0.66	
963.7413	26x29	15.0	15.0	42.0	47.0	370.0	1.00	
963.7414	27x29	15.0	15.0	42.0	47.0	370.0	1.00	
963.7415	27x30	15.0	15.0	42.0	47.0	370.0	0.90	
963.7416	27x32	16.0	16.0	46.0	50.0	370.0	0.90	
963.7417	30x32	16.0	16.0	46.0	50.0	370.0	0.86	
963.7418	30x34	18.0	18.0	52.0	54.0	430.0	0.85	
963.7419	30x36	18.0	18.0	52.0	54.0	430.0	1.30	
963.7420	32x34	18.0	18.0	52.0	54.0	430.0	1.30	
963.7421	32x36	18.0	18.0	52.0	54.0	430.0	1.30	
963.7422	34x36	18.0	18.0	52.0	54.0	430.0	1.25	
963.7423	35x38	18.0	18.0	54.0	56.0	450.0	1.40	
963.7424	36x38	18.0	18.0	54.0	56.0	450.0	1.45	
963.7425	36x41	20.0	20.0	56.0	62.0	450.0	1.45	
963.7426	38x42	20.0	20.0	54.0	62.0	450.0	1.45	
963.7427	41x46	20.0	20.0	63.0	68.0	460.0	1.80	
963.7428	46x50	24.0	24.0	69.0	74.0	480.0	2.10	
963.7429	50x55	23.0	23.0	72.0	83.0	540.0	3.00	
963.7430	50x60	23.0	23.0	72.0	90.0	540.0	2.80	
963.7431	55x60	24.0	24.0	80.0	90.0	540.0	2.80	
963.7432	60x65	25.0	25.0	90.0	98.0	690.0	4.20	
963.7433	65x70	25.0	25.0	98.0	105.0	690.0	4.20	
963.7434	70x80	27.0	27.0	105.0	115.0	770.0	6.00	
963.7435	75x80	27.0	27.0	110.0	115.0	790.0	6.60	
963.7436	85x90	30.0	30.0	115.0	120.0	800.0	7.00	

		A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
963.7438	1/4x5/16"	6.0	6.0	12.0	14.0	170.0	0.11
963.7439	5/16x3/8"	6.0	6.0	12.0	14.0	170.0	0.10
963.7440	3/8x7/16"	8.0	8.0	17.0	20.0	180.0	0.14
963.7441	7/16x1/2"	9.0	9.0	20.0	23.0	195.0	0.19
963.7442	1/2x9/16"	9.0	9.0	20.0	23.0	195.0	0.18
963.7443	1/2x19/32"	10.0	10.0	22.0	26.0	230.0	0.24
963.7444	9/16x5/8"	10.0	10.0	22.0	26.0	230.0	0.25
963.7445	19/32x11/16"	10.0	10.0	22.0	26.0	230.0	0.23
963.7446	5/8x11/16"	10.0	10.0	22.0	26.0	230.0	0.24
963.7447	5/8x3/4"	12.0	12.0	26.0	30.0	280.0	0.40
963.7448	11/16x3/4"	12.0	12.0	26.0	30.0	280.0	0.40
963.7449	11/16x25/32"	12.0	12.0	26.0	30.0	280.0	0.38
963.7450	3/4x25/32"	12.0	12.0	26.0	30.0	280.0	0.36
963.7451	3/4x7/8"	12.0	12.0	26.0	30.0	280.0	0.37
963.7452	13/16x7/8"	12.0	12.0	26.0	30.0	280.0	0.38
963.7453	25/32x13/16"	12.0	12.0	26.0	30.0	280.0	0.35
963.7454	7/8x15/16"	14.0	14.0	35.0	37.0	300.0	0.51
963.7455	7/8x1"	14.0	14.0	35.0	37.0	300.0	0.50
963.7456	7/8x1.1/16"	15.0	15.0	38.0	42.0	330.0	0.65
963.7457	15/16x1"	15.0	15.0	38.0	42.0	330.0	0.67
963.7458	1x1.1/8"	15.0	15.0	38.0	42.0	330.0	0.66
963.7459	1.1/16x1.1/8"	15.0	15.0	42.0	47.0	370.0	1.00
963.7460	1.1/16x1.1/4"	15.0	15.0	42.0	47.0	370.0	0.90
963.7461	1.1/8x1.5/16"	15.0	15.0	42.0	47.0	370.0	0.88
963.7462	1.3/16x1.5/16"	18.0	18.0	52.0	54.0	430.0	0.85
963.7463	1.1/4x1.5/16"	18.0	18.0	52.0	54.0	430.0	1.20
963.7464	1.1/4x1.3/8 „	18.0	18.0	52.0	54.0	430.0	1.30
963.7465	1.1/4x1.7/16"	18.0	18.0	52.0	54.0	430.0	1.30
963.7466	1.5/16x1.1/2"	18.0	18.0	52.0	54.0	430.0	1.20
963.7467	1.3/8x1.1/2"	18.0	18.0	54.0	56.0	450.0	1.40
963.7468	1.7/16x1.5/8"	18.0	18.0	54.0	56.0	450.0	1.45
963.7469	1.5/8x1.13/16"	20.0	20.0	63.0	68.0	460.0	1.80
963.7470	1.11/16x1.7/8"	20.0	20.0	63.0	68.0	460.0	1.80
963.7471	1.13/16x2"	24.0	24.0	69.0	74.0	480.0	2.10
963.7472	1.3/4x2.1/16"	24.0	24.0	69.0	74.0	480.0	2.00
963.7473	2x2.3/16"	24.0	24.0	80.0	90.0	540.0	3.00
963.7474	2 x2.3/8"	24.0	24.0	80.0	90.0	540.0	2.80
963.7475	2.3/16x2.3/8"	24.0	24.0	80.0	90.0	540.0	2.80
963.7476	2.1/4x2.7/16"	24.0	24.0	80.0	90.0	540.0	2.70

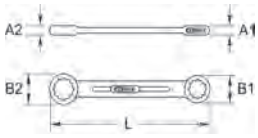
BRONZE*plus* double ring ended spanner set

- FlankTraction profil
- In accordance to DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Ring head 75° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			kg
963.7437	12 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 25x28 - 30x32 mm	4.10
963.7477	8 pcs	1/4"x5/16" - 3/8"x7/16" - 7/16"x1/2" - 1/2"x9/16" - 9/16"x5/8" - 8/5"x11/16" - 3/4"x7/8" - 15"/16x1"	2.10

BRONZE*plus* double ring ended spanner, straight

- FlankTraction profil
- In accordance to DIN 838
- Straight form
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
963.7478	6x7	6.0	6.0	12.0	14.0	100.0	0.01
963.7479	8x9	7.0	7.0	15.0	18.0	115.0	0.02
963.7480	8x10	7.0	7.0	15.0	18.0	120.0	0.02
963.7481	9x11	8.0	8.0	17.0	20.0	125.0	0.02
963.7482	10x11	8.0	8.0	17.0	20.0	130.0	0.02
963.7483	10x13	9.0	9.0	20.0	23.0	130.0	0.02
963.7484	12x13	9.0	9.0	20.0	23.0	140.0	0.04
963.7485	12x14	9.0	9.0	20.0	23.0	140.0	0.05
963.7486	13x14	9.0	9.0	20.0	23.0	140.0	0.05
963.7487	13x15	9.0	9.0	20.0	23.0	140.0	0.05
963.7488	13x17	10.0	10.0	22.0	26.0	155.0	0.05
963.7489	14x15	10.0	10.0	22.0	26.0	155.0	0.05
963.7490	14x17	10.0	10.0	22.0	26.0	155.0	0.05
963.7491	16x17	12.0	12.0	26.0	30.0	170.0	0.07
963.7492	16x18	12.0	12.0	26.0	30.0	170.0	0.07
963.7493	17x19	12.0	12.0	26.0	30.0	190.0	0.08
963.7494	18x19	12.0	12.0	26.0	30.0	190.0	0.08
963.7495	19x22	14.0	14.0	35.0	37.0	200.0	0.12
963.7496	19x24	14.0	14.0	35.0	37.0	200.0	0.12
963.7497	20x22	14.0	14.0	35.0	37.0	200.0	0.12
963.7498	21x23	14.0	14.0	35.0	37.0	200.0	0.12
963.7499	22x24	14.0	14.0	35.0	37.0	200.0	0.12
963.7500	24x26	15.0	15.0	38.0	42.0	210.0	0.14
963.7501	24x27	15.0	15.0	38.0	42.0	210.0	0.13
963.7502	24x30	16.0	16.0	42.0	47.0	255.0	0.19
963.7503	25x28	16.0	16.0	42.0	47.0	255.0	0.20
963.7504	26x28	16.0	16.0	42.0	47.0	255.0	0.19
963.7505	27x29	16.0	16.0	42.0	47.0	255.0	0.19
963.7506	27x32	16.0	16.0	46.0	50.0	265.0	0.23
963.7507	30x32	16.0	16.0	46.0	50.0	265.0	0.23
963.7508	30x36	18.0	18.0	52.0	54.0	285.0	0.28
963.7509	32x36	18.0	18.0	52.0	54.0	285.0	0.28
963.7510	36x41	20.0	20.0	54.0	64.0	460.0	0.33
963.7511	41x46	21.0	21.0	63.0	68.0	432.0	0.81
963.7512	46x50	24.0	24.0	69.0	74.0	477.0	1.04

		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
963.7513	1/4x5/16"	6.0	6.0	12.0	14.0	100.0	12
963.7514	5/16x3/8"	7.0	7.0	15.0	18.0	115.0	16
963.7515	3/8x7/16"	8.0	8.0	17.0	20.0	125.0	22
963.7516	7/16x9/16"	9.0	9.0	20.0	23.0	140.0	45
963.7517	1/2x5/8"	10.0	10.0	22.0	26.0	155.0	50
963.7518	1/2x19/32"	9.0	9.0	20.0	23.0	140.0	45
963.7519	9/16x11/16"	10.0	10.0	22.0	26.0	155.0	50
963.7520	5/8x25/32"	12.0	12.0	26.0	30.0	190.0	80
963.7521	11/16x3/4"	12.0	12.0	26.0	30.0	190.0	80
963.7522	3/4x7/8"	14.0	14.0	35.0	37.0	200.0	120
963.7523	13/16x15/16"	14.0	14.0	35.0	37.0	200.0	120
963.7524	15/16x1.1/16"	15.0	15.0	38.0	42.0	210.0	130
963.7525	1x1.1/8"	16.0	16.0	42.0	47.0	255.0	200
963.7526	1.3/16x1.1/4"	16.0	16.0	46.0	50.0	265.0	228

BRONZE*plus* single-end box wrench, straight

- FlankTraction profil
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	A mm	B mm	L mm	kg
963.7527	14	10.5	24.0	140.0	0.13
963.7528	15	10.5	24.0	140.0	0.13
963.7529	16	11.5	29.0	155.0	0.15
963.7530	17	11.5	29.0	155.0	0.15
963.7531	18	12.0	30.0	170.0	0.25
963.7532	19	12.0	30.0	170.0	0.28
963.7533	20	13.5	35.0	190.0	0.28
963.7534	21	13.5	35.0	190.0	0.30
963.7535	22	13.5	35.0	190.0	0.30
963.7536	23	14.5	38.0	215.0	0.30
963.7537	24	14.5	38.0	215.0	0.40
963.7538	25	16.0	42.0	230.0	0.43
963.7539	26	16.0	42.0	230.0	0.45
963.7540	27	16.0	42.0	230.0	0.50
963.7541	28	17.0	48.0	265.0	0.52
963.7542	29	17.0	48.0	265.0	0.51
963.7543	30	17.0	48.0	265.0	0.50
963.7544	32	17.0	51.0	265.0	0.45
963.7545	33	17.0	51.0	265.0	0.43
963.7546	34	17.5	51.0	290.0	0.67
963.7547	35	17.5	51.0	290.0	0.66
963.7548	36	17.5	55.0	290.0	0.65
963.7549	37	21.0	65.0	325.0	0.90
963.7550	38	21.0	65.0	325.0	0.90
963.7551	41	21.0	65.0	325.0	0.90
963.7552	42	21.0	65.0	325.0	0.90
963.7553	46	23.0	72.0	365.0	1.10
963.7554	47	23.0	72.0	365.0	1.10
963.7555	50	24.5	79.0	400.0	1.40
963.7556	52	26.0	87.0	430.0	1.80
963.7557	54	26.0	87.0	430.0	1.70
963.7558	55	26.5	87.0	445.0	1.65
963.7559	56	27.5	93.0	465.0	1.80
963.7560	58	27.5	93.0	465.0	1.80
963.7561	60	27.5	93.0	465.0	2.00
963.7562	63	29.0	100.0	500.0	2.30
963.7563	65	29.0	100.0	500.0	2.10
963.7564	67	29.0	100.0	500.0	2.00
963.7565	70	30.0	107.0	550.0	3.00
963.7566	71	30.0	107.0	550.0	2.80
963.7567	75	32.0	115.0	620.0	5.00
963.7568	77	32.0	115.0	620.0	5.00
963.7569	80	32.0	125.0	620.0	4.50
963.7570	82	32.0	125.0	620.0	4.30
963.7571	85	35.0	130.0	650.0	5.00
963.7572	88	37.0	138.0	650.0	4.80
963.7573	90	37.0	138.0	650.0	4.20
963.7574	94	39.0	145.0	700.0	5.20
963.7575	95	39.0	145.0	700.0	5.20

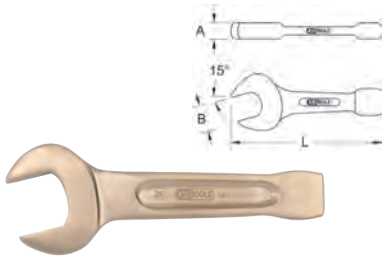
		A mm	B mm	L mm	kg
963.7576	1/2"	10.5	24.0	140.0	0.13
963.7577	9/16"	10.5	24.0	140.0	0.13
963.7578	19/32"	10.5	24.0	140.0	0.13
963.7579	5/8"	11.5	29.0	155.0	0.15
963.7580	11/16"	11.5	29.0	155.0	0.15
963.7581	3/4"	12.0	30.0	170.0	0.28
963.7582	25/32"	13.5	35.0	190.0	0.28
963.7583	13/16"	13.5	35.0	190.0	0.30
963.7584	7/8"	13.5	35.0	190.0	0.30
963.7585	15/16"	14.5	38.0	215.0	0.40
963.7586	31/32"	14.5	38.0	215.0	0.43
963.7587	1"	16.0	42.0	230.0	0.43
963.7588	1.1/16"	16.0	42.0	230.0	0.50
963.7589	1.1/8"	17.0	48.0	265.0	0.52
963.7590	1.3/16"	17.0	48.0	265.0	0.50
963.7591	1.1/4"	17.0	51.0	265.0	0.45
963.7592	1.5/16"	17.0	51.0	265.0	0.43

		A mm	B mm	L mm	kg
963.7593	1.3/8"	17.5	51.0	290.0	0.66
963.7594	1.7/16"	21.0	65.0	325.0	0.90
963.7595	1.1/2"	21.0	65.0	325.0	0.90
963.7596	1.9/16"	21.0	65.0	325.0	0.85
963.7597	1.5/8"	21.0	65.0	325.0	0.90
963.7598	1.11/16"	21.0	65.0	325.0	0.85
963.7599	1.3/4"	23.0	72.0	365.0	1.20
963.7600	1.13/19"	23.0	72.0	365.0	1.10
963.7601	1.7/8"	23.0	72.0	365.0	1.10
963.7602	2"	24.5	79.0	400.0	1.40
963.7603	2.1/16"	26.0	87.0	430.0	1.80
963.7604	2.1/8"	26.0	87.0	430.0	1.70
963.7605	2.3/16"	26.5	87.0	445.0	1.65
963.7606	2.1/4"	27.5	93.0	465.0	1.80
963.7607	2.5/16"	27.5	93.0	465.0	1.80
963.7608	2.3/8"	27.5	93.0	465.0	2.00
963.7609	2.7/16"	29.0	100.0	500.0	2.10
963.7610	2.1/2"	29.0	100.0	500.0	2.00
963.7611	2.9/16"	29.0	100.0	500.0	2.10
963.7612	2.3/4"	30.0	107.0	550.0	3.00
963.7613	2.15/16"	32.0	115.0	620.0	5.00
963.7614	3"	32.0	115.0	620.0	5.00
963.7615	3.1/8"	32.0	115.0	620.0	4.50
963.7616	3.3/8"	35.0	130.0	650.0	5.00
963.7617	3.1/2"	37.0	138.0	650.0	4.80
963.7618	3.3/4"	39.0	145.0	700.0	5.20

NON SPARKING IMPACT SPANNERS

BRONZE*plus* slogging open ended spanner

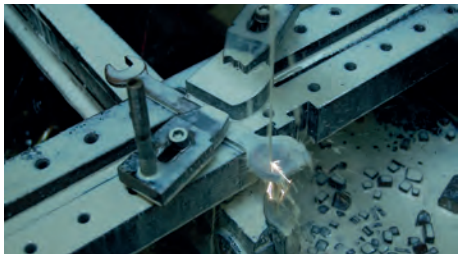
- In accordance to DIN 133
- Jaw 15° offset
- With impact area
- For heavy duty applications
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A mm	B mm	L mm	kg
963.7619	14	11.0	30.0	180.0	0.35
963.7620	17	11.0	36.0	125.0	0.12
963.7621	19	12.0	40.0	120.0	0.13
963.7622	22	13.0	44.0	135.0	0.15
963.7623	24	14.0	46.0	150.0	0.20
963.7624	27	16.0	55.0	180.0	0.38
963.7625	28	16.0	55.0	180.0	0.37
963.7626	29	17.0	63.0	190.0	0.36
963.7627	30	17.0	63.0	190.0	0.35
963.7628	32	17.0	64.0	210.0	0.68
963.7629	33	19.0	70.0	210.0	0.67
963.7630	34	19.0	70.0	210.0	0.66
963.7631	35	20.0	75.0	210.0	0.65
963.7632	36	20.0	75.0	210.0	0.64
963.7633	38	21.0	80.0	210.0	0.63
963.7634	41	21.0	85.0	220.0	0.79
963.7635	42	21.0	85.0	220.0	0.75
963.7636	46	22.0	97.0	250.0	1.15
963.7637	47	22.0	97.0	255.0	1.20
963.7638	50	23.0	105.0	275.0	1.35
963.7639	52	23.0	105.0	275.0	1.50
963.7640	54	25.0	115.0	300.0	1.90
963.7641	55	25.0	115.0	290.0	1.60
963.7642	56	25.0	125.0	290.0	1.55
963.7643	58	25.0	125.0	290.0	1.50
963.7644	60	26.0	125.0	320.0	2.60
963.7645	63	27.0	135.0	330.0	3.00
963.7646	65	27.0	135.0	330.0	3.00
963.7647	67	28.0	135.0	380.0	4.20
963.7648	70	28.0	135.0	380.0	3.80
963.7649	71	28.0	135.0	380.0	3.70
963.7650	75	30.0	155.0	380.0	3.60

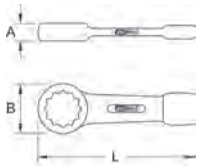
	mm	A mm	B mm	L mm	kg
963.7651	77	30.0	155.0	380.0	5.00
963.7652	80	32.0	165.0	370.0	4.80
963.7653	82	32.0	165.0	370.0	4.70
963.7654	85	32.0	170.0	370.0	4.50
963.7655	88	34.0	185.0	430.0	7.20
963.7656	90	34.0	185.0	430.0	7.00
963.7657	94	36.0	200.0	430.0	6.90
963.7658	95	36.0	200.0	430.0	6.80
963.7659	100	38.0	215.0	470.0	9.50
963.7660	105	38.0	215.0	470.0	9.30
963.7661	110	40.0	235.0	510.0	14.10
963.7662	115	40.0	235.0	510.0	13.30
963.7663	120	42.0	250.0	545.0	16.40
963.7664	125	42.0	250.0	545.0	15.50
963.7665	130	45.0	270.0	575.0	19.80
963.7666	135	45.0	270.0	575.0	19.20
963.7667	140	45.0	282.0	575.0	19.00
963.7668	145	48.0	295.0	640.0	27.00
963.7669	150	48.0	302.0	640.0	26.80
963.7670	155	48.0	320.0	640.0	26.50
963.7671	160	48.0	320.0	640.0	26.30
963.7672	165	50.0	340.0	715.0	39.50
963.7673	170	50.0	340.0	715.0	38.50
963.7674	175	55.0	355.0	715.0	37.00
963.7675	180	55.0	367.0	715.0	36.00
963.7676	185	55.0	390.0	715.0	35.80
963.7677	190	55.0	390.0	715.0	38.50
963.7678	195	55.0	390.0	715.0	38.50
963.7679	200	55.0	400.0	715.0	38.00
963.7680	205	55.0	400.0	715.0	37.50
963.7681	210	55.0	410.0	715.0	37.00
963.7682	220	55.0	410.0	715.0	36.50
963.7683	230	55.0	410.0	715.0	36.50

		A mm	B mm	L mm	kg
963.7684	1"	14.0	46.0	150.0	0.20
963.7685	1.1/16"	16.0	55.0	180.0	0.38
963.7686	1.1/8"	16.0	55.0	180.0	0.37
963.7687	1.3/16"	17.0	63.0	190.0	0.35
963.7688	1.1/4"	17.0	64.0	210.0	0.68
963.7689	1.5/16"	19.0	70.0	210.0	0.67
963.7690	1.3/8"	19.0	70.0	210.0	0.65
963.7691	1.7/16"	20.0	75.0	210.0	0.64
963.7692	1.1/2"	20.0	75.0	210.0	0.63
963.7693	1.9/16"	21.0	85.0	220.0	0.75
963.7694	1.5/8"	21.0	85.0	220.0	0.79
963.7695	1.11/16"	21.0	85.0	220.0	0.75
963.7696	1.3/4"	22.0	97.0	250.0	1.10
963.7697	1.13/16"	22.0	97.0	250.0	1.15
963.7698	1.7/8"	22.0	97.0	255.0	1.20
963.7699	2"	23.0	105.0	275.0	1.35
963.7700	2.1/16"	23.0	105.0	275.0	1.50
963.7701	2.1/8"	25.0	115.0	300.0	1.90
963.7702	2.3/16"	25.0	115.0	290.0	1.60
963.7703	2.1/4"	25.0	115.0	290.0	1.50
963.7704	2.5/16"	25.0	115.0	290.0	1.50
963.7705	2.3/8"	26.0	125.0	320.0	2.60
963.7706	2.7/16"	27.0	135.0	330.0	3.00
963.7707	2.1/2"	27.0	135.0	330.0	3.00
963.7708	2.9/16"	27.0	135.0	330.0	3.00
963.7709	2.5/8"	28.0	155.0	380.0	4.20
963.7710	2.3/4"	28.0	155.0	380.0	3.80
963.7711	2.13/16"	28.0	155.0	380.0	3.70
963.7712	2.15/16"	30.0	155.0	380.0	3.50
963.7713	3"	30.0	155.0	380.0	4.00
963.7714	3.1/8"	32.0	165.0	370.0	4.80
963.7715	3.1/4"	32.0	165.0	370.0	4.70
963.7716	3.3/8"	32.0	165.0	370.0	4.50
963.7717	3.1/2"	34.0	185.0	430.0	7.20
963.7718	3.5/8"	34.0	185.0	430.0	7.00
963.7719	3.3/4"	36.0	200.0	430.0	6.80
963.7720	3.7/8"	36.0	200.0	430.0	6.60
963.7721	4"	37.0	210.0	470.0	9.50
963.7722	4.1/8"	37.0	210.0	470.0	9.50
963.7723	4.1/2"	40.0	235.0	510.0	13.30



BRONZE*plus* slogging ring spanner

- FlankTraction profile (12 point
- In accordance to DIN 7444
- With impact area
- For heavy duty applications
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A mm	B mm	L mm	kg
963.7724	17	15.0	38.0	150.0	0.40
963.7725	19	15.0	38.0	150.0	0.40
963.7726	22	15.0	38.0	150.0	0.35
963.7727	24	15.0	38.0	150.0	0.35
963.7728	27	18.0	45.0	190.0	0.60
963.7729	28	18.0	45.0	190.0	0.58
963.7730	29	19.0	50.0	190.0	0.56
963.7731	30	19.0	50.0	190.0	0.55
963.7732	32	19.0	53.0	190.0	0.58
963.7733	33	19.0	53.0	190.0	0.57
963.7734	34	21.0	58.0	210.0	0.68
963.7735	35	21.0	58.0	210.0	0.70
963.7736	36	21.0	58.0	210.0	0.69
963.7737	37	21.0	58.0	210.0	0.68
963.7738	38	21.0	63.0	230.0	1.10
963.7739	41	21.0	63.0	230.0	1.00
963.7740	42	21.0	63.0	230.0	1.00
963.7741	46	23.0	70.0	240.0	1.25
963.7742	47	23.0	70.0	240.0	1.27
963.7743	50	27.0	77.0	255.0	1.40
963.7744	52	27.0	77.0	255.0	1.40
963.7745	54	27.0	85.0	255.0	1.35
963.7746	55	27.0	85.0	255.0	1.34
963.7747	56	27.0	85.0	255.0	1.33
963.7748	57	27.0	85.0	255.0	1.30
963.7749	58	29.0	92.0	280.0	2.50
963.7750	60	29.0	92.0	280.0	2.40
963.7751	63	30.0	104.0	295.0	2.90
963.7752	65	30.0	104.0	295.0	2.80
963.7753	67	30.0	104.0	295.0	2.70
963.7754	70	33.0	110.0	320.0	3.40
963.7755	71	33.0	110.0	320.0	3.30
963.7756	75	35.0	115.0	320.0	3.20
963.7757	76	35.0	115.0	320.0	3.10
963.7758	77	35.0	115.0	320.0	3.00
963.7759	80	37.0	120.0	355.0	3.60
963.7760	82	37.0	120.0	355.0	3.50
963.7761	85	42.0	125.0	365.0	5.00
963.7762	88	44.0	135.0	360.0	4.80
963.7763	90	44.0	135.0	360.0	4.60
963.7764	94	45.0	145.0	360.0	4.50
963.7765	95	45.0	145.0	360.0	4.40
963.7766	100	46.0	150.0	360.0	4.20
963.7767	105	46.0	150.0	360.0	3.90
963.7768	110	47.0	165.0	450.0	8.60
963.7769	115	47.0	165.0	450.0	8.10
963.7770	120	48.0	182.0	480.0	9.70
963.7771	125	48.0	182.0	480.0	9.50
963.7772	128	50.0	196.0	520.0	13.20
963.7773	130	50.0	196.0	520.0	13.20
963.7774	135	50.0	196.0	520.0	12.90
963.7775	140	50.0	196.0	520.0	12.90
963.7776	145	52.0	220.0	580.0	19.00
963.7777	150	52.0	220.0	580.0	18.00
963.7778	155	52.0	220.0	580.0	17.20
963.7779	160	52.0	220.0	580.0	19.00
963.7780	165	54.0	245.0	650.0	28.00
963.7781	170	54.0	245.0	650.0	27.70
963.7782	175	54.0	245.0	650.0	27.00
963.7783	180	54.0	245.0	650.0	26.00
963.7784	185	56.0	270.0	700.0	32.70
963.7785	190	56.0	270.0	700.0	32.20
963.7786	195	56.0	270.0	700.0	31.80
963.7787	200	56.0	270.0	700.0	31.00

		A mm	B mm	L mm	kg
963.7788	11/16"	15.0	38.0	150.0	0.40
963.7789	3/4"	15.0	38.0	150.0	0.40
963.7790	25/32"	15.0	38.0	150.0	0.39
963.7791	13/16"	15.0	38.0	150.0	0.38
963.7792	7/8"	15.0	38.0	150.0	0.35
963.7793	15/16"	15.0	38.0	150.0	0.35
963.7794	1"	15.0	38.0	150.0	0.34
963.7795	1.1/16"	19.0	50.0	190.0	0.70
963.7796	1.1/8"	19.0	50.0	190.0	0.58
963.7797	1.1/4"	19.0	50.0	190.0	0.58
963.7798	1.3/16"	19.0	50.0	190.0	0.55
963.7799	1.5/16"	20.0	55.0	190.0	0.57
963.7800	1.3/8"	21.0	58.0	210.0	0.70
963.7801	1.7/16"	21.0	58.0	210.0	0.69
963.7802	1.1/2"	21.0	63.0	230.0	1.10
963.7803	1.9/16"	21.0	63.0	230.0	1.00
963.7804	1.5/8"	21.0	63.0	230.0	1.00
963.7805	1.11/16"	21.0	63.0	230.0	1.00
963.7806	1.3/4"	23.0	70.0	240.0	1.20
963.7807	1.13/16"	23.0	70.0	240.0	1.25
963.7808	1.7/8"	23.0	70.0	240.0	1.27
963.7809	2"	27.0	77.0	255.0	1.40
963.7810	2.1/16"	27.0	77.0	255.0	1.40
963.7811	2.1/8"	27.0	85.0	255.0	1.35
963.7812	2.3/16"	27.0	85.0	255.0	1.34
963.7813	2.1/4"	27.0	85.0	255.0	1.30
963.7814	2.5/16"	29.0	92.0	280.0	2.50
963.7815	2.3/8"	29.0	92.0	280.0	2.40
963.7816	2.7/16"	30.0	104.0	295.0	2.70
963.7817	2.1/2"	30.0	104.0	295.0	2.90
963.7818	2.9/16"	30.0	104.0	295.0	2.80
963.7819	2.5/8"	30.0	104.0	295.0	2.70
963.7820	2.3/4"	33.0	110.0	320.0	3.20
963.7821	2.13/16"	33.0	110.0	320.0	3.30
963.7822	2.7/8"	33.0	110.0	320.0	3.30
963.7823	2.15/16"	35.0	115.0	320.0	3.20
963.7824	3"	35.0	115.0	320.0	3.10
963.7825	3.1/8"	37.0	120.0	355.0	3.60
963.7826	3.1/4"	37.0	120.0	355.0	3.50
963.7827	3.3/8"	43.0	125.0	365.0	5.00
963.7828	3.1/2"	44.0	135.0	360.0	4.80
963.7829	3.5/8"	44.0	135.0	360.0	4.50
963.7830	3.3/4"	45.0	145.0	360.0	4.50
963.7831	3.7/8"	46.0	150.0	360.0	4.30
963.7832	4"	46.0	150.0	360.0	4.20
963.7833	4.1/8"	46.0	150.0	360.0	3.90
963.7834	4.1/2"	47.0	167.0	450.0	8.10

BRONZE*plus* slogging ring spanner, offset

- FlankTraction profile (12 point
- In accordance to DIN 7444
- Ring head 75° offset
- With impact area
- For heavy duty applications
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	A mm	B mm	H mm	L mm	kg
963.7835	27	17.0	42.0	45.0	245.0	1.10
963.7836	30	18.0	53.0	50.0	270.0	1.50
963.7837	32	18.0	55.0	50.0	270.0	1.50
963.7838	36	20.0	60.0	55.0	280.0	1.60
963.7839	41	22.0	67.0	60.0	310.0	2.10
963.7840	46	23.0	70.0	65.0	320.0	2.50
963.7841	50	27.0	77.0	65.0	320.0	2.50
963.7842	55	27.0	85.0	65.0	320.0	2.60
963.7843	60	29.0	92.0	70.0	355.0	3.20
963.7844	65	30.0	104.0	72.0	380.0	3.80
963.7845	70	33.0	110.0	75.0	400.0	4.60
963.7846	75	35.0	115.0	80.0	420.0	5.70
963.7847	80	37.0	120.0	85.0	440.0	6.60
963.7848	85	43.0	125.0	85.0	440.0	7.00
963.7849	90	44.0	135.0	85.0	440.0	9.30
963.7850	95	45.0	145.0	85.0	440.0	10.00
963.7851	100	46.0	150.0	90.0	440.0	11.70
963.7852	110	47.0	167.0	90.0	440.0	13.40
963.7853	115	47.0	167.0	90.0	440.0	14.50

BRONZE*plus* open ended spanner 15°

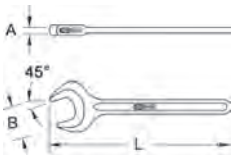
- Jaw 15° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	A mm	B mm	L mm	kg
963.7854	22	10.5	48.0	320.0	0.45
963.7855	23	10.5	48.0	320.0	0.45
963.7856	24	11.0	52.0	350.0	0.60
963.7857	25	11.0	52.0	350.0	0.60
963.7858	26	11.5	60.0	380.0	0.85
963.7859	27	11.5	60.0	380.0	0.85
963.7860	28	12.0	65.0	420.0	1.00
963.7861	29	12.0	65.0	420.0	1.00
963.7862	30	12.0	65.0	420.0	1.00
963.7863	32	12.5	70.0	450.0	1.00
963.7864	33	12.5	70.0	450.0	1.00
963.7865	34	13.0	74.0	450.0	1.00
963.7866	35	13.5	80.0	500.0	1.40
963.7867	36	13.5	80.0	500.0	1.40
963.7868	37	13.5	80.0	500.0	1.40
963.7869	38	15.0	90.0	500.0	1.40
963.7870	41	15.0	90.0	550.0	1.80
963.7871	42	15.0	90.0	550.0	1.80
963.7872	46	16.0	100.0	600.0	2.50
963.7873	47	16.0	100.0	600.0	2.50
963.7874	50	17.0	110.0	660.0	3.20
963.7875	52	17.0	110.0	660.0	3.20
963.7876	54	18.0	120.0	660.0	4.40
963.7877	55	18.0	120.0	730.0	4.40
963.7878	56	18.0	120.0	730.0	4.40
963.7879	58	19.0	130.0	800.0	5.60
963.7880	60	19.0	130.0	800.0	5.60

	mm	A mm	B mm	L mm	kg
963.7935	13/16"	10.5	48.0	320.0	0.45
963.7936	7/8"	10.5	48.0	320.0	0.45
963.7937	15/16"	11.0	52.0	350.0	0.60
963.7938	31/32"	11.0	52.0	350.0	0.60
963.7939	1"	11.5	60.0	380.0	0.60
963.7940	1.1/16"	11.5	60.0	380.0	0.85
963.7941	1.1/8"	12.0	65.0	420.0	1.00
963.7942	1.3/16"	12.0	65.0	420.0	1.00
963.7943	1.1/4"	12.0	65.0	420.0	1.00
963.7944	1.5/16"	12.5	70.0	450.0	1.00
963.7945	1.3/8"	12.5	70.0	450.0	1.40
963.7946	1.7/16"	13.5	80.0	450.0	1.40
963.7947	1.1/2"	15.0	90.0	500.0	1.40
963.7948	1.9/16"	15.0	90.0	500.0	1.80
963.7949	1.5/8"	15.0	90.0	500.0	1.80
963.7950	1.11/16"	15.0	90.0	500.0	1.80
963.7951	1.3/4"	16.0	100.0	550.0	2.50
963.7952	1.13/16"	16.0	100.0	550.0	2.50
963.7953	1.7/8"	16.0	100.0	600.0	2.50
963.7954	2"	17.0	110.0	600.0	3.20
963.7955	2.1/16"	17.0	110.0	660.0	3.20
963.7956	2.1/8"	18.0	120.0	660.0	4.40
963.7957	2.3/16"	18.0	120.0	660.0	4.40
963.7958	2.1/4"	19.0	130.0	730.0	4.40
963.7959	2.5/16"	19.0	130.0	730.0	5.60
963.7960	2.3/8"	19.0	130.0	800.0	5.60

BRONZE*plus* open ended spanner 45°

- Jaw 45° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

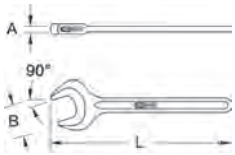


	mm	A mm	B mm	L mm	kg
963.7881	22	10.5	48.0	320.0	0.45
963.7882	23	10.5	48.0	320.0	0.45
963.7883	24	11.0	52.0	350.0	0.60
963.7884	25	11.0	52.0	350.0	0.60
963.7885	26	11.5	60.0	380.0	0.85
963.7886	27	11.5	60.0	380.0	0.85
963.7887	28	12.0	65.0	420.0	1.00
963.7888	29	12.0	65.0	420.0	1.00
963.7889	30	12.0	65.0	420.0	1.00
963.7890	32	12.5	70.0	450.0	1.00
963.7891	33	12.5	70.0	450.0	1.00
963.7892	34	13.0	74.0	450.0	1.00
963.7893	35	13.5	80.0	500.0	1.40
963.7894	36	13.5	80.0	500.0	1.40
963.7895	37	13.5	80.0	500.0	1.40
963.7896	38	15.0	90.0	500.0	1.40
963.7897	41	15.0	90.0	550.0	1.80
963.7898	42	15.0	90.0	550.0	1.80
963.7899	46	16.0	100.0	600.0	2.50
963.7900	47	16.0	100.0	600.0	2.50
963.7901	50	17.0	110.0	660.0	3.20
963.7902	52	17.0	110.0	660.0	3.20
963.7903	54	18.0	120.0	660.0	4.40
963.7904	55	18.0	120.0	730.0	4.40
963.7905	56	18.0	120.0	730.0	4.40
963.7906	58	19.0	130.0	800.0	5.60
963.7907	60	19.0	130.0	800.0	5.60

	mm	A mm	B mm	L mm	kg
963.7961	13/16"	10.5	48.0	320.0	0.45
963.7962	7/8"	10.5	48.0	320.0	0.45
963.7963	15/16"	11.0	52.0	350.0	0.60
963.7964	31/32"	11.0	52.0	350.0	0.60
963.7965	1"	11.5	60.0	380.0	0.60
963.7966	1.1/16"	11.5	60.0	380.0	0.85
963.7967	1.1/8"	12.0	65.0	420.0	1.00
963.7968	1.3/16"	12.0	65.0	420.0	1.00
963.7969	1.1/4"	12.0	65.0	420.0	1.00
963.7970	1.5/16"	12.5	70.0	450.0	1.00
963.7971	1.3/8"	12.5	70.0	450.0	1.40
963.7972	1.7/16"	13.5	80.0	450.0	1.40
963.7973	1.1/2"	15.0	90.0	500.0	1.40
963.7974	1.9/16"	15.0	90.0	500.0	1.80
963.7975	1.5/8"	15.0	90.0	500.0	1.80
963.7976	1.11/16"	15.0	90.0	500.0	1.80
963.7977	1.3/4"	16.0	100.0	550.0	2.50
963.7978	1.13/16"	16.0	100.0	550.0	2.50
963.7979	1.7/8"	16.0	100.0	600.0	2.50
963.7980	2"	17.0	110.0	600.0	3.20
963.7981	2.1/16"	17.0	110.0	660.0	3.20
963.7982	2.1/8"	18.0	120.0	660.0	4.40
963.7983	2.3/16"	18.0	120.0	660.0	4.40
963.7984	2.1/4"	19.0	130.0	730.0	4.40
963.7985	2.5/16"	19.0	130.0	730.0	5.60
963.7986	2.3/8"	19.0	130.0	800.0	5.60

BRONZE*plus* open ended spanner 90°

- Jaw 90° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

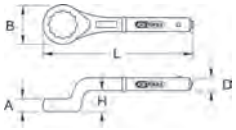


	mm	A mm	B mm	L mm	kg	
963.7908	22	10.5	48.0	320.0	0.45	
963.7909	23	10.5	48.0	320.0	0.45	
963.7910	24	11.0	52.0	350.0	0.60	
963.7911	25	11.0	52.0	350.0	0.60	
963.7912	26	11.5	60.0	380.0	0.85	
963.7913	27	11.5	60.0	380.0	0.85	
963.7914	28	12.0	65.0	420.0	1.00	
963.7915	29	12.0	65.0	420.0	1.00	
963.7916	30	12.0	65.0	420.0	1.00	
963.7917	32	12.5	70.0	450.0	1.00	
963.7918	33	12.5	70.0	450.0	1.00	
963.7919	34	13.0	74.0	450.0	1.00	
963.7920	35	13.5	80.0	500.0	1.40	
963.7921	36	13.5	80.0	500.0	1.40	
963.7922	37	13.5	80.0	500.0	1.40	
963.7923	38	15.0	90.0	500.0	1.40	
963.7924	41	15.0	90.0	550.0	1.80	
963.7925	42	15.0	90.0	550.0	1.80	
963.7926	46	16.0	100.0	600.0	2.50	
963.7927	47	16.0	100.0	600.0	2.50	
963.7928	50	17.0	110.0	660.0	3.20	
963.7929	52	17.0	110.0	660.0	3.20	
963.7930	54	18.0	120.0	660.0	4.40	
963.7931	55	18.0	120.0	730.0	4.40	
963.7932	56	18.0	120.0	730.0	4.40	
963.7933	58	19.0	130.0	800.0	5.60	
963.7934	60	19.0	130.0	800.0	5.60	

		A mm	B mm	L mm	kg	
963.7987	13/16"	10.5	48.0	320.0	0.45	
963.7988	7/8"	10.5	48.0	320.0	0.45	
963.7989	15/16"	11.0	52.0	350.0	0.60	
963.7990	31/32"	11.0	52.0	350.0	0.60	
963.7991	1"	11.5	60.0	380.0	0.60	
963.7992	1.1/16"	11.5	60.0	380.0	0.85	
963.7993	1.1/8"	12.0	65.0	420.0	1.00	
963.7994	1.3/16"	12.0	65.0	420.0	1.00	
963.7995	1.1/4"	12.0	65.0	420.0	1.00	
963.7996	1.5/16"	12.5	70.0	450.0	1.00	
963.7997	1.3/8"	12.5	70.0	450.0	1.40	
963.7998	1.7/16"	13.5	80.0	450.0	1.40	
963.7999	1.1/2"	15.0	90.0	500.0	1.40	
963.8000	1.9/16"	15.0	90.0	500.0	1.80	
963.8001	1.5/8"	15.0	90.0	500.0	1.80	
963.8002	1.11/16"	15.0	90.0	500.0	1.80	
963.8003	1.3/4"	16.0	100.0	550.0	2.50	
963.8004	1.13/16"	16.0	100.0	550.0	2.50	
963.8005	1.7/8"	16.0	100.0	600.0	2.50	
963.8006	2"	17.0	110.0	600.0	3.20	
963.8007	2.1/16"	17.0	110.0	660.0	3.20	
963.8008	2.1/8"	18.0	120.0	660.0	4.40	
963.8009	2.3/16"	18.0	120.0	660.0	4.40	
963.8010	2.1/4"	19.0	130.0	730.0	4.40	
963.8011	2.5/16"	19.0	130.0	730.0	5.60	
963.8012	2.3/8"	19.0	130.0	800.0	5.60	

BRONZE*plus* Offset single ring spanner

- FlankTraction Profil
- Ring head 75° offset
- With shaft for snap-on handle
- With locking pin
- Heavy duty to deliver maximum torque
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A mm	B mm	D mm	H mm	L mm		kg	
963.8013	22	19.0	36.0	15.5	31.0	260.0	1	0.96	
963.8014	24	19.0	36.0	15.5	31.0	260.0	1	1.00	
963.8015	27	19.0	40.0	15.5	31.0	260.0	1	0.96	
963.8016	30	19.0	45.0	15.5	33.0	260.0	1	0.95	
963.8017	32	19.5	48.0	21.7	33.0	260.0	1	0.94	
963.8018	33	19.5	48.0	21.7	33.0	260.0	1	0.92	
963.8019	34	20.0	53.0	21.7	35.0	260.0	1	0.91	
963.8020	35	20.0	53.0	21.7	35.0	260.0	1	0.91	
963.8021	36	20.0	53.0	21.7	35.0	260.0	1	0.91	
963.8022	37	20.0	53.0	21.7	35.0	270.0	1	1.20	
963.8023	38	21.0	59.0	21.7	40.0	270.0	1	1.90	
963.8024	41	21.0	59.0	21.7	40.0	270.0	1	1.10	
963.8025	42	21.0	59.0	21.7	40.0	270.0	1	1.10	
963.8026	46	24.0	66.0	21.7	43.0	300.0	2	1.50	
963.8027	47	24.0	66.0	21.7	43.0	300.0	2	1.50	
963.8028	50	28.0	72.0	21.7	46.0	300.0	2	1.70	
963.8029	52	28.0	72.0	21.7	46.0	350.0	2	2.60	
963.8030	54	30.0	79.0	21.7	49.0	350.0	2	2.50	
963.8031	55	30.0	79.0	21.7	49.0	300.0	2	1.90	
963.8032	56	30.0	79.0	21.7	49.0	350.0	2	2.60	
963.8033	58	36.0	86.0	21.7	57.0	350.0	2	2.50	
963.8034	60	36.0	86.0	21.7	57.0	370.0	3	2.50	
963.8035	63	36.0	86.0	21.7	57.0	370.0	3	2.50	
963.8036	65	38.0	93.0	21.7	60.0	400.0	3	3.20	
963.8037	67	38.0	93.0	21.7	60.0	400.0	3	3.10	
963.8038	70	41.0	103.0	21.7	62.0	400.0	3	3.00	
963.8039	71	41.0	103.0	21.7	62.0	400.0	3	2.80	
963.8040	75	43.0	109.0	21.7	67.0	400.0	3	2.70	
963.8041	77	43.0	109.0	21.7	67.0	400.0	3	2.60	
963.8042	80	43.0	119.0	21.7	68.0	410.0	3	5.00	
963.8043	82	43.0	119.0	21.7	68.0	410.0	3	5.00	
963.8044	85	45.0	128.0	21.7	72.0	410.0	3	5.10	
963.8045	90	45.0	135.0	21.7	72.0	410.0	3	5.01	
963.8046	95	45.0	142.0	21.7	72.0	410.0	3	4.79	
963.8047	100	45.0	150.0	21.7	75.0	412.0	3	4.55	

		A mm	B mm	D mm	H mm	L mm		kg	
963.8051	1.3/16"	19.0	36.0	15.5	31.0	260.0	1	0.95	
963.8052	1.1/4"	19.5	48.0	21.7	33.0	260.0	1	0.94	
963.8053	1.5/16"	19.5	48.0	21.7	33.0	260.0	1	0.92	
963.8054	1.3/8"	20.0	53.0	21.7	35.0	260.0	1	0.91	
963.8055	1.7/16"	20.0	53.0	21.7	35.0	260.0	1	0.91	
963.8056	1.1/2"	21.0	59.0	21.7	40.0	270.0	1	1.90	
963.8057	1.9/16"	21.0	59.0	21.7	40.0	270.0	1	1.20	
963.8058	1.5/8"	21.0	59.0	21.7	40.0	270.0	1	1.10	
963.8059	1.11/16"	21.0	59.0	21.7	40.0	270.0	2	1.10	
963.8060	1.3/4"	24.0	66.0	21.7	43.0	270.0	2	1.00	
963.8061	1.13/16"	24.0	66.0	21.7	43.0	300.0	2	1.50	
963.8062	1.7/8"	24.0	66.0	21.7	43.0	300.0	2	1.50	
963.8063	2"	28.0	72.0	21.7	46.0	300.0	2	1.70	
963.8064	2.1/16"	28.0	72.0	21.7	46.0	350.0	2	2.60	
963.8065	2.1/8"	30.0	79.0	21.7	49.0	350.0	2	2.40	
963.8066	2.3/16"	30.0	79.0	21.7	49.0	300.0	2	1.90	
963.8067	2.1/4"	36.0	86.0	21.7	57.0	350.0	2	2.50	
963.8068	2.5/16"	36.0	86.0	21.7	57.0	350.0	3	2.50	
963.8069	2.3/8"	36.0	86.0	21.7	57.0	370.0	3	2.50	
963.8070	2.7/16"	36.0	86.0	21.7	57.0	370.0	3	2.50	
963.8071	2.1/2"	38.0	93.0	21.7	60.0	370.0	3	2.50	
963.8072	2.9/16"	38.0	93.0	21.7	60.0	400.0	3	3.20	
963.8073	2.5/8"	38.0	93.0	21.7	60.0	400.0	3	3.10	
963.8074	2.3/4"	41.0	103.0	21.7	62.0	400.0	3	3.00	

		A mm	B mm	D mm	H mm	L mm		kg	
963.8075	2.13/16"	41.0	103.0	21.7	62.0	400.0	3	2.80	
963.8076	2.15/16"	43.0	109.0	21.7	67.0	400.0	3	2.70	
963.8077	3"	43.0	109.0	21.7	67.0	400.0	3	2.50	
963.8078	3.1/8"	43.0	119.0	21.7	68.0	410.0	3	4.90	
963.8079	3.1/4"	43.0	119.0	21.7	68.0	410.0	3	5.00	
963.8080	3.3/8"	45.0	128.0	21.7	72.0	410.0	3	5.10	

BRONZE*plus* Snap-on handle for single ring spanner

- Three different sizes
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm		D mm	L mm	#	kg	
963.8048	22-42	1.3/16-1.5/8"	22.0	600.0	1	1.10	
963.8049	46-58	1.11/16-2.1/4"	25.0	750.0	2	2.80	
963.8050	60-100	2.5/16-3.3/8"	30.0	850.0	3	3.80	

BRONZE*plus* Offset single ring spanner set

- FlankTraction Profil
- Ring head 75° offset
- With shaft for snap-on handle
- With locking pin
- Heavy duty to deliver maximum torque
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

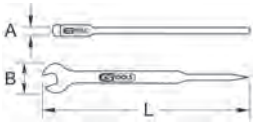
			kg
963.8081	18 pcs	24 - 27 - 30 - 32 - 36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 - 85 mm	40.20

15 x		24 - 27 - 30 - 32 - 36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 - 85 mm
3 x		22-42 - 46-58 - 60-100 mm

NON SPARKING INSTALLATION WRENCH

BRONZE*plus* Installation open end spanner with mandrel

- Practical combination of open ended spanner and setting punch
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

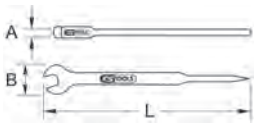


	mm	A mm	B mm	L mm	kg	
963.8082	17	11.0	35.0	320.0	0.27	
963.8083	18	11.0	35.0	320.0	0.27	
963.8084	19	12.0	40.0	350.0	0.47	
963.8085	20	12.0	40.0	350.0	0.47	
963.8086	21	13.0	46.0	350.0	0.47	
963.8087	22	13.0	46.0	350.0	0.47	
963.8088	23	15.0	49.0	370.0	0.65	
963.8089	24	15.0	49.0	370.0	0.65	
963.8090	25	16.0	54.0	370.0	0.65	
963.8091	26	16.0	54.0	370.0	0.65	
963.8092	27	16.0	54.0	370.0	0.65	
963.8093	28	17.0	62.0	400.0	0.95	
963.8094	29	17.0	62.0	400.0	0.95	
963.8095	30	17.0	62.0	400.0	0.95	
963.8096	32	18.0	65.0	400.0	0.95	
963.8097	33	18.0	65.0	400.0	0.95	
963.8098	34	18.0	65.0	400.0	0.95	
963.8099	35	20.0	75.0	430.0	1.40	
963.8100	36	20.0	75.0	430.0	1.40	
963.8101	37	20.0	75.0	430.0	1.40	
963.8102	38	21.0	85.0	430.0	1.40	
963.8103	41	21.0	85.0	470.0	1.90	
963.8104	42	21.0	85.0	470.0	1.90	
963.8105	46	22.0	95.0	500.0	2.70	
963.8106	47	22.0	95.0	500.0	2.70	
963.8107	50	24.0	105.0	530.0	3.55	

		A mm	B mm	L mm	kg	
963.8108	11/16"	11.0	35.0	320.0	0.27	
963.8109	3/4"	12.0	40.0	350.0	0.27	
963.8110	25/32"	12.0	40.0	350.0	0.47	
963.8111	13/16"	12.0	40.0	350.0	0.47	
963.8112	7/8"	13.0	46.0	350.0	0.47	
963.8113	15/16"	15.0	49.0	370.0	0.47	
963.8114	31/32"	15.0	49.0	370.0	0.65	
963.8115	1"	16.0	54.0	370.0	0.65	
963.8116	1.1/16"	16.0	54.0	370.0	0.65	
963.8117	1.1/8"	16.0	54.0	400.0	0.65	
963.8118	1.3/16"	17.0	62.0	400.0	0.65	
963.8119	1.1/4"	18.0	65.0	400.0	0.95	
963.8120	1.5/16"	18.0	65.0	400.0	0.95	
963.8121	1.3/8"	20.0	75.0	430.0	0.95	
963.8122	1.7/16"	20.0	75.0	430.0	1.40	
963.8123	1.1/2"	21.0	85.0	430.0	1.40	
963.8124	1.9/16"	21.0	85.0	470.0	1.40	
963.8125	1.5/8"	21.0	85.0	470.0	1.90	
963.8126	1.11/16"	21.0	85.0	470.0	1.90	
963.8127	1.3/4"	22.0	95.0	500.0	1.90	
963.8128	1.13/16"	22.0	95.0	500.0	2.70	
963.8129	1.7/8"	22.0	95.0	500.0	2.70	
963.8130	2"	24.0	105.0	530.0	3.55	

BRONZE*plus* Installation open end spanner with mandrel, offset

- Mouth 75° offset
- Practical combination of open ended spanner and setting punch
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	A mm	B mm	L mm	kg	
963.8131	17	11.0	35.0	320.0	0.30	
963.8132	18	12.0	40.0	320.0	0.30	
963.8133	19	12.0	40.0	350.0	0.51	
963.8134	20	12.0	40.0	350.0	0.51	
963.8135	21	13.0	46.0	350.0	0.51	
963.8136	22	13.0	46.0	350.0	0.51	
963.8137	23	15.0	49.0	370.0	0.72	
963.8138	24	15.0	49.0	370.0	0.72	
963.8139	25	15.0	49.0	370.0	0.72	
963.8140	26	16.0	54.0	370.0	0.72	
963.8141	27	16.0	54.0	370.0	0.72	
963.8142	28	17.0	62.0	400.0	1.15	
963.8143	29	17.0	62.0	400.0	1.15	
963.8144	30	17.0	62.0	400.0	1.15	
963.8145	32	18.0	65.0	400.0	1.15	
963.8146	33	18.0	65.0	400.0	1.15	
963.8147	34	18.0	65.0	400.0	1.15	
963.8148	35	20.0	75.0	430.0	1.54	
963.8149	36	20.0	75.0	430.0	1.54	
963.8150	37	20.0	75.0	430.0	1.54	
963.8151	38	21.0	85.0	430.0	1.54	
963.8152	41	21.0	85.0	470.0	2.09	
963.8153	42	21.0	85.0	470.0	2.09	
963.8154	46	22.0	95.0	500.0	2.97	
963.8155	47	22.0	95.0	500.0	2.97	
963.8156	50	24.0	105.0	530.0	3.90	

		A mm	B mm	L mm	kg	
963.8157	11/16"	11.0	35.0	290.0	0.30	
963.8158	7/8"	13.0	46.0	355.0	0.51	
963.8159	15/16"	15.0	49.0	355.0	0.51	
963.8160	1.1/16"	16.0	54.0	380.0	0.72	
963.8161	1.3/16"	17.0	62.0	410.0	0.72	
963.8162	1.1/4"	18.0	65.0	380.0	1.15	
963.8163	1.7/16"	20.0	75.0	460.0	1.54	
963.8164	1.1/2"	21.0	85.0	460.0	1.15	
963.8165	1.5/8"	21.0	85.0	510.0	2.09	
963.8166	1.13/16"	22.0	95.0	550.0	2.97	
963.8167	2"	24.0	105.0	550.0	3.90	

BRONZE*plus* Installation ring spanner with mandrel, offset

- Ring head 75° offset
- Practical combination of ring spanner and setting punch
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	A mm	B mm	L mm	kg	
963.8168	17	12.0	28.0	320.0	0.30	
963.8169	18	12.0	28.0	320.0	0.30	
963.8170	19	13.0	30.0	350.0	0.51	
963.8171	20	13.0	30.0	350.0	0.51	
963.8172	21	15.0	34.0	350.0	0.51	
963.8173	22	15.0	34.0	350.0	0.51	
963.8174	23	17.0	38.0	370.0	0.72	
963.8175	24	17.0	38.0	370.0	0.72	
963.8176	25	17.0	38.0	370.0	0.72	
963.8177	26	21.0	43.0	370.0	0.72	
963.8178	27	21.0	43.0	370.0	0.72	
963.8179	28	23.0	48.0	400.0	1.15	
963.8180	29	23.0	48.0	400.0	1.15	
963.8181	30	23.0	48.0	400.0	1.15	
963.8182	32	24.0	50.0	400.0	1.15	
963.8183	33	24.0	50.0	400.0	1.15	
963.8184	34	25.0	56.0	400.0	1.15	
963.8185	35	25.0	56.0	430.0	1.54	
963.8186	36	25.0	56.0	430.0	1.54	
963.8187	37	25.0	56.0	430.0	1.54	
963.8188	38	25.0	56.0	430.0	1.54	
963.8189	41	27.0	62.0	470.0	2.09	
963.8190	42	27.0	62.0	470.0	2.09	
963.8191	46	29.0	71.0	500.0	2.97	
963.8192	47	29.0	71.0	500.0	2.97	
963.8193	50	33.0	76.0	530.0	3.90	

		A mm	B mm	L mm	kg	
963.8194	11/16"	12.0	28.0	290.0	0.30	
963.8195	7/8"	13.0	30.0	355.0	0.51	
963.8196	15/16"	13.0	30.0	355.0	0.51	
963.8197	1.1/16"	21.0	43.0	380.0	0.72	
963.8198	1.3/16"	23.0	48.0	410.0	0.72	
963.8199	1.1/4"	24.0	50.0	380.0	1.15	
963.8200	5.7/16"	25.0	56.0	460.0	1.54	
963.8201	1.1/2"	25.0	56.0	460.0	1.15	
963.8202	1.5/8"	27.0	62.0	510.0	2.09	
963.8203	1.13/16"	29.0	71.0	550.0	2.97	
963.8204	2"	33.0	76.0	550.0	3.90	

NON SPARKING HOSE COUPLING WRENCHES & HOOK WRENCHES

BRONZE*plus* Coupling spanner A-B-C

- For fi e brigade (Storz) couplings A - B - C
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	Ø mm	L mm	g	
963.8205	14	440.0	800	

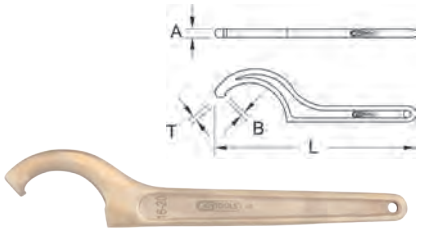
BRONZE*plus* Coupling spanner B-C

- For fi e brigade (Storz) couplings B - C
- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	Ø mm	L mm	g	
963.8206	12	280.0	450	

BRONZE*plus* hook wrench with spigot

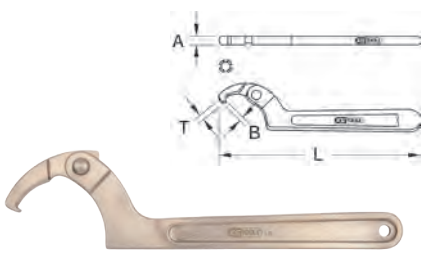
- In accordance to DIN 1810 Form B
- With spigot for for cross drilled nuts to DIN 1816
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Span width mm	A mm	B mm	L mm	T mm	kg	
963.8210	12-14	3.0	1.5	110.0	2.0	0.03	
963.8211	16-20	3.0	2	110.0	2.5	0.03	
963.8212	25-28	4.0	2.5	135.0	3.0	0.05	
963.8213	30-32	4.0	2.5	135.0	4.0	0.05	
963.8214	34-36	5.0	3	170.0	4.0	0.10	
963.8215	40-42	5.0	3	170.0	4.0	0.10	
963.8216	45-50	6.0	3.5	205.0	5.0	0.19	
963.8217	52-55	6.0	3.5	205.0	5.0	0.19	
963.8218	58-62	7.0	4	240.0	5.0	0.22	
963.8219	68-75	7.0	4	240.0	6.0	0.20	
963.8220	80-90	8.0	5	280.0	6.0	0.41	
963.8221	95-100	8.0	5	280.0	8.0	0.41	
963.8222	110-115	10.0	6	335.0	8.0	0.73	
963.8223	120-130	10.0	6	335.0	8.0	0.73	
963.8224	135-145	12.0	7	390.0	8.0	1.15	
963.8225	155-165	12.0	7	390.0	8.0	1.15	
963.8226	180-195	14.0	8	465.0	10.0	1.41	
963.8227	205-220	14.0	8	465.0	10.0	1.39	

BRONZE*plus* pivot hook wrench with pin

- In accordance to DIN 1810 Form A
- With pin for for slotted nuts to DIN 981
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Span width mm	A mm	B mm	L mm	T mm	g	
963.8207	32-75	8.0	6.0	205.0	5.0	230	
963.8208	50-120	10.0	7.0	285.0	6.0	450	
963.8209	115-170	12.0	10.0	310.0	7.0	500	

NON SPARKING SPECIAL BITS

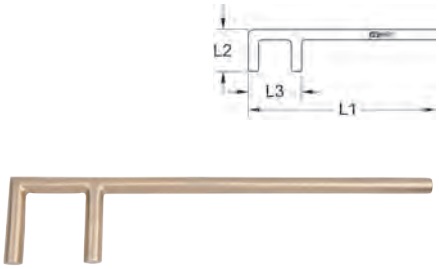
BRONZE*plus* Slide claw

- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	L mm	g	
963.8228	30-40	500.0	720	

BRONZE*plus* valve hook

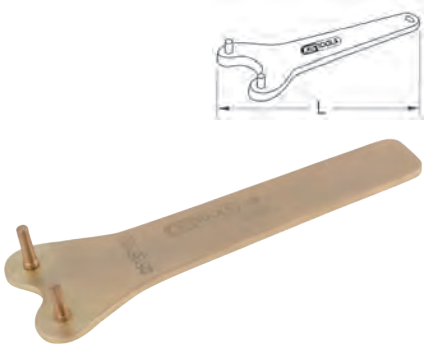
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L1 mm	L2 mm	L3 mm	kg	
963.8229	13	300.0	50.0	30.0	0.35	
963.8230	13	350.0	55.0	35.0	0.60	
963.8231	16	400.0	60.0	40.0	0.68	
963.8232	16	450.0	65.0	45.0	1.10	
963.8233	19	500.0	70.0	50.0	1.20	
963.8234	22	600.0	75.0	60.0	2.00	
963.8235	25	700.0	80.0	70.0	3.00	
963.8236	28	800.0	85.0	80.0	5.30	

BRONZE*plus* Face pin spanner

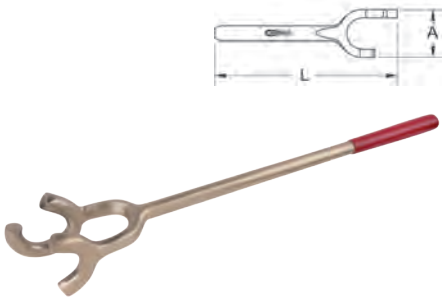
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Pin key mm	Stud Ø mm	L mm	g	
963.8237	35.0	5.0	180.0	150	

BRONZE*plus* hand key

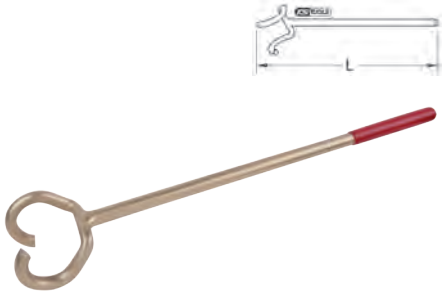
- In accordance to DIN 87311
- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	A mm	L mm	kg	
963.8238	36x60	60.0	370.0	0.65	
963.8239	48x80	80.0	430.0	2.60	
963.8240	62x102	102.0	550.0	1.30	

BRONZE*plus* B-hand key

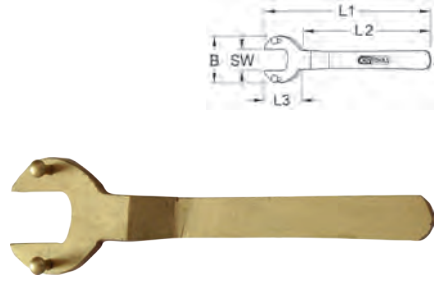
- In accordance to DIN 87311
- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L mm	kg	
963.8241	36x60	330.0	0.60	
963.8242	48x80	470.0	1.40	
963.8243	62x102	600.0	2.60	

BRONZE*plus* Spanner for tanker valve

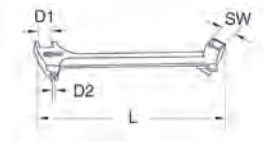
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Type	dim mm	Stud Ø mm	B mm	L1 mm	L2 mm	L3 mm	kg	
963.8244	A	64,0 x 32,0	20.0	90.0	660.0	500.0	160.0	1.80	
963.8245	B	64,0 x 32,0	20.0	90.0	650.0	500.0	150.0	1.60	
963.8246	C	95,0 x 47,5	20.0	90.0	690.0	500.0	190.0	2.50	

BRONZE*plus* universal barrel key

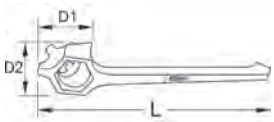
- For 22 barrel clasps
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	dim mm	L mm	D1 mm	D2 mm	kg	
963.8270	18 x 22	380.0	27.0	6.0	1.25	

BRONZE*plus* universal barrel key

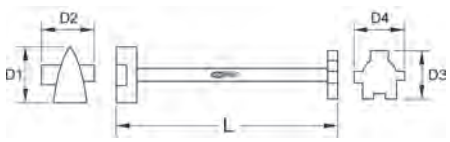
- For current plug cover caps
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D1 mm	D2 mm	L mm	g	
963.8271	38.0	52.0	300.0	600	

BRONZE*plus* universal barrel key

- For current barrel clasps
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D1 mm	D2 mm	D3 mm	D4 mm	L mm	kg	
963.8272	70.0	70.0	65.0	95.0	400.0	1.70	

BRONZE*plus* Sewer lid hook

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	g	
963.8273	500.0	770	

BRONZE*plus* Sewer lid hook, reinforced

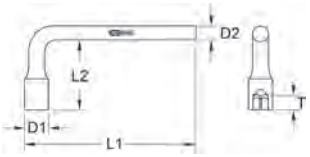
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	kg	
963.8274	700.0	1.20	

NON SPARKING BOX SPANNERS

BRONZE*plus* box spanner, offset

- 4 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D1 mm	D2 mm	L1 mm	L2 mm	T mm	g	
963.8247	8	18.0	8.0	150.0	33.0	15.0	90	
963.8248	9	20.0	8.0	160.0	35.0	15.0	100	
963.8249	10	22.0	8.0	175.0	37.0	15.0	120	
963.8250	12	24.0	10.0	215.0	42.0	18.0	220	
963.8251	13	26.0	10.0	230.0	45.0	18.0	280	
963.8252	14	27.0	12.0	240.0	45.0	18.0	280	
963.8253	17	32.0	14.0	280.0	51.0	22.0	330	

BRONZE*plus* socket

- 3 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	D1 mm	D2 mm	L mm	g	
963.8254	6	16.0	25.0	40.0	70	
963.8255	8	18.0	25.0	40.0	75	
963.8256	10	22.0	25.0	40.0	80	
963.8257	12	24.0	25.0	40.0	90	
963.8258	16	30.0	25.0	50.0	150	
963.8259	20	37.0	28.0	50.0	215	
963.8260	25	44.0	32.0	60.0	435	

BRONZE*plus* socket

- 3-point
- In accordance to DIN 22417
- With pushed through, movable drive handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	L mm	kg	
963.8261	4	95.0	0.08	
963.8262	5	110.0	0.10	
963.8263	6	115.0	0.17	
963.8264	8	125.0	0.28	
963.8265	10	140.0	0.39	
963.8266	12	160.0	0.70	
963.8267	16	180.0	0.98	
963.8268	20	200.0	2.10	
963.8269	24	220.0	3.10	

BRONZE*plus* box spanner

- 6-point
- For use with tommy bar
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	L mm		kg
963.8275	8	190.0	1	0.11
963.8276	9	200.0	1	0.14
963.8277	10	215.0	1	0.16
963.8278	11	230.0	2	0.21
963.8279	12	250.0	2	0.26
963.8280	13	265.0	3	0.35
963.8281	14	265.0	3	0.35
963.8282	15	280.0	3	0.40
963.8283	16	280.0	3	0.40
963.8284	17	300.0	4	0.45
963.8285	18	300.0	4	0.45
963.8286	19	325.0	4	0.65
963.8287	20	325.0	4	0.65
963.8288	21	350.0	4	0.83
963.8289	22	350.0	4	0.83
963.8290	23	380.0	5	1.14
963.8291	24	380.0	5	1.14
963.8292	25	415.0	5	1.45
963.8293	26	415.0	5	1.45
963.8294	27	415.0	5	1.45
963.8295	28	450.0	6	1.80
963.8296	29	450.0	6	1.80
963.8297	30	450.0	6	1.80
963.8298	32	485.0	6	2.45
963.8299	33	485.0	6	2.45
963.8300	34	485.0	6	2.45
963.8301	35	530.0	7	3.30
963.8302	36	530.0	7	3.30
963.8303	37	530.0	7	3.30
963.8304	38	530.0	7	3.30
963.8305	41	580.0	8	4.00
963.8306	42	580.0	8	4.00
963.8307	46	635.0	8	4.80
963.8308	47	635.0	8	4.80
963.8309	50	320.0	9,10	4.90
963.8310	52	320.0	9,10	4.90
963.8311	54	340.0	9,10	6.50
963.8312	55	340.0	9,10	6.50
963.8313	56	340.0	9,10	6.50
963.8314	58	360.0	9,10	8.30
963.8315	60	360.0	9,10	8.30
963.8316	63	360.0	9,10	8.30
963.8317	65	380.0	11	10.50
963.8318	67	380.0	11	10.50
963.8319	70	380.0	11	10.50
963.8320	71	380.0	11	10.50
963.8321	75	400.0	11	14.30
963.8322	77	400.0	11	14.30
963.8323	80	400.0	11	14.30
963.8324	82	400.0	11	14.30
963.8325	85	425.0	12	19.20
963.8326	88	425.0	12	19.20
963.8327	90	425.0	12	19.20
963.8328	94	455.0	12	26.00
963.8329	95	455.0	12	26.00
963.8330	100	455.0	12	26.00

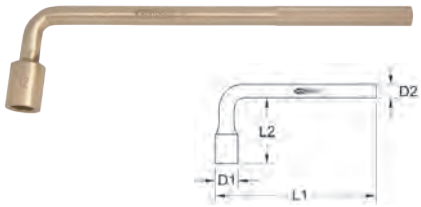
BRONZE*plus* Tommy bar for box spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	D mm	L mm	#	kg
963.8331	10	6.0	150.0	1	0.04
963.8332	12	8.0	190.0	2	0.08
963.8333	16	10.0	190.0	3	0.09
963.8334	22	10.0	250.0	4	0.19
963.8335	27	12.0	315.0	5	0.31
963.8336	34	16.0	400.0	6	0.60
963.8337	38	16.0	500.0	7	0.92
963.8338	47	20.0	630.0	8	1.60
963.8339	63	24.0	800.0	9	2.70
963.8340	63	24.0	1000.0	10	3.50
963.8341	82	30.0	1250.0	11	6.00
963.8342	100	36.0	1600.0	12	12.00

BRONZE*plus* box spanner, offset

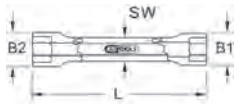
- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D1 mm	D2 mm	L1 mm	L2 mm	kg
963.8343	8	16.0	8.0	175.0	30.0	0.10
963.8344	9	17.0	8.0	185.0	33.0	0.12
963.8345	10	18.0	8.0	195.0	37.0	0.14
963.8346	11	20.0	9.0	205.0	42.0	0.18
963.8347	12	21.0	9.0	220.0	42.0	0.22
963.8348	13	22.0	10.0	240.0	45.0	0.28
963.8349	14	22.0	10.0	240.0	45.0	0.28
963.8350	15	25.0	11.0	250.0	48.0	0.30
963.8351	16	25.0	11.0	250.0	48.0	0.30
963.8352	17	27.0	12.0	270.0	51.0	0.32
963.8353	18	27.0	12.0	270.0	53.0	0.32
963.8354	19	30.0	12.0	290.0	55.0	0.53
963.8355	20	30.0	12.0	290.0	57.0	0.53
963.8356	21	32.0	12.0	310.0	57.0	0.68
963.8357	22	32.0	12.0	310.0	59.0	0.68
963.8358	23	35.0	14.0	335.0	63.0	0.83
963.8359	24	35.0	14.0	335.0	63.0	0.83
963.8360	25	39.0	14.0	365.0	69.0	1.00
963.8361	26	39.0	14.0	365.0	69.0	1.00
963.8362	27	39.0	14.0	365.0	69.0	1.00
963.8363	28	43.0	15.0	395.0	72.0	1.30
963.8364	29	43.0	15.0	395.0	72.0	1.30
963.8365	30	43.0	15.0	395.0	72.0	1.30
963.8366	32	47.0	16.0	425.0	75.0	1.70
963.8367	33	47.0	16.0	425.0	75.0	1.70
963.8368	34	47.0	18.0	425.0	75.0	1.70
963.8369	35	52.0	18.0	465.0	80.0	2.80
963.8370	36	52.0	18.0	465.0	80.0	2.80
963.8371	37	52.0	18.0	465.0	80.0	2.80
963.8372	38	52.0	18.0	465.0	80.0	2.80
963.8373	41	58.0	20.0	510.0	85.0	3.60
963.8374	42	58.0	20.0	510.0	85.0	3.60
963.8375	46	65.0	21.0	555.0	90.0	4.00
963.8376	47	65.0	21.0	555.0	90.0	4.00
963.8377	50	72.0	22.0	605.0	93.0	4.80
963.8378	52	72.0	22.0	605.0	93.0	4.80
963.8379	54	76.0	24.0	660.0	97.0	6.40
963.8380	55	76.0	24.0	660.0	97.0	6.40
963.8381	56	76.0	24.0	660.0	97.0	6.40
963.8382	58	84.0	25.0	730.0	103.0	8.20
963.8383	60	84.0	25.0	730.0	103.0	8.20
963.8384	63	89.0	25.0	730.0	103.0	8.20
963.8385	65	89.0	27.0	800.0	108.0	10.40
963.8386	67	95.0	27.0	800.0	108.0	10.40
963.8387	70	95.0	27.0	800.0	115.0	10.40
963.8388	71	95.0	27.0	800.0	115.0	10.40
963.8389	75	105.0	30.0	880.0	120.0	14.10
963.8390	77	105.0	30.0	880.0	120.0	14.10
963.8391	80	112.0	30.0	880.0	125.0	14.10
963.8392	82	112.0	30.0	880.0	125.0	14.10

BRONZE*plus* box spanner, double sided

- 6-point
- For use with open ended spanner or tommy bar
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	B1 mm	B2 mm	mm	L mm		kg
963.8393	7x8	14.0	15.0	10	95.0	1	0.05
963.8394	9x10	16.0	18.0	10	105.0	2	0.07
963.8395	10x11	18.0	19.0	14	120.0	2	0.09
963.8396	12x14	21.0	22.0	17	135.0	3	0.16
963.8397	14x17	24.0	27.0	17	150.0	3	0.21
963.8398	17x19	27.0	30.0	19	160.0	4	0.28
963.8399	19x22	30.0	32.0	22	170.0	4	0.34
963.8400	20x22	32.0	39.0	22	170.0	4	0.36
963.8401	24x26	35.0	39.0	24	180.0	5	0.48
963.8402	24x27	35.0	39.0	24	190.0	5	0.53
963.8403	27x32	39.0	47.0	27	200.0	6	0.87
963.8404	30x32	43.0	47.0	27	210.0	6	0.89
963.8405	30x36	43.0	52.0	30	220.0	6	1.08
963.8406	36x41	52.0	58.0	32	230.0	6	1.70

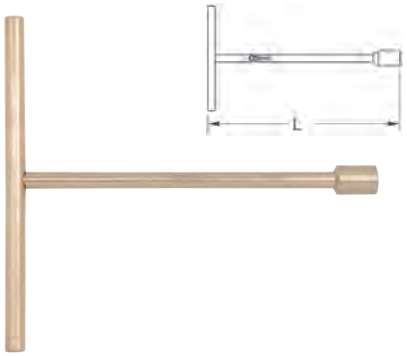
BRONZE*plus* Tommy bar for box spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	D mm	L mm	mm	#	g
963.8407	5.0	110.0	7x8	1	15
963.8408	6.0	150.0	10x11	2	40
963.8409	10.0	220.0	14x17	3	120
963.8410	12.0	300.0	20x22	4	300
963.8411	15.0	390.0	24x27	5	480
963.8412	16.0	500.0	36x41	6	750

BRONZE*plus* Hexagonal socket spanner fi m sliding bar

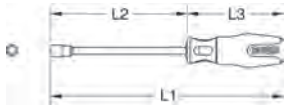
- 6-point
- With fi ed drive handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	kg	
963.8413	8	196.0	0.14	
963.8414	9	209.0	0.17	
963.8415	10	223.0	0.19	
963.8416	11	240.0	0.26	
963.8417	12	256.0	0.31	
963.8418	13	275.0	0.41	
963.8419	14	275.0	0.41	
963.8420	15	292.0	0.46	
963.8421	16	292.0	0.46	
963.8422	17	314.0	0.56	
963.8423	18	314.0	0.56	
963.8424	19	339.0	0.79	
963.8425	20	339.0	0.79	
963.8426	21	376.0	1.05	
963.8427	22	376.0	1.05	
963.8428	23	393.0	1.24	
963.8429	24	393.0	1.24	
963.8430	25	431.0	1.70	
963.8431	26	431.0	1.70	
963.8432	27	431.0	1.70	
963.8433	28	464.0	2.10	
963.8434	29	464.0	2.10	
963.8435	30	464.0	2.10	
963.8436	32	506.0	2.75	
963.8437	33	506.0	2.75	
963.8438	34	506.0	2.75	
963.8439	35	550.0	4.00	
963.8440	36	550.0	4.00	
963.8441	37	550.0	4.00	
963.8442	38	550.0	4.00	
963.8443	41	600.0	5.40	
963.8444	42	600.0	5.40	
963.8445	46	655.0	6.00	
963.8446	47	655.0	6.00	
963.8447	50	345.0	6.30	
963.8448	52	345.0	6.30	
963.8449	54	365.0	8.00	
963.8450	55	365.0	8.00	
963.8451	56	365.0	8.00	
963.8452	58	390.0	10.50	
963.8453	60	390.0	10.50	
963.8454	63	390.0	10.50	
963.8455	65	410.0	14.00	
963.8456	67	410.0	14.00	
963.8457	70	410.0	14.00	
963.8458	71	410.0	14.00	
963.8459	75	430.0	19.00	
963.8460	77	430.0	19.00	
963.8461	80	430.0	19.00	
963.8462	82	430.0	19.00	

BERYLLIUM*plus* socket screwdriver

- 6-point
- With two component handle
- Optimal power transmission
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	kg	
962.0970	3,5	175.0	75.0	100.0	55	
962.0971	4,5	180.0	80.0	100.0	55	
962.0972	5	180.0	80.0	100.0	60	
962.0973	5,5	185.0	85.0	100.0	60	
962.0974	6	190.0	90.0	100.0	65	
962.0975	6,5	190.0	90.0	100.0	65	
962.0976	7	190.0	90.0	100.0	80	
962.0977	7,5	200.0	100.0	100.0	80	
962.0978	8	200.0	100.0	100.0	100	
962.0979	9	210.0	110.0	100.0	100	
962.0980	10	210.0	110.0	100.0	115	
962.0981	11	220.0	110.0	110.0	115	
962.0982	12	220.0	110.0	110.0	130	
962.0983	13	230.0	120.0	110.0	170	
962.0984	14	230.0	120.0	110.0	210	
962.0985	15	240.0	130.0	110.0	210	
962.0986	16	240.0	130.0	110.0	235	
962.0987	17	250.0	130.0	120.0	235	

		L1 mm	L2 mm	L3 mm	kg	
962.0988	1/8"	175.0	75.0	100.0	55	
962.0989	5/32"	180.0	80.0	100.0	55	
962.0990	3/16"	185.0	85.0	100.0	60	
962.0991	7/32"	190.0	90.0	100.0	65	
962.0992	1/4"	190.0	90.0	100.0	80	
962.0993	5/16"	210.0	100.0	110.0	100	
962.0994	3/8"	220.0	110.0	110.0	115	
962.0995	7/16"	230.0	120.0	110.0	170	
962.0996	1/2"	230.0	120.0	110.0	210	
962.0997	9/16"	240.0	120.0	120.0	235	
962.0998	5/8"	250.0	130.0	120.0	235	
962.0999	11/16"	250.0	130.0	120.0	240	

BRONZE*plus* Pronged wrench

- Light work in inaccessible places
- For use with tommy bar
- Jaw 90° offset
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	L mm		kg	
963.8463	13	160.0	1	0.10	
963.8464	14	160.0	1	0.10	
963.8465	15	200.0	1	0.17	
963.8466	16	200.0	2	0.17	
963.8467	17	200.0	2	0.17	
963.8468	18	200.0	2	0.19	
963.8469	19	200.0	3	0.22	
963.8470	20	200.0	3	0.25	
963.8471	21	200.0	3	0.26	
963.8472	22	200.0	3	0.30	
963.8473	23	200.0	4	0.35	
963.8474	24	250.0	4	0.40	
963.8475	25	250.0	4	0.40	
963.8476	26	250.0	4	0.45	
963.8477	27	250.0	4	0.45	
963.8478	28	250.0	5	0.50	
963.8479	29	250.0	5	0.55	
963.8480	30	250.0	5	0.60	
963.8481	32	250.0	5	0.65	
963.8482	36	250.0	6	0.70	
963.8483	41	315.0	6	1.15	
963.8484	46	315.0	7	1.23	
963.8485	50	315.0	7	1.50	

BRONZE*plus* Tommy bar for pronged wrench

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	D mm	L mm	#	kg	
963.8486	13-15	8.0	160.0	1	0.07	
963.8487	16-18	10.0	200.0	2	0.13	
963.8488	19-22	12.0	200.0	3	0.22	
963.8489	23-27	14.0	250.0	4	0.40	
963.8490	28-32	16.0	250.0	5	0.60	
963.8491	36-41	18.0	315.0	6	1.00	
963.8492	46-50	20.0	315.0	7	1.60	

BRONZE*plus* Crawfoot wrench, hexagonal

- 6 point
- With internal square drive
- For manual operation
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	mm	L mm	T mm	g
963.8493	13	40.0	15.0	50
963.8494	14	40.0	15.0	50
963.8495	15	43.0	20.0	80
963.8496	16	43.0	20.0	80
963.8497	17	43.0	20.0	80
963.8498	18	49.0	22.0	110
963.8499	19	49.0	22.0	120
963.8500	20	49.0	22.0	130
963.8501	21	52.0	26.0	150
963.8502	22	52.0	26.0	170
963.8503	23	52.0	29.0	200
963.8504	24	55.0	29.0	200
963.8505	25	55.0	32.0	220
963.8506	26	59.0	32.0	220
963.8507	27	59.0	32.0	250
963.8508	28	59.0	32.0	270
963.8509	29	63.0	34.0	300
963.8510	30	63.0	34.0	320
963.8511	32	67.0	37.0	350
963.8512	36	76.0	42.0	570
963.8513	41	86.0	48.0	620
963.8514	46	97.0	55.0	750
963.8515	50	105.0	60.0	800

BRONZE*plus* Special extender for crowfoot spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	□	L mm	g
963.8516	1/2	150.0	200
963.8517	1/2	250.0	400

NON SPARKING FRICTION RATCHETS

BRONZE*plus* Construction ratchet

- 6-point
- With centring point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	L mm	kg
963.1105	17	230.0	0.62
963.1106	19	240.0	0.65
963.1107	21	250.0	0.83
963.1108	22	260.0	0.83
963.1109	24	270.0	1.02
963.1110	26	280.0	1.05
963.1111	27	285.0	1.10
963.1112	30	300.0	1.32
963.1113	32	315.0	1.10
963.1114	35	325.0	1.63
963.1115	36	330.0	1.67
963.1116	41	330.0	1.95

BERYLLIUM*plus* Friction ratchet

- 12 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	L mm	kg
962.0109	9	150.0	0.15
962.0111	11	150.0	0.15
962.0113	13	155.0	0.16
962.0114	14	155.0	0.16
962.0117	17	200.0	0.26
962.0119	19	200.0	0.26
962.0122	22	220.0	0.34
962.0124	24	220.0	0.34
962.0127	27	245.0	0.56
962.0130	30	280.0	0.84
962.0132	32	280.0	0.84
962.0136	36	290.0	1.18
962.0141	41	295.0	1.23
962.0146	46	360.0	2.06
962.0150	50	360.0	2.23
962.0155	55	440.0	2.90
962.0160	60	440.0	2.90

1/4" DRIVE NON SPARKING SOCKETS

BERYLLIUM*plus* socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

1/4"

	mm	D1 mm	D2 mm	L mm	g
962.1404	4,0	10.0	15.0	25.0	10
962.14045	4,5	10.0	15.0	25.0	10
962.1405	5,0	11.0	15.0	25.0	10
962.14055	5,5	11.0	15.0	25.0	10
962.1406	6,0	12.0	15.0	25.0	10
962.1407	7,0	13.0	15.0	25.0	10
962.1408	8,0	14.0	15.0	25.0	20
962.1409	9,0	15.0	15.0	25.0	20
962.1410	10,0	16.0	15.0	25.0	20
962.1411	11,0	18.0	15.0	25.0	20
962.1412	12,0	19.0	15.0	27.0	30
962.1413	13,0	20.0	15.0	27.0	30
962.1414	14,0	22.0	15.0	27.0	30

BERYLLIUM*plus* reversible ratchet

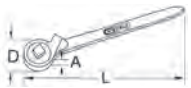
- In accordance to DIN 3122 / 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

1/4"

	■	A mm	D mm	L mm	g
962.1490	1/4"	15.0	30.0	150.0	200

BERYLLIUM*plus* Ratchet handle with coupler

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



1/4"

	■	A mm	D mm	L mm	g
962.1491	1/4"	14.0	36.0	150.0	320

BERYLLIUM*plus* Coupler

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	■	L mm	g	
962.1475	1/4"	25.0	8	

BERYLLIUM*plus* Extension

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	■	L mm	g	
962.1450	1/4"	55.0	20	
962.1451	1/4"	100.0	60	
962.1452	1/4"	200.0	100	

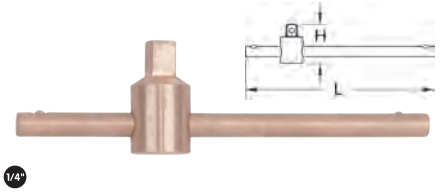
BERYLLIUM*plus* Swivel handle

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	■	L mm	g	
962.1455	1/4"	165.0	160	
962.1456	1/4"	215.0	350	

BERYLLIUM*plus* sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	■	H mm	L mm	g	
962.1460	1/4"	28.0	200.0	160	

BERYLLIUM*plus* Square drive screwdriver

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	■	L1 mm	L2 mm	L3 mm	g	
962.1465	1/4"	140.0	55.0	85.0	65	

BERYLLIUM*plus* adaptor and reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	□	■	L mm	g	
962.1470	1/4"	1/2"	30.0	40	
963.1280	1/2"	1/4"	40.0	60	

BERYLLIUM*plus* universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	□	■	L mm	g	
962.1480	1/4"	1/4"	55.0	55	

BERYLLIUM*plus* Socket set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- In durable plastic storage case

			g	
962.1485	15 pcs	BERYLLIUM*plus* Socket set	875	
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm		
1 x		100 mm		
1 x		250 mm		

1/2" DRIVE NON SPARKING SOCKETS

BRONZE*plus* socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	D1 mm	D2 mm	L mm	g	
963.1204	6	14.0	24.0	40.0	50	
963.1205	7	14.0	24.0	40.0	55	
963.1206	8	15.0	24.0	40.0	50	
963.1207	9	16.0	24.0	40.0	50	
963.1208	10	17.0	24.0	40.0	50	
963.1209	11	19.0	24.0	40.0	50	
963.1210	12	20.0	24.0	40.0	50	
963.1211	13	20.0	24.0	40.0	50	
963.1212	14	24.0	24.0	40.0	55	
963.1213	15	25.0	25.0	40.0	55	
963.1214	16	25.0	25.0	40.0	60	
963.1215	17	26.0	26.0	40.0	65	
963.1216	18	29.0	27.0	40.0	75	
963.1217	19	30.0	28.0	40.0	85	
963.1218	20	31.0	28.0	40.0	95	
963.1219	21	32.0	28.0	40.0	100	
963.1220	22	33.0	28.0	40.0	110	
963.1221	23	34.0	31.0	40.0	120	
963.1222	24	35.0	31.0	40.0	125	
963.1223	25	36.0	32.0	40.0	130	
963.1224	26	37.0	34.0	40.0	145	
963.1225	27	38.0	34.0	40.0	150	
963.1226	28	40.0	36.0	40.0	175	
963.1227	29	42.0	36.0	40.0	185	
963.1228	30	43.0	40.0	40.0	195	
963.1229	32	45.0	42.0	42.0	240	
963.1230	34	48.0	42.0	50.0	300	
963.1231	36	50.0	42.0	50.0	380	
963.1341	41	57.0	44.0	50.0	450	

		D1 mm	D2 mm	L mm	g	
963.1249	1/4"	15.0	24.0	40.0	50	
963.1250	5/16"	15.0	24.0	40.0	50	
963.1251	11/32"	16.0	24.0	40.0	50	
963.1252	3/8"	17.0	24.0	40.0	50	
963.1253	13/32"	18.0	24.0	40.0	50	
963.1254	7/16"	19.0	24.0	40.0	50	
963.1255	1/2"	21.0	24.0	40.0	50	
963.1256	9/16"	23.0	24.0	40.0	55	
963.1257	19/32"	24.0	24.0	40.0	55	
963.1258	5/8"	26.0	26.0	40.0	60	
963.1259	11/16"	28.0	26.0	40.0	65	
963.1260	3/4"	29.0	26.0	40.0	85	
963.1261	25/32"	31.0	26.0	40.0	95	
963.1262	13/16"	32.0	26.0	40.0	95	
963.1263	7/8"	33.0	28.0	40.0	110	
963.1264	15/16"	35.0	31.0	40.0	120	
963.1265	1"	36.0	34.0	40.0	130	
963.1266	1.1/16"	39.0	34.0	40.0	150	
963.1267	1.1/8"	41.0	36.0	40.0	175	
963.1268	1.3/16"	43.0	40.0	40.0	195	
963.1269	1.1/4"	45.0	42.0	42.0	240	

BRONZE*plus* socket, long

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	mm	D1 mm	D2 mm	L mm	g	
963.1232	10	19.0	25.0	77.0	110	
963.1233	12	20.0	25.0	77.0	135	
963.1234	13	21.0	25.0	77.0	105	
963.1235	14	22.0	25.0	77.0	110	
963.1236	15	25.0	25.0	77.0	120	
963.1237	16	25.0	25.0	77.0	125	
963.1238	17	27.0	27.0	77.0	140	
963.1239	18	28.0	28.0	82.0	145	
963.1240	19	30.0	28.0	82.0	180	
963.1241	21	32.0	28.0	82.0	205	
963.1242	22	33.0	28.0	82.0	210	
963.1243	24	36.0	30.0	82.0	250	
963.1244	27	40.0	30.0	82.0	285	
963.1245	30	44.0	32.0	82.0	345	
963.1246	32	46.0	32.0	82.0	375	
963.1247	34	48.0	34.0	82.0	415	
963.1248	36	50.0	34.0	82.0	425	

BERYLLIUM*plus* reversible ratchet

- In accordance to DIN 3122 / 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

1/2"

	■	A mm	D mm	L mm	g	
962.1290	1/2"	23.0	54.0	250.0	590	

BERYLLIUM*plus* Ratchet handle with coupler

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

1/2"

	■	A mm	D mm	L mm	g	
962.1291	1/2"	17.0	45.0	250.0	430	

BRONZE*plus* Coupler

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	■	L mm	g	
963.1281	1/2"	36.5	46	

BRONZE*plus* extension

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	■	L mm	g	
963.1270	1/2"	100.0	180	
963.1271	1/2"	200.0	315	
963.1272	1/2"	250.0	360	

BRONZE*plus* fl xi drive handle

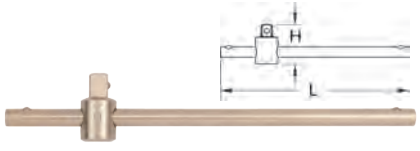
- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	■	L mm	g	
963.1273	1/2"	215.0	350	
963.1274	1/2"	250.0	560	
963.1275	1/2"	300.0	920	
963.1276	1/2"	380.0	590	

BRONZE*plus* sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

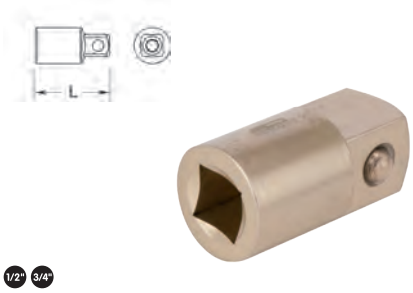


1/2"

	■	H mm	L mm	g	
963.1277	1/2"	46.0	250.0	450	
963.1278	1/2"	46.0	320.0	550	

BRONZE*plus* adaptor and reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



1/2" 3/4"

	□	■	L mm	g	
963.1279	1/2"	3/4"	22.0	120	
963.1280	1/2"	1/4"	40.0	60	

BRONZE*plus* universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	□	■	L mm	g	
963.1282	1/2	1/2"	70.0	135	

BRONZE*plus* L-Handle

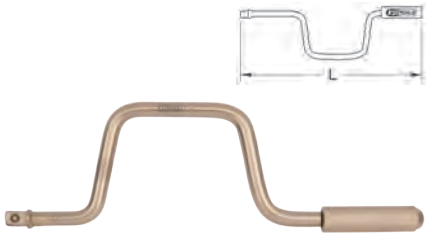
- In accordance to DIN ISO 2936
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	■	L mm	g	
963.1283	1/2"	220.0	260	
963.1284	1/2"	260.0	400	

BRONZE*plus* Speed brace

- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

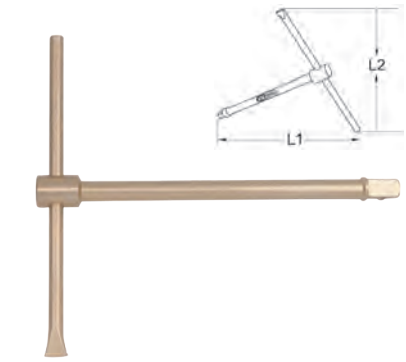


1/2"

	■	L mm	g
963.1285	1/2"	410.0	700

BRONZE*plus* T-handle

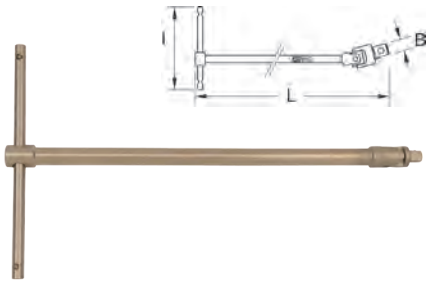
- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L1 mm	L2 mm	g
963.1286	1/2"	245.0	220.0	500

BRONZE*plus* T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3122 / ISO 1174 with ball lock
- With fl xible head
- For diffi ult to access areas
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

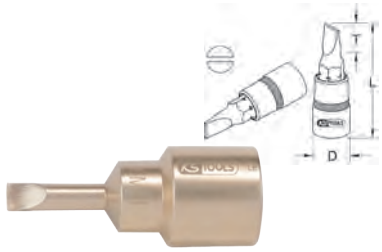


1/2"

	■	B mm	I mm	L mm	g
963.1287	1/2"	12.5	250.0	460.0	760

BRONZE*plus* Bit socket for slotted screws

- Slotted
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



1/2"

	■ mm	D mm	L mm	T mm	g
963.1292	4.0	25.0	60.0	9.0	140
963.1293	6.0	25.0	60.0	9.0	140
963.1294	8.0	25.0	60.0	9.0	140
963.1295	10.0	25.0	60.0	9.0	140

BRONZE*plus* Bit socket for phillips head screws PH

- PH
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

		D mm	L mm	T mm	g
963.1296	PH 1	25.0	60.0	8.0	140
963.1297	PH 2	25.0	60.0	8.0	140
963.1298	PH 3	25.0	60.0	8.0	140
963.1299	PH 4	25.0	60.0	8.0	140

BRONZE*plus* Bit socket for hexagon screws

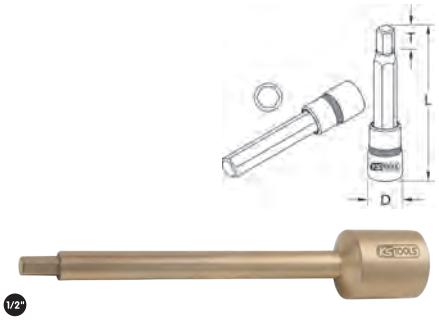
- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

	■ mm	D mm	L mm	T mm	g
963.1300	4	25.0	60.0	12.0	110
963.1301	5	25.0	60.0	12.0	70
963.1302	6	25.0	60.0	12.0	70
963.1303	7	25.0	60.0	12.0	110
963.1304	8	25.0	60.0	12.0	80
963.1305	9	25.0	60.0	12.0	110
963.1306	10	25.0	60.0	12.0	110
963.1307	12	25.0	60.0	12.0	120
963.1308	14	25.0	60.0	12.0	130
963.1309	17	25.0	60.0	12.0	140
963.1310	19	25.0	60.0	12.0	230

BRONZE*plus* Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



1/2"

	■ mm	D mm	L mm	T mm	g
963.1311	5	25.0	90.0	12.0	90
963.1312	5	25.0	180.0	12.0	100
963.1313	6	25.0	90.0	12.0	80
963.1314	6	25.0	140.0	12.0	120
963.1315	6	25.0	160.0	12.0	130
963.1316	7	25.0	100.0	12.0	90
963.1317	8	25.0	90.0	12.0	90
963.1318	8	25.0	120.0	12.0	160
963.1319	10	25.0	140.0	12.0	150
963.1320	12	25.0	140.0	12.0	190
963.1321	14	25.0	140.0	12.0	250

BRONZE*plus* Socket set

- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In durable plastic storage case

1/2"

			kg
963.1288	11 pcs	BRONZE*plus* Socket set	5.30
9 x		10 - 11 - 13 - 14 - 15 - 17 - 19 - 22 - 24 mm	
1 x		100 mm	
1 x		250 mm	

			kg
963.1289	23 pcs	BRONZE*plus* Socket set	4.10
22 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm	
1 x		250 mm	

963.1290	24 pcs	BRONZE*plus* Socket set	2.00

22 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm
1 x		250 mm
1 x		250 mm

963.1291	26 pcs	BRONZE*plus* Socket set	4.10

22 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm
1 x		250 mm
1 x		250 mm
1 x		320 mm
1 x		380 mm

BRONZE*plus* Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1/2"

963.1322	9 pcs	BRONZE*plus* Bit socket set for hexagon screws	1.24

9 x		1/2": 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 mm

963.1323	11 pcs	BRONZE*plus* Bit socket set for hexagon screws	2.99

1 x		1/2"
1 x		1/2": 250 mm
9 x		1/2": 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 mm

963.1324	15 pcs	BRONZE*plus* Bit socket set for hexagon screws	2.79

9 x		1/2": 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 mm
6 x		1/2": 5/90 - 6/90 - 8/90 - 10/140 - 12/140 - 14/140 mm

3/4" DRIVE NON SPARKING SOCKETS

BRONZE*plus* socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4"

	mm	D1 mm	D2 mm	L mm	g
963.3405	18	31.0	36.0	60.0	180
963.3406	19	32.0	36.0	60.0	180
963.3407	21	34.0	36.0	60.0	180
963.3408	22	36.0	36.0	60.0	180
963.3409	24	38.0	36.0	55.0	350
963.3410	25	39.0	36.0	55.0	350
963.3411	26	40.0	36.0	50.0	330
963.3412	27	41.0	36.0	50.0	300
963.3413	28	42.0	38.0	50.0	300
963.3414	29	43.0	38.0	50.0	300
963.3415	30	45.0	38.0	50.0	310
963.3416	32	48.0	40.0	60.0	430
963.3417	33	50.0	40.0	60.0	450
963.3418	34	50.0	40.0	60.0	470
963.3419	35	51.0	44.0	55.0	400
963.3420	36	52.0	44.0	60.0	430
963.3421	38	55.0	46.0	60.0	490
963.3422	41	64.0	50.0	65.0	560
963.3423	42	64.0	50.0	65.0	600
963.3424	46	68.0	50.0	65.0	840
963.3425	50	72.0	55.0	70.0	1080
963.3426	55	80.0	60.0	70.0	900
963.3427	58	80.0	60.0	60.0	950
963.3428	60	82.0	60.0	70.0	1290

		D1 mm	D2 mm	L mm	g
963.3429	7/8"	36.0	36.0	60.0	180
963.3430	15/16"	39.0	36.0	55.0	350
963.3431	1"	39.0	36.0	55.0	350
963.3432	1.1/16"	41.0	36.0	50.0	300
963.3433	1.1/8"	41.0	36.0	50.0	300
963.3434	1.1/4"	48.0	40.0	60.0	430
963.3435	1.5/16"	50.0	40.0	60.0	400
963.3436	1.3/8"	52.0	44.0	55.0	400
963.3437	1.7/16"	55.0	46.0	60.0	430
963.3438	1.1/2"	55.0	46.0	60.0	490
963.3439	1.9/16"	55.0	46.0	60.0	490
963.3440	1.5/8"	64.0	50.0	65.0	560
963.3441	1.11/16"	64.0	50.0	65.0	560
963.3442	1.3/4"	68.0	50.0	65.0	600
963.3443	1.13/16"	68.0	50.0	65.0	840
963.3444	1.7/8"	68.0	50.0	65.0	1000
963.3445	2"	72.0	55.0	70.0	700

BERYLLIUM*plus* reversible ratchet

- In accordance to DIN 3122 / 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

3/4"

	■	A mm	D mm	L mm	kg
962.3490	3/4"	22.0	59.0	300.0	1.90

BERYLLIUM*plus* Ratchet handle with coupler

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

3/4"

	■	A mm	D mm	L mm	kg
962.3491	3/4"	22.0	60.0	500.0	1.80

BRONZE*plus* Coupler

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4"

	■	L mm	g
963.3457	3/4"	51.5	130

BRONZE*plus* extension

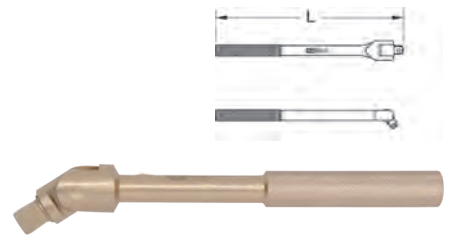
- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4"

	■	L mm	kg	
963.3446	3/4“	100.0	0.35	
963.3447	3/4“	250.0	0.70	
963.3448	3/4“	380.0	1.67	
963.3449	3/4“	430.0	1.50	

BRONZE*plus* fl xi drive handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

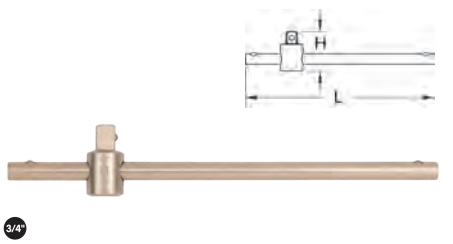


3/4"

	■	L mm	kg	
963.3450	3/4“	380.0	0.76	
963.3451	3/4“	460.0	1.30	
963.3452	3/4“	550.0	1.95	

BRONZE*plus* sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



3/4"

963.3453	3/4“	65.0	260.0	0.60	
963.3454	3/4“	65.0	500.0	1.48	

BRONZE*plus* adaptor and reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4" 1"

	□	■	L mm	g	
963.3455	3/4“	1“	61.0	325	
963.3456	3/4“	1/2“	57.0	165	

BRONZE*plus* universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4"

	□	■	L mm	g	
963.3458	3/4“	3/4“	85.0	550	
963.3459	3/4“	3/4“	106.0	570	

BRONZE*plus* L-Handle

- In accordance to DIN ISO 2936
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4"

	■	L mm	g	
963.3460	3/4“	300.0	800	

BRONZE*plus* Speed brace

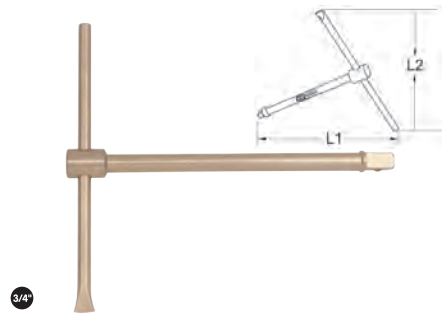
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4"

	■	L mm	kg	
963.3461	3/4“	380.0	1.25	

BRONZE*plus* T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



3/4"

	■	L1 mm	L2 mm	g	
963.3462	3/4“	260.0	250.0	850	

BRONZE*plus* T-handle

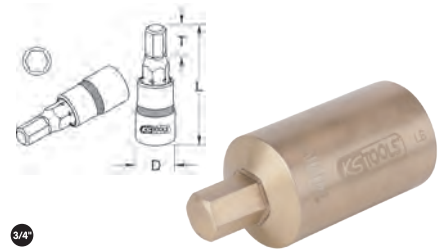
- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3122 / ISO 1174 with ball lock
- With fl xible head
- For difficult o access areas
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

3/4"

	■	B mm	l mm	L mm	kg	
963.3463	3/4“	20.0	300.0	560.0	1.20	

BRONZE*plus* Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



3/4"

	⬢ mm	D mm	L mm	T mm	g	
963.3465	14	36.0	80.0	18.0	350	
963.3466	17	36.0	80.0	18.0	390	
963.3467	19	36.0	80.0	18.0	435	
963.3468	22	36.0	80.0	18.0	480	
963.3469	24	36.0	80.0	18.0	520	
963.3470	27	36.0	80.0	18.0	550	
963.3471	30	36.0	80.0	18.0	570	
963.3472	32	36.0	80.0	18.0	590	
963.3473	36	36.0	80.0	18.0	620	
963.3474	41	36.0	90.0	18.0	720	
963.3475	46	36.0	90.0	18.0	820	

BRONZE*plus* Socket set

- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In durable plastic storage case

3/4"

			kg
963.3464	12 pcs	BRONZE*plus* Socket set	12.70
7 x		36 - 38 - 41 - 46 - 50 - 55 - 60 mm	
1 x		380 mm	
1 x		300 mm	
1 x		500 mm	
1 x		380 mm	

1" DRIVE NON SPARKING SOCKETS

BRONZE*plus* socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1"

	mm	D1 mm	D2 mm	L mm	kg
963.1005	32	50.0	50.0	60.0	0.51
963.1006	36	52.0	50.0	65.0	0.55
963.1007	41	63.0	50.0	70.0	0.73
963.1008	42	63.0	50.0	65.0	0.71
963.1009	46	67.0	52.0	65.0	0.71
963.1010	50	72.0	52.0	70.0	0.93
963.1011	55	78.0	60.0	75.0	1.13
963.1012	60	83.0	60.0	75.0	1.35
963.1013	65	90.0	65.0	75.0	1.50
963.1014	70	98.0	75.0	85.0	1.75
963.1015	75	104.0	75.0	85.0	2.30
963.1016	80	110.0	85.0	85.0	2.50
963.1017	85	116.0	85.0	90.0	2.80
963.1018	90	120.0	90.0	85.0	4.40
963.1019	95	130.0	95.0	85.0	4.50
963.1020	100	136.0	95.0	85.0	4.60
963.1021	1.7/16"	52.0	50.0	65.0	0.55
963.1022	1.1/2"	54.0	50.0	65.0	0.68
963.1023	1.5/8"	63.0	50.0	70.0	0.73
963.1024	1.11/16"	65.0	50.0	65.0	0.71
963.1025	1.13/16"	68.0	52.0	65.0	0.71
963.1026	1.7/8"	69.0	52.0	65.0	0.73
963.1027	2"	70.0	52.0	70.0	0.93
963.1028	2.1/16"	73.0	60.0	70.0	0.95
963.1029	2.3/16"	77.0	60.0	75.0	1.13
963.1030	2.3/8"	82.0	65.0	75.0	1.13
963.1031	2.1/4"	80.0	65.0	75.0	1.35
963.1032	2.7/16"	83.0	65.0	75.0	1.40
963.1033	2.9/16"	90.0	70.0	75.0	1.50
963.1034	2.5/8"	91.0	70.0	75.0	1.55
963.1035	2.3/4"	96.0	75.0	85.0	1.75
963.1036	2.13/16"	98.0	75.0	85.0	1.75
963.1037	2.15/16"	103.0	80.0	85.0	2.30
963.1038	3"	104.0	80.0	85.0	2.35
963.1039	3.1/8"	110.0	80.0	85.0	2.50
963.1040	3.3/8"	116.0	85.0	90.0	2.80
963.1041	3.1/2"	120.0	90.0	90.0	4.40
963.1042	3.3/4"	130.0	95.0	90.0	4.50
963.1043	3.7/8"	135.0	95.0	90.0	4.60
963.1044	4.1/4"	113.0	85.0	90.0	5.00

BERYLLIUM*plus* reversible ratchet

- In accordance to DIN 3122 / 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

1"

	■	A mm	D mm	L mm	g
962.1090	1"	30.0	72.0	550.0	340

BERYLLIUM*plus* Ratchet handle with coupler

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

1"

	■	A mm	D mm	L mm	g
962.1091	1"	23.0	72.0	550.0	3.50

BRONZE*plus* Coupler

- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1"

	■	L mm	g
963.1051	1"	68.0	325

BRONZE*plus* extension

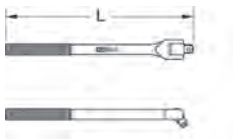
- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

1"

963.1045	1"	100.0	0.80	
963.1046	1"	250.0	1.40	
963.1047	1"	400.0	2.09	

BRONZE*plus* fl xi drive handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

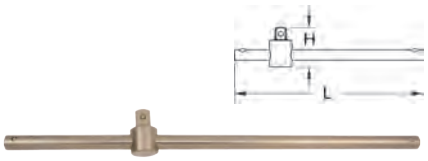


1"

	■	L mm	g
963.1048	1"	380.0	1.20

BRONZE*plus* sliding T-handle

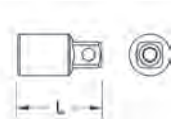
- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	H mm	L mm	kg
963.1049	1"	76.0	700.0	3.99

BRONZE*plus* reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	□	■	L mm	g
963.1050	1"	3/4"	75.0	540

BRONZE*plus* universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	□	■	L mm	kg
963.1052	1"	1"	141.0	1.45

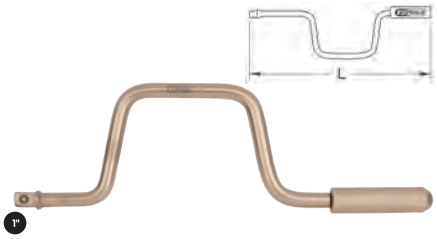
BRONZE*plus* L-Handle

- In accordance to DIN ISO 2936
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	■	L mm	kg
963.1053	1"	300.0	1.00

BRONZE*plus* Speed brace

- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L mm	kg
963.1054	1"	380.0	1.40

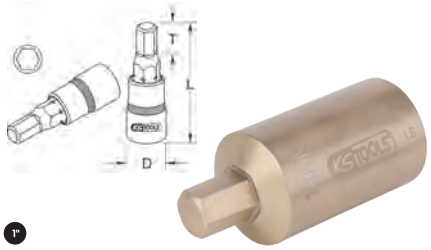
BRONZE*plus* T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3122 / ISO 1174 with ball lock
- With fl xible head
- For difficult o access areas
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	■	B mm	l mm	L mm	kg
963.1055	1"	25.0	400.0	660.0	1.70

BRONZE*plus* Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D mm	L mm	T mm	kg
963.1056	17	47.0	90.0	23.0	0.58
963.1057	19	47.0	90.0	23.0	0.67
963.1058	22	47.0	90.0	23.0	0.71
963.1059	24	47.0	90.0	23.0	0.77
963.1060	27	47.0	90.0	23.0	0.86
963.1061	30	47.0	90.0	23.0	0.91
963.1062	32	47.0	90.0	23.0	0.95
963.1063	36	47.0	90.0	23.0	0.99
963.1064	41	47.0	100.0	23.0	1.20
963.1065	46	47.0	100.0	23.0	1.40

BRONZE*plus* Socket set

- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In durable plastic storage case

			kg
963.1066	23 pcs	BRONZE*plus* Socket set	33.10
10 x		36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	
10 x		1.1/2" - 1.5/8" - 1.7/8" - 2" - 2.1/16" - 2.1/4" - 2.3/8" - 2.9/16" - 2.3/4" - 3"	
2 x		250 - 400 mm	
1 x		550 mm	

			kg
963.1067	13 pcs	BRONZE*plus* Socket set	21.10
10 x		36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	
2 x		250 - 400 mm	
1 x		550 mm	

NON SPARKING SCREWDRIVERS

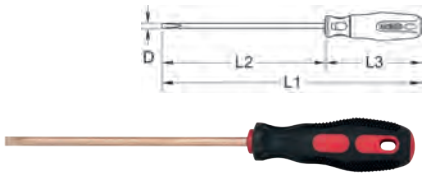
BERYLLIUM*plus* screwdriver for slotted screws

- Slotted
- In accordance to DIN ISO 2380-2 / 2380-1 Form A
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	D mm	L1 mm	L2 mm	L3 mm	g	
962.0911	3,0	165.0	75.0	90.0	30	
962.0912	4,5	200.0	100.0	100.0	30	
962.0913	4,5	250.0	150.0	100.0	60	
962.0914	6,0	200.0	100.0	100.0	80	
962.0915	6,0	250.0	150.0	100.0	90	
962.0916	8,0	260.0	150.0	110.0	130	
962.0917	10,0	320.0	200.0	120.0	190	
962.0918	10,0	420.0	300.0	120.0	230	

BERYLLIUM*plus* screwdriver for slotted screws, parallel blade

- With parallel blade
- Slotted
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	g	
962.0920	3,0	165.0	75.0	90.0	20	
962.0921	4,0	240.0	150.0	100.0	20	
962.0922	5,0	250.0	150.0	100.0	30	
962.0923	6,0	300.0	200.0	100.0	110	
962.0924	6,5	400.0	300.0	100.0	150	

BERYLLIUM*plus* screwdriver for Phillips screws PH

- PH
- In accordance to DIN 5262 / ISO 8764-1
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

		L1 mm	L2 mm	L3 mm	g	
962.0900	PH 0	150.0	60.0	90.0	30	
962.0901	PH 1	170.0	80.0	90.0	60	
962.0902	PH 2	200.0	100.0	100.0	90	
962.0903	PH 3	250.0	150.0	100.0	170	
962.0904	PH 4	310.0	200.0	110.0	270	

BERYLLIUM*plus* screwdriver set

- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

				g
962.0805	4 pcs	BERYLLIUM*plus* screwdriver set	320	

4 x	3 (75 mm) - 4,5 (100 mm) - 6 - 8 (150 mm)

BERYLLIUM*plus* screwdriver set

- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

				g
962.0808	4 pcs	BERYLLIUM*plus* screwdriver set	400	

4 x	PH1 - PH2 - PH3 - PH4

BERYLLIUM*plus* screwdriver set

- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

				g
962.0806	6 pcs	BERYLLIUM*plus* screwdriver set	500	

4 x	4,5 - 6 (100 mm) - 6 - 8 (150 mm)
2 x	PH1 - PH2

BERYLLIUM*plus* screwdriver set

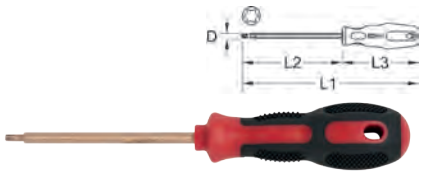
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

				kg
962.0807	10 pcs	BERYLLIUM*plus* screwdriver set	1.20	

6 x	4,5 - 6 (100 mm) - 4,5 - 6 - 8 (150 mm) 10 (200 mm)
4 x	PH1 - PH2 - PH3 - PH4

BERYLLIUM*plus* screwdriver for TX screws

- TX
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		L1 mm	L2 mm	L3 mm	g	
962.0930	T5	160.0	70.0	90.0	30	
962.0931	T6	160.0	70.0	90.0	70	
962.0932	T7	160.0	70.0	90.0	70	
962.0933	T8	160.0	70.0	90.0	70	
962.0934	T9	160.0	70.0	90.0	70	
962.0935	T10	170.0	80.0	90.0	80	
962.0936	T15	170.0	80.0	90.0	80	
962.0937	T20	190.0	90.0	100.0	80	
962.0938	T25	190.0	90.0	100.0	100	
962.0939	T27	210.0	110.0	100.0	100	
962.0940	T30	210.0	110.0	100.0	110	
962.0941	T40	220.0	120.0	100.0	120	
962.0942	T45	230.0	120.0	110.0	140	
962.0943	T50	230.0	120.0	110.0	150	

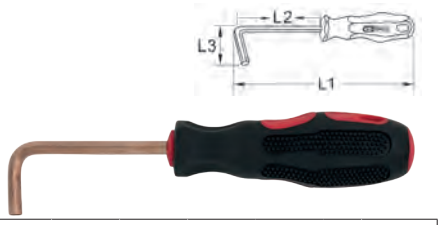
BRONZE*plus* screwdriver for hexagon screws

- 6 point
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

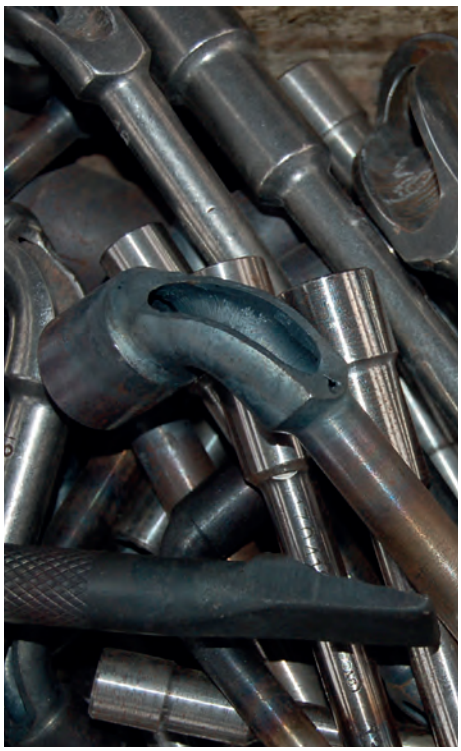
	mm	L1 mm	L2 mm	L3 mm	g	
963.1068	3,0	190.0	100.0	90.0	40	
963.1069	4,0	190.0	100.0	90.0	50	
963.1070	5,0	200.0	100.0	100.0	60	
963.1071	6,0	225.0	125.0	100.0	90	
963.1072	8,0	260.0	150.0	110.0	140	
963.1073	10,0	260.0	150.0	110.0	210	
963.1074	12,0	280.0	150.0	130.0	280	

BRONZE*plus* screwdriver for hexagon screws, angled

- 6 point
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1505	3,0	153.0	75.0	20.0	25
963.1506	4,0	153.0	75.0	25.0	40
963.1507	5,0	180.0	80.0	28.0	50
963.1508	6,0	180.0	80.0	32.0	75
963.1509	8,0	240.0	120.0	36.0	140
963.1510	10,0	240.0	120.0	40.0	220
963.1511	12,0	240.0	120.0	45.0	290



BERYLLIUM*plus* screwdriver for hexagon screws with ball end

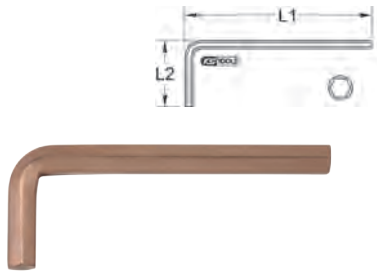
- 6 point
- With hanging hole
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	mm	L1 mm	L2 mm	L3 mm	g
962.0950	3,0	190.0	100.0	90.0	35
962.0951	4,0	190.0	100.0	90.0	50
962.0952	5,0	200.0	100.0	100.0	60
962.0953	6,0	225.0	125.0	100.0	90
962.0954	8,0	260.0	150.0	110.0	140
962.0955	10,0	260.0	150.0	110.0	210
962.0956	12,0	280.0	150.0	130.0	280

NON SPARKING OFFSET SCREWDRIVERS

BRONZE*plus* key wrench for hexagon socket screws, short

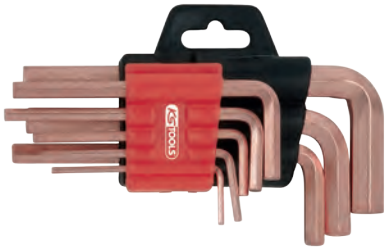
- 6 point
- Short version
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm		L1 mm	L2 mm	kg
962.04015	1,5		55.0	13.0	0.01
962.0402	2,0		55.0	13.0	0.01
962.04025	2,5		55.0	13.0	0.01
963.1519	3,0		60.0	25.0	0.01
963.1520	4,0		70.0	30.0	0.01
963.1521	5,0		80.0	32.0	0.02
963.1522	6,0		90.0	37.0	0.03
963.1523	7,0		95.0	43.0	0.05
963.1524	8,0		100.0	44.0	0.07
963.1525	9,0		105.0	44.0	0.09
963.1526	10,0		115.0	45.0	0.10
963.1527	11,0		119.0	48.0	0.13
963.1528	12,0		125.0	52.0	0.17
963.1529	13,0		132.0	54.0	0.20
963.1530	14,0		140.0	58.0	0.25
963.1531	17,0		160.0	65.0	0.41
963.1532	18,0		170.0	69.0	0.50
963.1533	19,0		180.0	72.0	0.57
963.1534	22,0		200.0	77.0	0.95
963.1535	24,0		224.0	82.0	1.25
963.1536	27,0		250.0	93.0	1.80
963.1537	30,0		280.0	105.0	2.50
963.1538	32,0		315.0	116.0	3.10
963.1539	36,0		355.0	128.0	4.50
963.1540	41,0		400.0	140.0	5.30
962.0420		3/64"	55.0	13.0	0.01
962.0421		1/16"	55.0	13.0	0.01
962.0422		5/64"	55.0	13.0	0.01
962.0423		3/32"	55.0	13.0	0.01
962.0424		1/8"	60.0	24.0	0.01
962.0425		5/32"	70.0	30.0	0.01
963.1541		3/16"	80.0	31.0	0.02
963.1542		7/32"	80.0	37.0	0.02
963.1543		1/4"	90.0	37.0	0.03
963.1544		5/16"	100.0	44.0	0.07
963.1545		3/8"	120.0	45.0	0.10
963.1546		7/16"	119.0	48.0	0.13
963.1547		1/2"	125.0	55.0	0.17
963.1548		9/16"	140.0	58.0	0.25
963.1549		5/8"	140.0	63.0	0.27
963.1550		11/16"	160.0	65.0	0.41
963.1551		3/4"	180.0	73.0	0.57
963.1552		7/8"	200.0	77.0	0.95
963.1553		1"	224.0	85.0	1.26
963.1554		1.1/16"	216.0	93.0	3.08
963.1555		1.1/8"	230.0	95.0	3.30
963.1556		1.1/4"	230.0	116.0	3.30
963.1557		1.5/16"	235.0	116.0	3.52
963.1558		1.3/8"	235.0	128.0	3.52
963.1559		1.7/16"	241.0	128.0	3.74
963.1560		1.1/2"	241.0	128.0	3.74
963.1561		1.5/8"	241.0	140.0	3.74

BRONZE*plus* Hexagon key wrench set in a folding holder, short

- 6 point
- Short version
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



			g
963.1512	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	245
963.1513	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	205
963.1514	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	178

BRONZE*plus* key wrench for hexagon socket screws, extra long

- 6 point
- Extra long version
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	mm	L1 mm	L2 mm	g
963.1562	3,0	126.0	25.0	6
963.1563	4,0	142.0	30.0	12
963.1564	5,0	160.0	32.0	18
963.1565	6,0	180.0	37.0	30
963.1566	8,0	200.0	44.0	70
963.1567	10,0	205.0	45.0	120
963.1568	12,0	250.0	52.0	190
963.1569	14,0	280.0	58.0	300
963.1570	17,0	320.0	65.0	380
963.1571	19,0	360.0	72.0	490

BRONZE*plus* Hexagon key wrench set in a folding holder, extra long

- 6 point
- Long version
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			g
963.1515	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	400
963.1516	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	464

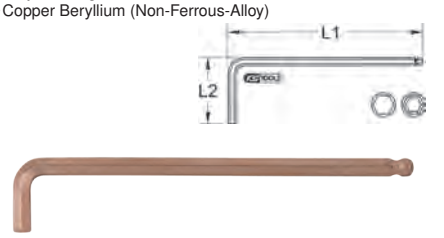
BERYLLIUM*plus* key wrench for hexagon socket screws with ball end, short

- 6 point
- Short version
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	mm	L1 mm	L2 mm	g
962.0440	1,5	45.0	13.0	4
962.0441	2,0	50.0	16.0	3
962.0442	2,5	55.0	18.0	5
962.0443	3,0	63.0	20.0	7
962.0444	4,0	70.0	25.0	12
962.0445	5,0	80.0	28.0	20
962.0446	6,0	90.0	32.0	32
962.0447	7,0	95.0	34.0	42
962.0448	8,0	100.0	36.0	60
962.0449	10,0	115.0	40.0	106
962.0450	12,0	130.0	45.0	205
962.0451	14,0	140.0	48.0	255

BERYLLIUM*plus* key wrench for hexagon socket screws with ball end, extra long

- 6 point
- Extra long version
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	g
962.0460	3,0	126.0	20.0	8
962.0461	4,0	140.0	25.0	18
962.0462	5,0	160.0	28.0	31
962.0463	6,0	180.0	32.0	51
962.0464	7,0	190.0	34.0	75
962.0465	8,0	200.0	36.0	101
962.0466	10,0	224.0	40.0	176
962.0467	12,0	250.0	45.0	292
962.0468	14,0	290.0	48.0	370

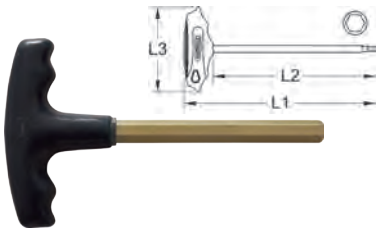
BRONZE*plus* Hexagon key wrench set in a folding holder, with ball end, long

- 6 point
- Long execution
- In accordance to DIN ISO 2936
- With ball head on the long end
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

			g
963.1517	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	250
963.1518	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	260

BRONZE*plus* T-handle hexagon key wrench

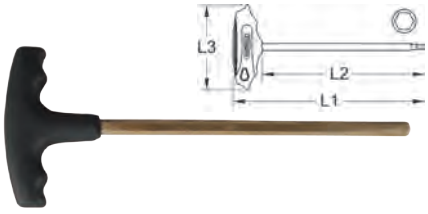
- 6 point
- One component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1572	3,0	143.0	100.0	75.0	31
963.1573	4,0	143.0	100.0	75.0	38
963.1574	5,0	155.0	100.0	91.0	61
963.1575	6,0	155.0	100.0	91.0	71
963.1576	8,0	155.0	100.0	91.0	97
963.1577	10,0	155.0	100.0	91.0	157
963.1578	12,0	155.0	100.0	91.0	198
963.1579	14,0	155.0	100.0	91.0	246

BRONZE*plus* T-handle hexagon key wrench, long

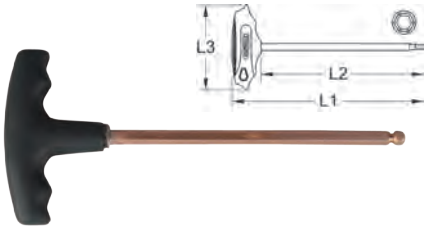
- 6 point
- Extra long execution
- One component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1580	3,0	195.0	150.0	75.0	34
963.1581	4,0	195.0	150.0	75.0	43
963.1582	5,0	205.0	150.0	91.0	69
963.1583	6,0	205.0	150.0	91.0	83
963.1584	8,0	205.0	150.0	91.0	118
963.1585	10,0	205.0	150.0	91.0	191
963.1586	12,0	205.0	150.0	91.0	247
963.1587	14,0	205.0	150.0	91.0	312

BERYLLIUM*plus* T-handle hexagon key wrench with ball end

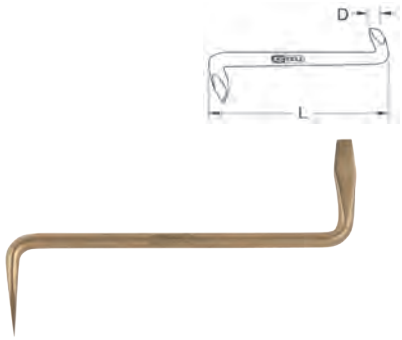
- 6 point
- One component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy



	mm	L1 mm	L2 mm	L3 mm	g
962.0960	3,0	145.0	100.0	75.0	31
962.0961	4,0	145.0	100.0	75.0	38
962.0962	5,0	205.0	150.0	91.0	69
962.0963	6,0	205.0	150.0	91.0	83
962.0964	8,0	205.0	150.0	91.0	118
962.0965	10,0	255.0	200.0	91.0	225
962.0966	12,0	255.0	200.0	91.0	295
962.0967	14,0	255.0	200.0	91.0	380

BRONZE*plus* Key wrench

- Slotted
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D mm	L mm	g
963.1588	4,0	125.0	25
963.1589	6,0	130.0	35
963.1590	10,0	140.0	90
963.1591	13,0	190.0	240

BRONZE*plus* offset screwdriver for square head screws

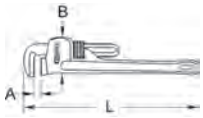
- 4 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	■ mm	L1 mm	L2 mm	kg
963.1592	10	200.0	37.0	0.20
963.1593	11	200.0	37.0	0.20
963.1594	12	200.0	42.0	0.20
963.1595	13	200.0	45.0	0.20
963.1596	14	220.0	45.0	0.40
963.1597	15	220.0	48.0	0.40
963.1598	16	220.0	48.0	0.40
963.1599	17	250.0	51.0	0.60
963.1600	18	250.0	53.0	0.60
963.1601	19	250.0	55.0	0.60
963.1602	20	300.0	57.0	1.00
963.1603	21	300.0	57.0	1.00
963.1604	22	300.0	59.0	1.00
963.1605	24	360.0	63.0	1.60
963.1606	25	360.0	63.0	1.60
963.1607	27	360.0	69.0	1.60
963.1608	28	440.0	69.0	3.20
963.1609	30	440.0	75.0	3.20
963.1610	32	440.0	81.0	3.20

NON SPARKING PLIERS

BRONZE*plus* one handed pipe wrench

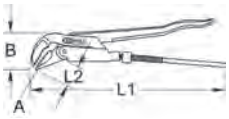
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	A mm	B mm	L mm	kg
963.1705	38.0	50.0	240.0	0.42
963.1706	45.0	50.0	240.0	0.47
963.1707	48.0	53.0	290.0	0.78
963.1708	58.0	64.0	350.0	1.00
963.1709	65.0	64.0	350.0	1.20
963.1710	70.0	75.0	425.0	1.60
963.1711	80.0	80.0	500.0	2.20
963.1712	105.0	90.0	575.0	3.70

BERYLLIUM*plus* swedish pipe wrench

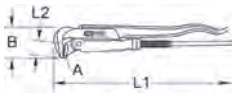
- In accordance to DIN 5234
- 45° angled
- S-shaped jaw
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

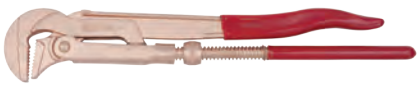


	A	B mm	L1 mm	L2 mm	kg
962.4005	1"	60.0	200.0	38.0	0.82
962.4006	1.1/2"	70.0	300.0	50.0	1.57
962.4007	2"	72.0	350.0	65.0	3.20
962.4008	3"	100.0	600.0	75.0	4.10
962.4009	4"	122.0	900.0	100.0	6.20

BERYLLIUM*plus* adjustable pipe wrench

- In accordance to DIN 5234
- 90° angled
- S-shaped jaw
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

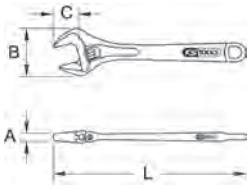




	A	B mm	L1 mm	L2 mm	kg
962.4015	1.1/2"	80.0	435.0	50.0	1.57
962.4016	2"	95.0	540.0	65.0	3.20

BERYLLIUM*plus* adjustable spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	A mm	B mm	C mm	L mm	kg
962.1108	18	9.0	45.0	18.0	150.0	0.10
962.1109	26	10.0	55.0	20.0	200.0	0.20
962.1110	30	11.0	65.0	30.0	250.0	0.40
962.1111	36	12.0	83.0	34.0	300.0	0.70
962.1112	46	15.0	105.0	47.0	380.0	1.40
962.1113	53	17.0	123.0	51.0	450.0	2.70
962.1114	67	19.0	145.0	62.0	600.0	5.10

BRONZE*plus* chain pipe wrench

- Function is similar to a ratchet
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	Ø mm	L mm	kg
963.1713	50	600.0	1.70
963.1714	100	600.0	2.50
963.1715	150	600.0	3.00
963.1716	450	1600.0	8.00

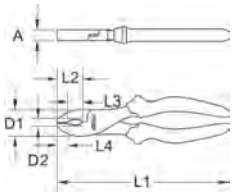
BRONZE*plus* chain pipe wrench

- Function is similar to a ratchet
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	Ø mm	L mm	kg
963.1717	38	510.0	2.65
963.1718	65	685.0	4.50
963.1719	100	915.0	11.50
963.1720	300	1830.0	30.30

BERYLLIUM*plus* pipe wrench

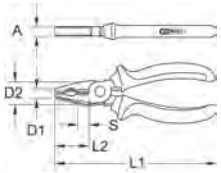
- With PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	L3 mm	L4 mm	g
962.0607	12.0	30.0	15.0	210.0	40.0	25.0	15.0	370

BERYLLIUM*plus* combination pliers

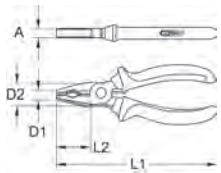
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- With two component handle



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
962.0620	10.0	7.0	24.0	160.0	33.0	12,0	350
962.0621	14.0	9.0	29.0	200.0	38.0	16,0	425

BERYLLIUM*plus* combination pliers, adjustable

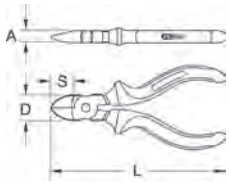
- With two component handle
- Adjustable
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
962.0623	14.0	9.0	29.0	200.0	38.0	340

BERYLLIUM*plus* side cutters

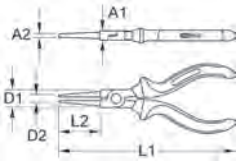
- In accordance to DIN ISO 5749
- With two component handle
- For different wire types
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L mm	S mm	g	
962.0616	10.0	23.0	165.0	20,0	200	

BERYLLIUM*plus* round nosed pliers

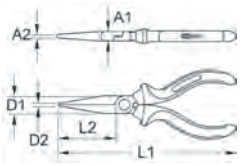
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- Substantial through joint
- With two component handle



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
962.0625	3.0	10.0	20.0	3.0	160.0	36.0	90	
962.0626	5.0	12.0	25.0	4.0	200.0	54.0	160	

BERYLLIUM*plus* fl t pliers

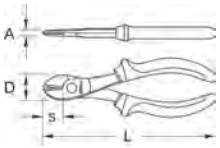
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- With two component handle



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
962.0630	9.0	2.5	18.0	3.2	160.0	48.0	50	
962.0631	11.0	4.0	21.0	5.0	200.0	85.0	150	

BERYLLIUM*plus* high leverage side cutter

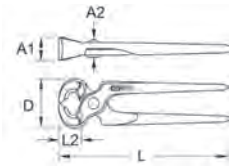
- In accordance to DIN ISO 5749
- With two component handle
- For different wire types
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L mm	S mm	g	
962.0617	14.0	30.0	190.0	24,0	290	

BERYLLIUM*plus* pincers

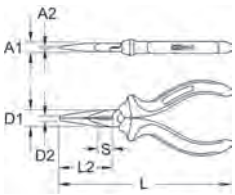
- PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A1 mm	A2 mm	D mm	L1 mm	L2 mm	g	
962.0640	16.0	14.0	43.0	175.0	19.0	430	
962.0641	20.0	18.0	53.0	200.0	23.0	520	

BERYLLIUM*plus* telephone pliers

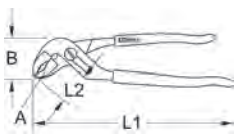
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- With two component handle



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g	
962.0610	11.0	3.0	22.0	4.0	180.0	60.0	10,0	300	

BERYLLIUM*plus* waterpump pliers

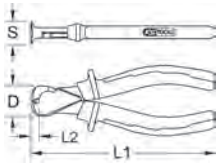
- In accordance to DIN ISO 8976
- With dipped covered handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	B mm	L1 mm	L2 mm	g	
962.0605	30.0	53.0	250.0	33.0	350	

BERYLLIUM*plus* side cutter

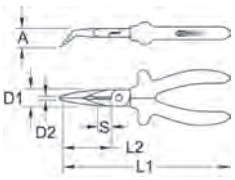
- Strong version
- PVC dipped handle
- Non-sparking
- Anti-magnetic
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	S mm	g	
962.0615	30.0	175.0	9.0	28	260	

BERYLLIUM*plus* telephone pliers, offset

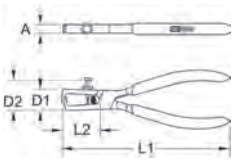
- 45° angled tips
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

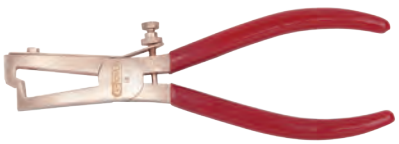


	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g	
962.0612	9.0	20.0	4.0	180.0	50.0	9,0	290	

BERYLLIUM*plus* wire stripper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

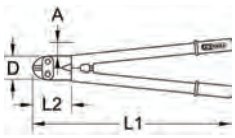




	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
962.0635	10.0	25.0	28.0	170.0	40.0	260	

BERYLLIUM*plus* Bolt cutters

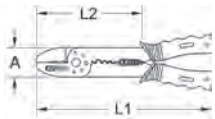
- PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L1 mm	L2 mm	kg	
962.0619	62.0	78.0	620.0	140.0	3.40	

BERYLLIUM*plus* Crimping pliers

- PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L1 mm	L2 mm	A mm	g	
962.0636	200.0	120.0	40.0	120	

BERYLLIUM*plus* plier set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

			kg
962.0650	4 pcs	BERYLLIUM*plus* plier set	1.50
1 x		200 mm	
1 x		165 mm	
1 x		180 mm	
1 x		250 mm	

NON SPARKING TWEEZERS

BRONZE*plus* tweezers

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	g	
963.5604	100.0	15	

BRONZE*plus* neat tweezers

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	g	
963.5605	150.0	30	

BRONZE*plus* fl t nose tweezers

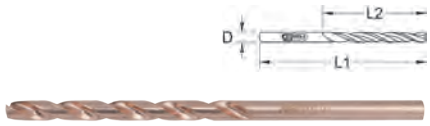
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	g	
963.5606	100.0	30	

NON SPARKING DRILLS

BERYLLIUM*plus* twist drill

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	Content	g	
962.9606	6.0	100.0	60.0	1	20	
962.9607	7.0	120.0	70.0	1	30	
962.9608	8.0	140.0	80.0	1	50	
962.9609	9.0	160.0	100.0	1	75	
962.9610	10.0	180.0	120.0	1	100	
962.9611	11.0	200.0	130.0	1	120	
962.9612	12.0	220.0	150.0	1	170	
962.9613	13.0	240.0	160.0	1	220	
962.9614	14.0	260.0	180.0	1	280	
962.9615	15.0	280.0	200.0	1	360	
962.9616	16.0	300.0	220.0	1	440	
962.9617	17.0	300.0	220.0	1	500	
962.9618	18.0	320.0	230.0	1	600	
962.9619	19.0	320.0	230.0	1	700	
962.9620	20.0	330.0	240.0	1	800	

BERYLLIUM*plus* twist drill set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

			kg	
962.9630	15 pcs	6-7-8-9-10-11-12-13-14-15-16-17-18-19-20mm	4.00	

NON SPARKING SAWS

BRONZE*plus* hack saw frame

- For saw blade length 300 mm
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	H mm	kg
963.5108	300	200	0.90

BERYLLIUM*plus* hack saw blade for hack saw frame

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L2 mm	L3 mm	B mm	D mm	g
962.9034	300.0	1,0-1,3	12.0	0,6	30

BERYLLIUM*plus* hand saw

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L mm	H mm	g
962.9035	370.0	90.0	500

BERYLLIUM*plus* hand saw, heavy duty

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L mm	H mm	g
962.9036	700.0	120.0	770

NON SPARKING WIRE BRUSHES

BRONZE*plus* tin bronze wire brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	g
963.9580	180.0	70.0	300

BRONZE*plus* tin bronze wire brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	rows	H mm	L1 mm	L2 mm	g
963.9581	3	30.0	350.0	120.0	190
963.9582	4	30.0	350.0	120.0	210
963.9583	5	30.0	350.0	120.0	190

BRONZE*plus* tin bronze wire handbrush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	rows	H mm	L1 mm	L2 mm	g
963.9584	3	30.0	290.0	120.0	110
963.9585	4	30.0	290.0	120.0	130
963.9586	5	30.0	290.0	120.0	150

BRONZE*plus* tin bronze wire hand broom, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	g
963.9587	310.0	150.0	320

BRONZE*plus* Hand brush

- Without handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	H mm	g
963.9590	245.0	60.0	50.0	480

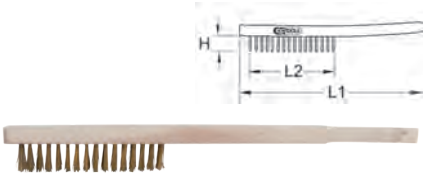
BRONZE*plus* round wire broom

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	H mm	kg
963.9591	300.0	70.0	100.0	1.50

BRONZE*plus* Brush, spark-plug cleaning, round wire

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	H mm	L1 mm	L2 mm	g
963.9593	15.0	225.0	80.0	40

BRONZE*plus* tube brush, wire curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	g
963.9594	300.0	40

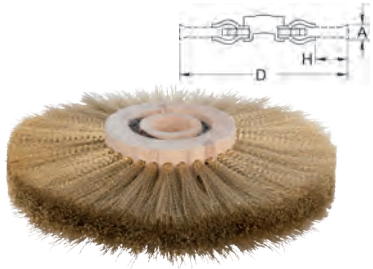
BRONZE*plus* brush end, wire curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	D1 mm	D2 mm	H mm	L mm	g	
963.9595	26.0	6.0	30.0	80.0	640	

BRONZE*plus* tin bronze wire wheel brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	A mm	D mm	H mm	g	
963.9596	45.0	150.0	20.0	520	

BRONZE*plus* tin bronze wire cup brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	D mm	H mm	L mm	g	
963.9597	85.0	20.0	35.0	700	

NON SPARKING FILES

BERYLLIUM*plus* fl t fil

- In accordance to DIN 7261 Form A
- With two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

		B mm	L1 mm	L2 mm	g	
962.7301	1	25.0	360.0	245.0	330	
962.7302	3	25.0	360.0	245.0	330	

BERYLLIUM*plus* half round fil

- In accordance to DIN 7261 Form E
- With two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

		B mm	L1 mm	L2 mm	g	
962.7101	1	22.0	365.0	250.0	340	
962.7102	3	22.0	365.0	250.0	340	

BERYLLIUM*plus* round fil

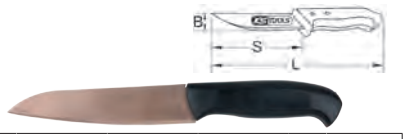
- In accordance to DIN 7261 Form F
- With two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

		D mm	L1 mm	L2 mm	g	
962.7201	1	8.0	360.0	250.0	180	
962.7202	3	8.0	360.0	250.0	180	

NON SPARKING KNIVES

BERYLLIUM*plus* cutter

- Durable and fi ed blade
- With plastic handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	B mm	L mm	S mm	g	
962.9030	30.0	180.0	80	60	

BRONZE*plus* cutter

- Durable and fi ed blade
- With plastic handle
- Reinforced execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	B mm	L mm	S mm	g	
963.9510	30.0	300.0	200	300	

NON SPARKING SHEARS

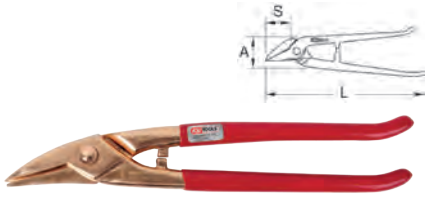
BERYLLIUM*plus* metal shears

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L1 mm	L2 mm	S mm	g	
962.9015	300.0	120.0	70,0	450	

BERYLLIUM*plus* Ideal pattern

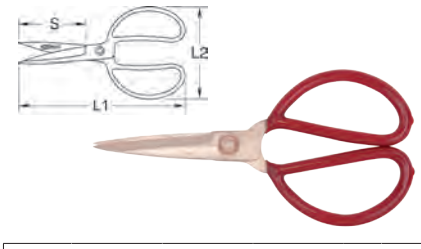
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	L mm	S mm	g	
962.9016	35.0	280.0	50	520	

BERYLLIUM*plus* universal shear

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L1 mm	L2 mm	S mm	g	
962.9017	210.0	110.0	80,0	300	

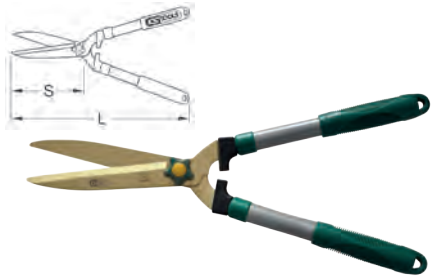
BERYLLIUM*plus* universal shear

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L1 mm	L2 mm	S mm	g	
962.9018	220.0	90.0	100	450	

BERYLLIUM*plus* hedge shears

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L mm	S mm	kg	
962.9033	520.0	300	1.40	

NON SPARKING CUTTING TOOLS

BRONZE*plus* reaping hook

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	B mm	g	
963.9651	380.0	220.0	200.0	800	

BRONZE*plus* draw knife

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	A mm	kg	
963.5705	650.0	250.0	1.50	

NON SPARKING SCRAPERS

BRONZE*plus* deck scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	g	
963.9520	200.0	22.0	210	
963.9521	255.0	40.0	480	
963.9522	300.0	50.0	570	

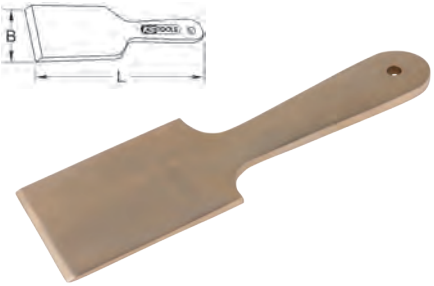
BRONZE*plus* deck scraper with handle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	B mm	g	
963.9523	380.0	280.0	38.0	780	

BRONZE*plus* spray booth scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g	
963.9530	235.0	75.0	450	

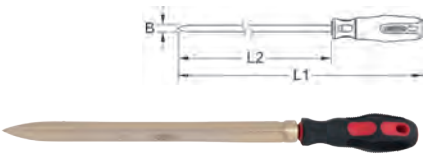
BRONZE*plus* fl t scraper

- In accordance to DIN 8350 Form A
- Work areas ground
- With two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	B mm	D mm	L1 mm	L2 mm	g	
963.9531	37.0	6,0	315.0	205.0	290	

BRONZE*plus* triangular scraper

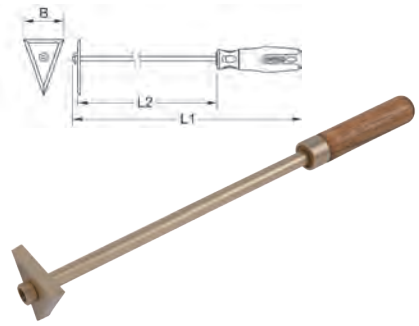
- In accordance to DIN 8350 Form C
- Work areas ground
- With two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	B mm	L1 mm	L2 mm	g	
963.9532	16.0	365.0	255.0	220	

BRONZE*plus* ship scraper

- In accordance to DIN 8350 Form C
- Work areas ground
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	g	
963.9533	420.0	100.0	70.0	650	

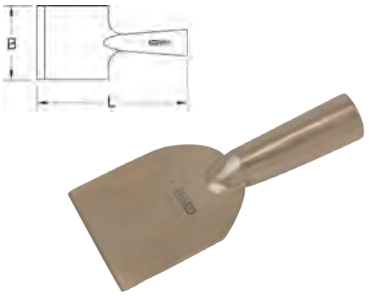
BRONZE*plus* scraper with handle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	g	
963.9534	480.0	95.0	620	

BRONZE*plus* scraper

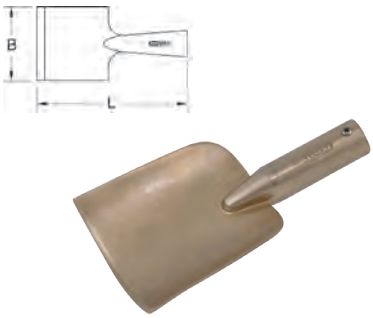
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg	
963.9535	220.0	75.0	0.58	
963.9536	220.0	100.0	0.83	
963.9537	220.0	125.0	0.88	
963.9538	220.0	150.0	1.02	

BRONZE*plus* scraper, concave

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

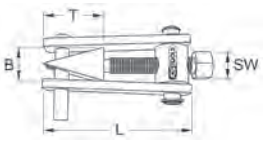


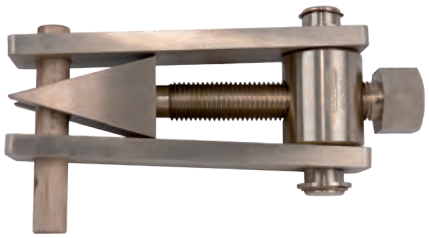
	L mm	B mm	kg	
963.9539	240.0	100.0	0.90	
963.9540	240.0	150.0	1.35	

NON SPARKING FLANGE SPREADERS

BRONZE*plus* fla ge spreader

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



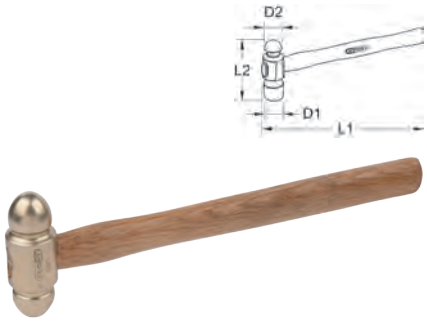


	mm	L mm	B mm	T mm	kg	
963.5607	46	300.0	60.0	55.0	7.20	

NON SPARKING HAMMERS

BRONZE*plus* ball pin hammer

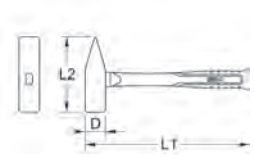
- With hickory handle
- American pattern
- Surfaces polished ground
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D1 mm	D2 mm	L1 mm	L2 mm	kg	
963.2105	100	20.0	17.0	310.0	50.0	0.25	
963.2106	150	24.0	20.0	310.0	55.0	0.30	
963.2107	200	25.0	21.0	310.0	60.0	0.35	
963.2108	300	30.0	25.0	310.0	65.0	0.45	
963.2109	400	34.0	18.0	340.0	70.0	0.56	
963.2110	500	36.0	30.0	340.0	75.0	0.66	
963.2111	600	38.0	32.0	340.0	80.0	0.76	
963.2112	700	40.0	34.0	340.0	85.0	0.86	
963.2113	800	42.0	36.0	380.0	90.0	0.96	
963.2114	900	44.0	38.0	380.0	95.0	1.06	
963.2115	1000	45.0	40.0	380.0	100.0	1.17	
963.2116	1300	50.0	42.0	400.0	110.0	1.47	
963.2117	1500	52.0	44.0	400.0	120.0	1.67	
963.2118	2000	54.0	46.0	400.0	130.0	2.18	

BRONZE*plus* ball pin hammer

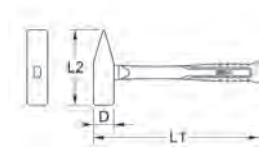
- In accordance to DIN 1041
- With hickory handle
- Head and edge areas ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2005	100	15.0	260.0	82.0	0.22	
963.2006	150	16.0	260.0	87.0	0.27	
963.2007	200	19.0	280.0	95.0	0.32	
963.2008	300	23.0	280.0	105.0	0.42	
963.2009	400	25.0	310.0	112.0	0.52	
963.2010	500	27.0	310.0	115.0	0.50	
963.2011	600	29.0	310.0	120.0	0.72	
963.2012	700	30.0	340.0	125.0	0.82	
963.2013	800	33.0	340.0	128.0	0.93	
963.2014	900	34.0	360.0	133.0	1.03	
963.2015	1000	35.0	360.0	136.0	1.13	
963.2016	1250	40.0	380.0	140.0	1.38	
963.2017	1500	42.0	400.0	145.0	1.64	
963.2018	2000	45.0	400.0	155.0	2.14	

BRONZE*plus* ball pin hammer

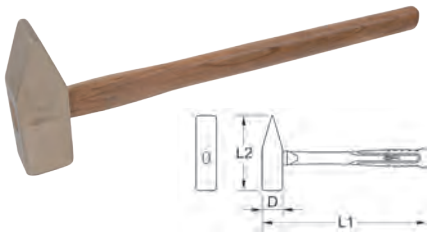
- In accordance to DIN 1041
- With fibe glass handle
- Head and edge areas ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2019	300	23.0	310.0	105.0	0.37	
963.2020	400	25.0	310.0	112.0	0.47	
963.2021	500	27.0	310.0	115.0	0.60	
963.2022	800	33.0	340.0	130.0	0.90	
963.2023	1000	35.0	340.0	135.0	1.13	
963.2024	1500	42.0	400.0	145.0	1.63	
963.2025	2000	45.0	400.0	155.0	2.15	

BRONZE*plus* Sledge hammer

- In accordance to DIN 1042
- With hickory handle
- Head and edge areas ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2030	2500	50.0	900.0	165.0	2.60	
963.2031	3000	55.0	900.0	175.0	3.15	
963.2032	4000	60.0	900.0	180.0	4.15	
963.2033	5000	68.0	900.0	185.0	5.15	
963.2034	6000	74.0	900.0	190.0	6.15	
963.2035	8000	78.0	900.0	195.0	8.15	
963.2036	9000	82.0	900.0	200.0	9.15	
963.2037	10000	85.0	900.0	210.0	10.15	
963.2038	12000	90.0	900.0	220.0	12.15	
963.2039	15000	100.0	900.0	230.0	15.15	

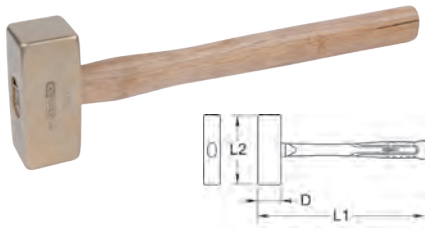
BRONZE*plus* Sledge hammer

- In accordance to DIN 1041
- With fibe glass handle
- Head and edge areas ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)

	g	D mm	L1 mm	L2 mm	kg	
963.2040	3000	55.0	900.0	175.0	3.15	
963.2041	4000	60.0	900.0	180.0	4.15	
963.2042	5000	68.0	900.0	185.0	5.15	
963.2043	8000	78.0	900.0	195.0	8.15	
963.2044	10000	85.0	900.0	210.0	10.15	

BRONZE*plus* club hammer

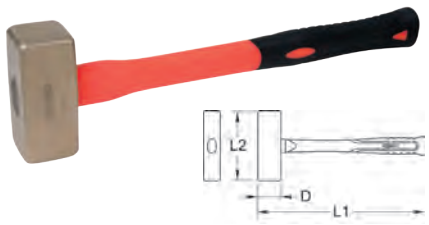
- In accordance to DIN 6475
- With hickory handle
- Surfaces polished ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2050	1000	40.0	400.0	95.0	1.15	
963.2051	1250	40.0	400.0	115.0	1.40	
963.2052	1500	45.0	400.0	115.0	1.70	
963.2053	2000	50.0	400.0	115.0	2.20	
963.2054	2500	55.0	400.0	130.0	2.70	
963.2055	3000	55.0	900.0	145.0	3.25	
963.2056	4000	60.0	900.0	150.0	4.25	
963.2057	5000	65.0	900.0	170.0	5.25	
963.2058	6000	70.0	900.0	170.0	6.25	
963.2059	8000	75.0	900.0	190.0	8.30	
963.2060	10000	80.0	900.0	210.0	10.30	

BRONZE*plus* club hammer

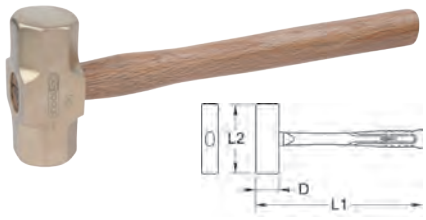
- In accordance to DIN 6475
- With fibe glass handle
- Surfaces polished ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2061	1000	40.0	400.0	105.0	1.30	
963.2062	1250	42.0	400.0	110.0	1.60	
963.2063	1500	44.0	400.0	115.0	1.85	
963.2064	2000	48.0	400.0	130.0	2.35	
963.2065	2500	52.0	400.0	150.0	2.85	
963.2066	3000	54.0	900.0	155.0	3.40	
963.2067	4000	58.0	900.0	160.0	4.40	
963.2068	5000	64.0	900.0	165.0	5.40	
963.2069	6000	67.0	900.0	175.0	6.40	
963.2070	8000	75.0	900.0	190.0	8.40	
963.2071	10000	78.0	900.0	205.0	10.40	

BRONZE*plus* Mining hammer

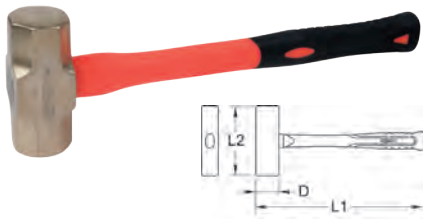
- In accordance to DIN 6475
- With hickory handle
- Surfaces polished ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2080	1000	40.0	350.0	115.0	1.40	
963.2081	1500	44.0	400.0	118.0	1.94	
963.2082	2500	55.0	400.0	150.0	2.94	
963.2083	3500	58.0	900.0	160.0	3.94	
963.2084	5000	65.0	900.0	175.0	5.45	
963.2085	8000	80.0	900.0	200.0	8.45	

BRONZE*plus* Mining hammer

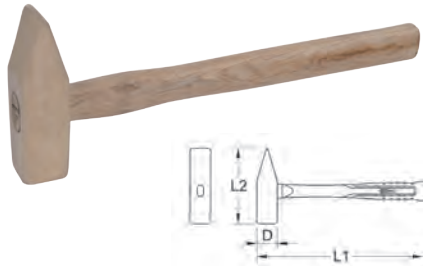
- In accordance to DIN 6475
- With fibe glass handle
- Surfaces polished ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2086	1000	40.0	350.0	115.0	1.45	
963.2087	1500	44.0	400.0	118.0	2.00	
963.2088	2500	55.0	400.0	150.0	3.00	
963.2089	3500	58.0	900.0	160.0	4.00	
963.2090	5000	65.0	900.0	175.0	5.55	
963.2091	8000	80.0	900.0	200.0	8.55	

BRONZE*plus* Hand hammer

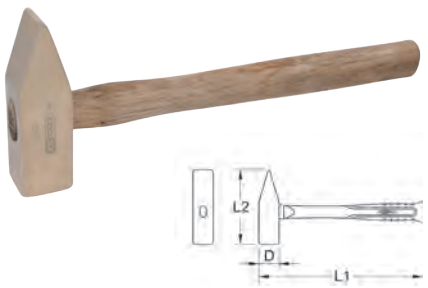
- In accordance to DIN 1041
- With hickory handle
- American form
- Surfaces polished ground
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2120	700	30.0	310.0	115.0	0.85	
963.2121	1200	40.0	400.0	135.0	1.37	
963.2122	1600	40.0	400.0	140.0	1.79	

BRONZE*plus* Set hammer

- In accordance to DIN 1041
- With hickory handle
- Head and edge areas ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2125	1500	42.0	395.0	145.0	1.64

BRONZE*plus* Hole/Drift punch

- With hickory handle
- Head and edge areas ground
- Edges rounded off
- Non sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium bronze (non ferrous alloy)

	g	D mm	L1 mm	L2 mm	kg
963.2130	1000	32.0	400.0	140.0	1.10
963.2131	2000	45.0	600.0	160.0	2.12
963.2132	3000	50.0	900.0	180.0	3.13
963.2133	5000	60.0	900.0	220.0	5.15

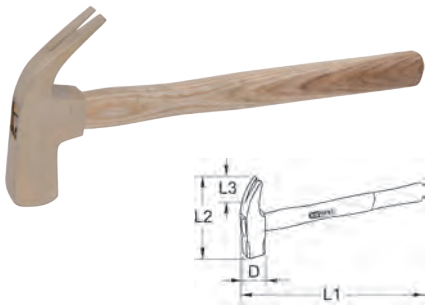
BRONZE*plus* machinist's hammer

- With hickory handle
- American form
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	g	D mm	L1 mm	L2 mm	kg
963.2140	100	20.0	310.0	50.0	0.24
963.2141	300	28.0	310.0	65.0	0.44
963.2142	500	32.0	310.0	80.0	0.64
963.2143	600	33.0	340.0	90.0	0.74
963.2144	800	36.0	340.0	100.0	0.95
963.2145	900	37.0	380.0	110.0	1.05
963.2146	1100	38.0	380.0	120.0	1.25

BRONZE*plus* claw hammer

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	L3 mm	g
963.2150	300	20.0	310.0	110.0	25.0	440
963.2151	400	23.0	340.0	120.0	30.0	540
963.2152	500	26.0	340.0	125.0	30.0	640
963.2153	600	28.0	340.0	135.0	30.0	740

BRONZE*plus* brick hammer

- In accordance to DIN 5108
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	g	D mm	L1 mm	L2 mm	S mm	kg
963.2160	600	27.0	310.0	120.0	40,0	0.67
963.2161	800	35.0	310.0	135.0	45,0	0.90
963.2162	1000	40.0	400.0	145.0	48,0	1.13

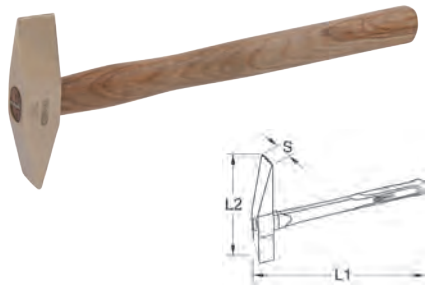
BRONZE*plus* brick hammer

- With hickory handle
- American form
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	g	D mm	L1 mm	L2 mm	S mm	g
963.2163	700	22.0	360.0	170.0	34,0	840

BRONZE*plus* scaling hammer

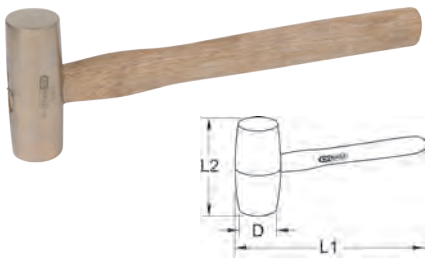
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	L1 mm	L2 mm	S mm	kg
963.2170	200	280.0	115.0	19,0	0.25
963.2171	400	310.0	125.0	27,0	0.50
963.2172	500	310.0	140.0	30,0	0.57
963.2173	600	310.0	145.0	32,0	0.70
963.2174	800	340.0	150.0	35,0	0.95
963.2175	900	340.0	155.0	38,0	1.05
963.2176	1400	380.0	160.0	45,0	1.57

BRONZE*plus* mallet

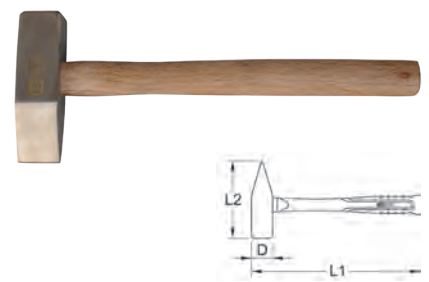
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2180	900	45.0	380.0	75.0	1.06
963.2181	1800	60.0	380.0	85.0	1.98
963.2182	2700	70.0	720.0	90.0	2.90

BRONZE*plus* cutoff hammer

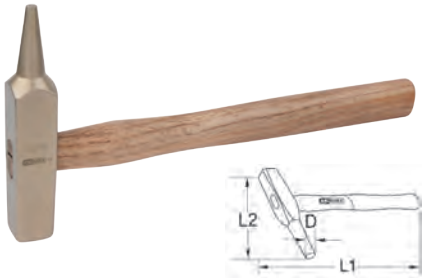
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2595	1300	40.0	400.0	140.0	1.45
963.2596	2100	45.0	400.0	155.0	2.25

BRONZE*plus* pin punch

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg	
963.2405	800	8.0	340.0	140.0	1.00	
963.2406	800	10.0	340.0	140.0	1.00	
963.2407	1200	12.0	380.0	160.0	1.40	
963.2408	1200	16.0	380.0	160.0	1.40	

BRONZE*plus* securing for hammers

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

		g	
963.5602	up to 2 kg	80	
963.5603	2 - 6 kg	140	

NON SPARKING AXES

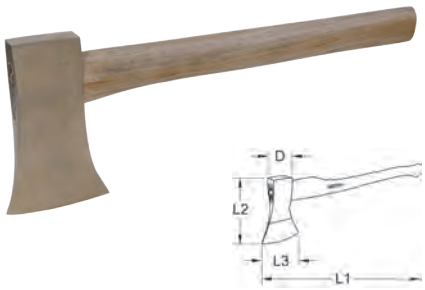
BRONZE*plus* hoe

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	S mm	L mm	kg	
963.9605	120,0	950.0	2.30	

BRONZE*plus* hatchet

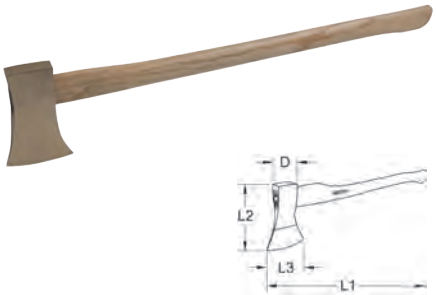
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg	
963.9606	50.0	480.0	155.0	110.0	1.45	
963.9607	70.0	610.0	185.0	110.0	1.50	

BRONZE*plus* axe

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg	
963.9608	60.0	750.0	185.0	130.0	1.60	
963.9609	60.0	900.0	185.0	130.0	2.20	

BRONZE*plus* fi eman's axe

- In accordance to DIN 14900
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	L3 mm	kg	
963.9610	800.0	240.0	100.0	2.60	

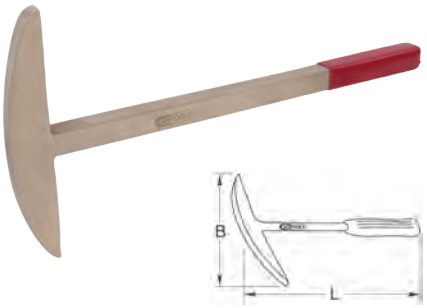
BERYLLIUM*plus* fi eman's hatchet

- With fiber lass handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	A mm	L1 mm	L2 mm	L3 mm	g	
962.9032	27.0	400.0	200.0	85.0	900	

BRONZE*plus* hand pick

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

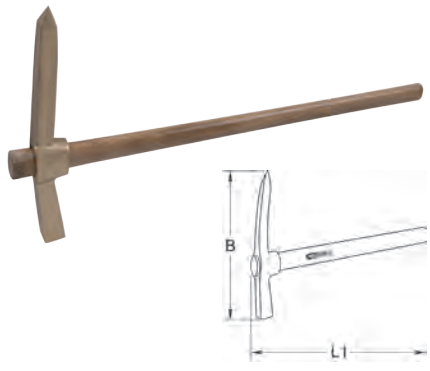


	L mm	B mm	kg	
963.9611	420.0	220.0	2.00	

NON SPARKING PICKS

BRONZE*plus* miner's pick

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg	
963.9612	890.0	400.0	2.20	

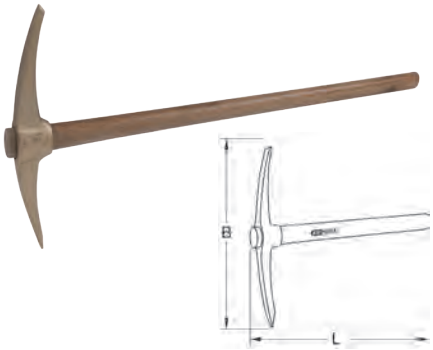
BRONZE*plus* fi eman's hook

- In accordance to DIN 14851
- Without handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	Width mm	kg	
963.9613	380.0	176.0	1.80	

BRONZE*plus* pick axe

- In accordance to DIN 20109
- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg	
963.9620	800.0	400.0	2.15	
963.9621	950.0	500.0	3.50	
963.9622	950.0	550.0	4.00	

BRONZE*plus* pick axe

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	kg	
963.9623	950.0	650.0	4.10	

NON SPARKING CHISELS

BRONZE*plus* fl t chisel

- In accordance to DIN 6453
- Flat oval form
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	A mm	H mm	g	
963.2415	150.0	20.0	8.0	200	
963.2416	200.0	25.0	8.0	320	
963.2417	250.0	25.0	10.0	550	
963.2418	300.0	25.0	10.0	560	
963.2419	400.0	30.0	12.0	630	
963.2420	450.0	30.0	12.0	750	
963.2421	500.0	30.0	12.0	920	

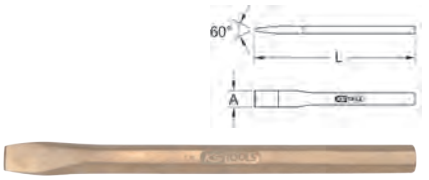
BRONZE*plus* slitting chisel

- Flat oval form
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	A mm	H mm	g	
963.2430	200.0	25.0	5.0	360	
963.2431	250.0	25.0	5.0	460	
963.2432	300.0	25.0	5.0	550	

BRONZE*plus* bricklayer's chisel

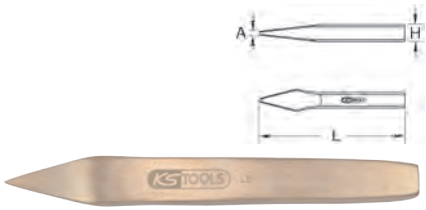
- In accordance to DIN 7254
- Burr-free cutting
- 6-point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	kg	
963.2440	200.0	6.0	0.15	
963.2441	150.0	8.0	0.04	
963.2442	150.0	10.0	0.12	
963.2443	150.0	14.0	0.20	
963.2444	200.0	14.0	0.25	
963.2445	250.0	14.0	0.30	
963.2446	300.0	14.0	0.40	
963.2447	150.0	17.0	0.30	
963.2448	250.0	17.0	0.45	
963.2449	300.0	17.0	0.55	
963.2450	200.0	19.0	0.50	
963.2451	250.0	19.0	0.60	
963.2452	350.0	19.0	0.85	
963.2453	400.0	19.0	1.00	
963.2454	250.0	22.0	0.85	
963.2455	300.0	22.0	1.00	
963.2456	500.0	22.0	1.60	
963.2457	600.0	22.0	2.00	
963.2458	250.0	27.0	0.58	
963.2459	300.0	32.0	0.85	

BRONZE*plus* cross cut chisel

- In accordance to DIN 6451
- Flat oval form
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	H mm	g	
963.2470	150.0	8.0	18.0	250	
963.2471	200.0	8.0	20.0	340	
963.2472	250.0	8.0	22.0	480	
963.2473	300.0	10.0	25.0	640	

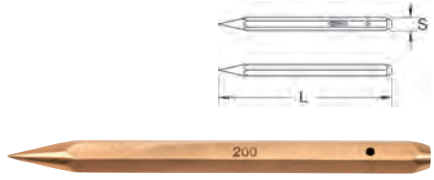
BRONZE*plus* cross cut chisel

- In accordance to DIN 6451
- 6-point
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	A mm	g	
963.2480	200.0	14.0	270	
963.2481	250.0	14.0	330	
963.2482	300.0	17.0	550	
963.2483	400.0	19.0	960	

BRONZE*plus* pointed chisel

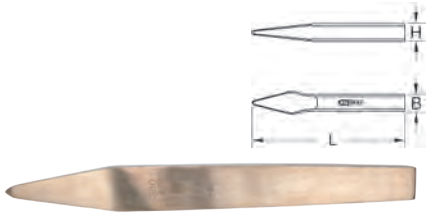
- In accordance to DIN 6451
- 6-point
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	S mm	g	
963.2490	200.0	14.0	270	
963.2491	250.0	14.0	330	
963.2492	300.0	17.0	550	
963.2493	400.0	19.0	960	

BRONZE*plus* concrete chisel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	H mm	B mm	kg
963.2505	380.0	33.0	33.0	5.00

NON SPARKING PIN PUNCHES & PUNCHES

BRONZE*plus* scriber

- For marking of workpieces
- Straight and 70° bent tip
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	Ø mm	g
963.2510	190.0	4,0	50
963.2511	225.0	6,0	50

BRONZE*plus* offset pin

- For marking of workpieces
- Straight and 90° bent tip
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	Ø mm	kg
963.2515	300.0	100.0	13,0	0.20
963.2516	450.0	150.0	19,0	1.30
963.2517	450.0	150.0	16,0	0.93
963.2518	450.0	150.0	24,0	2.00
963.2519	450.0	150.0	27,0	2.30
963.2520	450.0	150.0	30,0	3.30
963.2521	500.0	150.0	16,0	1.30
963.2522	600.0	200.0	20,0	2.40
963.2523	800.0	200.0	22,0	3.40

BRONZE*plus* square blade awl

- For piercing and widening of holes
- With two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	Ø mm	g
963.2525	180.0	100.0	5,0	80

BRONZE*plus* pin punch set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In a roll bag

			g
963.2560	6 pcs	BRONZE*plus* pin punch set	310

1 x	4 mm
5 x	1 - 2 - 3 - 4 - 5 mm

BRONZE*plus* pin punch

- In accordance to DIN 6458
- Conical form
- Strong execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	S mm	g
963.2561	120.0	1.0	8.0	40
963.2562	120.0	2.0	8.0	40
963.2563	120.0	3.0	8.0	40
963.2564	120.0	4.0	8.0	40
963.2565	120.0	5.0	10.0	60
963.2530	150.0	6.0	13.0	100
963.2531	150.0	7.0	17.0	100
963.2532	200.0	8.0	21.0	320
963.2533	250.0	12.0	24.0	450
963.2534	250.0	13.0	30.0	600

BRONZE*plus* pin punch

- In accordance to DIN 6458
- Conical form
- Extra strong execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	S mm	g
963.2535	220.0	5.0	16.0	280
963.2536	230.0	10.0	19.0	420
963.2537	250.0	13.0	24.0	880

BRONZE*plus* pin punch

- Barrel type
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	S mm	g
963.2540	200.0	8.0	17.0	230
963.2541	200.0	8.0	21.0	360
963.2542	200.0	10.0	24.0	270
963.2543	200.0	13.0	27.0	630
963.2544	200.0	18.0	30.0	880
963.2545	200.0	22.0	32.0	1050

BRONZE*plus* centre punch

- In accordance to DIN 7250
- Shaft coded
- Beveled
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	g
963.2550	100.0	3.0	30
963.2551	110.0	4.0	60
963.2552	125.0	5.0	100
963.2553	150.0	6.0	200

BRONZE*plus* split pin puncher set

- In accordance to DIN 6450
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In a roll bag

			g
963.2590	6 pcs	3 - 4 - 5 - 6 - 8 - 10 mm	440

BRONZE*plus* split pin puncher

- In accordance to DIN 6450
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	S mm	g
963.2591	110.0	3.0	9.0	35
963.2592	110.0	4.0	10.0	40
963.2593	120.0	5.0	11.0	78
963.2594	120.0	6.0	12.0	86
963.2597	130.0	8.0	14.0	178
963.2598	140.0	10.0	16.0	205

BRONZE*plus* taper punch

- 4-point
- In accordance to DIN 6450
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	S mm	kg	
963.2566	500.0	5.0	20.0	1.20	

BRONZE*plus* straight pin

- In accordance to DIN 6451
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	S mm	g	
963.2570	85.0	8.0	12.0	40	
963.2571	90.0	10.0	14.0	50	
963.2572	100.0	13.0	16.0	70	
963.2573	110.0	16.0	20.0	100	
963.2574	140.0	19.0	25.0	180	
963.2575	160.0	21.0	28.0	270	
963.2576	200.0	25.0	30.0	450	
963.2577	240.0	29.0	35.0	630	

BRONZE*plus* setting punch

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	D mm	S mm	g	
963.2580	180.0	5.0	12.0	110	
963.2581	200.0	6.0	13.0	150	
963.2582	200.0	8.0	16.0	220	
963.2583	200.0	9.0	20.0	340	
963.2584	230.0	10.0	22.0	460	
963.2585	250.0	11.0	25.0	620	
963.2586	280.0	12.0	27.0	870	
963.2587	320.0	14.0	30.0	1260	
963.2588	350.0	15.0	32.0	1570	
963.2589	380.0	16.0	36.0	2230	

BRONZE*plus* thread cleaning pin

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	Ø mm	L mm	g	
963.9505	6,0	300.0	75	
963.9506	10,0	300.0	180	
963.9507	13,0	300.0	350	

BERYLLIUM*plus* caulking tool

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	B mm	L mm	g	
962.0202	2.0	150.0	370	
962.0203	3.0	160.0	410	
962.0204	4.0	180.0	390	
962.0205	5.0	200.0	520	
962.0206	6.0	200.0	420	
962.0207	7.0	220.0	500	
962.0208	8.0	220.0	520	
962.0209	9.0	220.0	520	
962.0210	10.0	250.0	525	
962.0212	12.0	250.0	540	

NON SPARKING CONSTRUCTION TOOLS

BRONZE*plus* rust scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	kg	
963.9545	600.0	75.0	0.53	
963.9546	800.0	75.0	0.62	
963.9547	1000.0	75.0	0.74	
963.9548	1200.0	75.0	1.16	

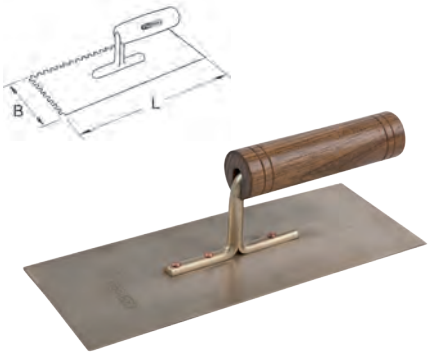
BRONZE*plus* brick trowel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	g	
963.9550	215.0	130.0	350	
963.9551	240.0	135.0	540	

BRONZE*plus* plastering trowel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g	
963.9552	280.0	120.0	810	

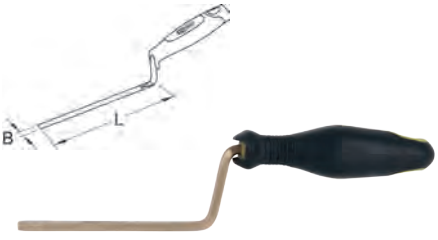
BRONZE*plus* pointed trowel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	g	
963.9553	180.0	92.0	180	

BRONZE*plus* jointing trowel

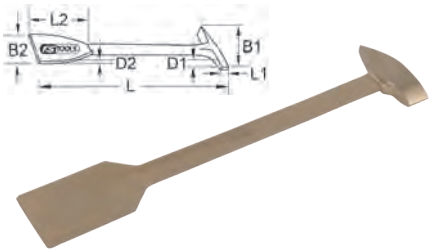
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g	
963.9554	100.0	10.0	113	

BRONZE*plus* pick scraper

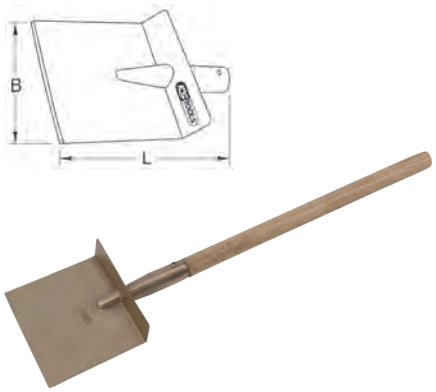
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B1 mm	B2 mm	D1 mm	D2 mm	L1 mm	L2 mm	kg
963.9565	480.0	110.0	70.0	20,0	10,0	40.0	125.0	1.20

BRONZE*plus* floor sc aper

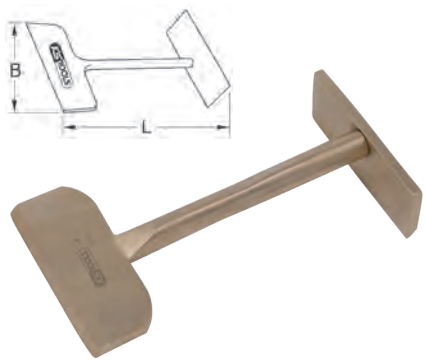
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9570	170.0	150.0	720

BRONZE*plus* deck scraper

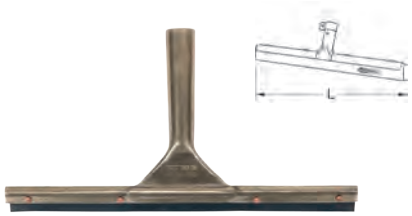
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9575	150.0	75.0	500
963.9576	235.0	125.0	800

BRONZE*plus* rubber pusher

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	g
963.9592	600.0	300

Non-sparking buckets

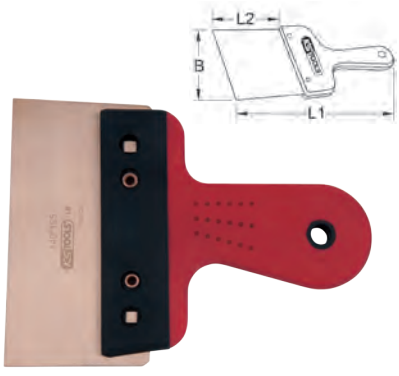
- With revolving stop handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant

	l	Material	H mm	D mm	kg
963.5505	10	brass	270.0	185.0	1.46
963.5506	12	aluminium	290.0	200.0	0.74

NON SPARKING SPATULAS

BRONZE*plus* wide scraper, stiff blade

- With wooden handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	g
963.9560	195.0	80.0	120.0	250
963.9561	195.0	80.0	140.0	270
963.9562	205.0	90.0	160.0	300
963.9563	205.0	90.0	180.0	350

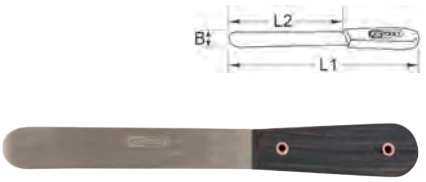
BERYLLIUM*plus* scraper, fl xible blade

- With wooden handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L1 mm	L2 mm	B mm	g
962.9031	200.0	95.0	75.0	130

BRONZE*plus* spatula

- With wooden handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

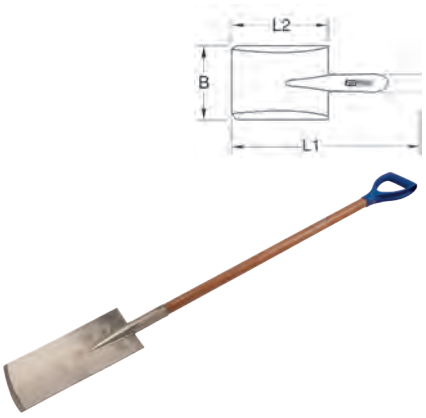


	L1 mm	L2 mm	B mm	g
963.9515	260.0	150.0	25.0	350
963.9516	350.0	230.0	40.0	800
963.9517	490.0	355.0	50.0	1750

NON SPARKING SHOVELS & FORKS

BRONZE*plus* spades

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm		kg
963.9630	1250.0	260.0	180.0	straight	3.50
963.9631	1250.0	260.0	180.0	D handle	3.65

BRONZE*plus* folding spade

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	B mm	kg
963.9632	670.0	210.0	160.0	1.30

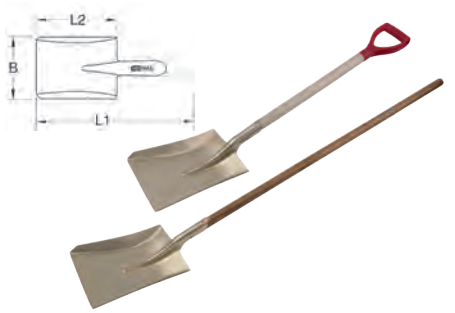
BRONZE*plus* round point shovel

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	B mm		kg
963.9635	1400.0	340.0	260.0	straight	1.85
963.9636	1150.0	340.0	260.0	T handle	1.85

BRONZE*plus* shovel

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm		kg
963.9637	1400.0	400.0	270.0	straight	1.95
963.9638	1150.0	400.0	270.0	T handle	1.95

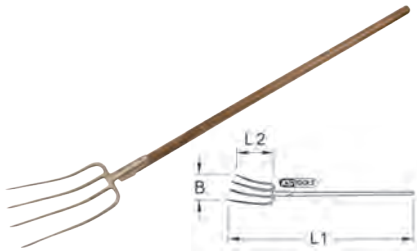
BRONZE*plus* hand shovel

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L1 mm	L2 mm	B mm	g
963.9639	540.0	220.0	180.0	720

BRONZE*plus* manure fork

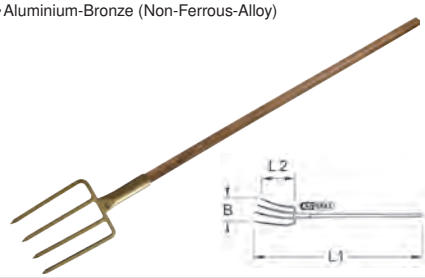
- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	kg
963.9645	1600.0	330.0	230.0	1.64

BRONZE*plus* spade fork

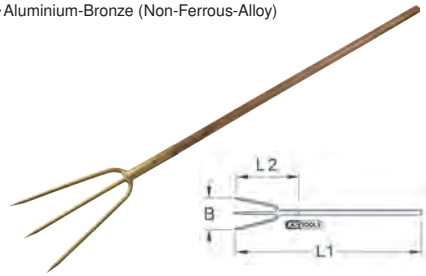
- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	kg
963.9646	1000.0	290.0	180.0	2.10

BRONZE*plus* hay fork

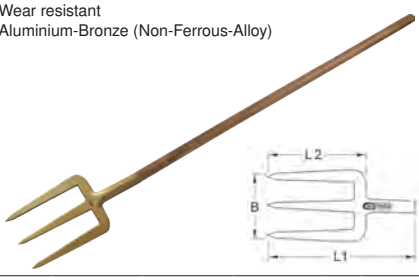
- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	kg
963.9647	1600.0	290.0	180.0	1.28

BRONZE*plus* fork for gun cotton

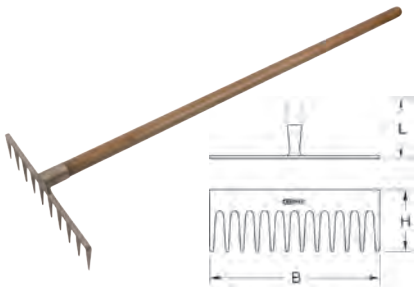
- Without handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	kg
963.9648	200.0	140.0	90.0	0.60
963.9649	370.0	250.0	150.0	1.80

BRONZE*plus* rake

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

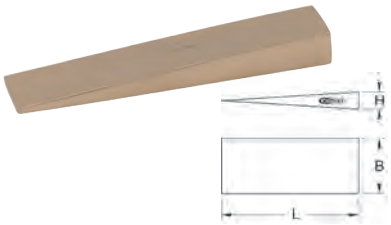


	L mm	B mm	H mm	kg
963.9650	1600.0	360.0	90.0	1.53

NON SPARKING WEDGES

BRONZE*plus* wedge

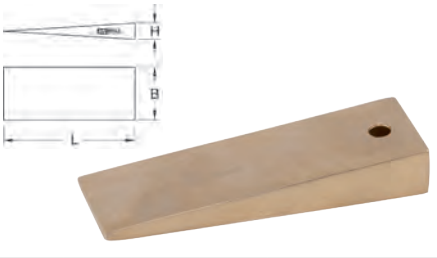
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	kg
963.2205	80.0	15.0	6.0	0.04
963.2206	90.0	50.0	10.0	0.20
963.2207	100.0	50.0	10.0	0.21
963.2208	105.0	19.0	13.0	0.10
963.2209	150.0	25.0	13.0	0.25
963.2210	150.0	30.0	13.0	0.28
963.2211	150.0	38.0	19.0	0.40
963.2212	150.0	40.0	13.0	0.35
963.2213	180.0	32.0	13.0	0.30
963.2214	180.0	50.0	10.0	0.40
963.2215	180.0	50.0	19.0	0.70
963.2216	200.0	38.0	25.0	0.90
963.2217	200.0	38.0	41.0	1.30
963.2218	200.0	40.0	40.0	1.38
963.2219	200.0	50.0	19.0	0.80
963.2220	215.0	50.0	32.0	1.40
963.2221	230.0	40.0	20.0	1.00

BRONZE*plus* wedge with hole

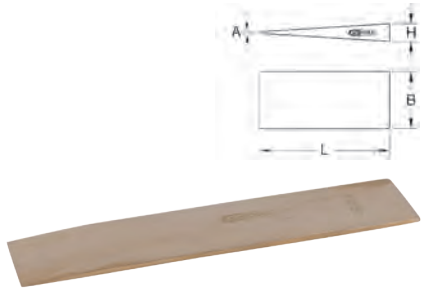
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	hole diameter	g
963.2225	100.0	30.0	15.0	6 mm	220

BRONZE*plus* space wedge

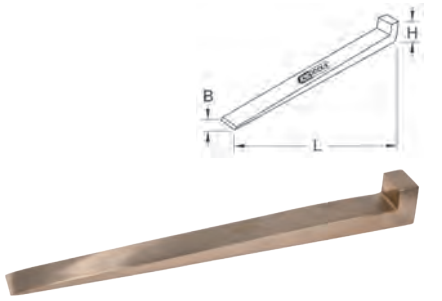
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	A mm	g	
963.2226	250.0	50.0	5.0	1.2	200	

BRONZE*plus* nosekey

- for a positive connection of the shaft and hub
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	kg	
963.2230	340.0	20.0	40.0	2.60	
963.2231	340.0	30.0	40.0	2.80	
963.2232	400.0	30.0	40.0	3.50	

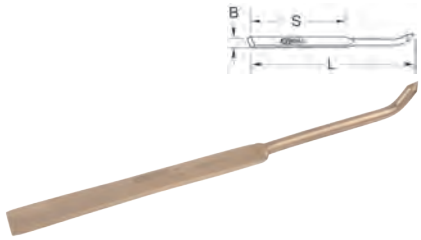
BRONZE*plus* stone wedge

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	H mm	kg	
963.2235	120.0	50.0	44.0	1.10	
963.2236	150.0	45.0	45.0	1.40	
963.2237	190.0	55.0	47.0	2.00	
963.2238	240.0	60.0	50.0	3.00	

BRONZE*plus* straight gasket knife with mandrel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	S mm	g	
963.9655	400.0	25.0	220	300	

BRONZE*plus* round gasket knife

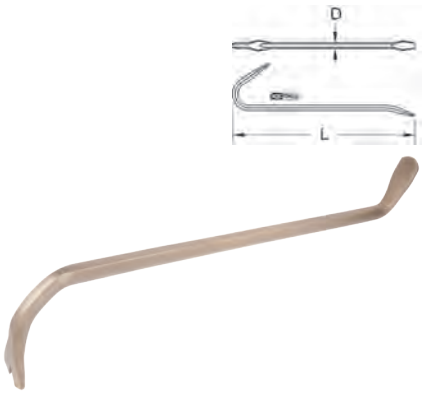
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	S mm	kg	
963.9656	690.0	30.0	400	1.20	
963.9657	1240.0	40.0	800	2.00	

NON SPARKING PRY BARS

BRONZE*plus* pry bar/crowbar

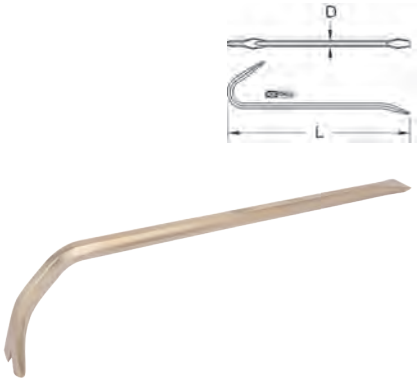
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	kg	
963.9705	300.0	14.0	0.40	
963.9706	450.0	9.0	1.10	
963.9707	600.0	19.0	1.50	
963.9708	750.0	22.0	2.50	
963.9709	900.0	22.0	3.00	

BRONZE*plus* wrecking bar

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	kg	
963.9715	300.0	14.0	0.40	
963.9716	450.0	19.0	1.10	
963.9717	600.0	19.0	1.50	
963.9718	750.0	22.0	2.50	
963.9719	900.0	22.0	3.00	

NON SPARKING CROWBARS

BRONZE*plus* crowbar

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	S mm	kg	
963.9720	450.0	19.0	1.10	
963.9721	600.0	19.0	1.50	
963.9722	750.0	22.0	2.50	
963.9723	900.0	22.0	3.00	
963.9724	1000.0	22.0	3.30	
963.9725	1250.0	27.0	6.10	
963.9726	1500.0	27.0	7.30	
963.9727	1800.0	30.0	11.10	
963.9728	2000.0	30.0	12.30	

BRONZE*plus* crowbar with point and edge

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	Ø mm	kg	
963.9730	1000.0	30	6.15	
963.9731	1250.0	30	7.70	
963.9732	1500.0	30	9.25	
963.9733	1800.0	30	11.10	
963.9734	2000.0	30	12.30	

BRONZE*plus* crowbar with point and claw

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	Ø mm	kg	
963.9735	1000.0	30	6.15	
963.9736	1250.0	30	7.70	
963.9737	1500.0	30	9.25	
963.9738	1800.0	30	11.10	
963.9739	2000.0	30	12.30	

BRONZE*plus* crowbar with edge and ball end

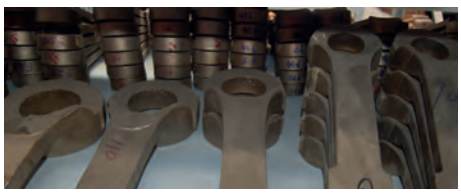
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	Ø mm	kg	
963.9745	1000.0	30	6.15	
963.9746	1250.0	30	7.70	
963.9747	1500.0	30	9.25	
963.9748	1800.0	30	11.10	
963.9749	2000.0	30	12.30	

BRONZE*plus* crowbar with point and ball end

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	Ø mm	kg	
963.9755	1000.0	30	6.15	
963.9756	1250.0	30	7.70	
963.9757	1500.0	30	9.25	
963.9758	1800.0	30	11.10	
963.9759	2000.0	30	12.30	



BRONZE*plus* lifting rod

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	B mm	kg	
963.9765	650.0	20.0	2.00	
963.9766	800.0	20.0	2.70	
963.9767	1000.0	20.0	3.40	
963.9768	1250.0	25.0	6.20	
963.9769	1500.0	25.0	7.70	

BRONZE*plus* bending lever

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	A mm	mm	kg	
963.9775	200.0	5.0	19	0.66	
963.9776	300.0	5.0	19	1.00	
963.9777	400.0	5.0	19	1.30	
963.9778	500.0	5.0	19	1.60	
963.9779	600.0	5.0	19	2.00	

BRONZE*plus* tyre lever

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	A mm	g	
963.9785	200.0	20.0	350	
963.9786	300.0	25.0	470	
963.9787	400.0	30.0	600	
963.9788	500.0	35.0	770	
963.9789	600.0	38.0	900	

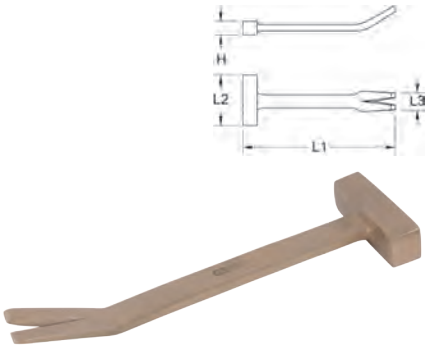
BRONZE*plus* tyre lever, heavy and robust execution

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	A mm	kg	
963.9790	600.0	25.0	1.00	

BRONZE*plus* crate opener

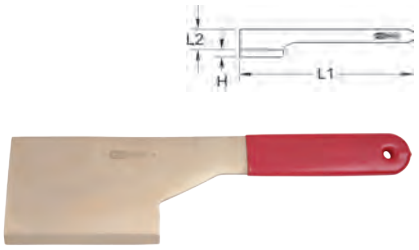
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	H mm	L1 mm	L2 mm	L3 mm	g	
963.5105	22.0	230.0	70.0	30.0	455	

BRONZE*plus* carbide drum opener

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	H mm	L1 mm	L2 mm	g	
963.5106	10.0	300.0	75.0	750	

NON SPARKING DRUM LIFTERS

BRONZE*plus* drum lifter

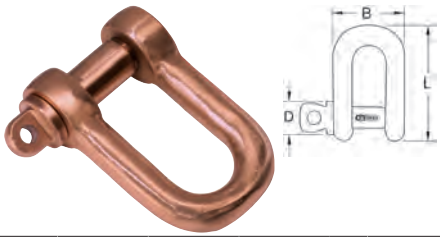
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	Max load kg	kg	
963.5107	1060.0	600	3.80	

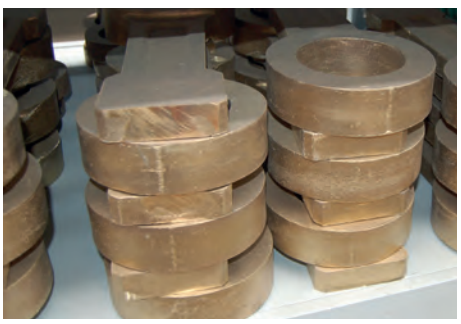
NON SPARKING SHACKLES

BERYLLIUM*plus* shackle

- Straight design
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



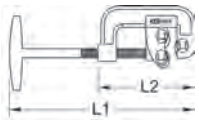
	D mm	L mm	B mm	g	
962.9520	25.0	40.0	30.0	100	
962.9521	28.0	78.0	37.0	150	



NON SPARKING PIPE CUTTERS

BRONZE*plus* pipe cutter

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

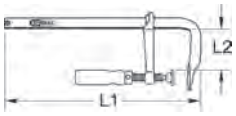


	Ø mm	L1 mm	kg	
963.5109	50,0	340.0	2.50	

NON SPARKING CLAMPING TOOLS

BRONZE*plus* tension clamp

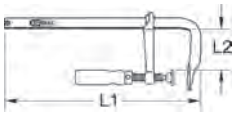
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

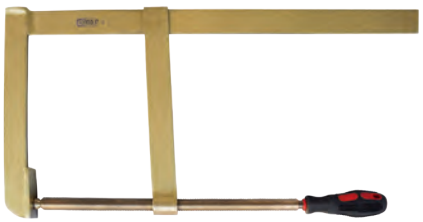


	L1 mm	L2 mm	kg	
963.5020	480.0	130.0	2.10	

BRONZE*plus* deep tension clamp

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

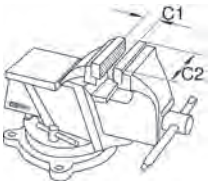




	L1 mm	L2 mm	kg	
963.5021	480.0	250.0	3.70	

BRONZE*plus* bench vice

- With swivel base
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	C1 mm	C2 mm	kg	
963.5005	100.0	90.0	6.50	
963.5006	130.0	125.0	15.50	
963.5007	150.0	150.0	26.50	
963.5008	170.0	170.0	27.40	

NON SPARKING NEEDLES

BERYLLIUM*plus* hearing needle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L mm	Ø mm	g	
962.0220	250.0	6,0	85	
962.0221	300.0	8,0	150	
962.0222	400.0	7,0	160	
962.0223	500.0	10,0	335	

BERYLLIUM*plus* hearing needle with ball end

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L mm	Ø mm	g	
962.0224	500.0	6,0	130	

BERYLLIUM*plus* needle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)

	L mm	Ø mm	g	
962.0225	180.0	3,0	15	

NON SPARKING OIL PUMPS

BRONZE*plus* portable manual oil pump

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	L mm	kg	
963.5805	1350.0	5.00	

NON SPARKING HOISTS

BRONZE*plus* hand lift truck

- Pallet truck capacity 2.0 t
- Fork length approx. 1.100 mm
- Guide rod length approx. 1.250 mm
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	Load capacity kg	Total length mm	Width mm	Total depth mm	kg	
963.5905	2000	1100.0	470.0	1250.0	120.00	

BRONZE*plus* chain hoist

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

	Format	Max capacity t	kg	
963.9905	2 chains à 2.5 m	0,5 t	10.20	
963.9906	2 chains à 2.5 m	1,0 t	13.60	
963.9907	2 chains à 2.5 m	1,5 t	15.60	
963.9908	2 chains à 2.5 m	2,0 t	22.00	
963.9909	2 chains à 3 m	3,0 t	23.60	
963.9910	2 chains à 3 m	5,0 t	36.00	
963.9911	2 chains à 3 m	10,0 t	68.50	
963.9912	2 chains à 3 m	16,0 t	187.00	

KS TOOLS®

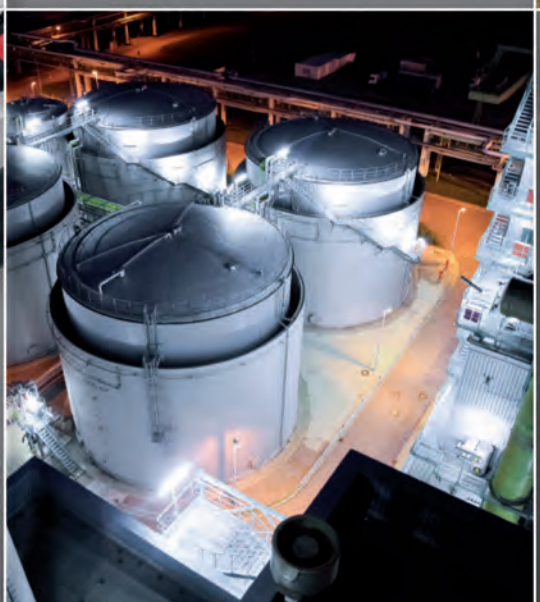
Innovation is our mission!

NON SPARKING TOOLS

BRONZE plus
BERYLLIUM plus

- Chemical industries
- Petro refine ies
- Oil and gas carriages
- Pipeline business
- Drilling platforms
- Fuel service (cleaning etc.)
- Gas and electricity works
- Varnishing
- Federal armed forces, army
- Civil defence and civil protection
- Fire department

You can use it on all places where sparks create potential danger of explosion and fi e. For the activities which require the use (application) of a hundred percent non-magnetic and extremely rustproof tools.



NON-MAGNETIC TOOLS MADE FROM STAINLESS STEEL/TITANIUM

KS TOOLS®

Innovation is our mission!

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NON MAGNETIC TOOLS
MADE FROM STAINLESS STEEL/TITANIUM

Stainless steel fi tings need tools made from stainless steel!

In general stainless steel is rust-proof. So that it remains as such the user must take precautions to avoid extraneous rust.
This rust occurs through particles on normal steel tools. These particles penetrate the stainless steel surface and turn into rust with exposure to oxygen.
These adherent particles can occur through abrasion when using tools made of conventional steel.
With these rust can occur through abrasion.

The iron particles and also ordinary steel are not protection from corrosion and different acids by contrast to stainless steels.
If iron particles have then been deposited on stainless steel elements, it is then just a question of time until correlative corrosion processes start. The rust occurring as a product of corrosion can however be avoided if only stainless steel tools are used on stainless steel elements and in the immediate surrounding area. They prevent extraneous rust.

The look of the affected fi tings is seriously affected by extraneous rust on the stainless steel fi tings,
and it can also lead to functional impairments with considerable safety defects following build up of extraneous rust.
Then the positive properties of the stainless steel become useless. The worst case scenario would be serious consequential damage to machines, devices and other objects occurring due to the stainless steel components affected by extraneous rust.

The desired advantages of using stainless steel tools are always at risk if normal steel tools are used for stainless steel fi tings or facades.
The consequences resulting are, amongst others, pitting with considerable safety defects.

Extraneous rust is therefore a signifi ant problem to be taken seriously. KS Tools now has a wide range of tools made from stainless steel with all stainless steel tools being equipped with the required hardness and resistance to wear.

Upon request sets can also be put together individually!

TITAN*plus*				
Material: TI 6AL-4V min. in % max. in %	V 3.5 4.5	Al 5.5 6.8	Oven-drys <1%	
Technical properties Fusion point Hardness Yield stress	 1650°C 30-40HRC 993N/mm²			

Non-magnetic tools

TITAN plus

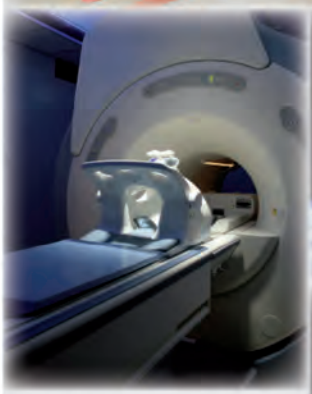
- 100% anti-magnetic
- Extremely high stability
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life

STAINLESS

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Extremely long service life

Application Titan*plus*

- Pharmaceutical industry
- Medical technology
- Chemical industry
- Maritime applications
- Aeronautic sector
- Military sector
- Aerospace sector
- Power stations
- Nuclear industry
- Bomb disposal



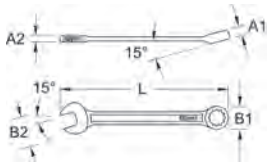
Application STAINLESS

- Food industry
- Pharmaceutical industry
- Medical technology
- Facade technology
- Vehicle manufacture
- Chemical industry
- Maritime applications

STAINLESS STEEL SPANNERS

STAINLESS STEEL Combination spanners, offset

- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
964.0108	8	5.5	4.6	12.8	18.5	125.0	26	
964.0110	10	6.5	4.8	15.8	23.2	145.0	42	
964.0111	11	6.9	5.2	16.9	25.3	155.0	47	
964.0112	12	7.7	5.2	18.7	27.2	165.0	60	
964.0113	13	8.3	6.0	20.0	29.4	175.0	68	
964.0114	14	8.4	6.0	21.0	30.8	185.0	87	
964.0115	15	8.7	6.4	22.5	32.5	195.0	98	
964.0117	17	9.3	6.8	25.3	35.9	215.0	119	
964.0119	19	10.5	7.4	28.1	40.7	235.0	162	

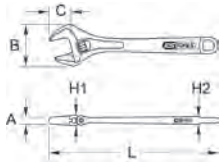
STAINLESS STEEL combination spanner set, offset

- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

			g	
964.0130	6 pcs	8 - 10 - 12 - 13 - 17 - 19 mm	621	
964.0135	9 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm	842	

STAINLESS STEEL Adjustable wrench

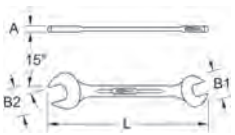
- In accordance to DIN 3117 Form A
- Jaw 15° offset
- Swedish type design
- With mm scale
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm	g	
964.1301	18	6.0	43.0	17.0	12.0	5.0	150.0	120	
964.1302	24	6.0	52.0	24.0	14.0	6.0	200.0	245	
964.1303	30	7.0	67.0	29.0	15.0	7.0	250.0	390	
964.1304	36	10.0	77.0	33.0	19.0	8.0	300.0	645	
964.1305	46	13.0	96.0	45.0	22.0	9.0	375.0	1175	
964.1306	55	13.0	114.0	49.0	26.0	11.0	450.0	1865	
964.1307	65	19.0	135.0	55.0	34.0	14.0	600.0	3325	

STAINLESS STEEL Open end spanner, 5.5x7mm

- In accordance to DIN 3113 Form A / ISO 3318 / 7738
- Jaw 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A mm	B1 mm	B2 mm	L mm	kg	
964.2201	5,5x7	4.0	13.0	14.0	94.0	0.05	
964.2202	6x7	4.0	13.0	14.0	94.0	0.05	
964.2203	8x9	5.0	19.0	23.0	122.0	0.06	
964.2204	8x10	5.0	19.0	23.0	122.0	0.05	
964.2205	9x11	5.0	22.0	26.0	135.0	0.06	
964.2206	10x12	5.0	22.0	26.0	135.0	0.06	
964.2207	12x14	7.0	32.0	26.0	150.0	0.09	
964.2208	14x17	7.0	32.0	36.0	165.0	0.12	
964.2209	16x18	7.0	33.0	36.0	170.0	0.12	

	mm	A mm	B1 mm	B2 mm	L mm	kg	
964.2210	17x19	8.0	35.0	38.0	185.0	0.15	
964.2211	19x22	8.0	40.0	44.0	200.0	0.19	
964.2212	22x24	9.0	44.0	47.0	230.0	0.27	
964.2213	24x27	10.0	46.0	51.0	250.0	0.34	
964.2214	27x30	10.0	50.0	64.0	275.0	0.49	
964.2215	30x32	12.0	60.0	64.0	285.0	0.75	

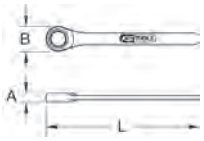
STAINLESS STEEL Open end spanner set

- In accordance to DIN 3113 Form A / ISO 3318 / 7738
- Jaw 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

			kg	
964.2240	9 pcs	8x10 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 30x32 mm	2.01	
964.2245	11 pcs	8x10 - 9x11 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2.55	
964.2250	13 pcs	5,5x7 - 6x7 - 8x10 - 9x11 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2.64	

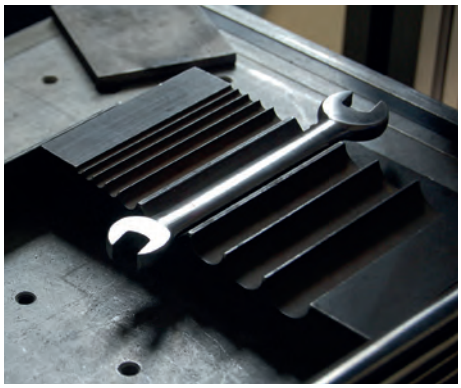
STAINLESS STEEL Single ring wrench

- FlankTraction-Profil
- Straight form
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A mm	B mm	L mm	kg	
964.1012	12	11.0	22.0	145.0	0.10	
964.1014	14	11.0	26.0	145.0	0.10	

	mm	A mm	B mm	L mm	kg	
964.1017	17	12.0	29.0	150.0	0.13	
964.1019	19	12.0	31.0	158.0	0.16	
964.1022	22	13.0	36.0	185.0	0.18	
964.1024	24	13.0	39.0	197.0	0.23	
964.1027	27	14.0	44.0	223.0	0.30	
964.1030	30	14.0	50.0	253.0	0.39	
964.1032	32	15.0	50.0	253.0	0.46	
964.1034	34	15.0	53.0	270.0	0.55	
964.1036	36	15.0	55.0	290.0	0.63	
964.1038	38	16.0	58.0	30.0	0.71	
964.1041	41	17.0	62.0	315.0	0.84	
964.1045	45	19.0	71.0	325.0	1.23	
964.1046	46	19.0	71.0	325.0	1.21	
964.1048	48	21.0	75.0	325.0	1.49	
964.1050	50	21.0	75.0	340.0	1.45	
964.1055	55	22.0	80.0	360.0	1.95	
964.1056	56	22.0	80.0	360.0	1.95	
964.1060	60	24.0	89.0	380.0	2.26	
964.1065	65	27.0	96.0	415.0	2.75	
964.1070	70	27.0	104.0	425.0	3.26	
964.1075	75	28.0	114.0	440.0	3.13	



STAINLESS STEEL ring spanner offset

- FlankTraction-Profil
- In accordance to DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Rings 75° offset
- Thin walled
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg	
964.1101	5,5x7	6.0	6.0	10.0	12.0	119.0	0.04	
964.1102	6x7	6.0	7.0	12.0	13.0	170.0	0.05	
964.1103	8x9	6.0	7.0	12.0	14.0	175.0	0.05	
964.1104	8x10	5.0	6.0	13.0	15.0	175.0	0.05	
964.1105	9x11	6.0	7.0	16.0	20.0	200.0	0.08	
964.1106	10x12	6.0	7.0	16.0	19.0	200.0	0.07	
964.1107	12x14	7.0	8.0	19.0	21.0	220.0	0.11	
964.1108	14x17	9.0	9.0	22.0	26.0	250.0	0.15	
964.1109	16x18	9.0	9.0	24.0	27.0	255.0	0.18	
964.1110	17x19	9.0	10.0	26.0	29.0	260.0	0.19	
964.1111	19x22	11.0	11.0	29.0	33.0	300.0	0.24	
964.1112	22x24	12.0	13.0	32.0	35.0	320.0	0.38	
964.1113	24x27	13.0	14.0	36.0	40.0	350.0	0.39	
964.1114	27x30	13.0	15.0	40.0	42.0	370.0	0.46	
964.1115	30x32	14.0	15.0	44.0	47.0	400.0	0.59	

STAINLESS STEEL ring spanner offset set

- FlankTraction-Profil
- In accordance to DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Rings 75° offset
- Thin walled
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

			kg	
964.1140	9 pcs	8x10 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 30x32 mm	2.16	
964.1145	11 pcs	8x10 - 9x11 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2.69	
964.1150	13 pcs	5,5x7 - 6x7 - 8x10 - 9x11- 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2.78	

1/4“ STAINLESS STEEL POINT SOCKETS

STAINLESS STEEL hex socket

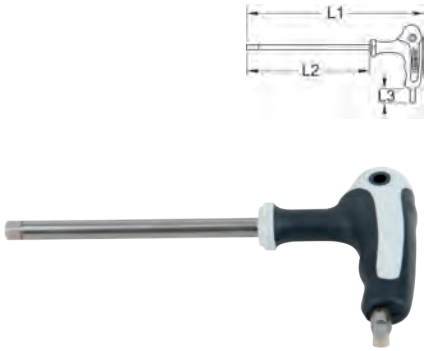
- 6-point
- In accordance to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/4"

	mm	D1 mm	D2 mm	L mm	T mm	g	
964.1404	4,0	6.8	11.9	25.0	5.0	11	
964.14045	4,5	7.4	11.9	25.0	5.0	11	
964.1405	5,0	8.1	11.9	25.0	6.0	11	
964.14055	5,5	8.7	11.9	25.0	6.0	11	
964.1406	6,0	9.3	11.9	25.0	7.0	11	
964.1407	7,0	10.7	11.9	25.0	7.0	12	
964.1408	8,0	11.9	11.7	25.0	7.0	11	
964.1409	9,0	12.9	11.7	25.0	12.0	12	
964.1410	10,0	13.9	12.4	25.0	12.0	14	
964.1411	11,0	15.7	13.8	25.0	14.0	17	
964.1412	12,0	16.8	14.7	25.0	14.0	21	
964.1413	13,0	17.8	15.4	25.0	14.0	22	
964.1414	14,0	19.3	16.4	25.0	14.0	26	

STAINLESS STEEL Square drive screwdriver

- Square drive adaptor in accordance to DIN 3120 / ISO 1174
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- With T-handle
- Rust-proof and acid resistant
- Stainless steel



1/4"

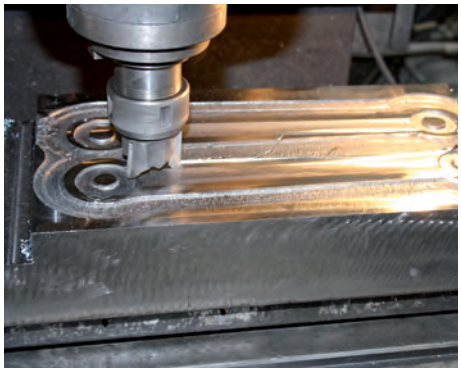
	■	L1 mm	L2 mm	L3 mm	g	
910.2451	1/4“	160.0	90.0	15.0	107	

STAINLESS STEEL Socket set

- Can be used by hand or with and electric screwdriver
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- With T-handle
- Rust-proof and acid resistant
- Stainless steel

1/4"

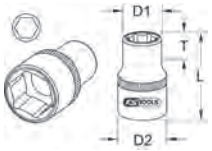
			g
910.2450	9 pcs	STAINLESS STEEL Socket set	340
8 x		1/4“: 4 - 5 - 6 - 7 - 8 - 10 - 12 - 13 mm	
1 x		1/4“	



1/2“ STAINLESS STEEL POINT SOCKETS

STAINLESS STEEL hex socket

- 6-point
- FlankTraction-Profil
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/2"

	mm	D1 mm	D2 mm	L mm	T mm	g	
964.1208	8	13.0	22.0	37.0	14.0	43	
964.1209	9	14.0	22.0	38.0	13.0	43	
964.1210	10	15.0	22.0	37.0	14.0	43	
964.1211	11	17.0	22.0	38.0	13.0	48	
964.1212	12	18.0	21.0	38.0	16.0	45	
964.1213	13	19.0	22.0	37.0	15.0	48	
964.1214	14	20.0	22.0	37.0	18.0	50	
964.1215	15	22.0	22.0	38.0	19.0	55	
964.1216	16	22.0	22.0	38.0	19.0	55	
964.1217	17	24.0	22.0	38.0	21.0	60	
964.1218	18	25.0	23.0	38.0	21.0	70	
964.1219	19	26.0	23.0	38.0	20.0	65	
964.1220	20	27.0	24.0	38.0	21.0	80	
964.1221	21	28.0	25.0	38.0	21.0	75	
964.1222	22	30.0	26.0	38.0	21.0	90	
964.1223	23	32.0	27.0	40.0	22.0	120	
964.1224	24	32.0	28.0	40.0	22.0	115	
964.1225	25	34.0	29.0	42.0	27.0	145	
964.1226	26	36.0	30.0	42.0	27.0	165	
964.1227	27	36.0	31.0	43.0	26.0	155	
964.1228	28	38.0	34.0	42.0	27.0	185	
964.1229	29	40.0	34.0	45.0	27.0	225	
964.1230	30	40.0	34.0	45.0	28.0	210	
964.1231	31	42.0	36.0	44.0	27.0	230	
964.1232	32	42.0	36.0	44.0	27.0	230	

STAINLESS STEEL uni joint

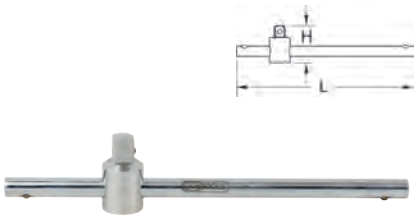
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/2"

	□	■	L mm	g	
964.1240	1/2	1/2"	85.0	295	

STAINLESS STEEL Sliding T-bar

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/2"

	H mm	L mm	g	
964.1241	47.0	400.0	310	

STAINLESS STEEL extension

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/2"

	L mm	g	
964.1244	100.0	240	
964.1245	200.0	355	
964.1246	250.0	460	

STAINLESS STEEL crank

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/2"

	L mm	g	
964.1247	335.0	565	

STAINLESS STEEL Reversible ratchet

- Switchable
- With ejection mechanism on the ratchet head
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/2"

	A mm	D mm	L mm	g	
964.1248	23.0	47.0	235.0	605	

3/4" STAINLESS STEEL SOCKETS

STAINLESS STEEL hex socket

- 6-point
- FlankTraction-Profil
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

3/4"

	mm	D1 mm	D2 mm	L mm	T mm	kg	
964.3417	17	28.0	28.0	50.0	33.0	0.25	
964.3419	19	28.0	28.0	50.0	33.0	0.25	
964.3422	22	32.0	28.0	55.0	38.0	0.27	
964.3424	24	36.0	30.0	55.0	38.0	0.31	
964.3427	27	40.0	30.0	55.0	38.0	0.31	
964.3430	30	40.0	30.0	60.0	42.0	0.41	
964.3432	32	45.0	30.0	60.0	42.0	0.47	
964.3434	34	48.0	32.0	60.0	42.0	0.48	
964.3436	36	50.0	36.0	60.0	42.0	0.51	
964.3441	41	59.0	40.0	65.0	45.0	0.66	
964.3446	46	64.0	42.0	65.0	45.0	0.77	
964.3450	50	70.0	50.0	70.0	47.0	0.91	
964.3455	55	85.0	50.0	80.0	50.0	1.46	
964.3460	60	95.0	55.0	85.0	55.0	1.75	
964.3465	65	105.0	55.0	95.0	60.0	1.99	

STAINLESS STEEL uni joint

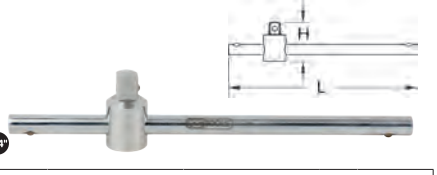
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

3/4"

	L mm	g	
964.3470	110.0	530	

STAINLESS STEEL Sliding T-bar

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



3/4"

	H mm	L mm	kg	
964.3471	55.0	400.0	1.21	

STAINLESS STEEL extension

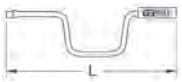
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

3/4"

	L mm	kg	
964.3472	100.0	0.44	
964.3473	200.0	0.86	
964.3474	250.0	1.05	

STAINLESS STEEL crank

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



3/4"

	L mm	kg	
964.3475	390.0	3.12	

1“ STAINLESS STEEL SOCKETS

STAINLESS STEEL uni joint

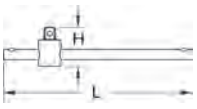
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1"

	L mm	g	
964.2303	132.0	995	

STAINLESS STEEL Sliding T-bar

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1"

	H mm	L mm	kg	
964.2403	62.0	400.0	1.60	

STAINLESS STEEL extension

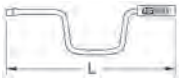
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1"

	L mm	kg	
964.2507	250.0	1.91	

STAINLESS STEEL crank

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



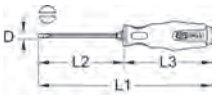
1"

	L mm	kg	
964.2703	390.0	4.68	

STAINLESS STEEL SCREWDRIVER

STAINLESS STEEL Slotted screwdriver

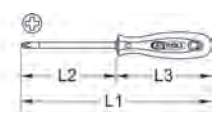
- With two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	D mm	L1 mm	L2 mm	L3 mm	g	
153.1002	3,0	155.0	75.0	80.0	40	
153.1003	4,0	155.0	75.0	80.0	40	
153.1004	5,0	205.0	100.0	105.0	50	
153.1005	6,0	205.0	100.0	105.0	50	
153.1008	8,0	265.0	150.0	115.0	130	

STAINLESS STEEL PHILLIPS® screwdriver

- With two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



		L1 mm	L2 mm	L3 mm	g	
153.1020	PH 1	180.0	75.0	105.0	40	
153.1021	PH 2	205.0	100.0	105.0	70	
153.1022	PH 3	165.0	150.0	115.0	130	

STAINLESS STEEL POZIDRIV® screwdriver

- With two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

		L1 mm	L2 mm	L3 mm	g	
153.1040	PZ 1	180.0	75.0	105.0	40	
153.1041	PZ 2	205.0	100.0	105.0	70	
153.1042	PZ 3	165.0	115.0	115.0	130	

STAINLESS STEEL bit screwdriver

- With two component handle
- Optimal power transmission
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	○	L1 mm	L2 mm	L3 mm	g	
153.1050	1/4"	206.0	100.0	106.0	106	

STAINLESS STEEL Screwdriver set

- With two component handle
- Optimal power transmission
- With hanging hole
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

			g	
153.2000	8 pcs	STAINLESS STEEL Screwdriver set	800	
4 x		3 - 5 - 6 - 8 mm		
2 x		PH1 - PH2		
2 x		PZ1 - PZ2		

STAINLESS STEEL Combination tool set

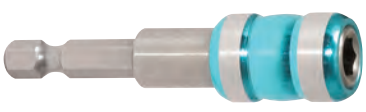
- Can be used by hand or with and electric screwdriver
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel
- In durable metal case

			kg
910.2460	48 pcs	STAINLESS STEEL Combination tool set	2.83
2 x		3x75 mm, 6x100 mm	
2 x		PH1x75 mm, PH2x100 mm	
2 x		PZ1x75 mm, PZ2x100 mm	
1 x		1/4"x100 mm	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		910.2455	

1/4" STAINLESS STEEL BITS

STAINLESS STEEL quick release bit holder

- With quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fi tings in trade and industry
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/4"

	⬢	○	H mm	L mm	g	
910.1114	1/4"	1/4"	16.0	65.0	50	

STAINLESS STEEL bit for slotted screws

- Slotted
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/4"

	mm	L mm	Content	g	
910.2234	3.0	25.0	1	4	
910.2233	3.0	25.0	5	30	
910.2238	5.5	25.0	1	4	
910.2237	5.5	25.0	5	30	
910.2244	6.5	25.0	1	4	
910.2243	6.5	25.0	5	30	

STAINLESS STEEL bit for hexagon screws

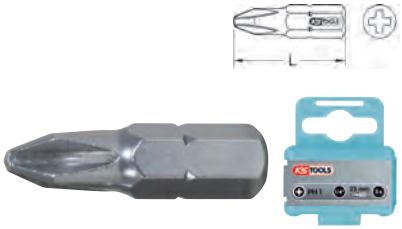
- Hexagon socket
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/4"

	mm	L mm	Content	g	
910.2259	4,0	25.0	1	4	
910.2258	4,0	25.0	5	30	
910.2262	5,0	25.0	1	5	
910.2261	5,0	25.0	5	30	
910.2265	6,0	25.0	1	5	
910.2264	6,0	25.0	5	30	

STAINLESS STEEL bit for phillips screws PH

- PH
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

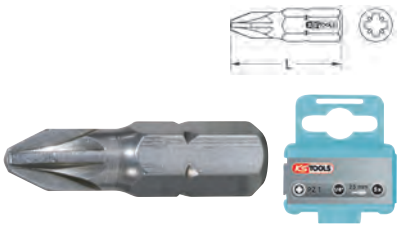


1/4"

		L mm	Content	g
910.2202	PH1	25.0	1	4
910.2201	PH1	25.0	5	30
910.2205	PH2	25.0	1	4
910.2204	PH2	25.0	5	30
910.2208	PH3	25.0	1	4
910.2207	PH3	25.0	5	30

STAINLESS STEEL bit for Phillips-screws PZ

- PZ
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/4"

		L mm	Content	g
910.2220	PZ1	25.0	1	4
910.2219	PZ1	25.0	5	30
910.2223	PZ2	25.0	1	4
910.2222	PZ2	25.0	5	30
910.2226	PZ3	25.0	1	4
910.2225	PZ3	25.0	5	30

STAINLESS STEEL bit for TX screws

- TX
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/4"

		L mm	Content	g
910.2313	T10	25.0	1	5
910.2312	T10	25.0	5	30
910.2316	T15	25.0	1	5
910.2315	T15	25.0	5	30
910.2319	T20	25.0	1	5
910.2318	T20	25.0	5	30
910.2322	T25	25.0	1	5
910.2321	T25	25.0	5	30
910.2328	T27	25.0	1	4
910.2327	T27	25.0	5	30
910.2331	T30	25.0	1	4
910.2330	T30	25.0	5	30
910.2336	T40	25.0	1	4
910.2335	T40	25.0	5	30

STAINLESS STEEL bit for TX tamperproof screws

- For tamperproof TX
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

1/4"

		L mm	Content	g
910.2343	TB10	25.0	1	3.5
910.2342	TB10	25.0	5	30
910.2346	TB15	25.0	1	3.5
910.2345	TB15	25.0	5	30
910.2349	TB20	25.0	1	3.5
910.2348	TB20	25.0	5	30
910.2352	TB25	25.0	1	3.5
910.2351	TB25	25.0	5	30
910.2358	TB27	25.0	1	4
910.2357	TB27	25.0	5	30
910.2361	TB30	25.0	1	4
910.2360	TB30	25.0	5	30
910.2366	TB40	25.0	1	4
910.2365	TB40	25.0	5	30

STAINLESS STEEL Bits set

- Can be used by hand or with and electric screwdriver
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel
- In durable plastic storage case

			g
910.2455	32 pcs	STAINLESS STEEL Bits set	296

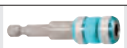
1 x		1/4“
1 x		1/4“
4 x		3 - 4 - 5,5 - 6,5 mm
4 x		PH1 - 2 x PH2 - PH3
4 x		PZ1 - 2 x PZ2 - PZ3
4 x		3 - 4 - 5 - 6 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40
7 x		TB10 - TB15 - TB20 - TB25 - TB27 TB30 - TB40

STAINLESS STEEL bit set

- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Precise arrangement of the popular 1/4" Bits
- With practical belt holder
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel
- In durable two component storage case

1/4"

			g
910.2055	18 pcs	STAINLESS STEEL bit set	190

1 x		1/4“
2 x		5,5 - 6,5 mm
3 x		4 - 5 - 6 mm
3 x		PH1 - PH2 - PH3
3 x		PZ1 - PZ2 - PZ3
6 x		T10 - T15 - T20 - T25 - T27 - T30

STAINLESS STEEL bit display

- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for external working
- Contains the most current 1/4" bits and bit holder
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel
- In durable plastic storage bit magazine
- 30 Drawers with labels
- Magazine can be placed or can secured to the wall
- Polypropylene housing
- Drawers made out of polystyrene

1/4"

			kg
910.2200	280 pcs	STAINLESS STEEL bit display	6.60

5 x		50 mm
5 x		100 mm
5 x		65 mm
5 x		50 mm
30 x		10 x 3 - 10 x 5,5 - 10 x 6,5 mm
30 x		10 x 4 - 10 x 5 - 10 x 6 mm
30 x		10 x PH1 - 10 x PH2 - 10 x PH3
30 x		10 x PZ1 - 10 x PZ2 - 10 x PZ3
70 x		10 x T10 - 10 x T15 - 10 x T20 - 10 x T25 - 10 x T27 - 10 x T30 - 10 x T40
70 x		10 x TB10 - 10 x TB15 - 10 x TB20 - 10 x TB25 - 10 x TB27 - 10 x TB30 10 x TB40

STAINLESS STEEL KEY WRENCHES

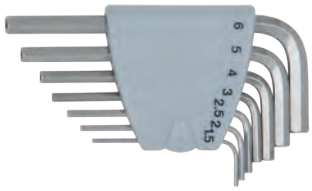
STAINLESS STEEL Mini hex key

- Short execution
- In accordance to DIN / ISO 2936
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	mm	L1 mm	L2 mm	g
964.03015	1,5	45.0	14.0	1
964.0302	2,0	50.0	16.0	2
964.03025	2,5	56.0	18.0	3
964.0303	3,0	63.0	20.0	5
964.0304	4,0	70.0	25.0	10
964.0305	5,0	80.0	28.0	18
964.0306	6,0	90.0	32.0	30
964.0308	8,0	100.0	36.0	60
964.0310	10,0	112.0	40.0	105

STAINLESS STEEL Mini hex key set, short

- Short execution
- In accordance to DIN / ISO 2936
- Continuous hardened
- Handle with double function (holder / T-handle)
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



			g
964.0315	7 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 mm	98

STAINLESS STEEL Mini hex key set, short

- Short execution
- In accordance to DIN / ISO 2936
- Continuous hardened
- Handle with double function (holder / T-handle)
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel

			g
964.0320	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	282

STAINLESS STEEL Hex key, ball end, long

- Long execution
- In accordance to DIN / ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	mm	L1 mm	L2 mm	g
964.04015	1,5	62.0	14.0	1
964.0402	2,0	75.0	16.0	2
964.04025	2,5	85.0	18.0	4
964.0403	3,0	90.0	20.0	7
964.0404	4,0	100.0	25.0	14
964.0405	5,0	115.0	28.0	25
964.0406	6,0	135.0	32.0	41
964.0408	8,0	150.0	36.0	84
964.0410	10,0	170.0	40.0	145

STAINLESS STEEL Hex key set, ball end, long

- Long execution
- In accordance to DIN / ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel

			g
964.0415	7 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 mm	118

STAINLESS STEEL Hex key set, ball end, long

- Long execution
- In accordance to DIN / ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel

			g
964.0420	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	368

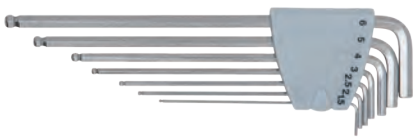
STAINLESS STEEL Hex key, ball end, extra long

- Extra long execution
- In accordance to DIN / ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	mm	L1 mm	L2 mm	g
964.05015	1,5	90.0	14.0	2
964.0502	2,0	100.0	16.0	3
964.05025	2,5	112.0	18.0	5
964.0503	3,0	126.0	20.0	8
964.0504	4,0	140.0	25.0	18
964.0505	5,0	160.0	28.0	31
964.0506	6,0	180.0	32.0	51
964.0508	8,0	200.0	36.0	104
964.0510	10,0	224.0	40.0	182

STAINLESS STEEL Hex key set, ball end, extra long

- Extra long execution
- In accordance to DIN / ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



			g
964.0515	7 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 mm	157

STAINLESS STEEL Hex key set, ball end, extra long

- Extra long execution
- In accordance to DIN / ISO 2936
- With ball head on the long end
- Ideal for diffi ult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel

			g
964.0520	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	458

STAINLESS STEEL TX tamperproof key wrench, long

- Long execution
- In accordance to DIN / ISO 2936
- Bore hole at the short and long end
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	mm	L1 mm	L2 mm	g
964.0601	TB10	86.0	17.0	6
964.0602	TB15	90.0	18.0	9
964.0603	TB20	95.0	19.0	12
964.0604	TB25	100.0	20.0	16
964.0605	TB27	105.0	21.0	24
964.0606	TB30	114.0	24.0	31
964.0607	TB40	124.0	26.0	46
964.0608	TB45	133.0	29.0	64
964.0609	TB50	152.0	32.0	91

STAINLESS STEEL TX tamperproof key wrench set, long

- Long execution
- In accordance to DIN / ISO 2936
- Bore hole at the short and long end
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel

			g
964.0615	7 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	162

STAINLESS STEEL TX tamperproof key wrench set, long

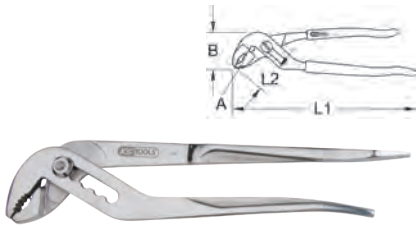
- Long execution
- In accordance to DIN / ISO 2936
- Bore hole at the short and long end
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel

			g
964.0620	9 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	334

STAINLESS STEEL PLIERS

STAINLESS STEEL Waterpump pliers

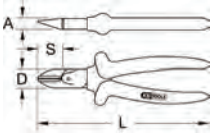
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	B mm	L1 mm	L2 mm	g
964.1801	65.0	45.0	200.0	45.0	265
964.1802	65.0	51.0	250.0	47.0	345

STAINLESS STEEL Diagonal side cutter

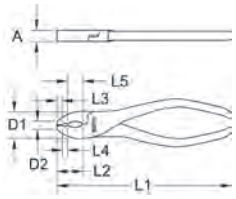
- In accordance to DIN ISO 5749
- With two component handle
- Long cutting edge
- For different wire types
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	D mm	L mm	S mm	g
964.1601	11.0	22.0	150.0	22,0	208

STAINLESS STEEL Universal pliers

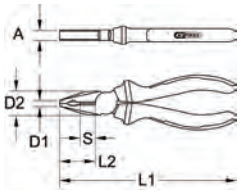
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	g
964.1701	10.0	9.0	31.0	200.0	25.0	9.0	4.0	13.0	230

STAINLESS STEEL Combination pliers

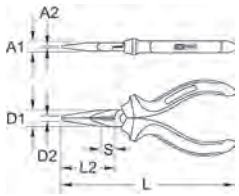
- In accordance to DIN ISO 5748
- Long cutting edge
- Suitable for wire
- With dual component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
964.0203	11.0	7.0	29.0	200.0	40.0	13,0	330

STAINLESS STEEL Telephone pliers

- Long nosed jaws
- Serrated execution
- With two component handle
- With integrated cutting edge
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
964.1501	10.0	2.0	17.0	4.0	150.0	49.0	12,0	165

STAINLESS STEEL TWEEZERS

STAINLESS STEEL Tweezers

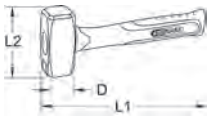
- Long, fin tips
- Smooth, curved gripping surfaces
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	L mm	g
964.2901	150.0	35
964.2902	200.0	50

STAINLESS STEEL HAMMERS

STAINLESS STEEL Club hammer

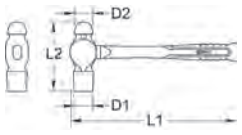
- In accordance to DIN 6475
- With fib eglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Edges rounded off
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	g	D mm	L1 mm	L2 mm	kg
964.2001	450	30.0	310.0	80.0	0.60
964.2002	900	38.0	400.0	91.0	1.20
964.2003	1350	44.0	400.0	105.0	1.65
964.2004	1800	48.0	400.0	115.0	2.10
964.2005	2250	49.0	400.0	119.0	2.55
964.2006	2700	55.0	700.0	130.0	3.40
964.2007	3600	55.0	900.0	141.0	4.50
964.2008	4500	58.0	900.0	154.0	5.40
964.2009	5400	67.0	900.0	170.0	6.30
964.2010	6300	70.0	900.0	184.0	7.20
964.2011	7200	72.0	900.0	191.0	8.10
964.2012	8100	80.0	900.0	200.0	9.00

STAINLESS STEEL Pin hammer

- With fib eglass handle
- Surfaces polished ground
- Edges rounded off
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

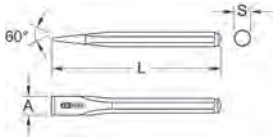


	g	D1 mm	D2 mm	L1 mm	L2 mm	kg
964.2101	230	22.0	22.0	270.0	80.0	0.31
964.2102	340	23.0	23.0	285.0	80.0	0.43
964.2103	440	28.0	28.0	310.0	100.0	0.60
964.2104	680	32.0	32.0	345.0	115.0	0.95
964.2105	910	36.0	36.0	355.0	125.0	1.07
964.2106	1130	38.0	38.0	355.0	135.0	1.31

STAINLESS STEEL CHISELS

STAINLESS STEEL Flat chisel

- Flat oval form
- Blade can be re-sharpened
- Quenched and tempered
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	A mm	S mm	g	
964.3101	160.0	18.0	16.0	230	
964.3102	160.0	20.0	18.0	290	
964.3103	180.0	22.0	20.0	423	
964.3104	250.0	24.0	22.0	725	
964.3105	300.0	26.0	24.0	1255	
964.3106	400.0	30.0	26.0	1560	
964.3107	450.0	30.0	26.0	1755	
964.3108	500.0	36.0	30.0	2705	

STAINLESS STEEL PRY BAR

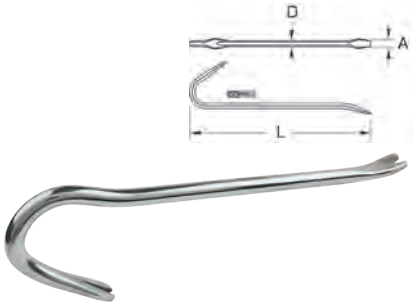
STAINLESS STEEL Crow bar

- Quenched and tempered
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	D1 mm	D2 mm	L mm	S mm	kg	
964.3201	16.0	18.0	300.0	16.0	0.48	
964.3202	16.0	18.0	400.0	16.0	0.64	
964.3203	18.0	20.0	500.0	18.0	1.00	
964.3204	20.0	22.0	500.0	20.0	1.24	
964.3205	20.0	22.0	600.0	20.0	1.49	
964.3206	22.0	24.0	600.0	22.0	1.80	
964.3207	22.0	24.0	700.0	22.0	2.09	
964.3208	25.0	26.0	750.0	25.0	2.90	
964.3209	25.0	26.0	800.0	25.0	3.09	
964.3210	30.0	32.0	800.0	30.0	4.45	
964.3211	25.0	26.0	1000.0	25.0	3.86	
964.3212	28.0	30.0	1000.0	28.0	4.84	
964.3213	30.0	32.0	1000.0	30.0	5.56	
964.3214	25.0	26.0	1200.0	25.0	4.64	
964.3215	28.0	30.0	1200.0	28.0	5.81	
964.3216	30.0	32.0	1200.0	30.0	6.68	
964.3217	28.0	30.0	1500.0	28.0	7.26	
964.3218	30.0	32.0	1500.0	30.0	8.34	

STAINLESS STEEL Crow bar

- Quenched and tempered
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	D1 mm	D2 mm	L mm	S mm	kg	
964.3301	18.0	24.0	400.0	16.0	0.75	
964.3302	18.0	24.0	600.0	16.0	1.05	
964.3303	20.0	28.0	800.0	18.0	2.01	
964.3304	22.0	32.0	1000.0	20.0	2.87	
964.3305	22.0	32.0	1200.0	20.0	3.45	

STAINLESS STEEL CUTTING AND SCRAPING

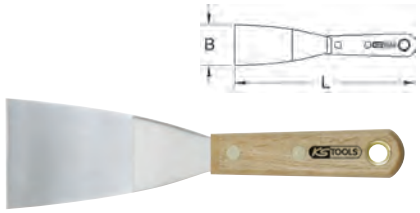
STAINLESS STEEL Cutter

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	B mm	S mm	L mm	g	
964.3001	18.0	75,0	180.0	75	
964.3002	30.0	140,0	250.0	95	

STAINLESS STEEL scraper

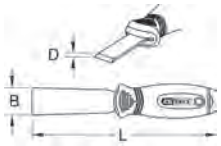
- With wooden handle
- Ground
- Polished
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	B mm	g	
907.2261	225.0	25.0	70	
907.2262	225.0	38.0	70	
907.2263	225.0	50.0	70	
907.2264	225.0	63.0	70	
907.2265	225.0	75.0	80	

STAINLESS STEEL Chisel scraper

- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	B mm	D mm	L mm	g	
907.2211	32.0	1,2	190.0	160	
907.2213	25.0	1,2	165.0	100	
907.2212	32.0	2,5	190.0	160	
907.2214	25.0	2,5	165.0	110	

STAINLESS STEEL Chisel scraper set

- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

			g	
907.2210	4 pcs	32 x 1,2; 32 x 2,5; 25 x 1,2; 25 x 2,5 mm	580	

KS TOOLS®

Innovation is our mission!

TITAN plus

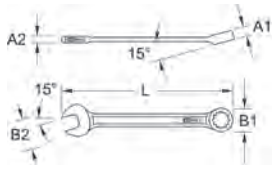
NON MAGNETIC TOOLS

- 100% anti-magnetic
- Extremely high stability
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life

TITAN*plus* SPANNERS

TITAN*plus* combination spanner, offset

- FlankTraction profil
- In accordance to DIN 3113
- Jaw 15° offset
- Ring head 15° offset
- 100% anti magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust proof and acid resistant
- Titanium



	mm		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
965.0206	6		5.6	6.0	11.0	13.0	112.0	16	
965.0207	7		6.0	6.0	12.0	17.0	112.0	16	
965.0208	8		6.0	6.2	13.0	18.0	123.0	18	
965.0209	9		6.6	6.6	14.5	21.0	132.0	20	
965.0210	10		7.0	7.0	16.0	23.0	142.0	22	
965.0211	11		7.6	7.6	17.5	25.0	152.0	24	
965.0212	12		8.2	8.0	19.0	27.0	162.0	26	
965.0213	13		8.5	7.0	21.0	28.0	175.0	50	
965.0214	14		8.8	9.0	22.0	31.0	182.0	30	
965.0215	15		9.2	9.2	24.0	33.0	192.0	32	
965.0216	16		9.8	9.2	26.0	35.0	192.0	32	
965.0217	17		10.0	10.0	26.5	37.0	212.0	36	
965.0219	19		10.9	10.9	29.5	41.0	232.0	40	
965.0301		5/16"	6.2	6.2	13.0	19.0	123.0	18	
965.0302		3/8"	7.0	7.0	16.0	23.0	142.0	22	
965.0303		7/16"	7.6	7.6	17.5	25.0	152.0	24	
965.0304		1/2"	8.4	8.4	20.5	29.0	172.0	28	
965.0305		9/16"	8.8	9.0	22.0	31.0	182.0	30	
965.0306		5/8"	10.0	10.0	26.5	37.0	212.0	36	
965.0307		11/16"	10.0	10.0	26.0	37.0	212.0	36	
965.0308		3/4"	10.9	7.0	29.5	41.0	235.0	85	

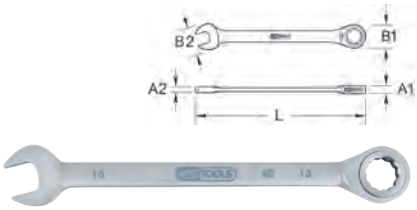
TITAN*plus* combination spanner set, offset

- FlankTraction profil
- In accordance to DIN 3113
- Jaw 15° offset
- Ring head 15° offset
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

			g	
965.0248	8 pcs	8 - 9 - 10 - 11 - 12 - 14 - 17 - 19 mm	500	

TITAN*plus* combination ratcheting spanner

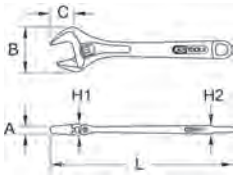
- FlankTraction-Profil
- In accordance to DIN 3113/ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 45-teeth
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g	
965.1008	8	7.5	4.5	18.0	19.0	140.0	20	
965.1010	10	7.8	5.0	21.0	22.0	150.0	28	
965.1011	11	8.0	5.2	22.5	24.0	160.0	32	
965.1012	12	8.5	5.5	24.0	26.0	170.0	36	
965.1013	13	8.8	5.8	25.5	28.0	180.0	46	
965.1014	14	9.5	6.2	27.2	30.0	190.0	54	
965.1017	17	10.0	7.5	33.0	36.0	215.0	88	

TITAN*plus* adjustable spanner

- In accordance to DIN 3117
- Jaw 15° offset
- Swedish type design
- With hanging hole
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm	g	
965.0008	28	7.6	56.0	25.0	13.0	7.0	200.0	138	
965.0010	30	9.0	68.5	28.0	16.0	9.0	250.0	270	

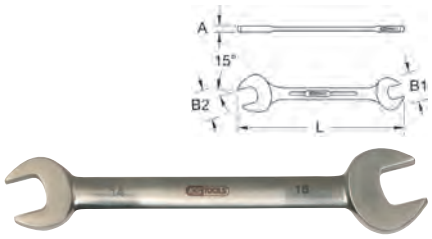
TITAN*plus* adjustable spanner set

- In accordance to DIN 3117
- Jaw 15° offset
- Swedish type design
- With hanging hole
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

			g	
965.2006	2 pcs	8" - 10"	410	

TITAN*plus* double open ended spanner

- In accordance to DIN 3110
- Jaw 15° offset
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	mm		A mm	B1 mm	B2 mm	g	
965.0107	6x7		4.0	15.0	17.0	16	
965.0109	8x9		5.0	19.0	23.0	22	
965.0134	11x14		5.5	25.0	29.0	23	
965.0111	12x13		5.9	27.0	31.0	30	
965.0114	14x15		5.9	31.0	37.0	30	
965.0115	15x17		7.4	35.0	39.0	39	
965.0116	16x18		7.4	37.0	41.0	39	
965.0117	17x19		7.4	38.0	44.0	39	
965.0120		7/32" - 1/4"	4.0	15.0	17.0	16	
965.0121		1/4" - 5/16"	4.0	15.0	17.0	16	

TITAN*plus* double open ended spanner set

- In accordance to DIN 3110
- Jaw 15° offset
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

			g
965.0148	8 pcs	6x7 - 8x9 - 10x12 - 11x14 - 13x15 - 15x17 - 16x18 - 17x19 mm	450

TITAN*plus* SOCKETS

TITAN*plus* hexagonal socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

3/8"

	mm		D1 mm	D2 mm	L mm	g
965.3808	8		31.0	13.0	31.0	25
965.3809	9		31.0	14.0	31.0	25
965.3810	10		31.0	21.0	31.0	26
965.3811	11		31.0	21.0	31.0	26
965.3812	12		31.0	21.0	31.0	27
965.3813	13		31.0	21.0	31.0	27
965.3814	14		31.0	21.0	34.0	28
965.3815	15		34.0	22.0	34.0	32
965.3816	16		34.0	22.0	34.0	32
965.3817	17		34.0	24.0	34.0	38
965.3818	18		34.0	25.0	34.0	40
965.3819	19		34.0	26.0	34.0	45
965.3901		5/16"	31.0	21.0	31.0	26
965.3902		3/8"	31.0	21.0	31.0	27
965.3903		7/16"	31.0	21.0	31.0	26
965.3904		1/2"	31.0	21.0	31.0	27
965.3905		9/16"	34.0	22.0	31.0	28
965.3906		5/8"	34.0	22.0	34.0	32
965.3907		11/16"	34.0	24.0	34.0	46
965.3908		1.1/16"	42.0	25.0	40.0	87
965.3909		1.1/4"	42.0	25.0	40.0	101

TITAN*plus* hexagonal socket, long

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- 100% anti magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust proof and acid resistant
- Titanium

3/8"

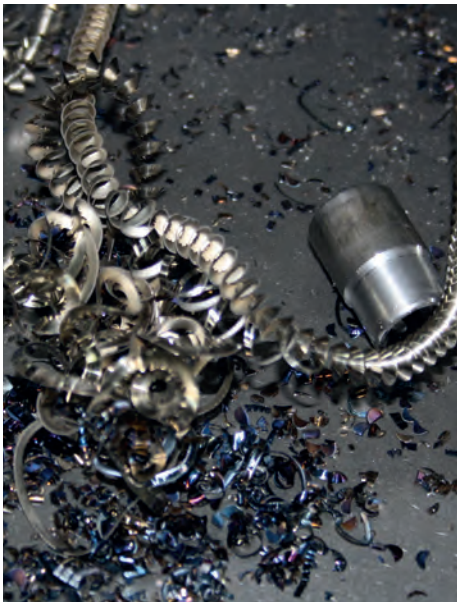
	mm	D1 mm	D2 mm	L mm	T mm	g
965.3857	17	25.0	21.0	95.0	25.0	98

TITAN*plus* socket set

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

3/8"

			g
965.2001	9 pcs	5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 1.1/16" - 1.1/4"	400



TITAN*plus* socket set

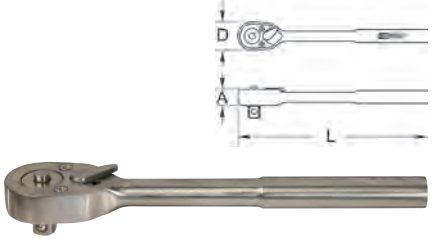
- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

3/8"

			g
965.2002	13 pcs	TITAN*plus* socket set	500
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
1 x		17 mm	

TITAN*plus* reversible ratchet

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Gearing with 30 teeth
- With ejection mechanism on the ratchet head
- With reverse lever
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



3/8"

	■	A mm	D mm	L mm	g
965.3800	3/8"	28.0	36.0	200.0	184

TITAN*plus* universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball reception
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

3/8"

	□	■	L mm	
965.3804	3/8	3/8"	52.0	39

TITAN*plus* extension

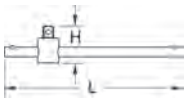
- In accordance to DIN 3122 / ISO 3316
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- Internal square in accordance to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

3/8"

	■	L mm	
965.3801	3/8"	100.0	70
965.3802	3/8"	200.0	138

TITAN*plus* sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3120 / ISO 1174 with ball lock
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



3/8"

	■	H mm	L mm	
965.3803	3/8"	34.0	180.0	90

TITAN*plus* box wrench set

- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

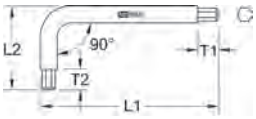
3/8"

965.2010	5 pcs	TITAN*plus* box wrench set	500
1 x		3/8"	
2 x		17 mm - 9/16"	
1 x		17 mm	
1 x		100 mm	

TITAN*plus* HEXAGON KEY WRENCHES

TITAN*plus* key wrench for hexagon socket screws

- 6 point
- In accordance to DIN ISO 2936
- 100% anti magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust proof and acid resistant
- Titanium



	mm		L1 mm	L2 mm	T1 mm	T2 mm	
965.0401	1,5		45.0	14.0	2.0	2.0	1
965.0402	2,0		50.0	16.0	2.0	2.0	2
965.04025	2,5		62.0	20.0	2.5	2.5	2
965.0403	3,0		63.0	20.0	4.0	4.0	5
965.0423	3,0		66.0	17.0	3.0	3.0	4
965.0404	4,0		70.0	25.0	5.0	5.0	8
965.0424	4,0		75.0	18.0	5.0	5.0	6
965.0405	5,0		80.0	28.0	7.0	7.0	13
965.0425	5,0		86.0	20.0	8.0	8.0	11
965.0406	6,0		90.0	32.0	8.0	8.0	20
965.0407	7,0		95.0	34.0	10.0	10.0	28
965.0408	8,0		100.0	36.0	12.0	12.0	44
965.0409	9,0		106.0	38.0	15.0	15.0	65
965.0410	10,0		112.0	40.0	15.0	15.0	72
965.0411	11,0		118.0	42.0	18.0	18.0	87
965.0412	12,0		125.0	45.0	20.0	20.0	110
965.0414	14,0		140.0	56.0	20.0	20.0	190
965.0501		1/16"	45.0	14.0	2.0	2.0	1
965.0502		5/64"	50.0	16.0	2.0	2.0	2
965.0503		3/32"	56.0	18.0	3.0	3.0	2
965.0504		7/64"	63.0	20.0	4.0	4.0	4
965.0505		1/8"	63.0	20.0	4.0	4.0	5
965.0506		9/64"	70.0	25.0	5.0	5.0	8
965.0507		5/32"	70.0	25.0	5.0	5.0	8
965.0508		3/16"	80.0	28.0	7.0	7.0	13
965.0509		7/32"	90.0	32.0	8.0	8.0	20
965.0510		1/4"	95.0	34.0	10.0	10.0	27
965.0511		5/16"	100.0	36.0	12.0	12.0	44
965.0512		3/8"	106.0	38.0	15.0	15.0	67
965.0513		7/16"	125.0	45.0	20.0	20.0	108
965.0514		1/2"	140.0	56.0	20.0	20.0	183

TITAN*plus* key wrench set for hexagon socket screws

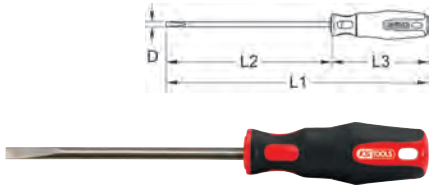
- 6 point
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

965.2004	17 pcs	1,5 - 2 - 2,5 - 3 - 3 - 4 - 4 - 5 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 14 mm	750

TITAN*plus* SCREWDRIVERS

TITAN*plus* screwdriver for slotted screws

- Slotted
- In accordance to DIN ISO 2380-2 / 2380-1 Form A
- With two component handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Blade rust-proof and acid resistant
- Titanium



	D mm	L1 mm	L2 mm	L3 mm	g
965.0910	3,2	151.0	75.0	75.5	22
965.0911	3,2	126.0	50.0	75.5	24
965.0912	3,2	176.0	100.0	75.5	26
965.0913	3,2	276.0	200.0	75.5	32
965.0914	4,8	193.0	100.0	93.0	47
965.0915	6,4	235.0	125.0	110.0	88
965.0916	7,9	268.0	150.0	118.0	114

TITAN*plus* screwdriver for Phillips screws

- PH
- In accordance to DIN 5265 / DIN ISO 8765-1
- With two component handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Blade rust-proof and acid resistant
- Titanium

		L1 mm	L2 mm	L3 mm	g
965.0900	PH 0	136.0	75.0	75.5	45
965.0901	PH 1	173.0	75.0	93.0	46
965.0902	PH 2	260.0	150.0	110.0	91
965.0903	PH 3	268.0	150.0	118.0	117
965.0904	PH 4	318.0	200.0	118.0	176

TITAN*plus* screwdriver set

- With two component handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Blade rust-proof and acid resistant
- Titanium

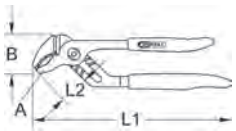
			kg
965.2005	10 pcs	TITAN*plus* screwdriver set	1.05

6 x		2,4 - 3,2 (125 mm) - 3,2 (175 mm) - 4,8 - 6,4 - 7,9 mm
4 x		PH0 - PH1 - PH2 - PH3

TITAN*plus* PLIERS

TITAN*plus* waterpump pliers

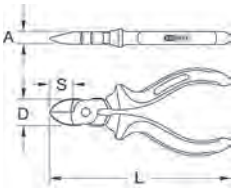
- In accordance to DIN ISO 8976
- 4-stage adjustment
- With dipped covered handle
- with 4-stage adjustment
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	A mm	B mm	L1 mm	L2 mm	g
965.0605	65.0	24.0	250.0	34.0	255

TITAN*plus* diagonal side cutter

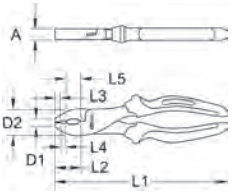
- In accordance to DIN ISO 5749
- With two component handle
- For different wire types
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	A mm	D mm	L mm	S mm	g
965.0615	10.0	20.0	160.0	22,5	132

TITAN*plus* universal pliers

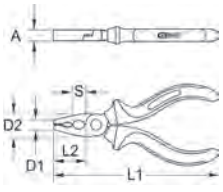
- With two component handle
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	g
965.0625	11.0	7.0	32.0	200.0	30.0	7.0	6.0	16.0	173

TITAN*plus* combination pliers

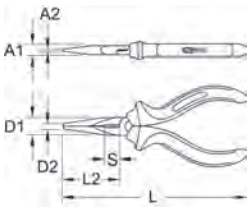
- In accordance to DIN ISO 5748
- With two component handle
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
965.0620	11.0	6.0	25.0	160.0	31.0	10,0	138

TITAN*plus* telephone pliers

- In accordance to DIN ISO 5745
- Long nosed jaws
- Serrated execution
- With two component handle
- With intergrated cutting edge
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
965.0610	10.0	4.0	20.0	4.0	170.0	65.0	14,0	139

TITAN*plus* plier set

- With two component handle
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

			g
965.2011	4 pcs	TITAN*plus* plier set	700
1 x		250 mm	
1 x		170 mm	
1 x		160 mm	
1 x		200 mm	

TITAN*plus* TWEEZERS

TITAN*plus* tweezers

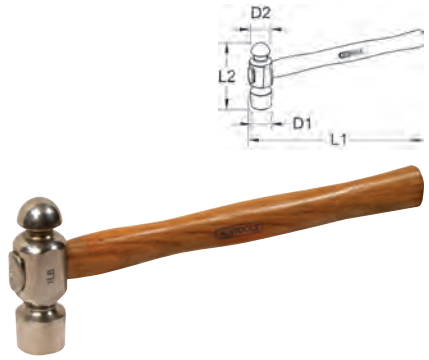
- Long, fine ips
- Smooth, curved gripping surfaces
- 100% anti magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust proof and acid resistant
- Titanium

	B mm	L mm	g
965.1301	12.0	150.0	25

TITAN*plus* HAMMER

TITAN*plus* fi ters hammer

- With varnished wood handle
- Additional head security
- 100% anti magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Hammer head rust proof and acid resistant
- Titanium

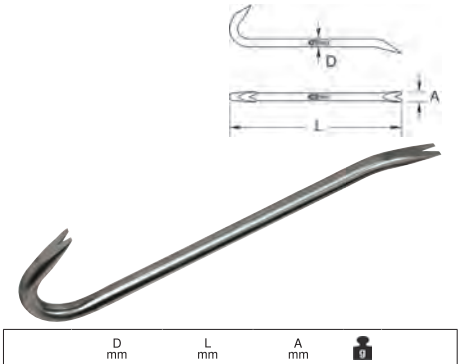


	D1 mm	D2 mm	L1 mm	L2 mm	g
965.1101	32.0	30.0	315.0	105.0	540

TITAN*plus* PRY BAR

TITAN*plus* pry bar

- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium

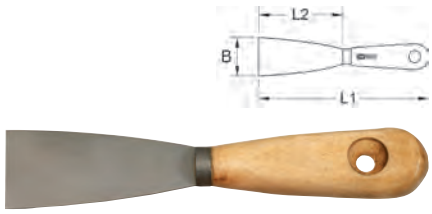


	D mm	L mm	A mm	g
965.2300	20.0	457.0	20.0	744

TITAN*plus* SCRAPER

TITAN*plus* spatula

- With wooden handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Blade rust-proof and acid resistant
- Titanium

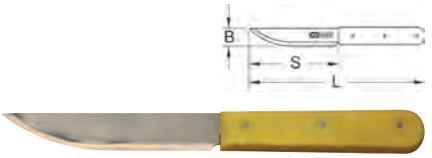


	L1 mm	L2 mm	B mm	g
965.9000	210.0	90.0	30.0	36

TITAN*plus* CUTTING TOOLS

TITAN*plus* universal knife

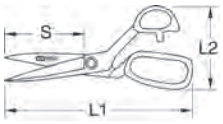
- Durable and fi ed blade
- With plastic handle
- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Blade rust-proof and acid resistant
- Titanium



	B mm	S mm	L mm	g
965.1102	25.0	130	250.0	75

TITAN*plus* universal shear

- 100% anti-magnetic
- Light (up to 50% lighter than steel)
- Extremely durable
- Rust-proof and acid resistant
- Titanium



	L1 mm	L2 mm	S mm	g
965.1302	225.0	72.0	122,0	162

KS TOOLS®

Innovation is our mission!

STAINLESS

NON MAGNETIC TOOLS

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Extremely long service life

VDE AND GENERAL ELECTRICIAN'S TOOLS

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VDE AND GENERAL ELECTRICIAN'S TOOLS

- Routine tested in accordance to DIN EN 60900 / IEC 60900:2004 submitted to 10 000V dielectric strength
- Insulated protected two component handle with ergonomic handle design
- Soft, yellow component with micro structured surface
- Blade made out of S2 special steel - continuous hardened, phosphated and completely insulated

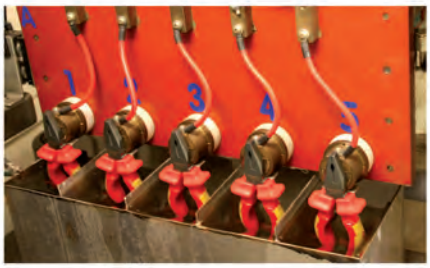
Handle colour: Yellow / red

- Routine tested in accordance to DIN EN 60900 / IEC 60900:2004 submitted to 10 000V dielectric strength
- Insulated protected two component handle with ergonomic hand protection
- Forged and tempered
- Head chrome plated, PTFE coating
- Precise machined, oil hardened and tempered
- Cutting edges inductively hardened
- Special quenched and tempered steel

Handle colour: Yellow / red

- Routine tested in accordance to DIN EN 60900 / IEC 60900:2004 submitted to 10 000V dielectric strength
- Two tone layer insulated protection with ergonomic hand protection
- Supported by the directive BGV A3 (VBG-4)
- Faulty isolation layer becomes visible by the yellow layer shining through
- Forged and tempered
- Head chrome plated
- Precise machined, oil hardened and tempered
- Cutting edges inductively hardened
- Special quenched and tempered steel

Handle colour: red



Identification standard

- For technical materials and ready- finished products according to GPSG (the Equipment and Product Safety Act).
- The marking stands for the security of the product with regards to electrical, mechanical, thermal, toxic, radiological and other endangering applications.
- Documents the conformity with VDE regulations and/or European and/or international valid standards.

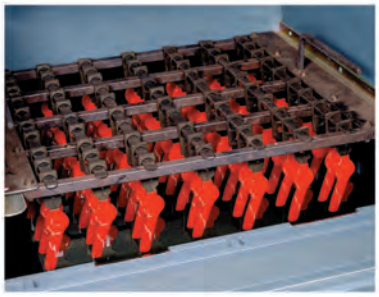
- All tools with double triangle marking are tested on 10 000 V piece by piece and approved with 10 fold security for 1000 V.

AC 1000V
IEC 60900:2004

- Is equivalent to DIN EN 60900 / IEC 60900:2004
- The international standard which describes the construction of insulated tools in detail (e.g., insulation, thickness). Furthermore individual tests (piece by piece tests) as well as series and random check tests are defined herein.
- Manufactured and examined for working processes at voltages up to AC 1000 V and DC 1500 V

Individual testing (piece by piece) of safety tools

Insulated tools VDE/EN/IEC 60900 : In 2004 are manufactured to the newest regulations (determinations) of national and international standards from high quality materials and checked. If other safety precautions are required, they offer the greatest possible protection for working processes up to voltages of AC 1.000 V and DC 1.500 V



Voltage test

Insulated tools are examined individually (piece by piece).
All tools with the identifi ation mark are checked with AC 10.000 V and are admitted for 1.000 V. Safety is thereby guaranteed to multiple of 10!

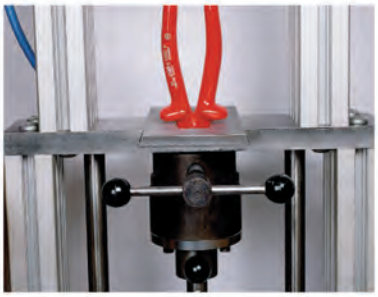
Cold impact test

The toughness of the PVC material is checked by an impact weight while the tools are cooled down to -25°C.
Afterwards no tears or damages may exist.

Testing of the electric insulation resistance
After 24 hours of underwater storage the tools with AC 10.000 V are tested for three minutes while simultaneously testing for current leakage is measured.
For the duration of the test no breakdown of the insulation is accepted.

Pressure test

At a pressure load of 20 N•m and a temperature of 70°C no penetration of the insulation is allowed at test voltage of AC 5.000 V



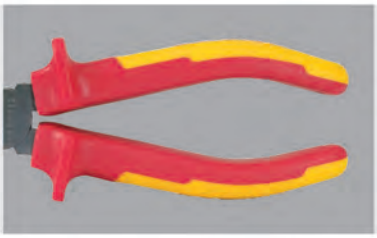
Testing of the adhesive power of the PVC coating
After being stored for 168 hours at 70°C the adhesive strength of the PVC coating on the pliers is checked with a tensile force of 500 N-m. After this test the insulation must still be remain snug and firm gainst the body.

Testing of flame esistance

In order to avoid any risk of fi e hazard, the insulation material is made from flame resistant and self-extinguishing PVC material.

Handle variants

2 Component safety handle in accordance to IEC 60900



- Consists of a soft component for the gripping zone and a slightly harder component for the movement zone.
- A protection zone to the head side offers safe holding while pushing.
- All tools are admitted to 10 000 V testing piece by piece, with 10 fold security for 1 000 V. Approved for:
  AC 1000 V
  DC 1500 V
- Is equivalent DIN EN 60900 and normal VDE

Two tone repeated protection insulated in accordance to IEC 60900:2004

- Handle with inserted safety system supported by the directive BGV A3 (VBG-4). Before starting to work a sight test on externally recognizable losses must take place.
- Faulty isolation layer becomes visible by the yellow layer appearing
- All tools are admitted to 10 000 V testing piece by piece, with 10 fold security for 1 000 V.
  Approved for: AC 1000 V DC 1500
- Is equivalent DIN EN 60900 and normal VDE

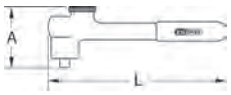
The following insulated tools are specially tuned for working on power supply lines.
Some lines could have up to 1000 volts fl wing through them, enough to cause severe physical injuries with normal tools, which could cause death.

Therefore the use of insulated tools on power supply lines is a strict requirement.

TORQUE WRENCHES

Insulated pre set torque wrench

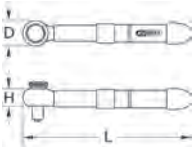
- Actuation accuracy: ±3 % tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fi ed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard



	■	N·m	A mm	L mm		
117.3922	3/8"	5-35	78.0	210.0	1000V	420
117.1001	1/2"	5-35	78.0	250.0	1000V	420

Insulated mini torque wrench with reversible ratchet head

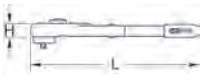
- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



	■	N·m	D mm	H mm	L mm		
117.1400	1/4"	2-12	40.0	41.0	200.0	1000V	400
117.1402	1/4"	5-25	40.0	41.0	200.0	1000V	420
117.1184	3/8"	5-25	40.0	42.0	200.0	1000V	440
117.1185	1/2"	5-25	40.0	42.0	200.0	1000V	440

Insulated torque wrench with reversible ratchet head

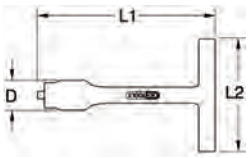
- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N•m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



	■	N·m	H mm	L mm		
117.3805	3/8"	2-27	51.0	280.0	1000V	0.92
117.3810	3/8"	5-50	51.0	370.0	1000V	1.07
117.1301	1/2"	2-27	61.0	280.0	1000V	0.93
117.1300	1/2"	5-50	61.0	370.0	GS 1000V	1.10
117.1302	1/2"	20-100	61.0	460.0	1000V	1.20
117.1303	1/2"	40-220	61.0	530.0	1000V	1.30

Insulated pre set torque limiter with T-grip handle

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - with a fi ed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock

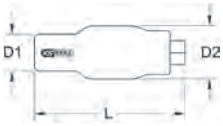


3/8"

	■	N·m	D mm	L mm	I mm		
117.3806	3/8"	12	36.5	270.0	165.0	1000V	540
117.3807	3/8"	18	36.5	270.0	165.0	1000V	540
117.3808	3/8"	25	36.5	270.0	165.0	1000V	540

Insulated pre set torque limiter

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fi ed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



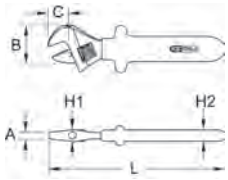
3/8"

	□	■	N·m	D1 mm	D2 mm	L mm		
117.3802	3/8"	3/8"	12	23.0	27.5	92.0	1000V	310
117.3803	3/8"	3/8"	18	23.0	27.5	92.0	1000V	310
117.3804	3/8"	3/8"	25	23.0	27.5	92.0	1000V	310

SPANNERS

Insulated adjustable spanner

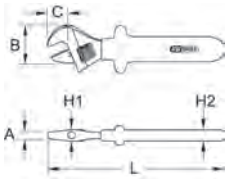
- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm		
117.1250	24,0	12.0	55.0	30.0	8.0	14.0	200.0	1000V	310
117.1253	30,0	14.0	77.0	40.0	14.0	19.0	250.0	1000V	540
117.1254	34,0	17.5	78.0	48.0	17.5	18.0	300.0	1000V	830

Insulated adjustable spanner

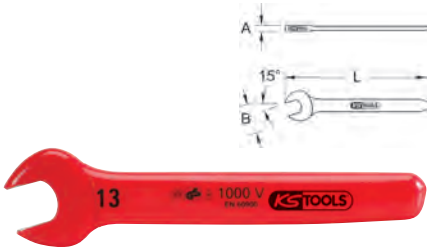
- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finis
- Burnished
- Chrome vanadium



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm		
117.4270	27	13.0	57.5	20.0	13.0	18.5	210.0	1000V	345
117.4271	31	15.0	68.5	30.0	15.0	20.0	260.0	1000V	530
117.4272	34	17.5	79.0	36.0	17.5	23.0	315.0	1000V	800

Insulated open ended spanner

- In accordance to DIN 7446
- Insulated handle to IEC 60900
- Jaw 15° offset
- Chrome vanadium



	mm	A mm	B mm	L mm		g
117.1506	6	12.0	23.5	70.1		30
117.1507	7	12.0	25.0	77.0		30
117.1508	8	12.5	27.2	84.0		30
117.1509	9	12.5	29.2	90.0		40
117.1510	10	13.0	31.2	97.0		40
117.1511	11	13.4	33.3	104.0		50
117.1512	12	13.5	35.2	110.0		50
117.1513	13	13.9	37.4	117.0		70
117.1514	14	14.2	39.5	124.0		80
117.1515	15	14.4	41.2	130.0		90
117.1516	16	14.7	42.7	137.0		120
117.1517	17	14.9	44.5	144.0		120
117.1518	18	15.2	46.7	150.0		120
117.1519	19	15.4	48.7	157.0		150
117.1522	22	16.2	54.9	174.0		190
117.1524	24	16.7	58.4	190.0		300
117.1527	27	17.4	63.7	210.0		390
117.1530	30	18.1	69.8	230.0		510
117.1532	32	18.4	65.8	244.0		550

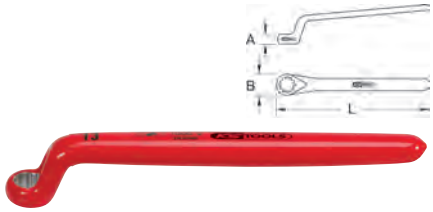
Insulated ratchet ring spanner

- FlankTraction profil
- In accordance to DIN 7446
- Insulated handle to DIN 60900
- Straight form
- Exact gearing with 72 teeth
- Chrome vanadium

	mm	A mm	B mm	L mm		kg
117.4206	6	6.7	14.4	126.0	1000V	0.03
117.4207	7	6.9	17.2	137.0	1000V	0.04
117.4208	8	6.9	17.2	140.0	1000V	0.04
117.4209	9	7.3	19.2	150.0	1000V	0.04
117.4210	10	7.7	21.2	159.0	1000V	0.06
117.4211	11	8.1	22.2	165.0	1000V	0.06
117.4212	12	8.6	23.2	172.0	1000V	0.08
117.4213	13	9.0	25.2	178.0	1000V	0.09
117.4214	14	9.4	28.2	191.0	1000V	0.12
117.4215	15	9.8	29.2	200.0	1000V	0.13
117.4216	16	10.3	31.2	208.0	1000V	0.16
117.4217	17	10.7	32.2	226.0	1000V	0.19
117.4218	18	11.1	33.2	237.0	1000V	0.23
117.4219	19	11.6	34.2	248.0	1000V	0.25
117.4221	21	13.4	40.4	274.0	1000V	0.36
117.4222	22	13.4	40.4	290.0	1000V	0.34
117.4224	24	14.9	46.4	323.0	1000V	0.49
117.4227	27	15.9	52.4	331.0	1000V	0.61
117.4228	30	17.4	59.2	389.0	1000V	0.90
117.4229	32	17.9	62.4	415.0	1000V	1.10
117.4230	34	17.9	62.4	460.0	1000V	1.25

Insulated ring spanner, offset

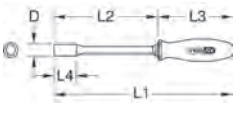
- FlankTraction profil
- In accordance to DIN 7447
- Insulated handle to IEC 60900
- Ring head 75° offset
- Chrome vanadium



	mm	A mm	B mm	L mm		g
117.1306	6	6.1	13.6	160.0		55
117.1307	7	6.7	12.6	160.0		55
117.1308	8	7.1	14.0	170.0		60
117.1309	9	7.4	15.5	170.0		65
117.1310	10	7.8	17.0	170.0		80
117.1311	11	8.1	18.4	180.0		90
117.1312	12	10.2	19.9	190.0		100
117.1313	13	10.9	21.3	190.0		110
117.1314	14	11.3	22.8	210.0		160
117.1315	15	11.9	24.1	215.0		170
117.1316	16	12.2	25.7	220.0		200
117.1317	17	12.6	27.1	225.0		250
117.1318	18	13.2	28.6	230.0		270
117.1319	19	13.6	30.1	240.0		290
117.1322	22	13.9	34.4	260.0		320
117.1324	24	15.4	36.2	280.0		490
117.1327	27	16.4	40.4	295.0		540
117.1330	30	17.4	44.4	310.0		580
117.1332	32	18.4	47.4	330.0		590

Insulated Socket Screwdriver

- 6 point
- In accordance to DIN 7445
- Insulated to IEC 60900
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm		g
117.1177	3	10.0	215.0	125.0	90.0	37.0	1000V	65
117.1178	3,5	10.0	215.0	125.0	90.0	37.0	1000V	70
117.1179	4	10.0	215.0	125.0	90.0	37.0	1000V	70
117.1181	4,5	10.0	215.0	125.0	90.0	37.0	1000V	70
117.1235	5	11.5	215.0	125.0	90.0	37.0		75
117.1182	5,5	15.5	215.0	125.0	90.0	37.0		70
117.1236	6	12.5	215.0	125.0	90.0	37.0		75
117.1237	7	14.5	225.0	125.0	100.0	37.0		115
117.1238	8	15.5	225.0	125.0	100.0	37.0		115
117.1239	9	16.5	225.0	125.0	100.0	37.0		155
117.1240	10	17.0	225.0	125.0	100.0	37.0		120
117.1241	11	19.5	235.0	125.0	110.0	37.0		160
117.1242	12	20.5	235.0	125.0	110.0	37.0		170
117.1243	13	21.5	235.0	125.0	110.0	37.0		170
117.1244	14	23.5	235.0	125.0	110.0	37.0		170
117.1247	17	26.5	235.0	125.0	110.0	37.0		190

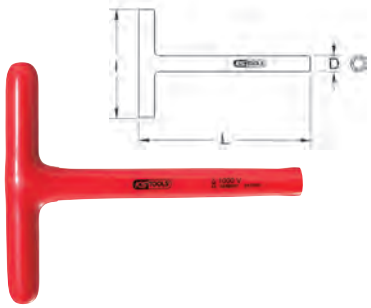
Insulated socket screwdriver set

- 6 point
- In accordance to DIN 7445
- Insulated handle to IEC 60900
- Chrome vanadium

			g
117.1255	5 pcs	5,5 - 7 - 8 - 10 - 13 mm	630

Insulated T-grip socket spanner

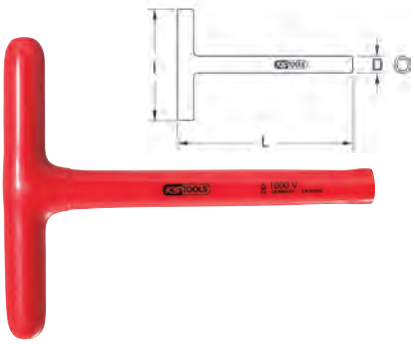
- 6 point
- In accordance to DIN 7440
- Insulated handle to IEC 60900
- For use of especially long threaded bolts
- Made from precision steel tube
- Chrome vanadium



	mm	D mm	l mm	L mm		g
117.1771	10	17.0	165.0	200.0	1000V	320
117.1772	11	19.0	165.0	200.0	1000V	380
117.1773	12	19.0	165.0	200.0	1000V	370
117.1774	13	20.0	165.0	200.0	1000V	370
117.1775	14	24.0	165.0	200.0	1000V	370
117.1776	16	26.0	165.0	200.0	1000V	420
117.1777	17	26.0	165.0	200.0	1000V	430
117.1778	18	29.0	165.0	200.0	1000V	460
117.1779	19	30.0	165.0	200.0	1000V	440
117.1781	20	32.0	165.0	200.0	1000V	460
117.1782	22	33.0	165.0	200.0	1000V	570
117.1783	24	35.0	165.0	200.0	1000V	590

Insulated T-grip socket spanner, long

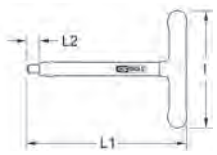
- 6 point
- In accordance to DIN 7440
- Insulated handle to IEC 60900
- For use of especially long threaded bolts
- Made from precision steel tube
- Chrome vanadium



	mm	D mm	l mm	L mm		g
117.1725	8	17.0	165.0	300.0	1000V	350
117.1726	10	20.0	165.0	300.0	1000V	380
117.1727	11	20.0	165.0	300.0	1000V	430
117.1728	12	20.0	165.0	300.0	1000V	430
117.1729	13	20.0	165.0	300.0	1000V	420
117.1730	14	23.0	165.0	300.0	1000V	440
117.1731	17	28.0	165.0	300.0	1000V	520
117.1732	19	32.0	165.0	300.0	1000V	590
117.1733	22	33.0	165.0	300.0	1000V	690
117.1734	24	33.5	165.0	300.0	1000V	780

Insulated T-grip socket spanner

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- Chrome vanadium



	■	l mm	L1 mm	L2 mm	ϟ	g
117.3919	1/4"	92.0	160.0	8.0	1000V	115
117.3920	3/8"	155.0	200.0	11.0	1000V	350
117.3921	1/2"	155.0	200.0	15.0	1000V	490

Insulated four way spanner

- 6 point
- Insulated handle to IEC 60900
- No contact between the steel hexagon drive
- Made from impact resistant plastic
- Chrome vanadium

	mm	L1 mm	L2 mm	ϟ	g
117.1701	10x11x12x13	140.0	55.0	1000V	230
117.1702	10x11x13x17	140.0	55.0	1000V	230
117.1704	10x12x14x17	140.0	55.0	1000V	230
117.1705	10x13x14x17	140.0	55.0	1000V	230
117.1706	11x12x13x17	140.0	55.0	1000V	230
117.1707	11x13x14x17	140.0	55.0	1000V	230
117.1708	13x17x19x22	140.0	55.0	1000V	340
117.1709	14x17x19x22	140.0	55.0	1000V	340

Insulated four way spanner

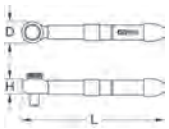
- Hexagonal
- Insulated handle to IEC 60900
- No contact between the steel hexagonal inserts
- Made from impact-resistant plastic
- Centre cross reinforced with hard fib e
- Chrome vanadium

	mm	L1 mm	L2 mm	ϟ	g
117.1720	10x13x14x17	220.0	92.0	1000V	430

1/4" PROGRAM

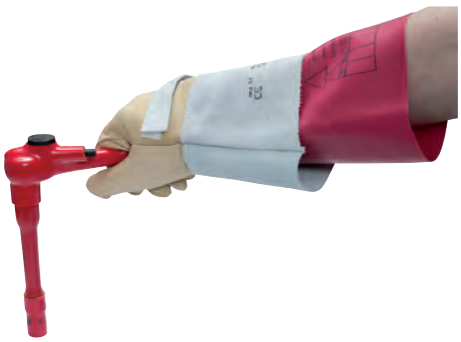
Insulated mini torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



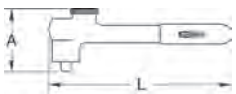
1/4"

	■	N·m	D mm	H mm	L mm	ϟ	g
117.1400	1/4"	2-12	40.0	41.0	200.0	1000V	400
117.1402	1/4"	5-25	40.0	41.0	200.0	1000V	420



Insulated reversing ratchet

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium

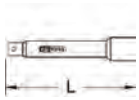


1/4"

	■	A mm	L mm	ϟ	g
117.1401	1/4"	54.5	141.0	1000V	128

Insulated extension

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium

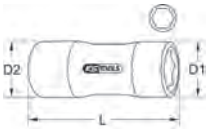


1/4"

	■	L mm	ϟ	g
117.1451	1/4"	50.0	1000V	40
117.1452	1/4"	75.0	1000V	45
117.1453	1/4"	100.0	1000V	56
117.1454	1/4"	150.0	1000V	68

Insulated socket

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

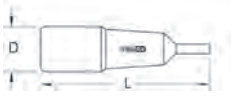


1/4"

	mm	D1 mm	D2 mm	L mm	ϟ	g
117.1404	4	16.0	10.0	37.0	1000V	12
117.1405	5	16.5	11.5	37.0	1000V	12
117.1406	6	16.5	12.0	37.0	1000V	12
117.1407	7	16.5	13.5	37.0	1000V	15
117.1408	8	16.5	15.5	37.0	1000V	15
117.1409	9	16.5	16.5	37.0	1000V	16
117.1410	10	16.5	17.5	37.0	1000V	18
117.1411	11	16.5	20.0	37.0	1000V	18
117.1412	12	16.5	21.0	37.0	1000V	24
117.1413	13	16.5	22.0	37.0	1000V	26
117.1414	14	16.5	24.0	37.0	1000V	29

Insulated bit socket for hexagon screws

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive adaptor to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



1/4"

	mm	D mm	L mm	ϟ	g
117.1415	3	16.5	44.0	1000V	13
117.1416	4	16.5	44.0	1000V	13
117.1417	5	16.5	44.0	1000V	14
117.1418	6	16.5	44.0	1000V	15
117.1419	8	16.5	44.0	1000V	19

Insulated bit holder

- Insulated handle to IEC 60900
- Internal square drive adaptor to DIN 3120 / ISO 1174 with ball reception
- With magnet
- For bits to DIN 3126 / C 6,3
- Chrome vanadium

1/4"

	□	○	D1 mm	D2 mm	L mm	ϟ 1000V	g
117.1420	1/4"	1/4"	16.0	16.5	40.0		240

1/4" SETS

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

1/4"

			kg
117.1877	22 pcs	Insulated socket wrench set	1.60
1 x		1/4"	
4 x		1/4": 50 - 75 - 100 - 150 mm	
1 x		1/4"	
1 x		1/4"	
10 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 14 mm	
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

1/4"

			kg
117.1876	21 pcs	Insulated socket wrench set	1.00
1 x		1/4": 5 - 25 Nm	
3 x		1/4": 75 - 100 - 150 mm	
2 x		1/4"	
5 x		1/4": 6 - 8 - 10 - 13 - 14 mm	
3 x		1/4": 5 - 6 - 8 mm	
3 x		1/4": 4 - 5,5 - 6,5 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

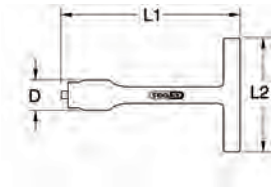
1/4"

			kg
117.1878	21 pcs	Insulated socket wrench set	1.90
1 x		1/4": 5 - 25 Nm	
4 x		1/4": 50 - 75 - 100 - 150 mm	
1 x		1/4"	
10 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 14 mm	
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm	

3/8" PROGRAM

Insulated pre set torque limiter with T-grip handle

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - with a fi ed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock

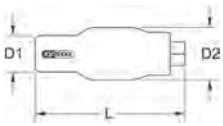


3/8"

	■	N·m	D mm	L mm	l mm	ϟ 1000V	g
117.3806	3/8"	12	36.5	270.0	165.0	1000V	540
117.3807	3/8"	18	36.5	270.0	165.0	1000V	540
117.3808	3/8"	25	36.5	270.0	165.0	1000V	540

Insulated pre set torque limiter

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fi ed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock

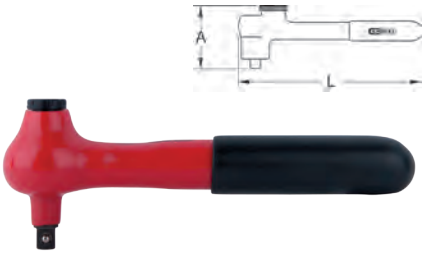


3/8"

	□	■	N·m	D1 mm	D2 mm	L mm	ϟ 1000V	g
117.3802	3/8"	3/8"	12	23.0	27.5	92.0	1000V	310
117.3803	3/8"	3/8"	18	23.0	27.5	92.0	1000V	310
117.3804	3/8"	3/8"	25	23.0	27.5	92.0	1000V	310

Insulated pre set torque wrench

- Actuation accuracy: ±3 % tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fi ed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

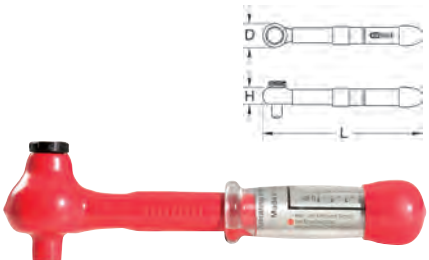


3/8"

	■	N·m	A mm	L mm	ϟ	g
117.3922	3/8"	5-35	78.0	210.0	1000V	420

Insulated mini torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard



3/8"

	■	N·m	D mm	H mm	L mm	ϟ	g
117.1184	3/8"	5-25	40.0	42.0	200.0	1000V	440

Insulated torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N•m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

3/8"

	■	N·m	H mm	L mm	ϟ	kg
117.3805	3/8"	2-27	51.0	280.0	1000V	0.92
117.3810	3/8"	5-50	51.0	370.0	1000V	1.07

Insulated reversing ratchet

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium

3/8"

	■	A mm	L mm	ϟ	g
117.3801	3/8"	73.0	200.0	1000V	350

Insulated reversing ratchet

- Square drive adaptor to DIN3120 / ISO 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- Secure locking function on the square drive
- Chrome vanadium

3/8"

	■	A mm	L mm	ϟ	g
117.3800	3/8"	78.0	205.0	GS	370

Insulated extension

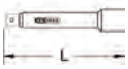
- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium

3/8"

	■	L mm	ϟ	g
117.3851	3/8"	125.0	1000V	140
117.3852	3/8"	250.0	1000V	280

Insulated extension with screw adjustment

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With screw adjustment on the square drive
- Chrome vanadium



3/8"

	■	L mm	ϟ	g
117.3823	3/8"	125.0	GS	140
117.3825	3/8"	250.0	GS	280

Insulated bit holder

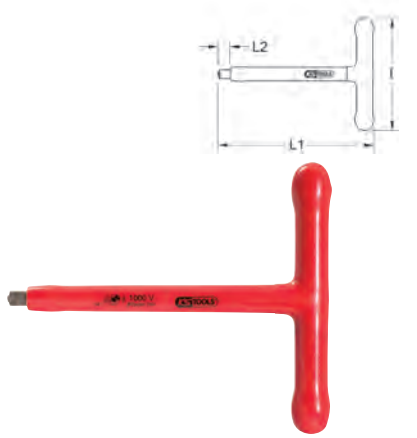
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With magnet
- For bits to DIN 3126 / C 6,3
- Chrome vanadium

3/8"

	□	○	D1 mm	D2 mm	L mm	ϟ	g
117.3811	3/8"	1/4"	25.0	13.0	125.0	1000V	165
117.3812	3/8"	1/4"	25.0	13.0	250.0	1000V	250

Insulated T-grip socket spanner with screw adjustment

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium



3/8"

	■	l mm	L1 mm	L2 mm		g
117.3820	3/8"	165.0	200.0	15.0		250

Insulated socket

- 12 point
- FlankTraction profil
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

3/8"

	mm	■	D1 mm	D2 mm	L mm		g
117.3831	6		23.0	14.0	48.0		30
117.3832	7		23.0	15.0	48.0		30
117.3833	8		23.0	16.0	48.0		30
117.3834	9		23.0	17.0	48.0		35
117.3835	10		23.0	19.5	48.0		35
117.3836	11		23.0	19.5	48.0		35
117.3837	12		23.0	20.5	48.0		40
117.3838	13		23.0	23.0	48.0		40
117.3839	14		23.0	23.5	48.0		40
117.3840	15		23.0	26.0	48.0		45
117.3841	16		23.0	26.5	48.0		45
117.3842	17		23.0	28.0	48.0		50
117.3843	18		23.0	30.0	48.0		50
117.3844	19		23.0	30.0	48.0		60
117.3845	20		23.0	32.0	48.0		60
117.3846	21		23.0	33.5	48.0		60
117.3847	22		23.0	37.5	48.0		60
117.3813	23		22.5	34.0	48.0		91
117.3848	24		23.0	38.5	48.0		60
117.1020		1/4"	22.0	13.0	48.0		30
117.1021		5/16"	22.0	15.5	48.0		30
117.1022		3/8"	22.0	19.0	48.0		31
117.1023		7/16"	22.0	20.0	48.0		32
117.1024		1/2"	22.0	23.0	48.0		40
117.1025		9/16"	22.0	24.5	48.0		40
117.1026		5/8"	22.0	26.5	48.0		42
117.1027		11/16"	22.0	29.0	48.0		50
117.1028		3/4"	22.0	30.0	48.0		60
117.1029		13/16"	22.0	32.0	48.0		60
117.1030		7/8"	22.0	36.0	48.0		60
117.1031		15/16"	22.0	37.0	48.0		91

Insulated socket, deep

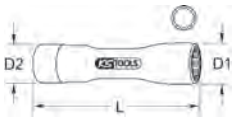
- FlankTraction profil
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

3/8"

	Profile	mm	D1 mm	D2 mm	L mm		g
117.1090	○	10	22.0	18.0	80.0		60
117.1091	○	11	22.0	19.5	80.0		60
117.1092	○	12	22.0	21.0	80.0		70
117.1093	○	13	22.0	23.0	80.0		70
117.1094	○	14	22.0	24.0	80.0		80
117.1095	○	15	22.0	26.0	80.0		80
117.1096	○	16	22.0	27.0	80.0		110
117.1097	○	17	22.0	28.0	80.0		110
117.3881	○	18	22.0	29.5	80.0		138
117.3882	○	19	22.0	30.5	80.0		180
117.3883	○	22	22.0	34.5	80.0		180
117.3884	○	24	22.0	37.5	80.0		213

Insulated socket, extra deep

- 12 point
- FlankTraction profil
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Insulated handle to IEC 60900
- Chrome vanadium

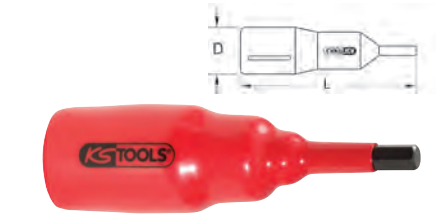


3/8"

	mm	D1 mm	D2 mm	L mm		g
117.3853	10	23.0	19.0	135.0		180
117.3854	11	23.0	20.0	135.0		185
117.3855	12	23.0	22.0	135.0		200
117.3856	13	23.0	22.0	135.0		210
117.3857	14	23.0	26.0	135.0		220
117.3858	17	23.0	29.0	135.0		240
117.3859	19	23.0	31.0	135.0		260
117.3860	22	23.0	35.0	135.0		280

Insulated bit socket for hexagon screws

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



3/8"

	mm	D mm	L mm		g
117.1735	4	22.0	54.0		40
117.1736	5	22.0	54.0		40
117.1737	6	22.0	54.0		40
117.1738	8	22.0	54.0		40

Insulated bit socket, long

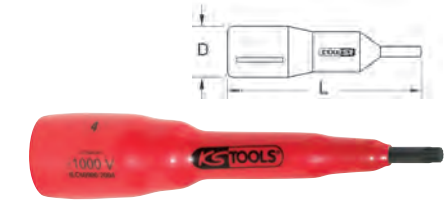
- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium

3/8"

	mm	D mm	L mm		g
117.3861	4	23.0	82.0		45
117.3862	5	23.0	82.0		50
117.3863	6	23.0	82.0		50
117.3864	8	23.0	82.0		65
117.3865	10	23.0	82.0		80
117.3866	12	23.0	82.0		85
117.3867	4	23.0	116.0		70
117.3868	5	23.0	116.0		75
117.3869	6	23.0	116.0		76
117.3870	8	23.0	116.0		75
117.3871	10	23.0	116.0		80
117.3872	12	23.0	116.0		85
117.3873	5	23.0	180.0		100
117.3874	6	23.0	180.0		100
117.3875	5	23.0	270.0		115
117.3876	6	23.0	270.0		120
117.3877	8	23.0	270.0		140
117.3878	10	23.0	270.0		170

Insulated bit socket for Spline(XZN®) screws

- Spline(XZN®)
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Burnished
- Chrome vanadium



3/8"

	□	mm	D mm	L mm		g
117.3893	3/8"	M8	23.0	95.0		85
117.3894	3/8"	M10	23.0	95.0		90
117.3895	3/8"	M12	23.0	95.0		95

Insulated bit socket for PZ screws

- PZ
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium

3/8"

		D mm	L mm	1000V	g
117.1739	PZ 1	22.0	95.0	1000V	60
117.1740	PZ 2	22.0	95.0	1000V	65
117.1741	PZ 3	22.0	95.0	1000V	70

Insulated reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Matt chrome
- Chrome vanadium

	□	■	D mm	L mm	1000V	g
117.1189	1/4"	3/8"	17.0	39.0	1000V	60
117.3885	3/8"	1/2"	23.0	52.0	1000V	80
117.1190	3/8"	1/4"	22.0	86.0	1000V	60
117.1285	1/2"	3/8"	20.0	75.0	1000V	220

3/8" SETS

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

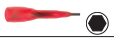
3/8"

			kg
117.1882	16 pcs	Insulated socket wrench set	3.80
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
8 x		3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	
3 x		3/8": 5 - 6 - 8 mm	
1 x		25 Nm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

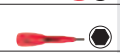
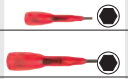
3/8"

			kg
117.1850	16 pcs	Insulated socket wrench set	4.00
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
8 x		3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	
3 x		3/8":5 - 6 - 8 mm	
1 x		3,5 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

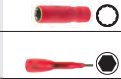
3/8"

			kg
117.1885	16 pcs	Insulated socket wrench set	3.40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
3 x		3/8": 13 - 17 - 19 mm	
4 x		3/8": 5 - 6 - 8 - 10 mm	
1 x		3/8": 5 mm	
1 x		2,5 mm	
2 x		5 - 6 mm	
1 x		Ø 25mm	
1 x		160 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1881	14 pcs	Insulated socket wrench set	3.87
1 x		3/8": 5 - 50 Nm	
2 x		3/8": 125 - 250 mm	
5 x		3/8": 10 - 13 - 14 - 17 - 19 mm	
5 x		3/8": 4 - 5 - 6 - 8 - 10 mm	
1 x		3/8": 95 - 150 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1888	13 pcs	Insulated socket wrench set	2.40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1886	13 pcs	Insulated socket wrench set	2.40
1 x		3/8“	
2 x		3/8“: 125 - 250 mm	
1 x		3/8“	
5 x		3/8“: 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8“: 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1887	11 pcs	Insulated socket wrench set	1.80
1 x		3/8“	
1 x		3/8“: 125 mm	
5 x		3/8“: 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8“: 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

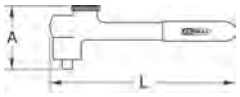
3/8"

			kg
117.1889	11 pcs	Insulated socket wrench set	1.75
1 x		3/8“	
1 x		3/8“: 125 mm	
5 x		3/8“: 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8“: 4 - 5 - 6 - 8 mm	

1/2" PROGRAM

Insulated pre set torque wrench

- Actuation accuracy: ±3 % tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fi ed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789 national standard

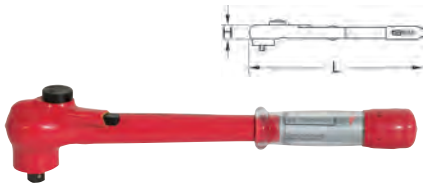


1/2"

	■	N·m	A mm	L mm	ϟ	kg
117.1001	1/2“	5-35	78.0	250.0	1000V	420

Insulated torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1,000 V and DC 1500 V
- Actuation accuracy: ±3 % tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N•m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identifi ation
- Includes test certifi ate in accordance with DIN EN ISO 6789:2003 national standard

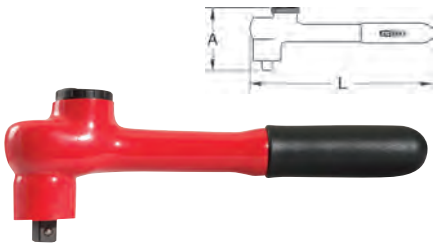


1/2"

	■	N·m	H mm	L mm	ϟ	kg
117.1301	1/2“	2-27	61.0	280.0	1000V	0.93
117.1300	1/2“	5-50	61.0	370.0		1.10
117.1302	1/2“	20-100	61.0	460.0	1000V	1.20
117.1303	1/2“	40-220	61.0	530.0	1000V	1.30

Insulated reversing ratchet

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium

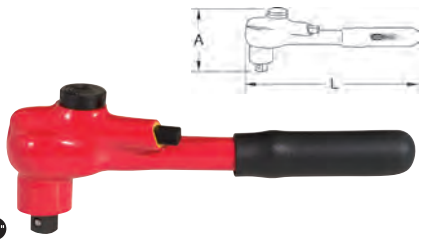


1/2"

	■	A mm	L mm	ϟ	g
117.1201	1/2“	90.0	245.0	1000V	700

Insulated reversing ratchet

- Square drive adaptor to DIN3120 / ISO 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- Secure locking function on the square drive
- Special tool steel



1/2"

	■	A mm	L mm	ϟ	g
117.1200	1/2“	88.0	245.0		750

Insulated extension

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium

1/2"

	■	L mm	ϟ	g
117.1251	1/2"	125.0	1000V	212
117.1252	1/2"	250.0	1000V	395

Insulated extension with screw adjustment

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 250 mm with locking screw at the outer square
- 125 mm with locking screw also for connected Hex, Torx, XZN sockets trought the extension by the inner square
- With screw adjustment on the square drive
- Chrome vanadium

1/2"

	■	L mm	ϟ	g
117.1202	1/2"	125.0		211
117.1203	1/2"	250.0		406

Insulated extension

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium

1/2"

	■	L mm	ϟ	g
117.1229	1/2"	125.0	1000V	198
117.1231	1/2"	250.0	1000V	374

Insulated T-grip socket spanner with screw adjustment

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium

1/2"

	■	l mm	L1 mm	L2 mm	ϟ	g
117.1205	1/2"	165.0	200.0	15.0		490

Insulated socket

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

1/2"

	mm	D1 mm	D2 mm	L mm	ϟ	g
117.1208	8	26.0	17.0	55.0		65
117.1209	9	26.0	19.0	55.0		65
117.1210	10	26.0	20.0	55.0		70
117.1211	11	26.0	21.0	55.0		75
117.1212	12	26.0	22.0	55.0		75
117.1213	13	26.0	23.5	55.0		75
117.1214	14	26.0	25.0	55.0		80
117.1215	15	26.0	26.0	55.0		80
117.1216	16	26.0	26.5	55.0		85
117.1217	17	26.0	28.5	55.0		90
117.1218	18	26.0	31.0	55.0		85
117.1219	19	26.0	31.5	55.0		100
117.1220	20	26.0	33.0	55.0		100
117.1221	21	26.0	34.5	55.0		120
117.1222	22	26.0	35.0	55.0		120
117.1223	23	26.0	36.0	55.0		125
117.1224	24	26.0	37.0	55.0		140
117.1226	26	26.0	39.0	61.0		175
117.1227	27	26.0	41.0	61.0		195
117.1228	28	26.0	44.0	61.0		190
117.1230	30	26.0	46.0	61.0		230
117.1232	32	26.0	49.5	61.0		280

Insulated socket, long

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

1/2"

	mm	D1 mm	D2 mm	L mm	ϟ	g
117.1333	8	26.0	19.0	94.0	1000V	105
117.1334	10	26.0	21.0	94.0	1000V	110
117.1335	11	26.0	21.0	94.0	1000V	130
117.1336	12	26.0	22.0	94.0	1000V	145
117.1337	13	26.0	23.5	94.0	1000V	145
117.1338	14	26.0	25.5	94.0	1000V	145
117.1339	15	26.0	27.0	94.0	1000V	145
117.1340	16	26.0	28.0	94.0	1000V	160
117.1341	17	26.0	29.0	94.0	1000V	180
117.1342	18	26.0	30.0	94.0	1000V	190
117.1343	19	26.0	30.5	94.0	1000V	210
117.1344	21	26.0	35.0	94.0	1000V	215
117.1345	22	26.0	35.5	94.0	1000V	230
117.1346	23	26.0	36.0	94.0	1000V	235
117.1347	24	26.0	39.0	94.0	1000V	250
117.1348	27	26.0	42.0	94.0	1000V	390
117.1349	30	26.0	46.5	94.0	1000V	420
117.1350	32	26.0	48.5	94.0	1000V	460

Insulated socket

- 12 point
- FlankTraction profil
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

1/2"

	■	D1 mm	D2 mm	L mm	ϟ	g
117.1351	5/16"	26.0	18.0	55.0	1000V	70
117.1352	3/8"	26.0	19.5	55.0	1000V	70
117.1353	7/16"	26.0	21.0	55.0	1000V	75
117.1354	15/32"	26.0	21.5	55.0	1000V	75
117.1355	1/2"	26.0	24.5	55.0	1000V	75
117.1356	9/16"	26.0	25.0	55.0	1000V	80
117.1357	5/8"	26.0	26.5	55.0	1000V	85
117.1358	11/16"	26.0	29.0	55.0	1000V	90
117.1359	25/32"	26.0	29.5	55.0	1000V	85
117.1361	3/4"	26.0	30.0	55.0	1000V	100
117.1362	13/16"	26.0	34.5	55.0	1000V	110
117.1363	7/8"	26.0	35.5	59.0	1000V	120
117.1364	15/16"	26.0	38.0	59.0	1000V	140
117.1368	1"	26.0	39.5	59.0	1000V	175
117.1369	1.1/8"	26.0	45.0	59.0	1000V	190
117.1367	1.1/4"	26.0	49.0	59.0	1000V	280

Insulated socket, extra deep

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

1/2"

	mm	D1 mm	D2 mm	L mm	ϟ	g
117.1371	13	26.0	23.5	145.0	1000V	250
117.1372	14	26.0	25.5	145.0	1000V	260
117.1373	17	26.0	29.0	145.0	1000V	280
117.1374	19	26.0	30.5	145.0	1000V	295
117.1375	22	26.0	35.5	145.0	1000V	310
117.1376	24	26.0	29.0	145.0	1000V	330
117.1377	27	26.0	42.0	145.0	1000V	350
117.1378	30	26.0	46.5	145.0	1000V	380
117.1379	32	26.0	48.5	145.0	1000V	410

Insulated socket, extra deep

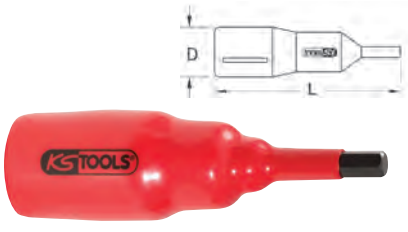
- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium

1/2"

	mm	D1 mm	D2 mm	L mm	1000V	g
117.1381	13	26.0	23.5	255.0	1000V	485
117.1382	14	26.0	25.5	255.0	1000V	500
117.1383	17	26.0	29.0	255.0	1000V	530
117.1384	19	26.0	30.5	255.0	1000V	550
117.1385	22	26.0	35.5	255.0	1000V	580
117.1386	24	26.0	39.0	255.0	1000V	605
117.1387	27	26.0	42.0	255.0	1000V	635
117.1388	30	26.0	46.5	255.0	1000V	660
117.1389	32	26.0	48.5	255.0	1000V	670

Insulated bit socket

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



1/2"

	mm	D mm	L mm	1000V	g
117.1151	4	26.0	95.0	1000V	80
117.1152	5	26.0	95.0		80
117.1153	6	26.0	95.0		85
117.1154	8	26.0	95.0		95
117.1155	10	26.0	95.0	1000V	105
117.1156	12	26.0	95.0	1000V	125
117.1157	14	26.0	95.0	1000V	170
117.1158	17	26.0	95.0	1000V	185
117.1159	19	26.0	95.0	1000V	195

Insulated bit socket, long

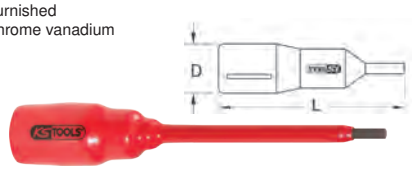
- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium

1/2"

	mm	D mm	L mm	1000V	g
117.1161	4	26.0	118.0	1000V	95
117.1162	5	26.0	118.0	1000V	100
117.1163	6	26.0	118.0	1000V	100
117.1164	8	26.0	118.0	1000V	110
117.1165	10	26.0	118.0	1000V	110
117.1166	12	26.0	118.0	1000V	160

Insulated bit socket, extra long

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



1/2"

	mm	D mm	L mm	1000V	g
117.1171	5	26.0	156.0	1000V	110
117.1172	6	26.0	156.0	1000V	110
117.1173	5	26.0	267.0	1000V	125
117.1174	6	26.0	267.0	1000V	145
117.1175	8	26.0	267.0	1000V	155
117.1176	10	26.0	267.0	1000V	190

Insulated reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Matt chrome
- Chrome vanadium

1/2" 3/8"

	□	■	D mm	L mm	1000V	g
117.1285	1/2"	3/8"	20.0	75.0	1000V	220

1/2" SETS

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

1/2"

			kg
117.1883	15 pcs	Insulated socket wrench set	4.00
1 x		1/2"	
2 x		1/2": 125 - 250 mm	
1 x		1/2"	
8 x		1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 24 mm	
3 x		1/2": 5 - 6 - 8 mm	

Insulated socket set

- In accordance to DIN 7448 / 7434 / 7449
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120
- In durable plastic storage case

1/2"

			kg
117.0600	9 pcs	Insulated socket set	2.07
1 x		270 mm	
7 x		10 - 13 - 14 - 16 - 17 - 19 - 21 mm	
1 x		125 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case

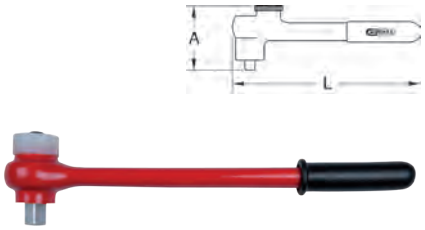
1/2"

			kg
117.1860	16 pcs	Insulated socket wrench set	4.50
1 x		1/2"	
2 x		1/2": 125 - 250 mm	
1 x		1/2"	
8 x		1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm	
3 x		1/2": 5 - 6 - 8 mm	
1 x		3,5 mm	

3/4" PROGRAM

Insulated reversing ratchet

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



3/4"

	■	A mm	L mm		kg
117.1187	3/4"	111.5	500.0	1000V	2.00

Insulated socket

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3124 / ISO 1174 with ball reception
- Chrome vanadium

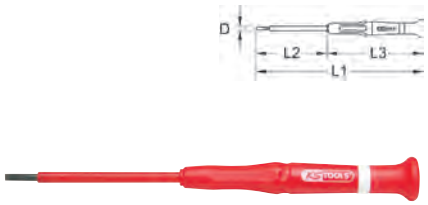
3/4"

	⬢ mm	D1 mm	D2 mm	L mm		g
117.3930	19	38.0	26.0	68.0	1000V	200
117.3931	21	38.0	39.0	68.0	1000V	210
117.3932	22	38.0	40.0	70.0	1000V	230
117.3933	24	38.0	43.0	70.0	1000V	230
117.3934	26	38.0	45.0	72.0	1000V	240
117.3935	27	38.0	47.0	72.0	1000V	270
117.3936	28	38.0	48.0	72.0	1000V	290
117.3937	30	38.0	50.0	74.0	1000V	310
117.3938	32	38.0	52.0	74.0	1000V	320
117.3939	36	38.0	58.0	82.0	1000V	460
117.3940	38	38.0	60.0	82.0	1000V	500
117.3941	41	38.0	62.0	82.0	1000V	540
117.3942	46	38.0	70.0	82.0	1000V	630
117.3943	50	38.0	75.0	82.0	1000V	750
117.3944	55	38.0	82.0	88.0	1000V	860
117.3945	60	38.0	90.0	88.0	1000V	910

SCREWDRIVERS

Insulated precision screwdriver for slotted screws

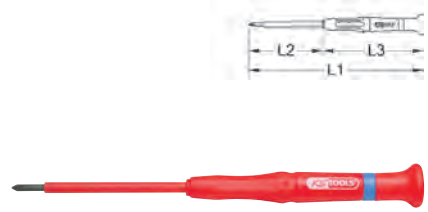
- Slotted
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



	D mm	L1 mm	L2 mm	L3 mm		g
500.6138	1,5	140.0	40.0	100.0		10
500.6139	1,8	160.0	60.0	100.0		10
500.6140	2,0	160.0	60.0	100.0		15
500.6141	2,5	175.0	75.0	100.0		15
500.6142	3,0	175.0	75.0	100.0		15

Insulated precision screwdriver for phillips screws PH

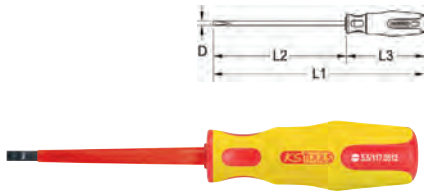
- PH
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



		L1 mm	L2 mm	L3 mm		g
500.6136	PH 00	175.0	75.0	100.0		15
500.6137	PH 0	175.0	75.0	100.0		15

ERGOTORQUE® VDE screwdriver for slotted screws

- Slotted
- In accordance to DIN 5264 / DIN ISO 2380
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



	D mm	L1 mm	L2 mm	L3 mm		g
117.0502	2,5	155.0	75.0	80.0		32
117.0504	3,0	180.0	100.0	80.0		35
117.0506	3,5	180.0	100.0	80.0		38
117.0508	4,0	180.0	100.0	80.0		41
117.0512	5,5	230.0	125.0	105.0		92
117.0514	6,5	255.0	150.0	105.0		111
117.0516	8,0	290.0	175.0	115.0		164
117.0518	10,0	315.0	200.0	115.0		230

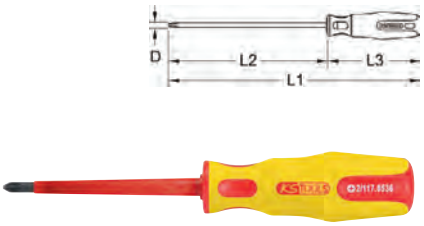
ERGOTORQUE® VDE screwdriver for phillips screws PH

- PH
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel

		L1 mm	L2 mm	L3 mm		g
117.0522	PH 0	140.0	60.0	80.0		32
117.0524	PH 1	185.0	80.0	105.0		38
117.0526	PH 2	205.0	100.0	105.0		95
117.0528	PH 3	265.0	150.0	115.0		152

ERGOTORQUE® VDE screwdriver for Phillips screws PZ

- PZ
- In accordance to DIN 7438 / DIN ISO 8764
- insulated to IEC 60900
- With two component handle
- Burnished
- S2 special steel



		L1 mm	L2 mm	L3 mm		g
117.0532	PZ 0	140.0	60.0	80.0		32
117.0534	PZ 1	185.0	80.0	105.0		38
117.0536	PZ 2	205.0	100.0	105.0		95
117.0538	PZ 3	265.0	150.0	115.0		152

Insulated hexagon screwdriver

- Hexagon
- In accordance to DIN 7439
- Insulated to IEC 60900
- Burnished
- Chrome vanadium

	mm	L1 mm	L2 mm	L3 mm		g
117.1631	1,5	135.0	57.0	77.0	1000V	16
117.1632	2,0	135.0	57.0	77.0	1000V	18
117.1633	2,5	165.0	78.0	83.0		34
117.1634	3,0	165.0	74.0	85.0		36
117.1635	4,0	165.0	76.0	85.0		43
117.1636	5,0	170.0	71.0	75.0		67
117.1637	6,0	205.0	108.0	95.0		83
117.1638	8,0	205.0	97.0	105.0		116

Insulated screwdriver for internal TX screws

- TX
- Insulated to IEC 60900
- Burnished tip
- Special steel

		L1 mm	L2 mm	L3 mm		g
117.0551	T10	170.0	80.0	90.0	1000V	27
117.0552	T15	170.0	80.0	90.0	1000V	28
117.0553	T20	190.0	100.0	90.0	1000V	36
117.0554	T25	190.0	100.0	90.0	1000V	61
117.0555	T27	205.0	115.0	90.0	1000V	74
117.0556	T30	205.0	115.0	90.0	1000V	93

Insulated bit screwdriver with magazine

- Insulated to IEC 60900
- With magnet
- For bits to DIN 3126 - C 6,3
- Chrome vanadium

1/4"

		D mm	L1 mm	L2 mm	L3 mm	L4 mm		g
117.1625	1/4"	12.5	230.0	120.0	110.0	50.0	1000V	170

SCREWDRIVER-SETS

Insulated precision screwdriver set

- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blade made of chrome vanadium
- In durable ABS storage case

			g
500.6165	7 pcs	Insulated precision screwdriver set	310
2 x		PH 0 - PH 00	
5 x		1,5 - 1,8 - 2,0 - 2,5 - 3,0 mm	

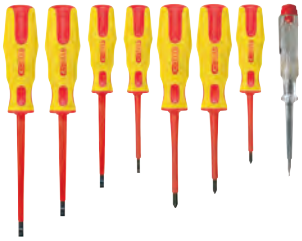
ERGOTORQUE® VDE screwdriver set

- In accordance to DIN 5264 / 7437 / 7438 / 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel

			g
117.0540	5 pcs	ERGOTORQUE® VDE screwdriver set	200
1 x		PH1	
3 x		2,5 - 4,0 - 5,5 mm	
1 x		3,0 mm	

ERGOTORQUE® VDE screwdriver set

- In accordance to DIN 5264 / 7437 / 7438 / 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



			g
117.0550	8 pcs	ERGOTORQUE® VDE screwdriver set	430
3 x		PH0 - PH1 - PH2	
4 x		2,5 - 4,0 - 5,5 - 6,5 mm	
1 x		3,0 mm	

ERGOTORQUE® VDE screwdriver display

- Insulated to IEC 60900
- Two component handle
- Includes voltage tester
- Burnished tip
- Blades made from S2 special steel
- In display stand

			kg
117.0560	120 pcs	ERGOTORQUE® VDE screwdriver display	6.75
50 x		5 x 2,5 - 5 x 3,0 - 5 x 3,5 - 5 x 4,0 10 x 5,5 - 10 x 6,5 - 5 x 8,0 - 5 x 10,0 mm	
20 x		3,0 mm	
25 x		5 x PH0 - 5 x PH1 - 10 x PH2 - 5 x PH3	
25 x		5 x PZ0 - 5 x PZ1 - 10 x PZ2 - 5 x PZ3	

KEY WRENCHES

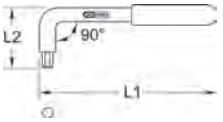
Insulated T-grip socket spanner

- Insulated to IEC 60900
- With magnet
- For bits to DIN 3126 - C 6,3
- Chrome vanadium

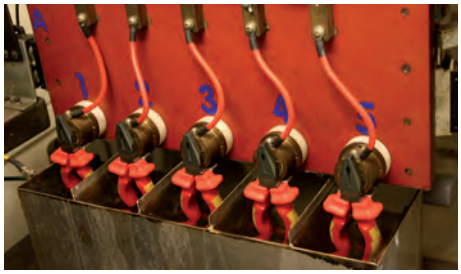
		D mm	L mm	l mm		g
117.1743	1/4"	14.0	120.0	110.0	1000V	185
117.1744	1/4"	14.0	160.0	110.0	1000V	248
117.1745	1/4"	14.0	250.0	165.0	1000V	310

Insulated angled hexagon screwdriver

- Hexagon
- In accordance to DIN 7439
- Insulated handle to IEC 60900
- Specially for cable branch clamp ring
- Matt chrome
- Chrome vanadium

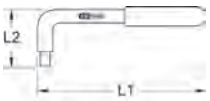


	mm	L1 mm	L2 mm		g
117.1601	3	130.0	24.0	1000V	20
117.1602	4	120.0	40.0	1000V	25
117.1603	5	140.0	47.0	1000V	45
117.1604	6	140.0	50.0	1000V	60
117.1605	8	150.0	50.0	1000V	110
117.1606	10	235.0	51.0	1000V	230
117.1607	12	265.0	60.0	1000V	350



Insulated socket spanner

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium



1/2"

	■	L1 mm	L2 mm		g
117.1403	1/2"	280.0	70.0	1000V	470

Insulated T-grip hexagon box spanner

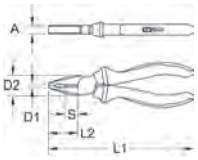
- Hexagon socket
- Insulated handle to IEC 60900
- Extremly versatile
- Burnished
- Chrome vanadium

	mm	l mm	D mm	L1 mm	L2 mm		g
117.1671	3	65.0	5.0	120.0	17.5	1000V	80
117.1672	3	65.0	5.0	115.0	18.5	1000V	140
117.1673	4	65.0	10.0	120.0	19.0	1000V	85
117.1674	4	104.0	15.0	160.0	22.0		145
117.1675	4	64.0	10.0	200.0	18.0	1000V	150
117.1676	4	94.0	13.0	250.0	19.0	1000V	168
117.1677	5	65.0	11.0	120.0	20.0	1000V	85
117.1678	5	105.0	15.0	160.0	21.0		250
117.1679	5	65.0	10.0	200.0	18.0	1000V	150
117.1681	5	105.0	15.0	250.0	20.0	1000V	168
117.1682	6	90.0	11.0	120.0	20.0	1000V	110
117.1683	6	105.0	15.0	160.0	21.0		250
117.1684	6	65.0	11.0	200.0	19.0	1000V	150
117.1742	6	105.0	8.0	250.0	20.0	1000V	307
117.1685	8	105.0	15.0	160.0	21.0		260
117.1686	8	160.0	13.0	200.0	22.0	1000V	325
117.1687	8	100.0	17.0	250.0	22.0	1000V	360
117.1688	10	160.0	15.0	200.0	20.0	1000V	390
117.1689	10	160.0	15.0	250.0	20.0	1000V	420
117.1691	10	160.0	15.0	300.0	20.0	1000V	450
117.1692	11	160.0	15.0	200.0	20.0	1000V	400
117.1693	12	160.0	16.0	200.0	20.0	1000V	420
117.1694	13	160.0	16.0	200.0	21.0	1000V	450
117.1695	14	160.0	17.0	200.0	21.0	1000V	490
117.1696	17	160.0	20.0	200.0	21.0	1000V	640

PLIERS

ERGOTORQUE® VDE combination pliers

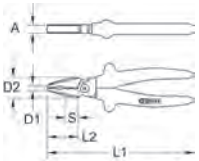
- In accordance to DIN ISO 5748
- Wrap around insulation to IEC 60900
- With two component handle
- Suitable for wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1111	10.0	6.0	24.0	170.0	35.0	2,4		310
117.1112	11.0	7.0	27.0	180.0	38.5	2,5		380
117.1113	12.0	7.0	30.0	210.0	42.5	3,0		400

CLASSIC 1000V high leverage combination pliers

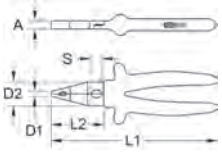
- In accordance to DIN / ISO 5746
- Insulated handle to IEC 60900
- Also suitable for hard wire
- Extra heavy execution
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1278	8.5	6.0	25.0	160.0	36.5	13,0	1000V	230
117.1275	11.0	7.5	28.0	185.0	40.0	16,5		290
117.1276	11.5	8.0	28.0	205.0	43.0	18,0		390
117.1279	13.0	8.0	35.0	250.0	53.0	21,5	1000V	570

CLASSIC 1000V combination pliers

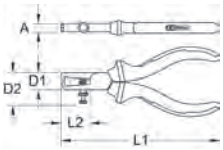
- In accordance to DIN / ISO 5244
- Insulated handle to IEC 60900
- With coated working head
- Also suitable for hard wire
- Extra heavy execution
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1711	16.0	8.0	30.0	185.0	38.0	16,0	1000V	280
117.1712	16.0	8.5	32.5	205.0	44.0	18,5	1000V	350

ERGOTORQUE® VDE cable stripper

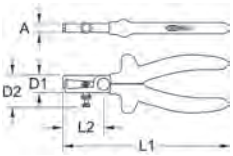
- In accordance to DIN / ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1114	10.0	17.5	31.5	160.0	36.0		210

CLASSIC 1000V wire strippers

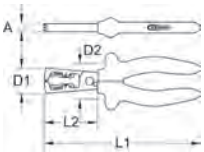
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1271	9.5	18.5	31.5	160.0	44.0		180

CLASSIC 1000V wire strippers

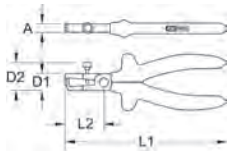
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	Replacement blades	g
117.1272	10.5	28.5	47.5	160.0	20.0	117.1258	220

CLASSIC 1000V wire strippers

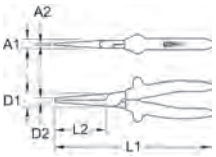
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1713	11.0	18.5	20.0	160.0	34.0	1000V	180

CLASSIC 1000V drawing pliers

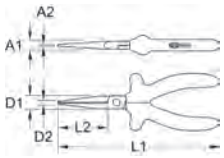
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With fl t and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
117.1280	7.5	6.5	17.0	4.5	200.0	65.0	220

CLASSIC 1000V fl t pliers

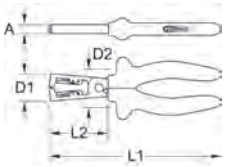
- In accordance to DIN 5745
- Insulated handle to IEC 60900
- With long jaws
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1289	8.5	5.5	15.0	3.5	160.0	50.0	1000V	210

CLASSIC 1000V wire strippers

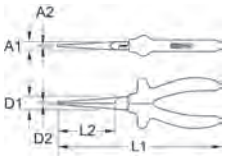
- Insulated handle to IEC 60900
- Multifunctional wire strippers
- Self-adjusting
- With replaceable knives
- For wires from 0.5 - 5.0 mm²
- With cutting holes for separating cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1225	10.0	24.0	40.0	185.0	61.0	1000V	260

CLASSIC 1000V drawing pliers

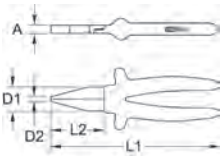
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With fl t and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1714	7.5	6.5	19.0	4.5	200.0	65.0	1000V	220

CLASSIC 1000V fl t pliers

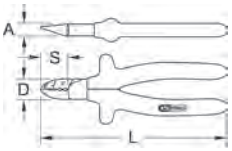
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1298	9.0	17.0	4.5	160.0	34.0	GS	200

CLASSIC 1000V electrical side cutters

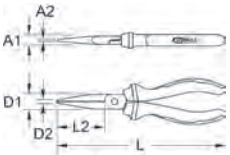
- Insulated handle to DIN / EN 60900
- For cutting, stripping and crimping
- Wire stippers for wires from 1,5 mm² + 2,5 mm²
- For crimping of insulated cable lugs with Ø 1,5 mm + 2,5 mm
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1281	10.5	22.0	175.0	27,0	1000V	320

ERGOTORQUE® VDE fl t pliers

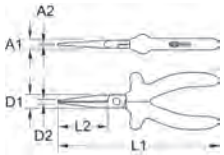
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1125	9.0	3.8	18.0	3.0	165.0	49.5	GS	210

CLASSIC 1000V fl t pliers

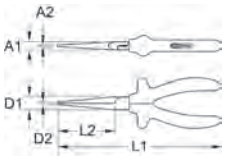
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1715	11.0	11.0	19.0	5.0	160.0	36.0	1000V	190

CLASSIC 1000V long jaw fl t pliers

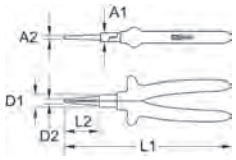
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With long jaws
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1299	7.0	8.5	16.0	4.0	160.0	51.0	1000V	210

CLASSIC 1000V round pliers

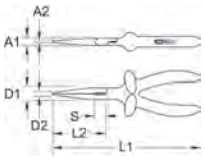
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With round, short and strong jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1297	10.0	3.5	14.0	6.0	160.0	33.0		180

CLASSIC 1000V long nosed pliers

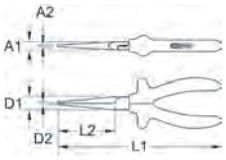
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Long jaws
- Suitable for soft and medium hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1717	10.0	3.5	17.5	4.0	160.0	55.0	10,0	1000V	180
117.1718	10.5	3.5	18.0	5.0	200.0	74.0	14,0	1000V	230

CLASSIC 1000V long jaw fl t pliers

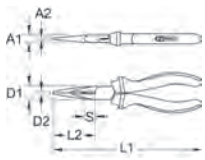
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With long jaws
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1716	13.0	7.5	18.5	4.5	160.0	50.0	1000V	130

ERGOTORQUE® VDE long nosed pliers

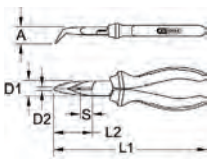
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Long jaws
- Suitable for medium and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1117	9.0	2.9	18.0	3.2	165.0	48.0	2,5		177
117.1118	11.0	3.5	22.0	4.5	210.0	69.0	2.5		291

ERGOTORQUE® VDE long nosed pliers, curved

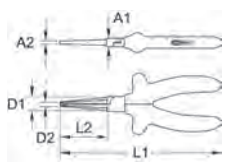
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1120	9.0	18.0	3.2	165.0	48.0	2,5		210
117.1121	11.0	22.0	5.0	210.0	70.0	2,5		310

CLASSIC 1000V long jaw round pliers

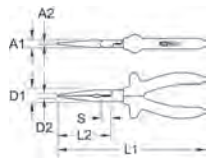
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With round and long jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1290	9.0	2.5	14.0	5.5	160.0	47.5	1000V	205

CLASSIC 1000V long nosed pliers

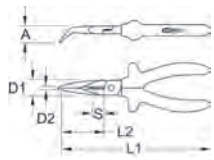
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Long jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		g
117.1291	9.5	2.5	16.0	4.0	200.0	74.0		230
117.1293	9.0	2.0	15.5	3.0	160.0	55.0	1000V	170

CLASSIC 1000V long nosed pliers, curved

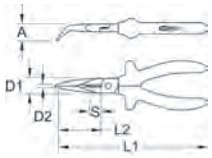
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1292	9.5	17.0	4.0	200.0	78.0	14,0		210
117.1294	9.5	15.5	4.0	160.0	51.0	11,0	1000V	170

CLASSIC 1000V long nosed pliers, curved

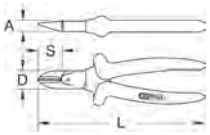
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		g
117.1719	12.0	5.0	19.0	200.0	79.0	14,0	1000V	220

CLASSIC 1000V side cutters

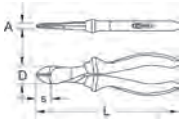
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- For soft and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1277	11.0	21.5	160.0	24,0	GS	270
117.1288	11.0	21.5	180.0	24,0	GS	330

ERGOTORQUE® VDE high leverage side cutters

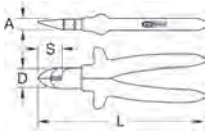
- In accordance to DIN / ISO 5749
- Wrap around insulation to IEC 60900
- With two component handle
- For all types of wire
- Requires light expenditure of energy
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1115	12.0	30.0	185.0	22,5	GS	330
117.1116	12.5	30.0	200.0	22,5	GS	370

CLASSIC 1000V lead sealing pliers

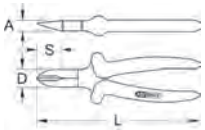
- Insulated handle to DIN / EN 60900
- With interchangeable clamping inserts
- Combined with side cutter
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1268	10.0	20.0	160.0	15,0	1000V	220

CLASSIC 1000V side cutters

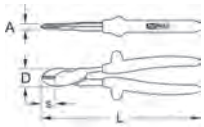
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Working head coated
- For soft and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1721	26.0	25.5	160.0	22,0	1000V	230
117.1722	27.0	27.0	180.0	25,0	1000V	330

CLASSIC 1000V high leverage side cutter

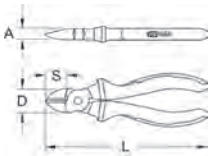
- In accordance to DIN / ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for the line construction
- Requires light expenditure of energy
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1282	12.0	26.0	180.0	21,0	1000V	320
117.1283	12.5	29.0	205.0	24,0	1000V	370
117.1284	13.5	33.0	260.0	30,0	GS	580

ERGOTORQUE® VDE diagonal side cutters

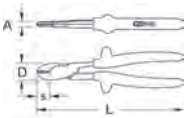
- In accordance to DIN / ISO 5749
- Wrap around insulation to IEC 60900
- With two component handle
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1119	10.0	20.0	160.0	20,0	GS	210

CLASSIC 1000V high leverage side cutter

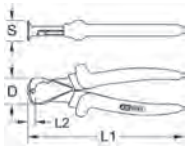
- In accordance with DIN/ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for overhead line construction
- Low energy requirement
- 40% power saving
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1234	12.0	28.5	200.0	25,0	1000V	380

CLASSIC 1000V cutting pliers

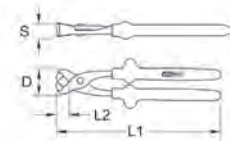
- In accordance to DIN / ISO 5748
- Insulated handle to IEC 60900
- For soft and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



	D mm	L mm	L2 mm	S mm		g
117.1198	30.0	160.0	6.5	23,0	1000V	280

CLASSIC 1000V rabitz pliers

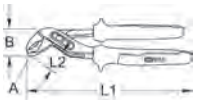
- Insulated handle to DIN / EN 60900
- For soft wire
- For the cutting and twisting of tie wire
- Inductively hardened precision cutting edges
- Phosphate finis
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	1000V	g
117.1204	36.0	250.0	16.0	25,0	1000V	480

ERGOTORQUE® VDE water pump pliers

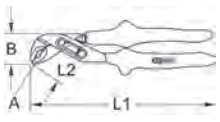
- In accordance to DIN / ISO 8976
- Wrap around insulation to IEC 60900
- With two component handle
- Toothed gripping surfaces
- Substaintial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fatener
- With inductively hardened handle areas
- Phosphate finis
- Special tool steel



	A mm	B mm	L1 mm	L2 mm		g
117.2000	33.0	42.0	240.0	32.0		420

CLASSIC 1000V water pump pliers

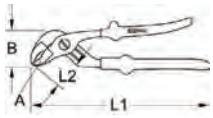
- In accordance to DIN / ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Substaintial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fatener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	1000V	g
117.1273	39.0	35.0	240.0	51.0	1000V	350
117.1274	65.0	47.0	300.0	65.0	1000V	690

CLASSIC 1000V water pump pliers

- In accordance to DIN / ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Heavy execution
- Through fl xible head with fl t-die thread rolling
- Optimum power transfer
- With zip fatener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	1000V	g
117.1207	54.0	56.0	260.0	35.0	1000V	560

PLIER SETS

ERGOTORQUE® VDE plier set

- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome
- Special tool steel

		kg
117.1100	4 pcs ERGOTORQUE® VDE plier set	1.44
1 x	150 mm	
1 x	175 mm	
1 x	200 mm	
1 x	250 mm	

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel

		kg
117.1700	4 pcs CLASSIC 1000V plier set	1.55
1 x	150 mm	
1 x	175 mm	
1 x	200 mm	
1 x	250 mm	

ERGOTORQUE® VDE plier set

- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome
- Special tool steel

		kg
117.1110	3 pcs ERGOTORQUE® VDE plier set	0.93
1 x	175 mm	
1 x	165 mm	
1 x	150 mm	

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel

		kg
117.1710	3 pcs CLASSIC 1000V plier set	0.82
1 x	185 mm	
1 x	200 mm	
1 x	160 mm	

ERGOTORQUE® VDE plier set

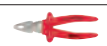
- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome
- Chrome vanadium

		kg
117.1160	4 pcs ERGOTORQUE® VDE plier set	1.20
1 x	200 mm	
1 x	160 mm	
1 x	180 mm	
1 x	160 mm	

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel

			kg
117.1760	4 pcs	CLASSIC 1000V plier set	0.95

1 x		200 mm
1 x		160 mm
1 x		185 mm
1 x		160 mm

ERGOTORQUE® VDE plier and screwdriver set

- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome / burnished
- Special tool steel

			kg
117.1170	5 pcs	ERGOTORQUE® VDE plier and screwdriver set	0.86

1 x		200 mm
1 x		160 mm
2 x		4 - 5,5 mm
1 x		PH2

ERGOTORQUE® VDE plier and screwdriver set

- Wraped and insulated handle to IEC 60900
- Pliers dip insulated
- Screwdrivers with two component handle
- Matt chrome / burnished
- Special tool steel

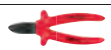
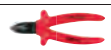
			kg
117.1770	5 pcs	ERGOTORQUE® VDE plier and screwdriver set	0.69

1 x		200 mm
1 x		160 mm
2 x		4 - 5,5 mm
1 x		PH2

CLASSIC 1000V electronic set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel

			g
117.1104	9 pcs	CLASSIC 1000V electronic set	930

1 x		115 mm
1 x		115 mm
1 x		115 mm
1 x		115 mm
1 x		115 mm
1 x		115 mm
1 x		145 mm
1 x		145 mm
1 x		175 mm

ERGOTORQUE® VDE plier and screwdriver set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel

			g
117.1875	10 pcs	ERGOTORQUE® VDE plier and screwdriver set	2000

1 x		185 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		3,0 mm
4 x		2,5 - 4 - 5 - 6 mm
1 x		PH1

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel

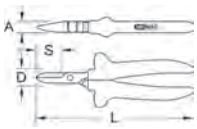
			kg
117.1873	6 pcs	CLASSIC 1000V plier set	2.50

1 x		185 mm
1 x		160 mm
1 x		200 mm
1 x		200 mm
1 x		160 mm
1 x		260 mm

CABLE CUTTING

CLASSIC 1000V electrical shear

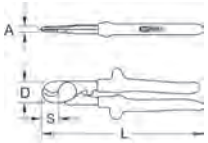
- Insulated handle to IEC 60900
- Only suitable for copper and aluminium wire
- For the cutting of thin wires and sheet metals
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		g
117.1206	9.0	14.0	180.0	38,0	1000V	170

CLASSIC 1000V cable shear

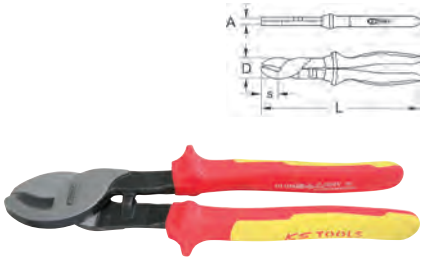
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L mm	S mm		g
117.4277	6,0	22,0	11.0	24.0	160.0	15,0	1000V	235
117.4278	10,0	38,0	13.0	29.0	210.0	18,0	1000V	370
117.4279	20,0	60,0	15.0	32.0	250.0	26,0	1000V	600

ERGOTORQUE® VDE cable shear

- Wrap around insulation to IEC 60900
- For lead cable up to max. Ø 50 mm²
- For squeeze free cutting of and on more wiry copper and aluminium cables
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Phosphate finis
- With two component handle
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm		
117.1122	10,0	10.8	24.5	160.0	15,0		200
117.1123	12,5	13.0	29.0	215.0	17,5		270
117.1124	15,0	13.5	45.0	245.0	31,0		550

CLASSIC 1000V cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel

	Ø mm	Cutting ratio mm²	A mm	D mm	L mm	S mm		
117.1269	15,0	50,0	13.5	38.0	240.0	25,0	1000V	455

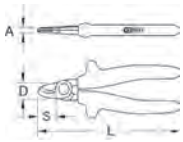
CLASSIC 1000V single handed cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel

	Ø mm	Cutting ratio mm²	A mm	D mm	L mm	S mm		
117.1107	15,0	50,0	10.0	23.5	165.0	24,0	1000V	250
117.1108	20,0	60,0	12.0	28.5	205.0	27,0	1000V	350

CLASSIC 1000V single handed cable shear

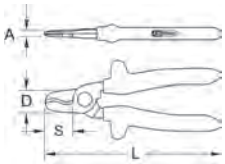
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremly versatile
- No bruising, slight shaping of the cable
- With precision screw joint
- Suitable for wire up to 16 mm²
- Suitable for multi strand wire up to 25 mm²
- Suitable for ultra wire up to 50 mm²
- Not suited for steel wire and hard pulled copper cables
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm		
117.1286	15,0	12.0	25.0	160.0	20,0	1000V	250

CLASSIC 1000V single handed cable shear

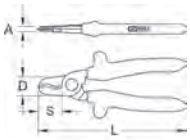
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fatener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finis
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L mm	S mm		
117.1287	17,0	35,0	15.0	27.0	165.0	25,0	1000V	240

CLASSIC 1000V single handed cable shear

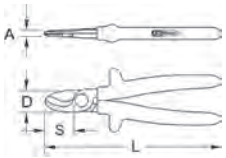
- Insulated handle to IEC 60900
- With coated working head
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fatener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finis
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L mm	S mm		
117.1103	17,0	35,0	13.0	31.0	165.0	20,5	1000V	280
117.1109	20,0	50,0	18.0	33.5	210.0	34,0	1000V	400

CLASSIC 1000V single handed cable shear

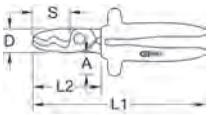
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremly versatile
- Suitable for wire up to 25 mm²
- Suitable for multi-strand wire up to 50 mm²
- Suitable for ultra-wire up to 70 mm²
- Not suited for steel wire and hard pulled copper cables
- Phosphate finis
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm		
117.1259	22,0	18.0	31.0	215.0	32,0		360

CLASSIC 1000V two cut cable shear

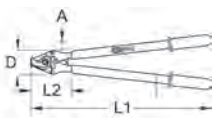
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Precision blade for easy and clean cut
- With before and after cut
- With after adjustable screw joint
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm		
117.1270	20,0	50,0	13.5	33.0	200.0	83.0	48,0	1000V	365

Insulated cable shear

- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminiums cables
- With interchangeable cutter head
- Knife head made out of special alloyed steel
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	Replacement cutter head		kg
117.1260	26,0	150,0	16.0	80.0	600.0	80.0	117.1258	1000V	2.70
117.1261	33,0	180,0	17.0	86.0	700.0	105.0	117.1263	1000V	3.30

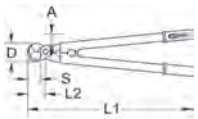
Storage pouch for insulated cable shears

- From black synthetic leather
- For storage and protection of insulated cable shears

	L mm	B mm		g
117.1262	650.0	95 - 190	➡ 117.1260 + 117.1261	200

Insulated cable shear

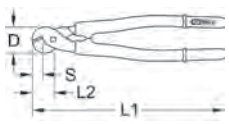
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm	1000V	kg
117.1264	27,0	150,0	15.0	59.0	500.0	58.0	37,0	1000V	1.48

Insulated cable shear

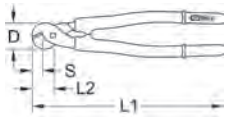
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Cutting ratio mm²	D mm	L1 mm	L2 mm	S mm	1000V	kg
117.4281	95,0	58.0	310.0	35.0	25,0	1000V	0.82
117.4282	150,0	66.0	460.0	41.0	30,0	1000V	1.40
117.4283	325,0	90.0	600.0	55.0	46,0	1000V	2.50
117.4284	500,0	90.0	800.0	75.0	54,0	1000V	3.80

Insulated wire cable shear

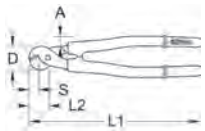
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



	Cutting edge steel mm²	Cutting edge wire mm²	D mm	L1 mm	L2 mm	S mm	1000V	kg
117.4285	7,0	60,0	58.0	310.0	30.0	20,0	1000V	0.95
117.4286	10,0	100,0	66.0	450.0	34.0	21,0	1000V	1.40
117.4287	14,0	150,0	91.0	600.0	45.0	24,0	1000V	2.60

Insulated wire cable shear

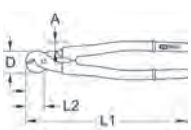
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm	Replacement cutter head	1000V	kg
117.1266	20,0	120,0	19.0	90.0	600.0	84.0	17,0	117.1267	1000V	1.80

Insulated wire cable shear

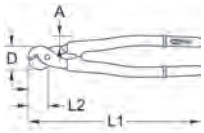
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



	D mm	Cutting ratio mm²	A mm	L1 mm	L2 mm	1000V	kg
117.4280	35 - 50	500,0	30.0	800.0	80.0	1000V	3.90

Insulated steel wire shear

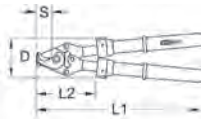
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



	Cutting edge steel mm²	Cutting edge wire mm²	D mm	A mm	L1 mm	L2 mm	1000V	kg
117.1101	9,0	16,0	54.0	37.0	700.0	45.0	1000V	2.40

Insulated cable shear, telescopic handle

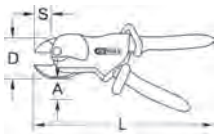
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With telescopic handle
- With interchangeable cutter head
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	D mm	L1 mm	L2 mm	S mm	Replacement cutter head	1000V	kg
117.1233	31,0	185,0	82.0	360-520	63.0	35,0	1172234	1000V	2.00

Insulated single handed ratchet cable shear

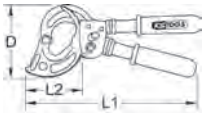
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Working head coated
- Automatic reserve through spring return
- Cutting edge process can be interrupted in every position
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	1000V	kg
117.1245	40.0	80.0	290.0	35,0	1000V	1.00
117.1246	40.0	85.0	310.0	40,0	1000V	1.15

Insulated ratchet cable shear

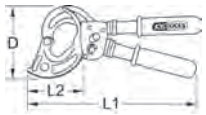
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- With ratchet function
- Not suitable for hardened steel wire
- Phosphate finis
- Special tool steel



	Ø mm	Cutting ratio mm²	D mm	L1 mm	L2 mm	1000V	kg
117.1248	62,0	840,0	150.0	400.0	90.0	1000V	2.20
117.1249	80,0	1000,0	190.0	530.0	110.0	1000V	3.15

Insulated ratchet cable shear

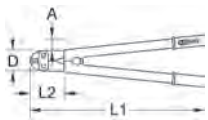
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- With ratchet function
- Not suitable for hardened steel wire
- Phosphate finis
- Special tool steel



	Ø mm	Ø mm	D mm	L1 mm	L2 mm	kg
117.1102	52.0	25.0	135.0	310.0	110.0	0.94

Insulated bolt cutter

- Insulated handle to IEC 60900
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate finis
- Special tool steel

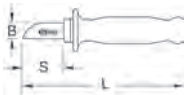


	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	1000V	kg
117.1256	8.0	79.0	610.0	115.0	117.1257	1000V	2.70

ELECTRICIAN'S KNIVES

Insulated cable knife

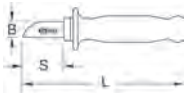
- Insulated to IEC 60900
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1295	18.5	50,0	210.0	1000V	105

Insulated cable knife

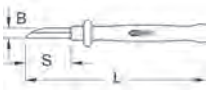
- Insulated to IEC 60900
- With two component handle
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1397	16.7	53,0	205.0	1000V	90

Insulated cable knife

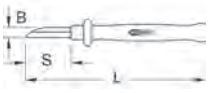
- Insulated to IEC 60900
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1390	18.5	50,0	210.0	1000V	115

Insulated cable knife

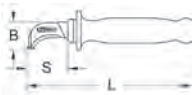
- Insulated to IEC 60900
- With two component handle
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1304	20.3	53,0	205.0	1000V	100

Insulated cable knife with hook blade

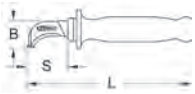
- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1296	28.0	40,0	200.0	1000V	100

Insulated cable knife with hook blade

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1331	30.0	47,0	200.0	1000V	90

Insulated dismantling knife

- Insulated to IEC 60900
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover

	B mm	S mm	L mm	1000V	g
117.1391	19.0	35,0	182.0	1000V	95

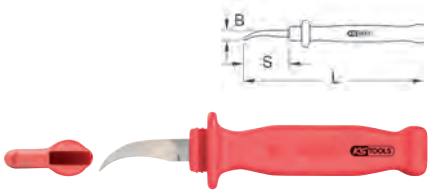
Insulated dismantling knife

- Insulated to IEC 60900
- With two component handle
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover

	B mm	S mm	L mm	1000V	g
117.1305	19.0	35,0	185.0	1000V	90

Isolated paper section knife

- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1392	19.0	50,0	205.0	1000V	90

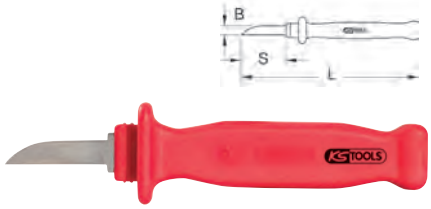
Insulated cutting knife

- Insulated to IEC 60900
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover

	B mm	S mm	L mm	1000V	g
117.1394	21.0	35,0	165.0	1000V	75

Insulated cable stripping knife

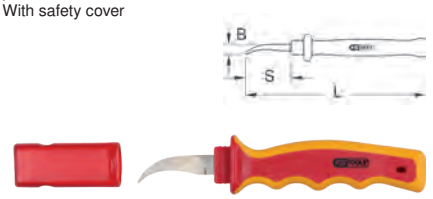
- Insulated to IEC 60900
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1396	11.0	50,0	200.0	1000V	95

Isolated paper section knife

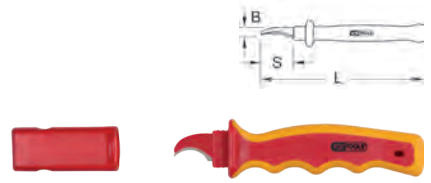
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1320	17.0	56,0	210.0	1000V	85

Insulated cutting knife

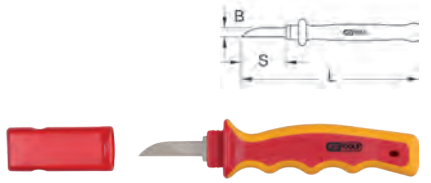
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1328	21.2	30,0	180.0	1000V	90

Insulated cable stripping knife

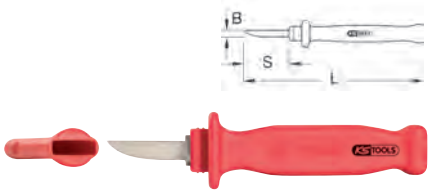
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1360	11.0	50,0	200.0	1000V	85

Insulated gutta percha knife

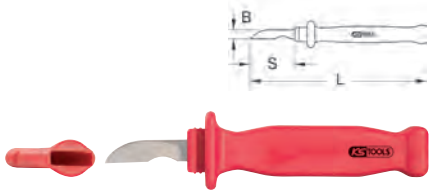
- Insulated to IEC 60900
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1393	12.0	50,0	200.0	1000V	95

Insulated cable stripping knife

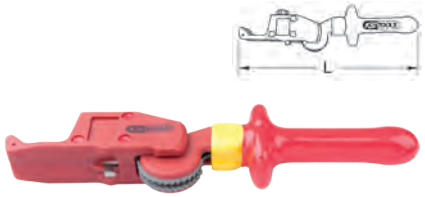
- Insulated to IEC 60900
- With durable blade
- Short and bent cutting edge for fine able working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1395	13.0	45,0	195.0	1000V	95

Insulated cable sheath cutters

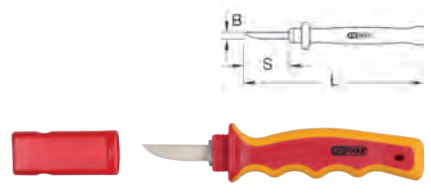
- Insulation according to IEC 60900
- With durable and straight blade
- For stripping all insulation layers from cables
- Replaceable double knife
- Cutting depth adjustable
- Suitable for longitudinal and round cutting



	L mm	Ø Wire mm	Replacement blades	1000V	g
117.3901	240.0	> 25,0	117.3902	1000V	250

Insulated gutta percha knife

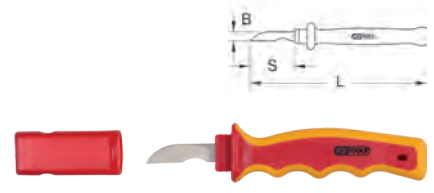
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1326	12.0	50,0	250.0	1000V	85

Insulated cable stripping knife

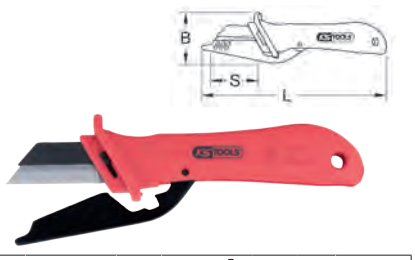
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Short and bent cutting edge for fine able working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	1000V	g
117.1329	13.0	45,0	200.0	1000V	85

Insulated cable knife with replaceable blade

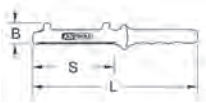
- Insulation according to IEC 60900
- With durable, partially insulated and replaceable blade
- Straight cutting edge
- Safety handle made out of tough elastic and impact-resistant plastic
- With built-in protective cap



	B mm	S mm	L mm	1000V	Replacement blades	g
117.1148	21.5	45,0	189.0	1000V	117.1149	66

Insulated cable sheath saw

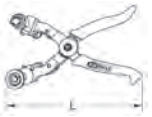
- Insulated handle to IEC 60900
- Solid design
- Adjustable and replaceable saw blade



	B mm	L mm	S mm			
117.4273	40.0	330.0	175,0	117.4274	1000V	570

Insulation stripping pliers

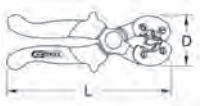
- For cutting and stripping the cable sheath
- Limited cutting depth
- No damage to internal conductor



	Ø mm	D mm	L mm	
117.1370	25-52	140.0	300.0	670
117.1366	45-75	150.0	300.0	878

Insulated insulation stripping pliers

- Insulation according to IEC 60900
- For cutting and stripping the cable sheath
- Limited cutting depth
- No damage to internal conductor



	Ø mm	D mm	L mm		
117.1365	25-52	140.0	300.0	1000V	690

HOLDING DEVICES

Insulated holding device

- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infini ely variable
- Can also be used for streetlights
- For screw connections of 0 - 15 mm

	mm	L mm		
117.1168	0-15	240.0	1000V	280

Insulated holding device

- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infini ely variable
- Can also be used for streetlights
- For screw connections of 15 - 40 mm

	mm	L mm		
117.1169	15-40	220.0	1000V	380

Insulated holding device

- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infini ely variable
- Can also be used for streetlights
- For screw connections of 25 - 50 mm

	mm	L mm		
117.1183	25-50	300.0	1000V	610

Insulated holding device

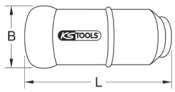
- FlankTraction profil
- Insulated handle to IEC 60900
- Chrome vanadium
- For better handling of screw connectors during assembly of sleeves
- Infini ely variable
- Can also be used for streetlights

	mm	L mm		
117.3960	10	210.0	1000V	100
117.3961	12	210.0	1000V	110
117.3962	13	220.0	1000V	110
117.3963	14	220.0	1000V	130
117.3964	15	220.0	1000V	160
117.3965	16	260.0	1000V	220
117.3966	17	260.0	1000V	240
117.3967	18	260.0	1000V	280
117.3968	19	260.0	1000V	290
117.3969	20	260.0	1000V	290
117.3970	22	280.0	1000V	310
117.3971	24	280.0	1000V	360

ALIGNING TOOLS

Aligning tool

- For sector-shaped conductors
- Made from impact-resistant plastic
- For aligning 3- or 4-wire sector-shaped conductors

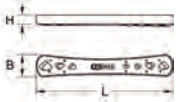


3/8"

	Conductor	L mm	B mm		
117.3915	95-150	80.0	35.0	1000V	69
117.3916	185-240	80.0	43.0	1000V	113

Aligning tool

- For 50/70/95/150/185/240 mm² sector-shaped conductors
- Made from impact-resistant plastic
- For aligning sector-shaped conductors



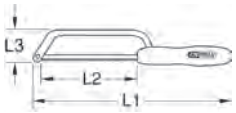
3/8"

	L mm	B mm	H mm		
117.1723	248.0	40.0	15.0	1000V	132

SAWING

Insulated hacksaw

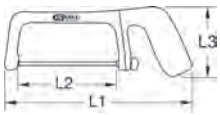
- Insulated handle to IEC 60900
- Frame out of reinforced fl t iron 10 x 5 mm
- With insulated handle for tensioning the saw blade



	L1 mm	L2 mm	L3 mm			g
117.1321	280.0	150.0	80.0	997.1216	1000V	225

Insulated hacksaw

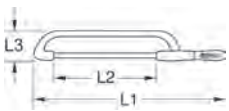
- Insulated handle to IEC 60900
- With plastic screw for tensioning the saw blade



	L1 mm	L2 mm	L3 mm			g
117.1265	265.0	145.0	100.0	997.1216	1000V	180

Isolated metal frame saw, heavy execution

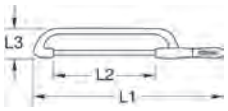
- Insulated handle to IEC 60900
- Frame out of reinforced fl t iron 10 x 5 mm
- Heavy execution
- With insulated handle for tensioning the saw blade



	L1 mm	L2 mm	L3 mm			g
117.1323	520.0	330.0	130.0	129.6620-24	1000V	770

Insulated hacksaw

- Insulated handle to IEC 60900
- Heavy execution
- With plastic screw for tensioning the saw blade

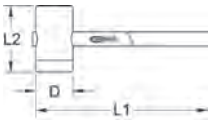


	L1 mm	L2 mm	L3 mm			g
117.1325	450.0	275.0	140.0	129.6620-24	1000V	700

HAMMER

Insulated soft face hammer

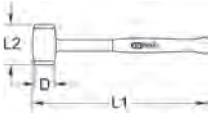
- Insulated to IEC 60900
- Made from plastic
- Without metal parts



	D mm	L1 mm	L2 mm		g
117.1131	55.0	300.0	82.0	1000V	325

Insulated dead blow hammer

- Insulated to IEC 60900
- Shock absorbing effect through steel shot in the head
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil

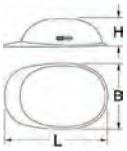


	D mm	L1 mm	L2 mm	head,spare		g
117.1126	25.0	300.0	105.0	117.1128	1000V	560
117.1127	35.0	310.0	115.0	117.1129	1000V	790

INDUSTRIAL SAFETY

Work protective hardhat

- DIN EN 397
- Special plastic



	Colour code	L mm	B mm	H mm	g
117.1608		290.0	225.0	175.0	370
117.1609		290.0	225.0	175.0	370
117.1610		290.0	225.0	175.0	370

Electrician's face shield

- DIN EN 397
- Fault arc tested to DGUV GS-ET-29, test level W(LBP) = 158 kJ (corresponds to prospective test short-circuit current 4 kA/0.5 s) EN 166
- Personal eye protection equipment
- Natural rendering of colours thanks to transparent, non-tinted visor
- Colour rendering index > 90%
- Light transmission: > 88%
- Suitable for standard electrician's hardhat
- Face shield for 117.1608-117.1610

	Arc fault		g
117.1780	class 1	1000V	278

Electrician's face shield

- DIN EN 166
- Fault arc tested to DGUV GS-ET-29, test level W(LBP) = 318 kJ (corresponds to prospective test short-circuit current 7 kA/0.5 s) EN 166
- Personal eye protection equipment
- Also fault arc tested to ASTM F2178, ATPV: 7.0 cal/cm²
- Natural rendering of colours thanks to transparent, non-tinted visor
- Colour rendering index > 90%
- Light transmission > 70%
- Suitable for standard electrician's hardhat
- Anti-mist protective gel supplied

	Arc fault		g
117.1796	class 2	1000V	525

Carrying bag for work helmet

- Made out of red leather
- With carrying strap

	B mm	H mm	g	
117.1612	500.0	480.0	500	

Insulated safety rubber boots

- For working enviroment of voltages AC 1000 V and DC 1500 V
- In accordance with new standard EN 50321
- With steel bar

	Size mm		kg	
117.1613	39	1000V	3.00	
117.1614	40	1000V	3.00	
117.1615	41	1000V	3.00	
117.1616	42	1000V	3.00	
117.1617	43	1000V	3.00	
117.1618	44	1000V	3.00	
117.1619	45	1000V	3.00	
117.1620	46	1000V	3.00	
117.1621	47	1000V	3.00	

Under gloves

- Made out of fine mu ton cloth

	L mm	g	
117.1660	260.0	225	

Insulated electrical protective glove

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fi
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

Attention: Over-gloves are necessary for mechanical protection!

	Thickness mm	Electrosoft Class	Size mm	L mm	g	
117.1663	1,0	0	9	360.0	215	
117.1664	1,0	0	10	360.0	215	
117.1132	2,0	1	10	360.0	250	
117.1133	2,0	3	10	410.0	690	
117.1134	2,5	4	10	410.0	890	

Insulated electrical protective glove

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fi
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

Attention: Over-gloves are necessary for mechanical protection!

	Thickness mm	Size mm	Electrosoft Class	L mm	g	
117.1661	1,0	9	0	400.0	215	
117.1662	1,0	10	0	400.0	215	
117.1762	2,0	10	0	410.0	470	
117.1756	1,0	9	00	410.0	196	
117.1757	1,0	10	00	410.0	196	

Pneumatic electrician protective glove tester

- For the testing of insulated gloves
- Always carry out before starting work

	D mm	L mm	g	
117.1666	110.0	140.0	800	

Protection pocket for electricians gloves

- Belt pocket made out of canvas
- For the storage and protection of the electricians gloves

	B mm	H mm	g	
117.1665	180.0	200.0	200	

Pull-on gloves for electrician's protective gloves

- Waterproof
- Treated with silicone
- Leather gloves for dielectric gloves
- Velcro fastening on the back of the hand
- Split leather cuff
- For protecting against mechanical risks
- Full-grain calf leather

Caution: This insulating-glove cover is required for mechanical protection (rubbing, cuts, pricks) in conjunction with dielectric gloves!

	Size mm	L mm	g	
117.1560	10	320.0	175	

Insulated rubber protective mat

- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage

	Thickness mm	B mm	L mm		kg	
117.1651	1,0	130.0	130.0	GS	0.04	
117.1652	1,0	250.0	350.0	GS	0.21	
117.1653	1,0	500.0	500.0	GS	0.43	
117.1654	1,0	600.0	600.0	GS	0.70	
117.1655	1,0	1000.0	1000.0	GS	1.80	
117.1656	1,0	1200.0	1000.0	GS	2.95	
117.1657	1,0	1000.0	10000.0	GS	16.75	
117.1658	1,0	1200.0	10000.0	GS	20.10	

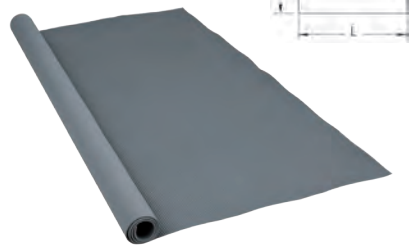
Insulated rubber protective mat

- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage

	Thickness mm	B mm	L mm		kg
117.1746	1,6	130.0	130.0		0.03
117.1747	1,6	250.0	250.0		0.22
117.1748	1,6	500.0	500.0		0.44
117.1749	1,6	600.0	600.0		0.72
117.1750	1,6	1000.0	1000.0		1.90
117.1751	1,6	1200.0	1200.0		3.10
117.1752	1,6	1000.0	10000.0		18.60
117.1753	1,6	1200.0	10000.0		25.60

Insulating mat

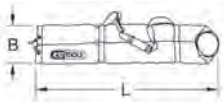
- Insulation in accordance with IEC 61111 Class 2



	Thickness mm	B mm	L mm		kg
117.3819	3,0	1000.0	1000.0	1000V	3.42
117.1398	3,0	1000.0	10000.0	1000V	40.00
117.1754	4,5	1000.0	1000.0	1000V	6.00
117.1755	4,5	1000.0	10000.0	1000V	60.00

Protective bag for insulating mat

- Made out of red leather
- With carrying strap



	B mm	L mm	g
117.1399	230.0	1000.0	900

Red/white diagonal striped foil barrier tape

- For safeguarding and indicating hazard areas
- In accordance with ASR A1.3 and BGV A8
- High tear resistance
- Block diagonal stripes in red/white
- For outdoor and indoor use
- Polyethylene
- In stable unwinding box

	B mm	L m	kg
917.3899	80.0	500.0	2.50

Hybrid warning sign - fl sh for working on hybrid and electric vehicles

- Warning against hazardous voltage
- For safety in the workplace
- For outdoor and indoor use
- For company premises and workshops
- Sturdy quality with laminate coating
- Resistant to abrasion and chemicals
- Aluminium/plastic composite

	Thickness mm	L mm	g
917.3898	5	200.0	66

Hybrid warning sign - switch for working on hybrid and electric vehicles

- Do not switch on, work is currently in progress
- For safety in the workplace
- For outdoor and indoor use
- For company premises and workshops
- Sturdy quality with laminate coating
- Resistant to abrasion and chemicals
- Aluminium/plastic composite

	Thickness mm	Ø mm	g
917.3897	5	200	84

TWEEZERS/MIRRORS

Insulated tweezers, curved

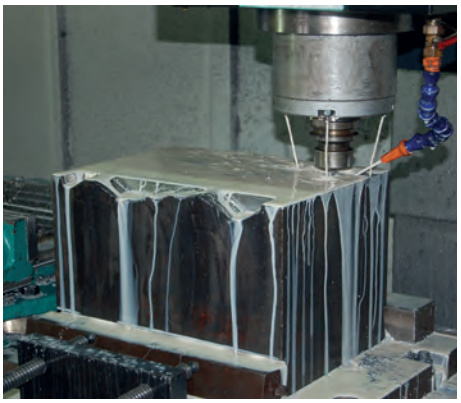
- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium

	B mm	L mm		g
117.1623	11.5	145.0	1000V	35
117.1624	15.5	200.0	1000V	72

Insulated tweezers, straight

- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium

	B mm	L mm		g
117.1626	11.0	130.0	1000V	30
117.1627	13.5	130.0	1000V	30
117.1628	15.0	145.0	1000V	55
117.1629	15.5	200.0	1000V	72



Insulated inspection mirror

- Insulated handle to IEC 60900
- Insulated
- Chrome vanadium

	D mm	L mm		g
117.1630	22.0	175.0	1000V	20

VOLTAGE TESTERS

Test lamp 6 - 24 V

- Test tip protected through a cap
- With shielded crocodile clamp
- Brass

	L mm	g	
550.1504	125.0	30	

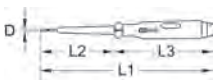
Voltage tester 3 - 48 V

- Universal test instrument for motor vehicle electrics and electronics
- Two light-emitting diodes indicate voltage as well as polarity
- Test tip with push mechanics to tap into the cable
- With shielded crocodile clamp

	L mm	g	
550.1503	140.0	70	

Insulated voltage tester 150 - 250 V

- In accordance to DIN / ISO 0680
- Blade nickel plated
- Transparent handle



	D mm	L1 mm	L2 mm	L3 mm	g	
911.2188	3.0	145.0	65.0	80.0	14	

Isolierter Universal-Spannungsprüfer 6 - 400 V

- in Anlehnung an DIN ISO 0680
- zur professionellen, mehrstufigen Spannungs- und Polaritätsprüfung
- für Gleich- und Wechselspannung
- mit Drehfeld und Phasenanzeige

Technische Daten:

Anzeige:	Leuchtdioden/LE
Stromaufnahme:	140 mA
Zulässige Einschaltdauer:	30 s
Frequenzbereich:	0 - 100 Hz
Schutzklasse:	IP40
AC Spannungsbereich Wechselspannung:	6 - 50 - 120 - 230 - 400 V
DC Spannungsbereich Gleichspannung:	6 - 50 - 120 - 230 - 400 V

	ϟ	g	
550.1501	1000V	180	

Insulated universal voltage tester 12 - 500 V

- In accordance to DIN ISO 0680
- For direct and alternating voltage
- With rotating fi ld and phase display

Technical data:

Readout:	light-emitting diodes/LE
Power requirement:	140 mA
Allowable duty cycle:	30 s
Working temperature:	-5 °C up to +50 °C
Frequency range:	0 - 100 Hz
Protection class:	IP40
AC voltage range alternating voltage:	12 - 50 - 120 - 150 - 220 - 300 - 400 - 500 V
DC voltage range direct voltage:	12 - 50 - 120 - 150 - 220 - 300 - 400 - 500 V

	ϟ	g	
550.1502	1000V	180	

Insulated voltage tester double pole 12 - 1000 V

- Tested and accredited in accordance with international standard insulated to IEC IEN 61243-3 (DIN VDE 0682-401)
- Voltage class B
- DC and AC voltage shown by LED indicators
- Rotating fi ld and phase displayed on LED display
- Conscious release of a 30 mA of FI-protection switch
- With vibration alarm

Technical data:

Readout:	LED/LCD
Display level:	12 - 1000 V
Power requirement:	200 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 500 Hz
Protection class:	IP64
AC voltage range alternating voltage:	12 - 24 - 50 - 120 - 230 - 400 - 690 - 1000 V
DC voltage range direct voltage:	12 - 24 - 50 - 120 - 230 - 400 - 690 - 1000 V

	ϟ	g	
117.1503		210	

Insulated voltage test ball, double-pole, 50 - 1000 V

- Tested and accredited in accordance with international standard
- Insulated to IEC EN 61243-3 (DIN VDE 0682-401)
- Corresponds to EMC requirements in accordance with DIN EN 61326
- DC and AC voltage shown by LED indicators
- Rotating fi ld and phase displayed via LEDs
- With display of rotating fi ld direction (clockwise and anti-clockwise)
- Deliberate tripping of a 30 mA ELCB

Readout:	LED/LCD
Power requirement:	300 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 100 Hz
Protection class:	IP65
Overvoltage category:	CAT IV 600 V CAT III 1000 V
Test voltage:	6 kV
AC voltage range alternating voltage:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V
DC voltage range direct voltage:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V

		ϟ	g	
117.4266	Insulated voltage test ball, double-pole, 50 - 1000 V		620	

Test probe 6-24V DC with 5 meter cable

- Ideal standard lamp with many test functions
- High-speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi-metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- For continuity test, self test and fault diagnosis
- Immediate polarity determination by LED display

Technical data:

Cable length:	5 m
Test probe diameter:	4 mm

	Application area	Replacement test tip	g	
150.1670	6 - 24 V DC	150.1671	500	

Test probe 6-24V DC with 25 meter cable

- Ideal standard lamp with many test functions
- High speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- For continuity test, self test and fault diagnosis
- Immediate polarity determination by LED display

Technical data:

Cable length:	25 m
Test probe diameter:	4 mm

	Application area	Replacement test tip	kg	
150.1655	6 - 24 V DC	150.1671	1.26	

Digital Multimeter incl. test probes

- Solid multimeter with basic measuring functions
- Test lead set with test tip (red/black)
- Central dial switch
- Large LCD with 3 1/2 digit display
- Charge state shown in display
- With base in protective rubber holster

Functions:
- direct current
- DC and AC voltage
- resistance
- diode test (with acoustic signal)
- transistor test
- continuity test (with acoustic signal)
- data hold function

Technical data:

Co-current fl w:	200 mA - 10 A
DC voltage:	200 mA - 600 V
AC voltage:	200 V - 600 V
Resistance measurement:	200 - 2000 ohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	200mA/250V (20x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	B mm	L mm	Depth mm	g	
150.1495	69.0	138.0	31.0	342	

Motor vehicle multimeter

- Specially developed multimeter for working in the motor vehicle area
- Double display (digital and bar chart display)
- 4 test leads for current with test tip / crocodile clip
- Central rotary switch
- Large display
- With integrated safety fuse for the protection of the circuits
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

Functions:
- Continuity test (with acoustic signal)
- Transistor tester
- Diode test (with acoustic signal)
- Capacity
- Frequency measurement
- Data hold function
- Automatic measuring range selection

Technical data:

Co-current fl w:	326µA - 10A
Alternating current :	326µA - 10A
DC voltage:	326 mV - 1000 V
AC voltage:	3,26 V - 750 V
Resistance measurement:	32 - 32000 ohm
Frequency measurement:	32,60 - 200kHz
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	300mA/250V (20x5mm)
Fuse protection S2 (power-test socket):	10A/250V (30x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	B mm	L mm	Depth mm	g	
150.1480	91.0	189.0	31.5	834	

Multimeter with inductive clamp

- Specially developed multimeter for working in the motor vehicle area
- As well standard functions also ideal for a number of revolution measurements
- Double display (digital and bar chart display)
- 2 test leads for current with test tip / crocodile clip
- 1 test lead for temperature testing
- Ignition timing ascertainment up to 8-cylinder engines possible (Dwell function)
- Digital and bar chart display
- With integrated safety fuse for the protection of the circuits
- In shock-proof rubber protection cover

Functions:
- DC and AC current
- DC and AC voltage
- Dwell
- Resistance
- Frequency
- Diode test
- RPM
- Temperature-automatic shutdown
- Battery condition indicator

Technical data:

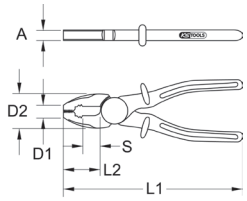
Co-current fl w:	326 µA - 10 A
Alternating current :	326 µA - 10 A
DC voltage:	326 mV - 1000 V
AC voltage:	3,26 V - 750 V
Resistance measurement:	32 - 32000 ohm
Frequency measurement:	32,60 - 200 kHz
Speed measurement:	300 - 12000 rpm
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	500mA/350V (20x5mm)
Fuse protection S2 (power-test socket):	10A/250V (30x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)
Temperature measurement:	-20° to +760° C (-4° to 1400° F)

	B mm	L mm	Depth mm	g	
150.2040	91.0	189.0	31.5	500	

PLASTIC PLIERS / CLAMPS

Insulated plastic combination pliers with cutting fuction

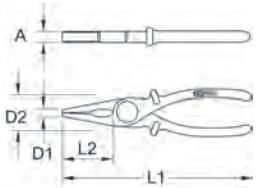
- Insulated to IEC 60900/ IEC60900:2400
- With machined cutting edge
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		
117.1639	15.0	15.0	37.0	200.0	39.0	14,0	1000V	152

Insulated plastic fl t pliers

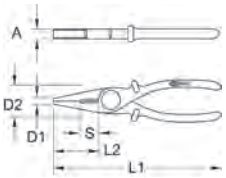
- Insulated to IEC 60900
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1640	9.0	6.0	32.0	200.0	55.0	1000V	106

Insulated plastic fl t pliers

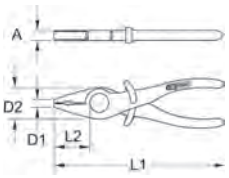
- Insulated to IEC 60900
- With machined cutting edge
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		
117.1641	9.0	6.0	32.0	190.0	55.0	14,0	1000V	108

Insulated plastic fl t pliers

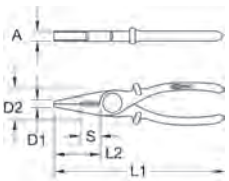
- Insulated to IEC 60900
- Suitable for meter assembly and closure
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1642	11.0	10.0	38.0	180.0	37.0	1000V	85

Insulated plastic combination pliers

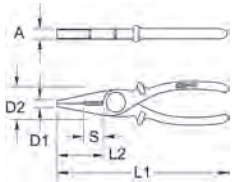
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and blocking
- Glass-fib e reinforced plastic
- With soft plastic area on the handle
- For firm hol



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		
117.1765	11.5	6.0	32.0	185.0	33.0	19,0	1000V	135

Insulated plastic combination pliers

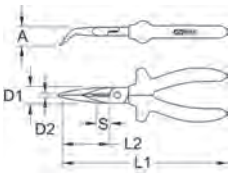
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and blocking
- Glass-fib e reinforced plastic
- With soft plastic area on the handle
- For firm hol



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		
117.1766	5.0	10.0	32.0	225.0	72.0	20,0	1000V	146

Insulated plastic combination pliers

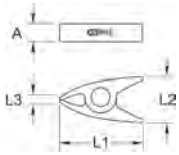
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and blocking
- Glass-fib e reinforced plastic
- With soft plastic area on the handle
- For firm hol



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		
117.1767	5.0	10.0	32.0	230.0	110.0	20,0	1000V	140

Insulated plastic clamp, small

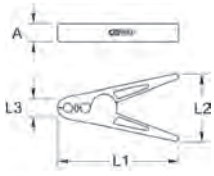
- Insulated to IEC 60900
- Extra small execution
- With inserted steel spring
- For clamping of uncovered cable
- Made from plastic



	A mm	L1 mm	L2 mm	L3 mm		
117.1643	15.0	80.0	44.0	10.0		30

Insulated plastic clamp, large

- Insulated to IEC 60900
- In large execution
- With inserted steel spring
- For clamping of uncovered cable
- Made from plastic



	A mm	L1 mm	L2 mm	L3 mm		
117.1644	16.0	160.0	94.0	27.0		70

BRUSHES

Insulated dusting brush, straight

- Insulated to IEC 60900
- With hanging hole
- Short execution
- No electric run
- Made from plastic

	B mm	L mm	1000V	g
117.1645	25.0	180.0	1000V	11

Insulated dusting brush, angled

- Insulated to IEC 60900
- With hanging hole
- Long and angled execution
- No electric run
- Made from plastic

	B mm	L mm	1000V	g
117.1646	25.0	400.0	1000V	70
117.1647	37.5	400.0	1000V	75
117.1648	50.0	400.0	1000V	80

PROTECTIVE SLEEVES AND COVERS

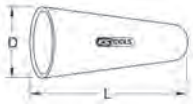
Insulated protective sleeve with clamp cap

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- With cross cut cover
- Made out of tough elastic insulating material

	D mm	L mm	1000V	g
117.4234	10.0	40.0	1000V	10
117.4235	10.0	100.0	1000V	15
117.4236	15.0	100.0	1000V	15
117.4241	17.5	80.0	1000V	10
117.4237	25.0	100.0	1000V	30
117.4242	26.0	100.0	1000V	20
117.4243	35.0	115.0	1000V	40
117.4238	40.0	135.0	1000V	55
117.4239	50.0	155.0	1000V	95
117.4240	60.0	140.0	1000V	105

Insulated protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- Made out of tough elastic insulating material



	D mm	L mm	1000V	g
117.1784	2.0	40.0	1000V	1
117.1785	3.0	40.0	1000V	1
117.1786	4.0	40.0	1000V	2
117.1787	5.0	40.0	1000V	4
117.1788	7.0	50.0	1000V	5
117.1789	10.0	70.0	1000V	8
117.1790	15.0	110.0	1000V	16
117.1791	20.0	110.0	1000V	19
117.1792	25.0	110.0	1000V	28
117.1793	30.0	120.0	1000V	35
117.1794	35.0	140.0	1000V	48
117.1795	40.0	140.0	1000V	55

Insulated meter protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material

		D mm	L mm	1000V	g
117.4244	#1	12.0	80.0	1000V	6
117.4245	#2	12.0	80.0	1000V	6
117.4246	#3	12.0	80.0	1000V	6

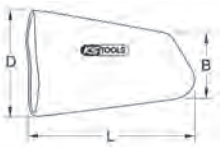
Slip-on protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material

	D mm	L mm	1000V	g
117.4247	6.0	40.0	1000V	3
117.4248	6.0	60.0	1000V	4
117.4249	8.0	40.0	1000V	3
117.4250	10.0	30.0	1000V	3
117.4251	10.0	40.0	1000V	4
117.4252	10.0	60.0	1000V	5
117.4253	12.0	90.0	1000V	8
117.4254	15.0	110.0	1000V	17
117.4255	20.0	110.0	1000V	22
117.4256	25.0	110.0	1000V	28
117.4257	30.0	110.0	1000V	31
117.4258	40.0	110.0	1000V	38

Slip-on protective sleeve

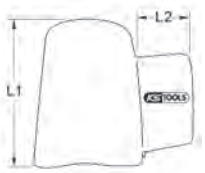
- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Made out of tough elastic insulating material



	D mm	B mm	L mm	1000V	g
117.1768	30.0	60.0	140.0	1000V	83
117.1769	40.0	80.0	140.0	1000V	97

Insulated protective cover

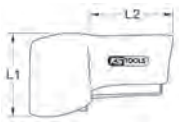
- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	1000V	g
117.1797	160.0	80.0	1000V	320
117.1798	160.0	300.0	1000V	700

Insulated protective cover

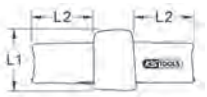
- Insulation according to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	1000V	g
117.1799	100.0	130.0	1000V	220

Insulated protective cover

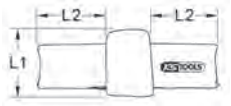
- Insulation according to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm		
117.4201	100.0	130.0	1000V	330

Insulated protective cover

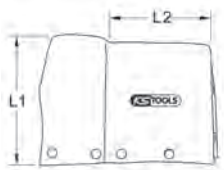
- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm		
117.4202	160.0	80.0	1000V	390
117.4203	160.0	220.0	1000V	780

Covers for gable insulators

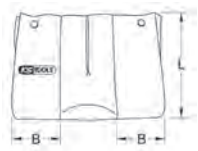
- Insulation according to IEC 60900
- With plastic buttons
- Must also be firm y secured in bad weather
- Complete touch protection including on the underside
- Made from soft weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm		
117.4204	270.0	240.0	1000V	820

Covers for gable insulators

- Insulation according to IEC 60900
- With plastic buttons
- Must also be firm y secured in bad weather
- Complete touch protection including on the underside
- Made from soft weatherproof insulating material
- Also suitable for long-term use



	L mm	B mm		
117.4205	270.0	115.0	1000V	750

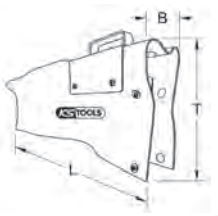
Insulated NH safety attached handle

- With contact knife in accordance with DIN 43620 Part 1 of the sizes 00-3
- For low-voltage high-breaking-capacity fuse
- For nominal voltage up to 600V ac voltage

	L mm	B mm		
117.1622	380.0	225.0	1000V	460
117.4263	445.0	225.0	1000V	465

Insulated cover for 1 fuse panel

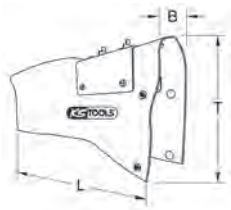
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Plastic handle for operation
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension

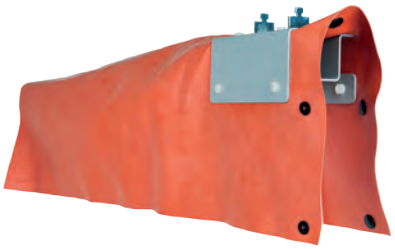


	Thickness mm	B mm	L mm	T mm		
117.1611	1,0	85.0	760.0	195.0	GS	680

Insulated cover for 1 fuse panel

- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Without plastic handle
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension

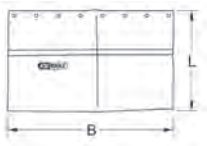




	Thickness mm	B mm	L mm	T mm		
117.1659	1,0	85.0	760.0	195.0	GS	680

Extension cloth

- Tested to VDE 0680/1
- To extend the cover



	Thickness mm	B mm	L mm		Push buttons	
117.1690	1,0	470.0	500.0	GS	5	300
117.1380	1,0	800.0	500.0	GS	8	500

Insulated cover for 2 to 4 fuse panels

- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0690/1
- 2 suspension devices downstream of LVHRC fuse-link L1
- 2 plastic handles for operation
- Rubber repair tape
- 50 mm projection at the top
- With 8 press studs for extension

	Thickness mm	B mm	L mm	T mm		kg
117.1698	1,0	430.0	760.0	195.0		1.15

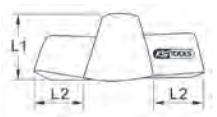
Insulated cover for 2 to 4 fuse panels

- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 2 suspension devices downstream of LVHRC fuse-link L1
- Without plastic handle
- Rubber repair tape
- 50 mm projection at the top
- With 8 press studs for extension

	Thickness mm	B mm	L mm	T mm		kg
117.1699	1,0	430.0	760.0	195.0		1.15

Insulated protective cover

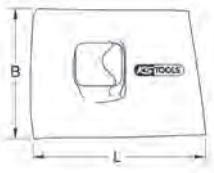
- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm		g
117.4220	140.0	100.0	1000V	280

LVHRC fuse protective cap

- Made from soft PVC
- Moulded protective cap for covering spring contacts



	L mm	B mm		g
117.4225	170.0	170.0	1000V	115
117.4226	260.0	260.0	1000V	190

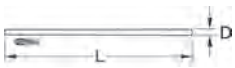
LVHRC fuse protective cap

- Made from soft PVC
- Moulded protective cap for covering 2 spring contacts
- Where LVHRC fuse is used

	L mm	B mm		g
117.4223	320.0	170.0	1000V	350

Stranded conductor cover for LV overhead lines

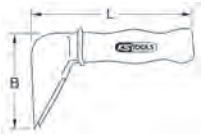
- Complete sheathing of overhead line conductors
- Class 0
- For diameters up to 20 mm



	L m	D mm		g
117.4259	2.5	25.0	1000V	360
117.4260	5.0	25.0	1000V	600

Assembly handle

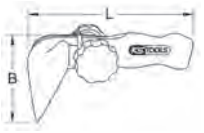
- Assembly handle for stranded conductor covers
- Made from plastic
- Class 0



	L mm	B mm		g
117.4261	165.0	95.0	1000V	150

Assembly handle, screw-on

- Assembly handle for stranded conductor covers
- Made from plastic
- Class 0



	L mm	B mm		g
117.4262	165.0	95.0	1000V	150

PUNCHES

Insulated punch

- Insulated handle to IEC 60900
- With T-handle
- Burnished
- Chrome vanadium

	l mm	D mm	L mm		g
117.1649	90.0	4.0	100.0	1000V	130

LED LAMP

Insulated LED-lamp

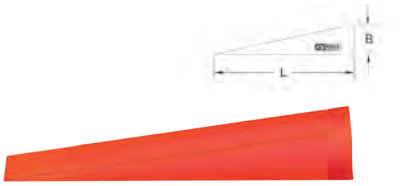
- Insulated handle to IEC 60900
- For the illumination of cable ducts and switch cabinets
- White illuminant
- Includes AA-Lithium batteries

	D mm	L mm	Replacement battery		g
117.1650	28.0	90.0	AA-Lithium	1000V	80

EXPANSION WEDGES

Plastic expansion wedge

- For working enviroment of voltage of AC 1000 V and DC 1500 V
- Without flu e
- Made from impact resistant plastic



	L mm	B mm		g
117.4267	160.0	15.0	1000V	60

Plastic wedge

- For working enviroment of voltage of AC 1000 V and DC 1500 V
- With sharp edges
- With large impact head
- Made from impact resistant plastic

	B mm	L mm		g
117.1667	28.0	170.0	1000V	90

Plastic expansion wedge

- For working enviroment of voltage of AC 1000 V and DC 1500 V
- Without flu e
- Oval form without sharp edges
- Short execution
- Made from impact resistant plastic

	B mm	L mm		g
117.1668	30.0	150.0	1000V	40

Plastic expansion wedge

- For working enviroment of voltage of AC 1000 V and DC 1500 V
- With wide groove for all current cable scissors
- Oval form without sharp edges
- Made from impact resistant plastic

	B mm	L mm		g
117.1669	20.0	170.0	1000V	100

Plastic expansion wedge

- For working enviroment of voltages AC 1000 V and DC 1500 V
- For the assembly of cable branch clamps
- No slipping in the cutting of cable strand
- Made from impact resistant plastic

	B mm	L mm		g
117.1670	38.0	197.0	1000V	55

Plastic expansion wedge

- For working enviroment of voltage of AC 1000 V and DC 1500 V
- Without flu e
- Oval form without edges
- Long execution with large impact head
- Made from impact resistant plastic

	B mm	L mm		g
117.1680	53.0	225.0	1000V	225

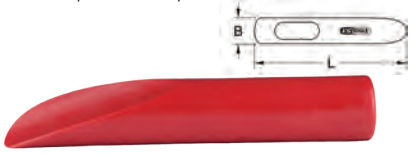
Plastic expansion wedge

- For live work under voltages of AC 1000 V and DC 1500 V
- Specially for assembly of cable branch terminals
- Groove width 22 mm
- Made from impact-resistant plastic
- As an aid for cutting cable wires

	A mm	L mm	B mm		g
117.4268	20,0	270.0	50.0	1000V	170

Beading chisels

- For NKBA cables
- 70 mm chamfer
- 30 mm radius
- Made from impact-resistant plastic

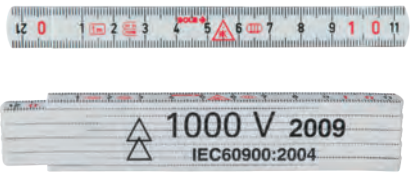


	L mm	B mm		g
117.4269	140.0	25.0	1000V	58

FOLDING RULES

Plastic folding rule, white

- Insulated in accordance with IEC 60900:2004
- Made from glass-fib e reinforced plastic
- Without metal parts



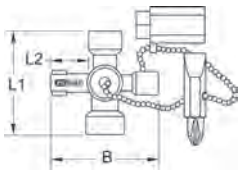
	L m		g
300.0066	1.00	1000V	600

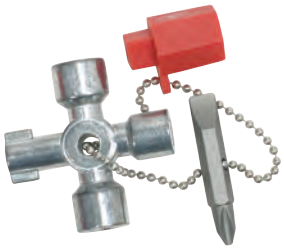
UNIVERSAL ENCLOSURE KEYS

Mini universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
⬬	3 - 5 mm
⊕	PH 2
⊖	7 mm



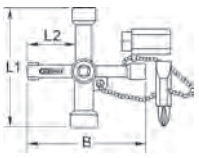


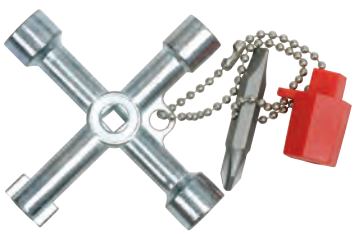
	B mm	L1 mm	L2 mm	g
130.1010	42.0	42.0	18.0	100

Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
⬬	3 - 5 mm
⊕	PH 2
⊖	7 mm



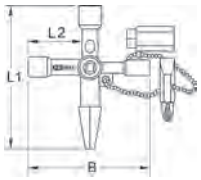


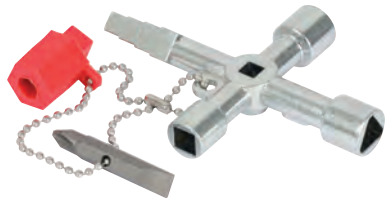
	B mm	L1 mm	L2 mm	g
130.1015	71.0	71.0	33.0	200

Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

■	5 mm
■	7 mm
■	8 mm
■■■	4 - 10 mm
▲	9 - 10 mm
⊕	PH 2
⊖	7 mm



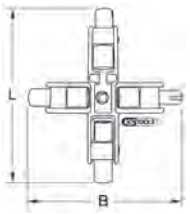


	B mm	L1 mm	L2 mm	g	
130.1020	61.0	90.0	27.0	200	

Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Fourfold pivot mechanism
- Die cast zinc

■	6 mm
■	7 mm
■	8 mm
▲	7 mm
▲	8 - 9 mm
⬬	3 - 5 mm
⟲	
◠	6 mm

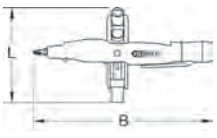


	B mm	L mm	g	
130.1046	100.0	113.5	200	

Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Double pivot mechanism
- Die cast zinc

■	5 mm
■	6 mm
■	7 - 8 mm
▲	9 mm
⬬	3 - 5 mm
⊕	PH 2

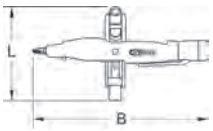


	B mm	L mm	g	
130.1040	140.0	100.0	120	

Universal enclosure key with voltage finder 50 - 600

- Contactless and optical recognition of alternating current
- On / off switch
- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Includes two batteries 1,5 V LR44 button cell 11,6 x 5,4 mm
- Double pivot mechanism
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
⬬	3 - 5 mm
⊕	PH 2



Technical data:

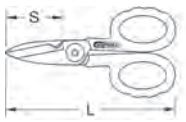
Readout:	1 LED
Voltage range:	50 - 600 V
Duty cycle:	permanent
Frequency range:	50 - 60 Hz
Protection class:	EN 61010

	B mm	L mm	g	
130.1045	155.0	95.0	120	

SHEARS

Universal workshop shear

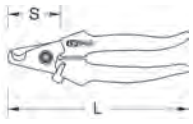
- Robust short shears
- Various applications
- With cable cutter
- Includes belt pouch



	L mm	S mm	g	
118.0060	140.0	42,0	170	

Universal cable shear

- Self opening
- Safety locking device
- Ergonomic moulded plastic handle
- For soft cable

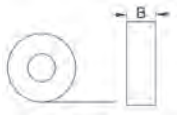


	Ø mm	L mm	S mm	g	
118.0073	10,0	165.0	50,0	180	

ELECTRICAL INSULATING TAPE

PVC insulation tape set

- Good resistance to abrasion and corrosion and/or moisture
- High di-electric strength and good mechanical protection
- Excellent ability to adapt to different forms
- Conforms to BS3924
- Temperature resistance of 0 °C to +90 °
- Multicoloured assortment



		B mm	L m	g	
141.6010	8 pcs	19.0	10.0	150	

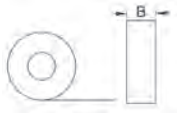
Self welding repair tape

- Excellent weather resistance
- Easy to apply due to high elasticity
- Insulates air and water tight, due to self welding characteristics
- Temperature resistance of -40 °C to +90 °C
- With a tape thickness of 0,5 mm
- Made from Polyisobutylene tape
- For a range of applications in electrical, plumbing and automotive

	Colour code	B mm	L m	g	
141.6000	●	18.0	10.0	100	
141.6001	●	38.0	10.0	210	

Insulated adhesive tape

- For working enviroment of voltage of AC 1000 V and DC 1500 V
- On a roll



	Colour code	B mm	L m		g	
117.4231	●	52.0	10.0	GS	105	
117.4232	●	102.0	10.0	GS	190	
117.4233	●	102.0	10.0	GS	190	

ELECTRICIANS PEN KNIFE

Electricians pen knife

- Blade folds away
- Sickle blade
- Moulded handle made out of wood
- Rust proof
- Stainless steel

	B mm	L mm	S mm	g	
907.2185	37.0	185.0	70,0	60	

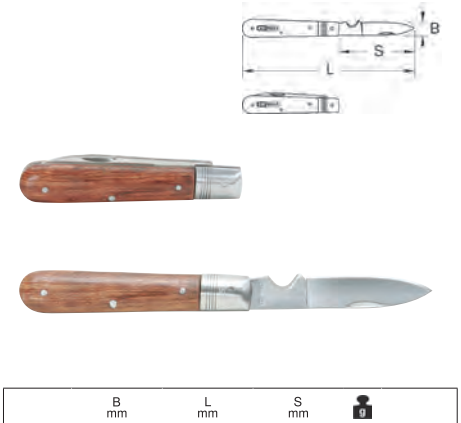
Electricians pen knife

- Blade folds away
- Straight- and sickle blades
- Moulded handle made out of wood
- Rust proof
- Stainless steel

	B mm	L mm	S mm	g	
907.2186	37.0	185.0	70,0	90	

Electricians pen knife

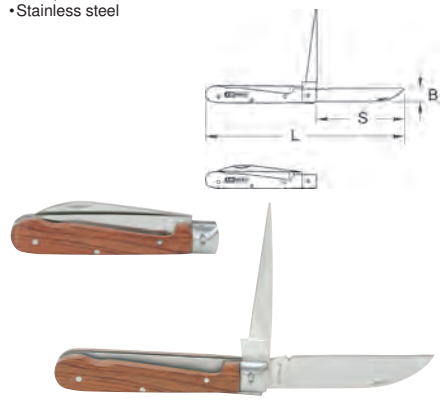
- Blade folds away
- Single blade and stripping function
- Moulded handle made out of wood
- Rust proof
- Stainless steel



	B mm	L mm	S mm	g	
907.2187	15.0	195.0	85,0	60	

Electricians pen knife

- Blade folds away
- Straight and extra narrow pointed blade
- Moulded handle made out of wood
- Rust proof
- Stainless steel



	B mm	L mm	S mm	g	
907.2188	19.0	198.0	90,0	60	

STRIPPING TOOLS

Universal cable knife

- For the slitting and stripping of round cable
- Hook blade for the stripping of insulated and fl t cable
- Internal knife with adjustable cutting depth, rotating mouting

	Ø mm	B mm	L mm	S mm	g	
907.2184	28,0	18.0	175.0	24,0	100	

Stripping tool for coaxial cable

- Round cut
- Safe and portable form
- 3-stage stripping
- For a stripping capacity of 9,4 - 7,5 mm

	mm²	L1 mm	L2 mm	g	
115.1243	7,5	90.0	18.0	50	

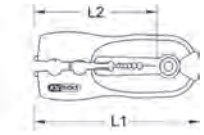
Stripping tool for data cable

- Round cut
- For the stripping of fl t and fl t oval data cables
- Safety locking device for safe storage

	mm²	L1 mm	L2 mm	g	
115.1241	2,5-12,0	105.0	72.0	40	

Multifunction stripping tool

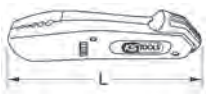
- Round- and length cutting function
- Stripping function
- Cutting function
- For the stripping of fl xible and large wire
- Safety locking device for safe storage
- Includes replacement knife set



	mm²	AWG	L1 mm	L2 mm	g	
115.1251	0,2-0,8	30-20	117.0	85.5	96	
115.1252	0,8-2,6	20-10	117.0	85.5	96	

Insulation stripping knife

- For stripping all standard round cables
- Cutting depth can be adjusted exactly to thickness of sheath
- The knife automatically switches from round to longitudinal cutting
- Retaining bracket adjustable
- Complete stripping of insulation



	mm²	Ø Wire mm	AWG	L mm	g	
115.1003	0,5-6,0	4,0-28,0	20-10	143.0	120	

Insulation stripping knife

- For stripping external insulation layers
- Stripping insulation from single- and multiple-wire conductors
- Round and longitudinal cutting

	mm²	Ø Wire mm	L mm	g	
115.1007	0,5-16,0	4,0-12,0	137.0	81	

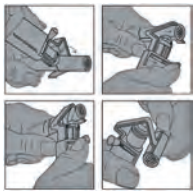
Insulation stripping knife

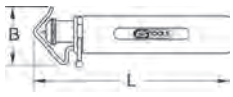
- Basic stripping of insulation from conductors
- The scanning system automatically adapts to the conductor cross-section
- The stranded conductor can then be twisted

	mm²	AWG	L mm	g
115.1001	0,5-6,0	20-10	158.0	116

Universal stripping tool

- Round cut and length cutting function
- Suited for spiral cutting of hard insulation
- Variable cut depth adjustment through thumb wheel
- For a maximum insulation strength of up to 4,5 mm





	mm²	B mm	L mm	Replacement blades	g
115.1256	6-25	41.0	138.0	115.1257	138

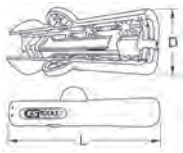
Self regulating wire stripper

- Easily interchangeable knife modules
- Cutting function
- Light weight
- Exact adjustment possible for safe stripping
- For damage free stripping
- Length stop for 0,02 - 10,0 mm
- Smooth running mechanics

	mm²	AWG	D mm	L1 mm	L2 mm	Replacement blades	g
115.1244	0,1-4	28-12	48.0	190.0	73.0	115.1247	130
115.1245	0,02-10	34-8	48.0	190.0	73.0	115.1246	130
115.1249	4-16	12-6	48.0	190.0	73.0	115.1248	130

Round cable insulation stripper

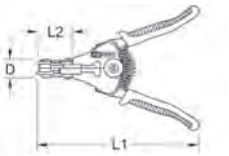
- For round cables and damp-proof cables
- Flush stripping of insulation even in areas that are hard to access, e.g. in ceilings and walls, in junction and distribution boxes and switch cabinets

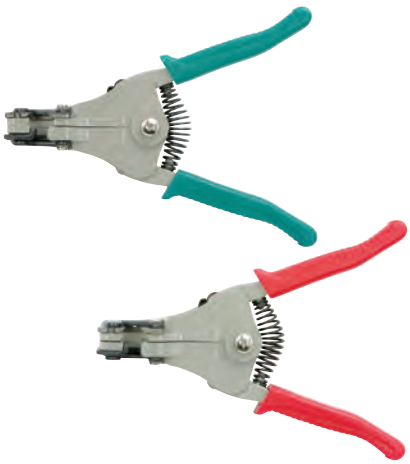


	Ø Wire mm	L mm	g
115.1006	8,0-13,0	125.0	43

Automatic wire stripper

- Plastic handle
- For damage free Stripping
- Durable clamping jaw for the adherence of the wire
- Self closing due to the spring mechanics





	Ø mm	AWG	D mm	L1 mm	L2 mm	g
115.1028	0,5-2,0	2,0-0,5	20.0	170.0	35.0	280
115.1029	1,0-3,2	3,2-1,0	20.0	170.0	35.0	280

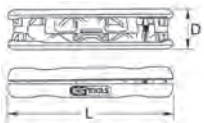
Universal stripping tool

- For insulated cables
- With round cutting and longitudinal cutting function
- Suitable for stripping insulation from damp-proof cables, and for cutting plastic pipes
- Replaceable blade

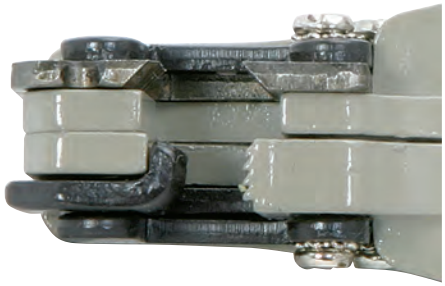
	mm²		g
117.4275	6,0-28,0	117.4276	60

Coaxial cable insulation strippers

- Gradual stripping of insulation from all coaxial cables with an outer diameter of 4.8 - 7.5 mm
- Equally suitable for fl xible cables and 3 x 0.75 mm², 10 mm² and 16 mm² cables

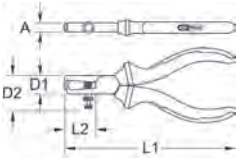


	Ø Wire mm	L mm	g
115.1002	4,8-7,5	110.0	30



Wire stripper

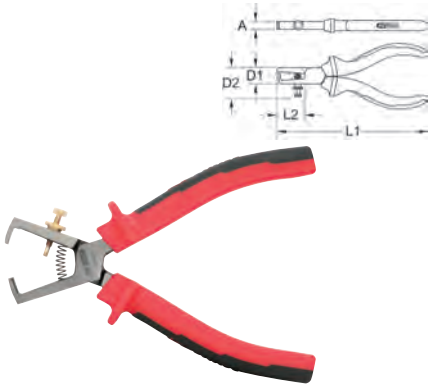
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- PVC dipped handle
- For wires from 0,5 - 4.0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
115.1314	9.0	20.5	33.0	176.0	39.0	170

ERGOTORQUE® wire stripper

- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,5 - 4.0 mm²
- Matt Chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
115.1014	9.0	20.5	33.0	179.0	39.0	300

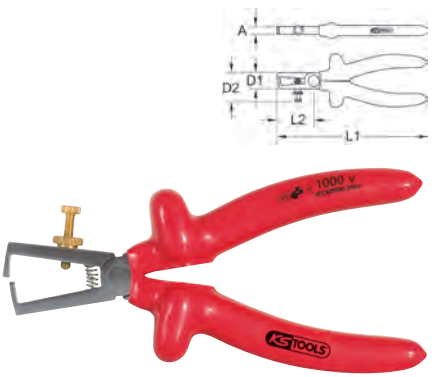
ERGOTORQUE® VDE cable stripper

- In accordance to DIN / ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel

	A mm	D1 mm	D2 mm	L1 mm	L2 mm	ϟ	g
117.1114	10.0	17.5	31.5	160.0	36.0		210

CLASSIC 1000V wire strippers

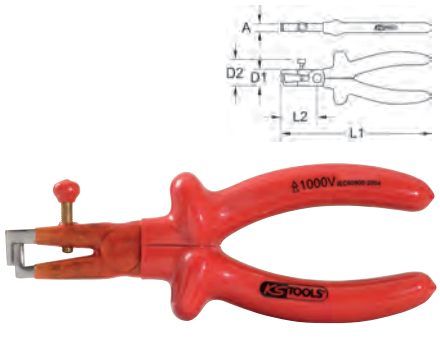
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	ϟ	g
117.1271	9.5	18.5	31.5	160.0	44.0		180

CLASSIC 1000V wire strippers

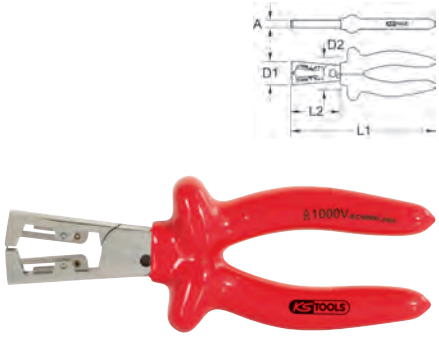
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	ϟ	g
117.1713	11.0	18.5	20.0	160.0	34.0	1000V	180

CLASSIC 1000V wire strippers

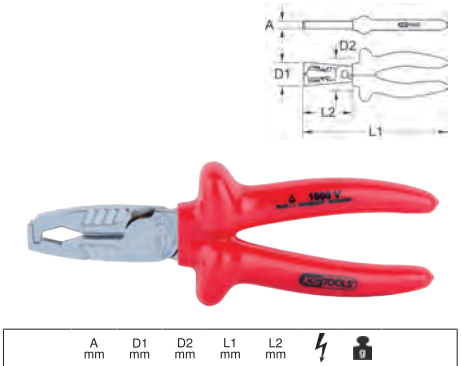
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	Replacement blades	g
117.1272	10.5	28.5	47.5	160.0	20.0	117.1258	220

CLASSIC 1000V wire strippers

- Insulated handle to IEC 60900
- Multifunctional wire strippers
- Self-adjusting
- With replaceable knives
- For wires from 0.5 - 5.0 mm²
- With cutting holes for separating cables and wires
- Matt chrome
- Special tool steel

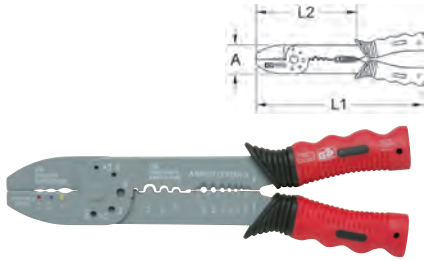


	A mm	D1 mm	D2 mm	L1 mm	L2 mm	ϟ	g
117.1225	10.0	24.0	40.0	185.0	61.0	1000V	260

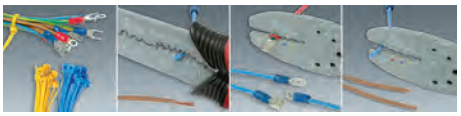
CRIMPING TOOLS

Multifunction pliers for insulated and non insulated cable terminals

- For professional cable cutting and stripping of wires from 0,75 - 6,0 mm²
- For crimping cable lugs and connectors of 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of fl t steel



	A mm	L1 mm	L2 mm	g
115.1231	40.0	220.0	130.0	230



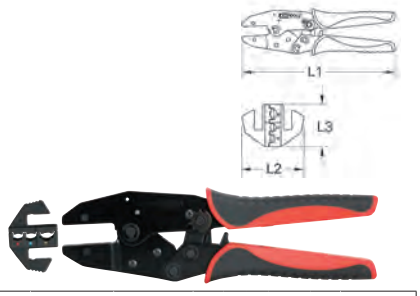
Multifunction crimping pliers set

- For insulated and un-insulated cable terminals
- Includes 270 pcs consumables
- For professional cable cutting and stripping wires from 0,75 - 6,0 mm²
- For crimping cable terminals and connectors from 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of fl t steel
- In durable plastic storage case

			g
115.1230	271 pcs	Multifunction crimping pliers set	560

Crimping pliers for non insulated terminals

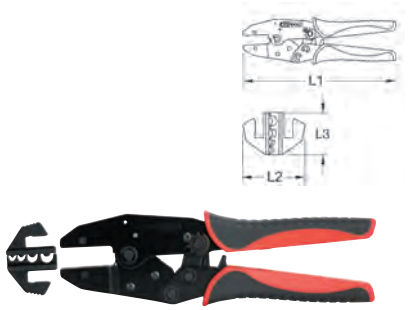
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1425	0,5-1,0/1,5-2,5/4,0-6,0	22-18/16-14/12-10	220.0	50.0	34.0	115.1415	491

Crimping pliers for insulated terminals

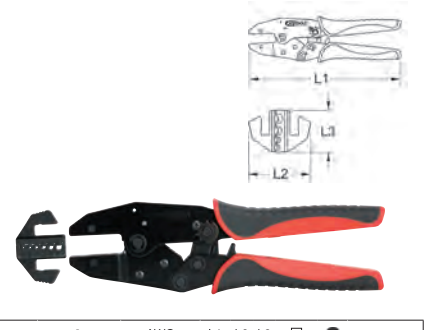
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1430	1,5/2,5/6,0/10,0	20-18/16-14/12-10/8	220.0	50.0	34.0	115.1416	487

Crimping pliers for pin terminals

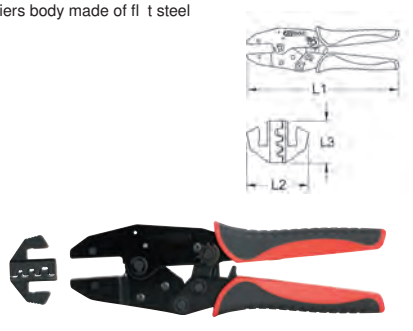
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through Precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1440	0,5/0,75/1,0/1,5/2,5/4,0	22/20/18/16-14/12-10	220.0	50.0	34.0	115.1418	499
115.1450	6,0/10,0/16,0	10/8/6	220.0	50.0	34.0	115.1420	499

Crimping pliers for spade terminals

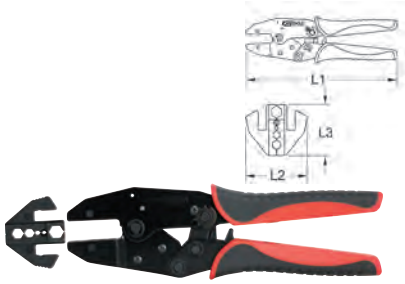
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1435	0,5-1,0/1,5-2,5/4,0-6,0	20-18/16-14/12-10	220.0	50.0	34.0	115.1417	499
115.1455	2,5/0,5/8,0/10,0	14-22/8-6	220.0	50.0	34.0	115.1421	505

Crimping pliers for coaxial terminals

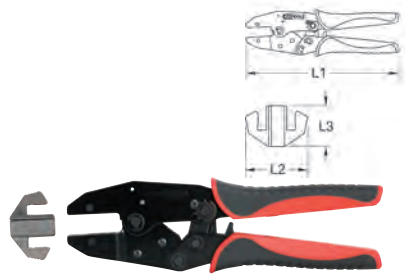
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1445	1,72/2,50/5,40/6,48/8,23	RG58/RG59/RG62	220.0	50.0	34.0	115.1419	491

Crimping pliers for Western terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1460	RJ22	22-24	220.0	50.0	34.0	115.1422	500
115.1465	RJ11/RJ12	22-24	220.0	50.0	34.0	115.1423	505
115.1470	RJ45	22-24	220.0	50.0	34.0	115.1424	505

Electricians crimping pliers set

- Ideal configu ation for electricians
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of fl t steel

		g
115.1480	3 pcs	Electricians crimping pliers set	910

1 x		220 mm
1 x		Ø 0,5 - 4,0 mm, H
1 x		Ø 1,5 - 10,0 mm, B

Net working crimping pliers set

- Ideal configu ation for network cabling
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of fl t steel

		kg
115.1490	5 pcs	Net working crimping pliers set	1.05

1 x		220 mm
1 x		AWG: 22 - 14 - 6 - 8, H
1 x		AWG: 22 - 24, G1
1 x		AWG: 22 - 24, G2
1 x		AWG: 22 - 24, G3

Crimping pliers for Solarlok

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel

	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1520	6,0 / 4,0 / 2,5 / 1,5	10 - 15	220.0	50.0	34.0	115.1412	540

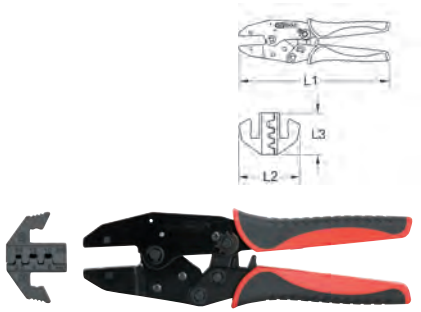
Crimping plier for solar coupler MC 3

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel

	mm²	AWG	L1 mm	L2 mm	L3 mm		g
115.1521	4,0 / 6,0 / 2,5	12 / 10 / 14	220.0	50.0	34.0	115.1413	545

Crimping pliers for solar coupler MC 4

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of fl t steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		kg
115.1522	2,5 / 4,0 / 6,0	14 / 12 / 10	220.0	50.0	34.0	115.1414	550

Universal crimping tool set with automatic wire stripper

- Extremely robust and reliable crimping plier
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profil
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of fl t steel
- Includes self-closing and damage free automatic wire stripper

			kg
115.1400	8 pcs	Universal crimping tool set with automatic wire stripper	2.37

1 x		220 mm
1 x		Ø 0,5 - 4,0 mm, H
1 x		Ø 1,5 - 10,0 mm, B
1 x		Ø 0,5 - 6,0 mm, C
1 x		Ø 0,5 - 4,0 mm, D
1 x		RG 58 - RG 71, E
1 x		1,0 - 3,2 mm
1 x		

ELECTRICIAN'S TOOL KITS

Basic electrians tool set

- Ideal starter set
- With aluminium edges
- With carrying handle
- Black leather carrying case

			kg
117.0180	30 pcs	Basic electrians tool set	9.00

1 x		
1 x		300 g
1 x		1000 g
1 x		Ø 16 mm
1 x		Ø 16 mm
1 x		40 mm
1 x		# 2
1 x		2 m
1 x		
1 x		400 mm
1 x		3 mm
4 x		3,5 - 4 - 5,5 - 6,5 mm
3 x		PH 0 - PH 1 - PH 2
1 x		160 mm
1 x		150 mm
1 x		175 mm
1 x		200 mm
1 x		250 mm

Basic electrians tool set

- Ideal starter set
- Carrying handle
- Durable metal case

			kg
117.0181	30 pcs	Basic electrians tool set	8.83

1 x		
1 x		300 g
1 x		1000 g
1 x		Ø 16 mm
1 x		Ø 16 mm
1 x		40 mm
1 x		# 2
1 x		2 m
1 x		
1 x		400 mm
1 x		3 mm
4 x		3,5 - 4 - 5,5 - 6,5 mm
3 x		PH 0 - PH 1 - PH 2
1 x		160 mm
1 x		150 mm
1 x		175 mm
1 x		200 mm
1 x		250 mm

Premium electrians tool set

- Carrying strap and handle
- Durable nylon case

			kg
117.0190	132 pcs	Premium electrians tool set	11.21
1 x			
1 x		300 g	
1 x		1000 g	
1 x		Ø 16 mm	
1 x		Ø 16 mm	
1 x		40 mm	
1 x		# 2	
1 x		2 m	
1 x			
1 x		6 - 400 V	
1 x			
1 x		400 mm	
1 x			
1 x		1/4“: 911.2060	
1 x		1/4“: 918.0640	
1 x		2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 10,0 mm	
1 x			
1 x		5 m x 19 mm	
1 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
1 x		8“ , 200 mm	
1 x		3,0 mm	
4 x		3,5 - 4,0 - 5,5 - 6,5 mm	
3 x		PH 0 - PH 1 - PH 2	
1 x		160 mm	
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		250 mm	

Premium Max electrians tool set

- Carrying handle
- An extendable pull handle
- Pull handle with locking knob
- Aluminium edges
- Two rollers
- Durable ABS storage case

			kg
117.0195	195 pcs	Premium Max electrians tool set	13.20
1 x		10“ , 250 mm	
1 x			
1 x			
1 x		1/4“: 918.0646	
1 x		1/4“	
1 x		1/4“: 911.2026	
1 x		300 g	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		3 m x 19 mm	
1 x		500.7165	
1 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	
1 x		3 mm	
4 x		3,5 - 4 - 5,5 - 6,5 mm	
3 x		PH 0 - PH 1 - PH 2	
1 x		160 mm	
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		200 mm	
1 x		200 mm	
1 x		250 mm	

Hard shell toolcase, empty

- Strong hard protective case made from impact resistant plastic with hardened aluminium frame
- Document compartment in upper lid
- 2 removable tool boards for indvidual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locking fastening catches
- Carrying handle with telescopic removable frame
- Capacity up to 30 kg

		kg
117.1810-99	Hard shell toolcase, empty	5.00

Toolcase, empty

- Made out of heavy, yellow or red leather
- Carrying strap
- Front and middle wall removeable
- Robust execution with toll holders for up to 50 Tools
- And choice of protection
- Fittings chrome

		kg
117.1820-99	Toolcase, empty	4.30

Toolcase, empty

- Made out of red leather
- Carrying strap
- Front wall removable
- Durable sheet metal base
- Tool holders for 40 VDE tools and choice of protection
- Specially for meter assembly

		kg
117.1830-99	Toolcase, empty	3.40

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

1/4"

			kg
117.1877	22 pcs	Insulated socket wrench set	1.60
1 x		1/4“	
4 x		1/4“: 50 - 75 - 100 - 150 mm	
1 x		1/4“	
1 x		1/4“	
10 x		1/4“: 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 14 mm	
5 x		1/4“: 3 - 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

1/4"

			kg
117.1878	21 pcs	Insulated socket wrench set	1.90
1 x		1/4“: 5 - 25 Nm	
4 x		1/4“: 50 - 75 - 100 - 150 mm	
1 x		1/4“	
10 x		1/4“: 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 14 mm	
5 x		1/4“: 3 - 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1850	16 pcs	Insulated socket wrench set	4.00
1 x		3/8“	
2 x		3/8“: 125 - 250 mm	
1 x		3/8“	
8 x		3/8“: 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	
3 x		3/8“:5 - 6 - 8 mm	
1 x		3,5 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

1/4"

			kg
117.1876	21 pcs	Insulated socket wrench set	1.00
1 x		1/4“: 5 - 25 Nm	
3 x		1/4“: 75 - 100 - 150 mm	
2 x		1/4“	
5 x		1/4“: 6 - 8 - 10 - 13 - 14 mm	
3 x		1/4“: 5 - 6 - 8 mm	
3 x		1/4“: 4 - 5,5 - 6,5 mm	
2 x		1/4“: PH1 - PH2	
2 x		1/4“: PZ1 - PZ2	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1882	16 pcs	Insulated socket wrench set	3.80
1 x		3/8“	
2 x		3/8“: 125 - 250 mm	
1 x		3/8“	
8 x		3/8“: 10 - 11 - 12 - 13 - 14 - 17 - 19 22 mm	
3 x		3/8“: 5 - 6 - 8 mm	
1 x		25 Nm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1885	16 pcs	Insulated socket wrench set	3.40
1 x		3/8“	
2 x		3/8“: 125 - 250 mm	
3 x		3/8“: 13 - 17 - 19 mm	
4 x		3/8“: 5 - 6 - 8 - 10 mm	
1 x		3/8“: 5 mm	
1 x		2,5 mm	
2 x		5 - 6 mm	
1 x		Ø 25mm	
1 x		160 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1881	14 pcs	Insulated socket wrench set	3.87
1 x		3/8": 5 - 50 Nm	
2 x		3/8": 125 - 250 mm	
5 x		3/8": 10 - 13 - 14 - 17 - 19 mm	
5 x		3/8": 4 - 5 - 6 - 8 - 10 mm	
1 x		3/8": 95 - 150 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1886	13 pcs	Insulated socket wrench set	2.40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1889	11 pcs	Insulated socket wrench set	1.75
1 x		3/8"	
1 x		3/8": 125 mm	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1888	13 pcs	Insulated socket wrench set	2.40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

3/8"

			kg
117.1887	11 pcs	Insulated socket wrench set	1.80
1 x		3/8"	
1 x		3/8": 125 mm	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

1/2"

			kg
117.1883	15 pcs	Insulated socket wrench set	4.00
1 x		1/2"	
2 x		1/2": 125 - 250 mm	
1 x		1/2"	
8 x		1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 24 mm	
3 x		1/2": 5 - 6 - 8 mm	

Insulated tool kit

- Insulated handle to IEC 60900
- Foam material inserts in durable plastic case
- Special tool steel

1/2"

			kg
117.1840	26 pcs	Insulated tool kit	5.00
1 x		205 mm	
1 x		160 mm	
1 x		200 mm	
1 x		1/2“	
1 x		250 mm	
1 x		210 mm	
1 x		182 mm	
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm	
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm	
1 x		6 - 400 V	
4 x		3,5 - 5,5 - 6,5 - 8,0 mm	

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case

1/2"

			kg
117.1860	16 pcs	Insulated socket wrench set	4.50
1 x		1/2“	
2 x		1/2“: 125 - 250 mm	
1 x		1/2“	
8 x		1/2“: 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm	
3 x		1/2“: 5 - 6 - 8 mm	
1 x		3,5 mm	

Insulated tool kit

- Insulated handle to IEC 60900
- Plastic case with foam protection material
- Special tool steel

			kg
117.1870	20 pcs	Insulated tool kit	4.50
1 x		205 mm	
1 x		160 mm	
1 x		200 mm	
1 x		180 mm	
1 x		160 mm	
1 x		160 mm	
1 x		6 - 400 V	
3 x		8 - 10 - 13 mm	
6 x		2,5 - 3,5 - 5,5 - 6,5 - 8,0 - 10,0 mm	
2 x		PH1 - PH2	
1 x		210 mm	
1 x		182 mm	

Insulated tool kit

- Insulated handle to IEC 60900
- Made out of red leather
- Carrying strap

			kg
117.1872	14 pcs	Insulated tool kit	4.50
1 x		185 mm	
1 x		160 mm	
1 x		200 mm	
1 x		210 mm	
3 x		2,5 - 4,0 - 5,5 mm	
4 x		7 - 8 - 9 - 10 mm	
1 x		Gr. 10	
1 x		200 mm	
1 x		12 - 750 V	

Professional electrians tool set

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Made out of red leather
- Carrying strap

			kg
117.1871	55 pcs	Professional electrians tool set	13.20
1 x		185 mm	
1 x		160 mm	
1 x		200 mm	
1 x		160 mm	
1 x		215 mm	
6 x		10 - 13 - 14 - 17 - 19 - 22 mm	
6 x		10 - 13 - 14 - 17 - 19 - 22 mm	
1 x		1/2“	
2 x		125 - 250 mm	
1 x		1/2“	
9 x		10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 24 mm	
1 x		210 mm	
1 x		182 mm	
3 x		130 x 130 mm	
3 x		250 x 350 mm	
3 x		500 x 500 mm	
2 x		80 mm	
6 x		160 mm	
1 x		Gr. 9	
1 x		260 mm	
4 x		2,5 - 4,0 - 5,5 - 6,5 mm	

Professional electrians tool set

- Insulated handle to IEC 60900
- For working enviroment of voltages AC 1000 V and DC 1500 V
- Made out of red leather
- Carrying strap

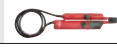
117.1820	53 pcs	Professional electrians tool set	13.00 kg

1 x		185 mm
1 x		160 mm
1 x		200 mm
1 x		160 mm
1 x		215 mm
6 x		10 - 13 - 14 - 17 - 19 - 22 mm
6 x		10 - 13 - 14 - 17 - 19 - 22 mm
1 x		1/2“
2 x		125 - 250 mm
1 x		1/2“
9 x		10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 24 mm
1 x		210 mm
1 x		182 mm
3 x		130 x 130 mm
3 x		250 x 350 mm
3 x		500 x 500 mm
2 x		80 mm
4 x		160 mm
1 x		Gr. 9
1 x		260 mm
4 x		2,5 - 4,0 - 5,5 - 6,5 mm

Insulated tool kit

- Insulated handle to IEC 60900
- Made out of red leather
- Carrying strap

117.1830	36 pcs	Insulated tool kit	9.40 kg

1 x		205 mm
1 x		160 mm
1 x		200 mm
1 x		160 mm
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm
1 x		3/8“
2 x		8 - 9 mm
2 x		4,0 - 5,5 mm
1 x		210 mm
1 x		182 mm
1 x		130 x 130 x 1,6 mm
1 x		250 x 350 x 1,6 mm
1 x		1000 x 1000 x 1,6 mm
2 x		80 mm
2 x		160 mm
1 x		Ø 30 mm
1 x		12 - 750 V

Professional electrians tool set

- Insulated handle to IEC 60900
- Robust hard shell toolcase

117.1810	30 pcs	Professional electrians tool set	9.40 kg

1 x		185 mm
1 x		160 mm
1 x		200 mm
1 x		200 mm
1 x		160 mm
1 x		160 mm
1 x		180 mm
2 x		5 - 6 mm
5 x		2,5 - 4,0 - 5,5 - 6,5 - 8,0 mm
2 x		PH1 - PH2
2 x		PZ1 - PZ2
4 x		5,5 - 6,0 - 7,0 - 8,0 mm
1 x		210 mm
1 x		175 mm
1 x		215 mm
1 x		12 - 750 V
1 x		380 mm
1 x		Gr. 10
1 x		260 mm
1 x		10 m

MEASURING AND TESTING TOOLS

KSTOOLS®

Innovation is our mission!

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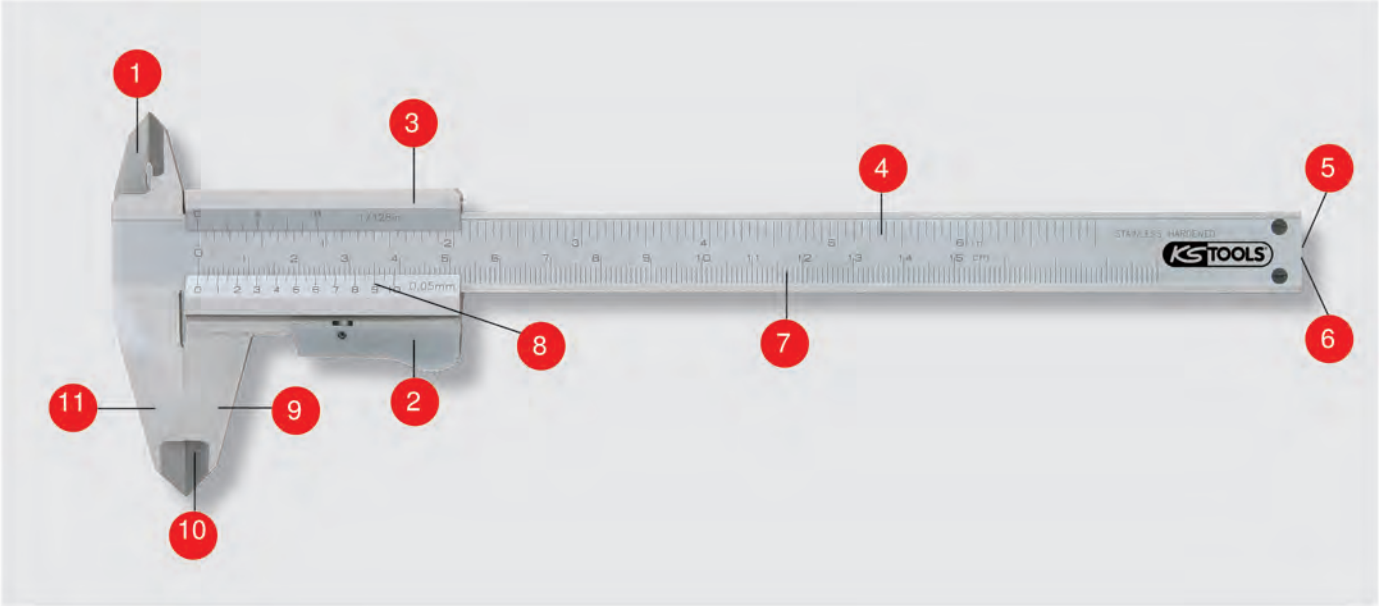
MEASURING AND TEST TOOLS

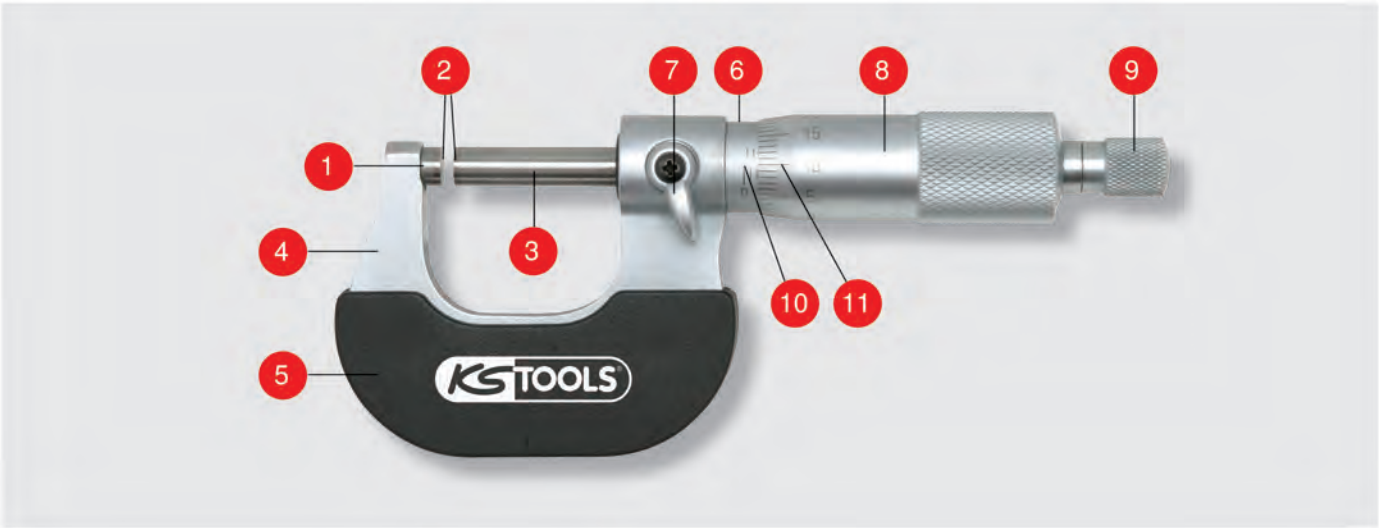
Construction of the calipers with scale reading (head and vernier divisions)



Denominations according to DIN 862

1. Cross measuring surfaces in the form of edges
2. Torque locking device
3. Slider
4. Guide rail
5. Deep measuring rod
6. Measuring surfaces for measuring of low dimensions
7. Line scale with main division
8. Verneir with verneir divisions
9. Adjustable measuring arm
10. Measuring surfaces for measuring of external dimensions
11. Fixed measuring arm

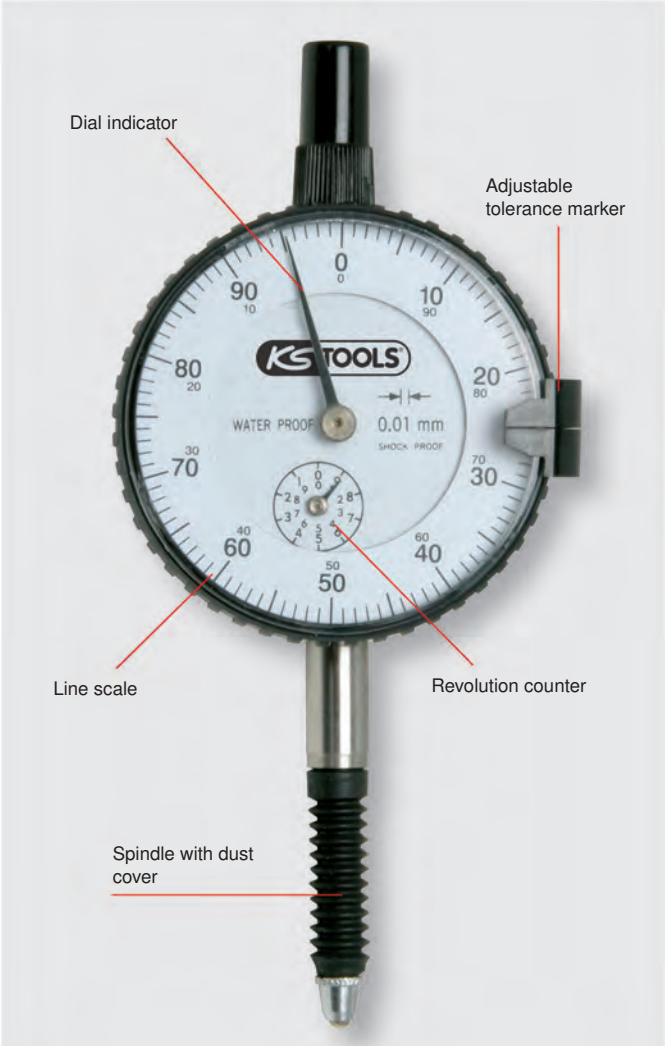
Construction of a micrometre



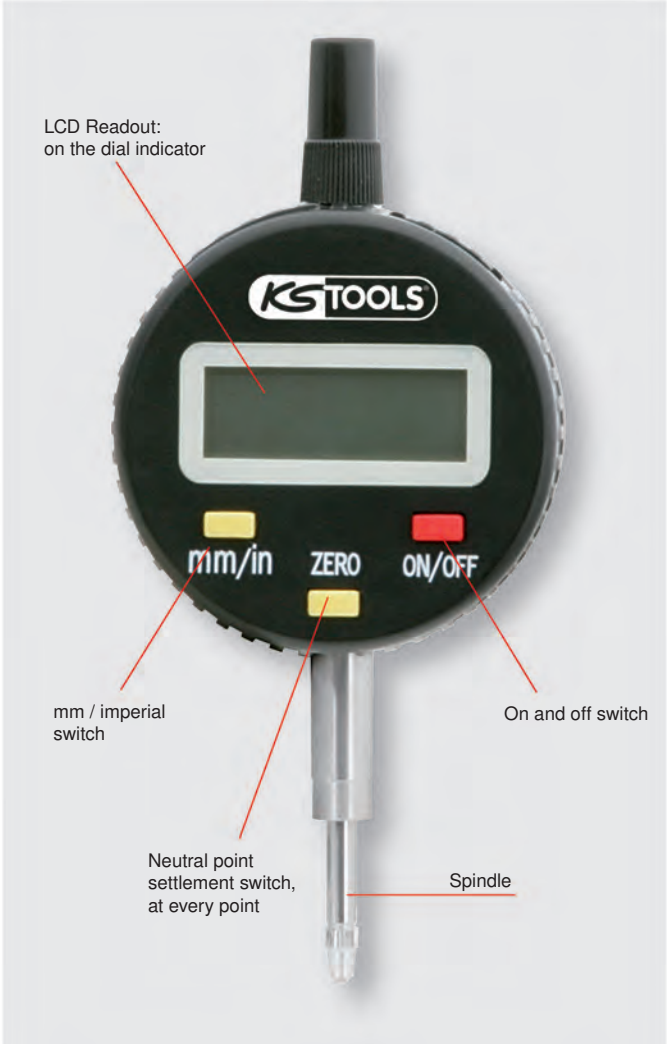
Denominations according to DIN 863

1. Measuring plug
2. Hard metal measuring surfaces
3. Bearings
4. Frame
5. Insulating plate
6. Scale sleeve
7. Clamping lever
8. Scale drum
9. Coupling
10. Reference line
11. Scales

Construction of the dial indicator gauge



Dial gauge to DIN 878

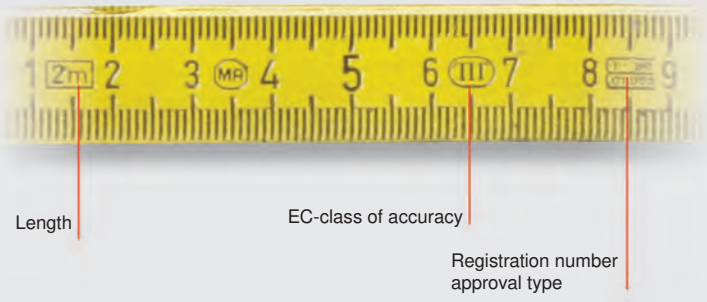


Dial gauge to DIN 878

Tolerance classes and identification standards for folding rul s and tapes

The tolerance in accordance with
EC-standard classes at 20° Celsius and
with a tensile force of 20 Newton (N) for synthetic material
and 50 Newton (N) for steel tapes

Corresponds to the European standard of metric measuring tools
in accordance with specified olerance classes / deviation in mm:

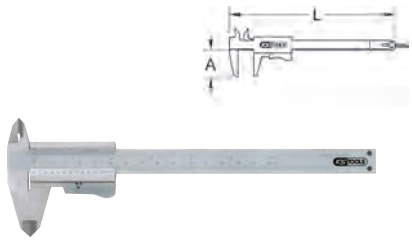


class	1m	2m	3m	5m	10m	15m	20m	30m	50m
I	0,2	0,3	0,4	0,6	1,1	1,6	2,1	3,1	5,1
II	0,5	0,7	0,9	1,3	2,3	3,3	4,3	6,3	10,3
III	1,0	1,4	1,8	2,6	4,6	6,6	8,6	12,6	20,6

ANALOGUE VERNIER CALLIPERS

Pocket vernier calliper 0 - 150 mm

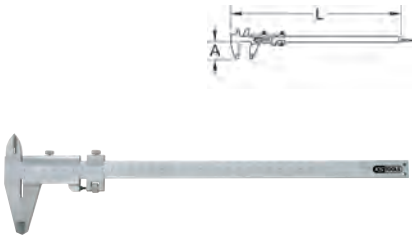
- In accordance with DIN 862
- Instant declaration
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- Thread table
- Entirely hardened, fin ly engineered
- Stainless steel
- In leather case



	Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge	g
300.0510	0 - 150	40.0	235.0	+/- 0,05	flat	145

Workshop vernier calliper 0 - 300 mm

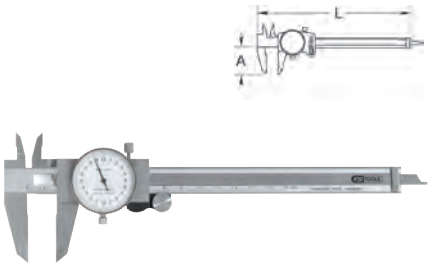
- In accordance with DIN 862
- Locking screw
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge	g
300.0515	0 - 300	55.0	415.0	+/- 0,05	flat	250

Dial vernier calliper 0 - 150 mm

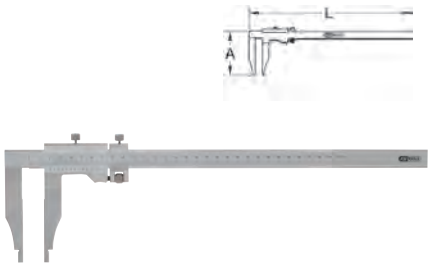
- In accordance with DIN 862
- Fixed adjusting screw and revolving scale reading
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm divisions
- Thread table
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge	Pointer revolution mm	g
300.0547	0 - 150	40.0	236.0	+/- 0,02	flat	1.0	215

Workshop vernier calliper without points

- In accordance with DIN 862
- Locking screw
- For external and internal measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case

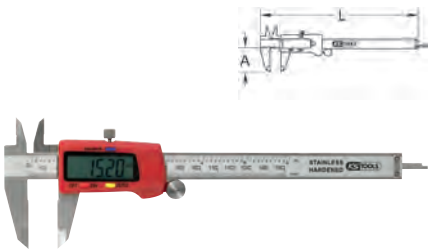


	Measuring range mm	A mm	L mm	Display accuracy mm	g
300.0541	0 - 200	60.0	315.0	+/- 0,05	360
300.0542	0 - 250	90.0	365.0	+/- 0,05	390
300.0543	0 - 300	90.0	415.0	+/- 0,05	415
300.0544	0 - 400	125.0	550.0	+/- 0,05	950
300.0545	0 - 500	150.0	650.0	+/- 0,05	1495
300.0546	0 - 500	200.0	650.0	+/- 0,05	1980

DIGITAL VERNIER CALLIPERS

Digital vernier calliper 0 - 150 mm

- In accordance with DIN 862
- With fi ed adjusting screw and fine olling adjustment
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- mm/imperial switching
- With thread table
- Reset (to zero) in every position possible
- Large LCD display - figu e height 10.0 mm
- With automatic switching off
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge	g
300.0532	0 - 150	40.0	235.0	+/- 0,03	flat	300

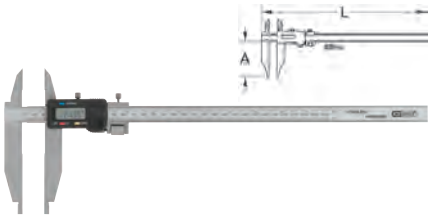
IP 67 digital vernier calliper 0 - 150 mm

- Accuracy according to works standard
- Protection class IP 67
- Locking screw
- For external, internal, step and depth measurements
- Scale division in blue
- Measuring bar in mm divisions
- mm/imperial switching
- Thread table
- Reset (to zero) in every position possible
- Large LCD display figu e height 6,0 mm
- Automatic switching off
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case

	Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge	g
300.0531	0 - 150	40.0	240.0	+/- 0,03	flat	150

Workshop vernier calliper without points

- In accordance with DIN 862
- Locking screw
- For external and internal measurements
- mm/imperial switching
- Reset (to zero) in every position possible
- Knife points
- Fine adjustment
- Large LCD display figu e height 6,0 mm
- Automatic switching off
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case

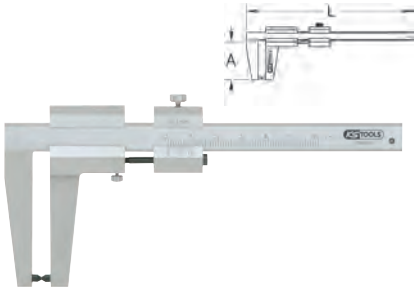


	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0559	0 - 300	90.0	440.0	+/- 0,03	1.14
300.0562	0 - 500	150.0	670.0	+/- 0,03	2.86
300.0563	0 - 1000	150.0	1220.0	+/- 0,03	4.90

BRAKE DISK VERNIER CALLIPERS

Brake disk vernier calliper

- In accordance with DIN 862
- Locking screw
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable wooden case



	Measuring range mm	A mm	L mm	Display accuracy mm	g
300.0535	0 - 60	55.0	162.0	+/- 0,01	130
300.0536	0 - 90	120.0	255.0	+/- 0,01	135

Digital brake disk vernier caliper 0 - 60 mm

- In accordance with DIN 862
- Locking screw
- For internal measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- mm/imperial switching
- Hold button for fixi g measured
- Reset (to zero) in every position possible
- Large LCD display figu e height 10.0 mm
- Automatic switching off
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case

	Measuring range mm	A mm	L mm	Display accuracy mm	g
300.0540	0 - 60	55.0	160.0	+/- 0,03	130

Digital caliper for brake discs HGV 0 - 100 mm

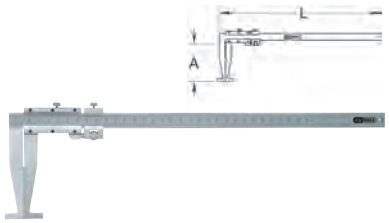
- In accordance with DIN 862
- mm/imperial switching
- Hold button for fixi g measured value
- Reset (to zero) in every position possible
- LCD display - figu e height 6,0 mm
- With automatic switching off
- Stainless steel, hardened
- In durable plastic case

	Measuring range mm	A mm	L mm	Display accuracy mm	g
300.0539	0 - 100	95.0	207.0	+/- 0,03	155

BRAKE DRUM CALIPERS

Brake drum caliper

- In accordance with DIN 862
- Locking screw
- For external and internal measurements
- Scale division in black
- Fine adjustment
- Measuring bar in mm divisions
- Thread table
- Internal measure has direct reading
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable wooden case

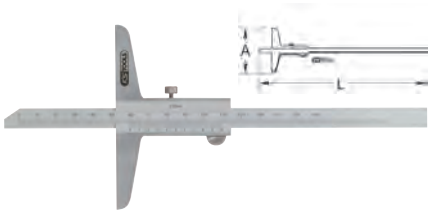


	Inner measuring range mm	Outer measuring range mm	A mm	L mm	Display accuracy mm	g
300.0525	0 - 300	40 - 340	95.0	410.0	+/- 0,02	500
300.0530	0 - 500	60 - 560	150.0	660.0	+/- 0,05	1380

DEPTH VERNIER CALIPERS

Depth gauge

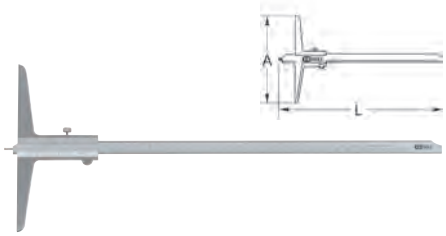
- In accordance with DIN 862
- Locking screw
- Vernier scale two sided accurate laser scales
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	g
300.0571	0 - 150	100.0	225.0	+/- 0,02	160
300.0572	0 - 200	100.0	275.0	+/- 0,02	174
300.0573	0 - 250	125.0	340.0	+/- 0,02	180
300.0574	0 - 300	125.0	382.0	+/- 0,02	285
300.0575	0 - 300	150.0	382.0	+/- 0,02	300
300.0576	0 - 400	150.0	480.0	+/- 0,02	370
300.0577	0 - 500	150.0	580.0	+/- 0,02	406

Depth vernier caliper with feeler pin

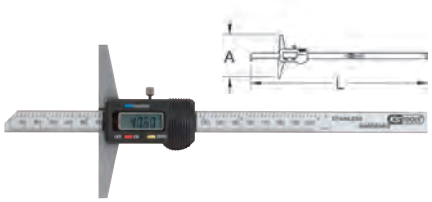
- In accordance with DIN 862
- Locking screw
- Vernier scale two sided accurate laser scales
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, fin ly engineered
- Hardened feeler pin
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Ø Feeler pin mm	g
300.0551	0 - 80	50.0	160.0	+/- 0,02	1,0	70
300.0552	0 - 150	100.0	231.0	+/- 0,02	1,5	150
300.0553	0 - 200	100.0	281.0	+/- 0,02	1,5	170
300.0554	0 - 300	150.0	390.0	+/- 0,02	2,0	300
300.0561	0 - 500	150.0	590.0	+/- 0,02	2,0	406

Digital depth vernier caliper 0 - 500 mm

- In accordance with DIN 862
- Locking screw
- For depth measurements
- Scale division in black
- mm/imperial switching
- Reset (to zero) in every position possible
- Large LCD display figu e height 10,0 mm
- Automatic switching off
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0549	0 - 500	200.0	580.0	+/- 0,03	1.15

Digital depth gauge 0 - 25 mm

- In accordance with DIN 862
- Locking screw
- For depth measurements
- mm/imperial switching
- Reset (to zero) in every position possible
- Large LCD display figu e height 8.0 mm
- Little energy consumption through automatic switching off
- Entirely hardened, fin ly engineered
- Stainless steel
- In durable plastic case

	Measuring range mm	A mm	L mm	Display accuracy mm	g
300.0550	0 - 25	40.0	125.0	+/- 0,03	100

MEASURING TOOL SET

Measuring tool set

- Practical assortment for daily workshop usage
- Includes accurate machined protective foam insert
- In durable plastic storage case

			kg
150.2240	7 pcs	Measuring tool set	1.70
1 x		0 - 150 mm	
1 x		0 - 25 mm	
1 x		200 mm	
1 x		100 mm	
1 x		150 mm	
1 x		0 - 125 mm	
1 x		0,5 - 1,75 mm	

Brake disc test case

- For measuring the radial and axial runout of wheel hubs and brake discs
- Exact positioning of the dial gauge on the test object with magnetic dial gauge holder
- Quick and easy attachment of stand with prismatic support and activated magnets
- Precise setting of the measuring scale with adjustable tolerance marks
- With rotating, knurled outer ring
- Suitable for measuring the brake disc thickness, and for detection of irregularities and distortion
- With measured value fixi g lever and measuring force control with ratchet function
- In durable plastic storage case

			kg	
150.2230	3 pcs	Brake disc test case	4.00	

consists of:

		kg	
300.0625	Magnetic-measurement stand	2.00	
300.0560	Dial gauge 0 - 10 mm, mechanical	0.28	
300.0556	Outside micrometre 25- -50mm.	0.32	

MICROMETER & MOUNT

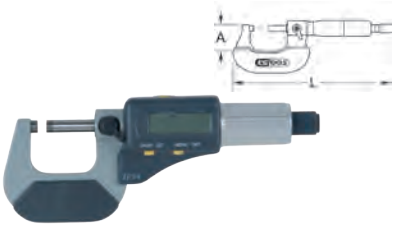
Micrometer

- In accordance with DIN 863
- With measurement locking screw
- Measuring force rule through ratchet sensation
- Spindle made out of hardened steel
- Measuring surfaces with hard metal tips
- With hand warmth insulation
- Stainless steel
- In durable plastic case

	Measuring range mm	A mm	L mm	Display accuracy mm	Ø Spindle mm	Ø Drum mm	Ø Spindle pitch mm	g	
300.0555	0-25	30.0	130.0	+/- 0,01	6,5	17,0	0,5	300	
300.0556	25-50	35.0	165.0	+/- 0,01	6,5	17,0	0,5	315	
300.0557	50-75	46.0	190.0	+/- 0,01	6,5	17,0	0,5	370	
300.0558	75-100	58.0	220.0	+/- 0,01	6,5	17,0	0,5	485	

Digital outside micrometre

- DIN 863
- With measured value locating screw
- Measuring force rule through ratchet sensation
- Measuring surfaces with hard metal tips
- With hand warmth insulation
- Stainless steel
- 2 mm feed enables quick measurement
- IP54
- Large LCD display
- With automatic switching off
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Ø Spindle mm	Ø Drum mm	Ø Spindle pitch mm	g	
300.0580	0-25	24.0	160.0	+/- 0,01	6,5	17,0	0,5	310	
300.0581	25-50	32.0	180.0	+/- 0,01	6,5	17,0	0,5	320	
300.0582	50-75	45.0	205.0	+/- 0,01	6,5	17,0	0,5	370	
300.0583	75-100	57.0	220.0	+/- 0,01	6,5	17,0	0,5	390	

Holder for external micrometers

- For external micrometers up to 300 mm
- Clamp opening 16mm
- Clamping jaws made out of plastic
- Inclinable locking facility
- Heavy standing foot
- Cast iron

		kg	
300.0680	Holder for external micrometers	1.80	

Set of outside micrometres

- in accordance with DIN 863
- With measured value locating screw
- Measuring force rule through ratchet sensation
- Spindle made out of hardened steel
- Measuring surfaces with hard metal tips
- With hand warmth insulation
- Stainless steel
- In durable plastic storage case

			kg	
300.0538	4 pcs	Set of outside micrometres	2.45	

consists of:

		g	
300.0555	Micrometer 0-25 mm, matt chrome plated	300	
300.0556	Outside micrometre 25- -50mm.	315	
300.0557	Outside micrometre 50- -75mm.	370	
300.0558	Outside micrometre 75- -100mm.	485	

DIAL GAUGES & TABLE STAND

Precision dial indicator gauge 0 - 10 mm

- In accordance with DIN 878
- With fi ed adjusting screw and revolving scale reading
- Shockproof
- Splash proofed
- Measuring tip protected against contamination by a bellowed sleeve
- Clamping shaft Ø 8 mm H6
- With 2 measuring scales
- Spindle and clamping shaft made from stainless steel
- In durable plastic case

	Measuring range mm	D mm	Display accuracy mm	Pointer revolution mm	g	
300.0560	0 - 10	60.0	+/- 0,01	1.0	280	

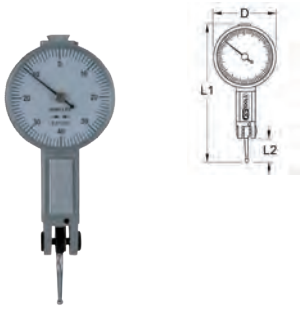
Digital precision dial indicator gauge 0 - 10 mm

- mm/imperial switching
- Reset (to zero) in every position
- Large LCD display figu e height 6,0 mm
- Clamping shaft Ø 8 mm H6
- Automatic switching off
- Spindle and clamping shaft made from stainless steel
- In durable wooden case

	Measuring range mm	D mm	Display accuracy mm	g	
300.0565	0 - 10	60.0	+/- 0,02	280	

Precision-dial indicator gauge with zero setting 0 - 0.08 mm

- DIN 2270
- high performance and anti-magnetic due to its high-quality brass base body
- Tolerance marks
- Gem storage for enhanced sensitivity
- Carbide needle
- 230° turning range of the stylus
- In total there are 3 dovetails for mounting brackets
- Stylus length 16.5 mm
- In durable plastic storage case



	Measuring range mm	D mm	L1 mm	L2 mm	Display accuracy mm	g	
300.0564	0 - 0,08	30.0	75.0	16.5	+/- 0,01	130	

Magnetic measurement stand with 2 joints

- For clamping of the dial indicator
- Revolving base
- Transverse arm with joint and fine a justment
- With on and off switchable magnetic base
- High adhesive force on burnished steel and cast areas
- Also adhesive on convolutions
- Foot with prismatic base and stop area mounted edges
- With dial guage reception Ø 8 mm

	Radius mm	Magnet foot L x W x H mm	Total depth mm	Adhesive force n	Stand Ø mm	kg	
300.0625	180.0	60x50x55	280.0	600,0	16,0	2.00	

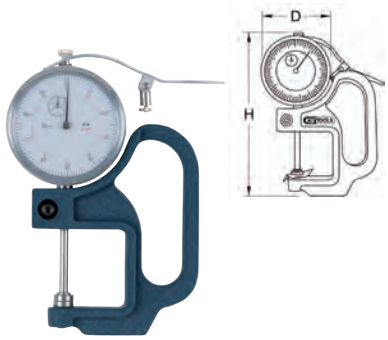
Magnetic measurement stand with 3 joints

- For clamping of the dial indicator
- Revolving base
- Transverse arm with joint and fine a justment
- With on and off switchable magnetic base
- High adhesive force on burnished steel and cast areas
- Also adhesive on convolutions
- Foot with prismatic base and stop area mounted edges
- With dial guage reception Ø 8 mm

	Radius mm	Magnet foot L x W x H mm	Total depth mm	Adhesive force n	Stand Ø mm	kg	
300.0623	280.0	50x55x60	380.0	600,0	12,0	1.70	

Precision-dial indicator gauge 0 - 30 mm

- in accordance with ISO 9001
- with standard dial
- for measuring thickness of wires, sheet metal, film , threads etc.
- suitable for direct and comparative measurements
- with rotating scale
- Button made out of stainless steel
- Bracket made from cast iron
- In durable plastic case



	Measuring range mm	D mm	H mm	Display accuracy mm	Pointer revolution mm	g	
300.0624	0 - 30 mm	60.0	140	+/- 0,01	1.0	300	

THREAD- & FEELER GAUGES

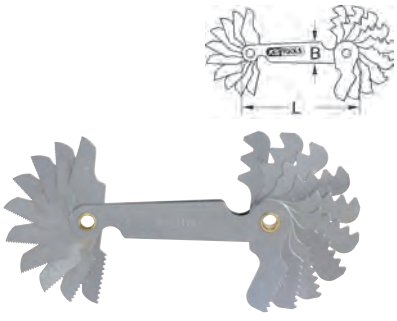
Welding seam gauge

- For measuring the welded seams at right angled welded corners
- Blades fan shaped on a ring
- Leaves individually marked with size
- Blades made out of hardened spring steel

	Tooth pitch		g	
300.0619	12	3,0-3,5-4,0-4,5-5,0-5,5-6,0-6,5-7,0-8,0-10,0-12,0	50	

Thread gauge

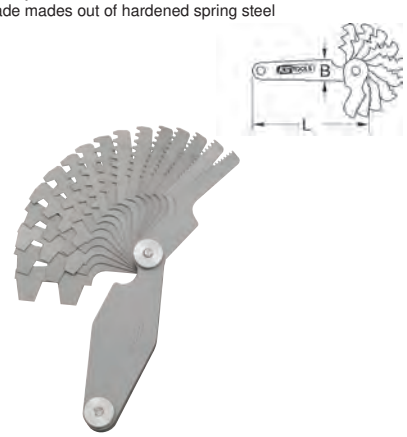
- For controlling and increasing the interior thread and outside thread
- Imperial sizes
- Cylindrical tapered
- Leaves fan shaped arrangement
- Leaves individually marked with size
- Out of hardened spring steel



	Tooth pitch	Measuring range	B mm	L mm	g	
301.0090	22	4-4,5-5-6-7-8-9-10-11-12-13-14-16-18 20-22-24-32-40-48-56-64mm	12.2	66.5	40	
301.0095	20	0,40-0,45-0,50-0,60-0,70-0,75-0,80-1,00-1,25-1,50-1,75-2,00-2,50-3,00-3,50-4,00-4,50-5,00-5,50-6,00mm	12.2	66.5	40	

Trapezoid steel thread gauge

- In accordance with DIN 103
- For measuring of trapezoid thread 2 - 12 mm pitch and tooth angle
- 30° notch
- Cleanly milled
- Blade mades out of hardened spring steel



	Thread	Measuring range mm	L mm	B mm	g	
300.0622	30°	2-3-4-5-6-7-8-9-10-12-16-20	120.0	40.0	150	

TORX® gauge

- For testing of TX and E profil s
- Measuring caps fan shaped on a ring
- Individually marked with size
- Measuring caps made from plastic

			g	
300.0610	20 pcs	E1xT5 - E2xT6 - E4xT7 - E5xT8 - E6xT9 - E7xT10 - E8xT15 - E10xT20 - E11xT25 - E12xT27- E14xT30 - E16xT35 - E18xT40 - E20xT45 - E22xT47 - E24xT50 - E26xT55 - E28xT60 - E30xT70	50	

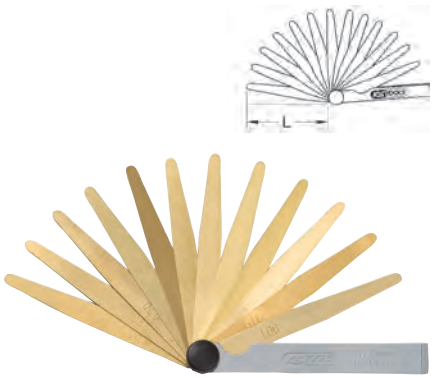
Feeler gauge

- For the testing of intervals, contact distances, etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Blades made out of hardened spring steel

	Tooth pitch	Measuring range mm	L mm	g	
300.0600	20	0,05-0,10-0,15-0,20-0,25-0,30-0,35-0,40-0,45-0,50-0,55-0,60-0,65-0,70-0,75-0,80-0,85-0,90-0,95-1,00	100.0	50	

Antimagnetic brass feeler gauge

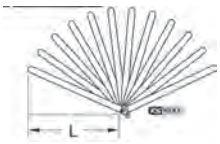
- For the testing of intervals, contact distances, etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Blades made of brass



	Tooth pitch	Measuring range mm	L mm	g	
300.0611	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	100.0	55	
300.0612	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	100.0	70	
300.0613	20	0,05-0,1-0,15-0,2-0,25-0,3-0,35-0,4-0,45-0,5-0,55-0,6-0,65-0,7-0,75-0,8-0,85-0,9-0,95-1,0	100.0	85	

Piston tolerance gauge

- For the testing of intervals, contact distances, etc.
- Feeler gauge cylindrical
- Blades fan shaped on a ring
- Leaves individually marked with size
- Blades made out of hardened spring steel

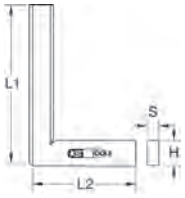


	Tooth pitch	Measuring range mm	L mm	g	
300.0614	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	150.0	30	
300.0617	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	200.0	50	
300.0615	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	150.0	80	
300.0618	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	200.0	150	
300.0616	20	0,05-0,1-0,15-0,2-0,25-0,3-0,35-0,4-0,45-0,5-0,55-0,6-0,65-0,7-0,75-0,8-0,85-0,9-0,95-1,0	150.0	150	

SQUARES

Square

- Ideal for general working
- Machined on all sides
- Steel



	L1 mm	L2 mm	H mm	S mm	g	
300.0231	100.0	70.0	20.0	5.0	115	
300.0232	150.0	100.0	20.0	5.0	175	
300.0233	200.0	130.0	20.0	5.0	250	
300.0234	250.0	160.0	25.0	5.0	375	
300.0235	300.0	180.0	25.0	5.0	525	
300.0236	400.0	230.0	30.0	5.0	615	
300.0237	500.0	280.0	30.0	5.0	870	
300.0238	600.0	330.0	30.0	5.0	1095	
300.0239	750.0	375.0	30.0	5.0	1550	
300.0241	1000.0	500.0	30.0	5.0	2910	

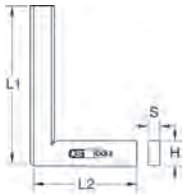
Square

- In accordance with DIN 875/1
- For the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances fin ly ground and aligned
- Stock and cross section fin ly ground and alinged
- Special steel

	L1 mm	L2 mm	H mm	S mm	g	
300.0199	75.0	50.0	15.0	5.0	80	
300.0200	100.0	70.0	20.0	5.0	100	
300.0201	150.0	100.0	25.0	5.0	250	
300.0202	200.0	130.0	30.0	6.0	500	
300.0203	250.0	165.0	35.0	7.0	700	
300.0204	300.0	200.0	40.0	8.0	1150	
300.0205	400.0	265.0	40.0	8.0	1180	
300.0206	500.0	330.0	40.0	8.0	2800	

Square

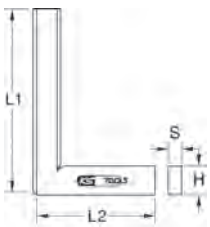
- In accordance with DIN 875/0
- Ideal for the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances fin ly ground and aligned
- Stock and cross section fin ly ground and alinged
- Stainless steel



	L1 mm	L2 mm	H mm	S mm	g	
300.0291	50.0	40.0	12.0	5.0	40	
300.0292	75.0	50.0	15.0	5.0	70	
300.0293	100.0	70.0	20.0	5.0	115	
300.0294	150.0	100.0	25.0	5.0	210	
300.0295	200.0	130.0	30.0	6.0	350	
300.0296	250.0	165.0	35.0	7.0	850	
300.0297	300.0	200.0	40.0	8.0	1300	

Square

- In accordance with DIN 875/2
- Ideal for accurate working in precision mechanical engineering and shop floor us
- Perpendicularity-, Parallelism- and smoothness tolerances ground
- Stock area and cross area ground
- Special steel



	L1 mm	L2 mm	H mm	S mm	g	
300.0254	75.0	50.0	15.0	5.0	80	
300.0255	100.0	70.0	20.0	5.0	100	
300.0256	150.0	100.0	25.0	5.0	240	
300.0257	200.0	130.0	30.0	6.0	450	
300.0258	250.0	165.0	35.0	7.0	550	
300.0259	300.0	175.0	40.0	8.0	800	
300.0260	400.0	200.0	45.0	10.0	1100	
300.0261	500.0	250.0	50.0	10.0	1600	

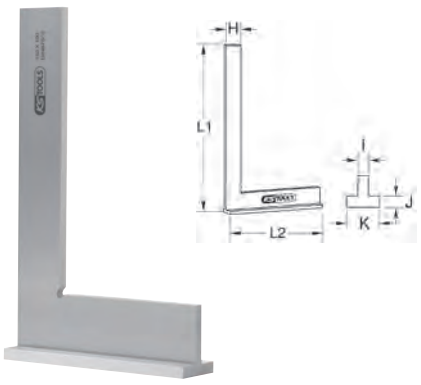
Square with stock

- Ideal for general working
- Stock
- Machined on all sides
- Steel

	L1 mm	L2 mm	H mm	I mm	J mm	K mm	g	
300.0270	100.0	70.0	20.0	5.0	5.0	20.0	170	
300.0271	150.0	100.0	20.0	5.0	5.0	20.0	260	
300.0272	200.0	130.0	20.0	5.0	5.0	20.0	340	
300.0273	250.0	160.0	25.0	5.0	5.0	25.0	530	
300.0274	300.0	180.0	25.0	5.0	5.0	25.0	620	
300.0275	400.0	230.0	30.0	6.0	6.0	30.0	1160	
300.0276	500.0	280.0	30.0	6.0	6.0	30.0	1440	
300.0277	600.0	330.0	30.0	6.0	6.0	30.0	1720	
300.0278	750.0	375.0	30.0	6.0	6.0	30.0	2060	
300.0279	1000.0	500.0	30.0	6.0	6.0	30.0	2760	

Square with stock

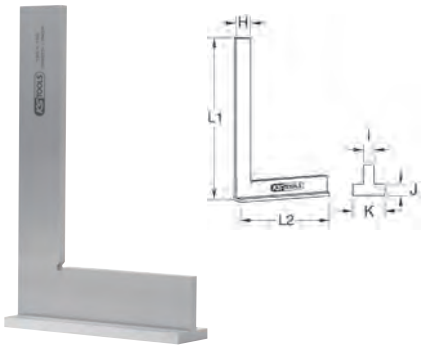
- In accordance with DIN 875/2
- Ideal for accurate working in precision mechanical engineering and shop floor us
- Stock
- Perpendicularity-, Parallelism- and smoothness tolerances ground
- Stock area and cross area ground
- Special steel



	L1 mm	L2 mm	H mm	I mm	J mm	K mm	g	
300.0281	75.0	50.0	15.0	5.0	5.0	15.0	100	
300.0282	100.0	70.0	20.0	5.0	5.0	20.0	155	
300.0283	150.0	100.0	25.0	5.0	5.0	25.0	330	
300.0284	200.0	130.0	30.0	6.0	6.0	30.0	650	
300.0285	250.0	165.0	35.0	7.0	7.0	35.0	750	
300.0286	300.0	175.0	35.0	7.0	7.0	35.0	1200	
300.0287	400.0	200.0	40.0	8.0	8.0	40.0	1480	
300.0288	500.0	250.0	40.0	8.0	8.0	40.0	2300	

Square with stock

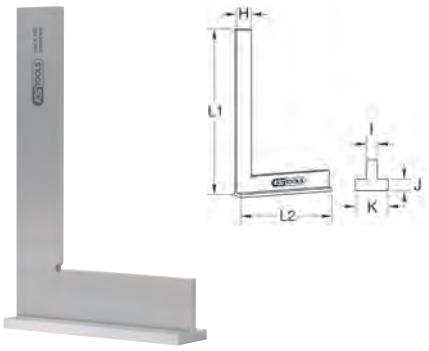
- In accordance with DIN 875/1
- For the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances fin ly ground and aligned
- Stock and cross section fin ly ground and alinged
- Stock
- Special steel



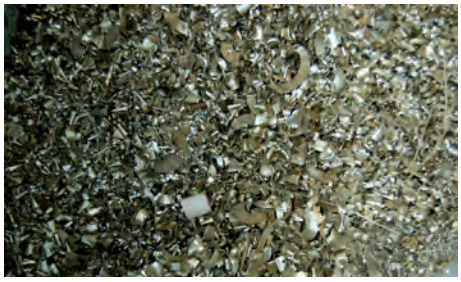
	L1 mm	L2 mm	H mm	I mm	J mm	K mm	g	
300.0209	75.0	50.0	15.0	5.0	5.0	15.0	100	
300.0210	100.0	70.0	20.0	5.0	5.0	20.0	150	
300.0211	150.0	100.0	25.0	5.0	5.0	25.0	400	
300.0212	200.0	130.0	30.0	6.0	6.0	30.0	700	
300.0213	250.0	165.0	35.0	7.0	7.0	35.0	1100	
300.0214	300.0	200.0	40.0	8.0	8.0	40.0	1600	
300.0215	400.0	265.0	40.0	8.0	8.0	40.0	2700	
300.0216	500.0	330.0	40.0	8.0	8.0	40.0	4360	

Square with stock

- In accordance with DIN 875/0
- Ideal for the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances fin ly ground and aligned
- Stock and cross section fin ly ground and alinged
- Stock
- Stainless steel

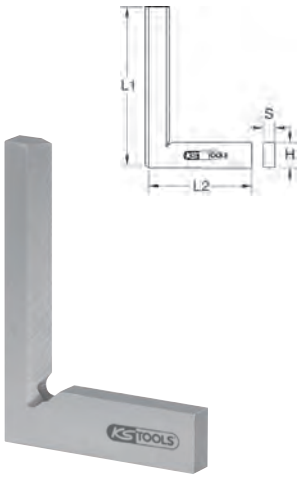


	L1 mm	L2 mm	H mm	I mm	J mm	K mm	g	
300.0311	50.0	40.0	14.0	5.5	4.5	18.0	60	
300.0312	75.0	50.0	18.5	5.5	4.5	17.5	100	
300.0313	100.0	70.0	20.0	5.5	5.0	23.4	185	
300.0314	150.0	100.0	24.0	5.5	6.0	23.4	330	
300.0315	200.0	130.0	28.5	6.0	6.0	27.5	560	
300.0316	250.0	165.0	36.0	8.0	7.0	32.0	1050	
300.0317	300.0	200.0	39.0	8.0	8.0	38.0	1490	



Precision hard square

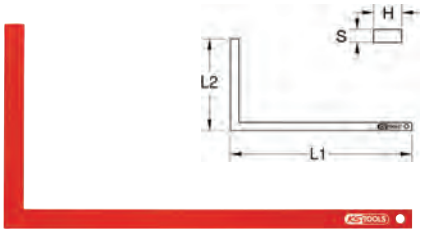
- In accordance with DIN 875/00
- For inspection and test working in light cold processing
- Perpendicularity -, Parallelism- and smoothness tolerances fin ly ground and aligned
- Stock and cross section fin ly ground and alinged
- Hardened
- Stainless steel



	L1 mm	L2 mm	H mm	S mm	g	
300.0318	25.0	20.0	5.0	3.5	40	
300.0319	40.0	28.0	5.0	3.5	80	

Carpenters square

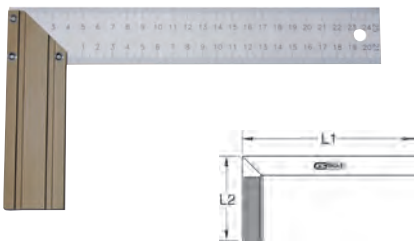
- Hanging hole
- Without head stock
- Red powder coating
- Quenched and tempered
- Special steel



	L1 mm	L2 mm	H mm	S mm	g	
300.0250	500.0	260.0	35.0	5.0	840	
300.0251	600.0	280.0	35.0	5.0	1070	
300.0252	800.0	320.0	35.0	5.0	1370	
300.0253	1000.0	380.0	35.0	5.0	1700	

Cabinetmakers square with aluminium stock

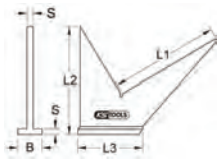
- Stock made from aluminium
- Upper edge divisions 1 mm
- Lower edge divisions 1 mm
- Large decimal scale
- Units engraved
- Scale division in black
- Blade made from cast iron



	L1 mm	L2 mm	g	
300.0220	250.0	140.0	70	

Mitre angle

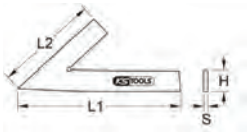
- In accordance with DIN 875/2
- Ideal for the most accurate working and inspection in precision mechanical engineering
- Stock and cross section fin ly ground and aligned
- With stock
- Special high performance steel



	L1 mm	L2 mm	L3 mm	S mm	B mm	g	
300.0217	107.0	92.0	47.0	5.0	25.0	400	
300.0218	128.0	110.0	59.0	5.0	25.0	450	
300.0219	155.0	130.0	70.0	5.0	25.0	500	

Sharpening angle 45°

- In accordance with DIN 875/2
- For the most accurate working and inspection in precision mechanical engineering
- Stock and cross section fin ly ground and aligned
- With stock
- Special steel



	L1 mm	L2 mm	S mm	H mm	g	
300.0224	200.0	130.0	5.0	25	280	

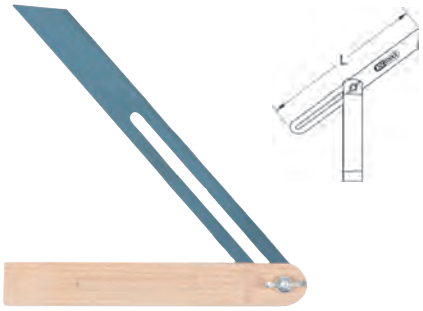
Adjustable square with steel blade

- Blade made from steel
- Ideal for simple metal working
- Wing nut for locking
- Channel for the adjustment of the angle
- Chrome plated
- Spring steel

	L mm	g	
300.0327	200.0	180	
300.0328	250.0	200	
300.0329	300.0	220	
300.0330	400.0	240	
300.0331	500.0	260	

Adjustable square

- Ideal for simple metal working
- Head stock out of wood and/or cast iron
- Wing nut for locking
- Channel for the adjustment of the angle
- Chrome plated
- Spring steel

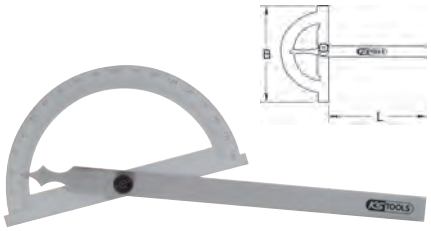


	L mm	Blade	g	
300.0230	250.0	cast iron	200	
300.0240	250.0	wood	100	

PROTRACTOR

Protractor with open arch

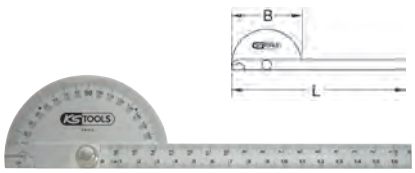
- Ideal for measuring of angles 0 - 180°
- Half round open arch
- With locking screw
- Degree graduation 1°
- With large decimal scale
- Units engraved
- Scale division in black
- Anti glare matt finis
- Stainless steel



	B mm	L mm	g	
300.0640	100.0	120.0	150	
300.0641	140.0	150.0	200	
300.0642	170.0	200.0	300	
300.0643	220.0	300.0	500	
300.0644	320.0	500.0	1400	
300.0645	320.0	600.0	1450	
300.0646	320.0	800.0	1500	
300.0647	420.0	600.0	2600	
300.0648	420.0	800.0	2900	
300.0649	420.0	1000.0	3400	

Protractor

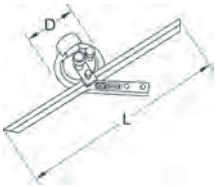
- Ideal for measuring of angles 0 - 180°
- Half round arch
- Locking screw
- Divisions printed in two directions
- Two direction scale in mm division in upper and lower edge
- Units engraved
- Scale division in black
- Anti glare matt finis
- Stainless steel

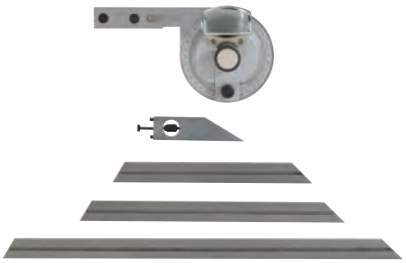


	B mm	L mm	g	
300.0700	90.0	220.0	70	
300.0701	200.0	400.0	150	

Universal protractor

- Ideal for the measuring of angles on workpieces, devices and machines
- Also can be used as a ruler, cross and mitre square
- Locking screw
- Reading with magnifiyi g glass for viewing fi ld over the entire vernier scale
- Fine adjustment through geared wheel and toothed rim
- Indicating dial reading 4 x 90°
- Vernier scale reading 1/12° - 5 angular minutes
- Units engraved
- Anti glare matt finish m tt chrome
- Includes 3 measuring bars 150 mm, 200 mm und 300 mm
- Stainless steel
- In durable plastic case





	D mm	L mm	g	
300.0207	70.0	300.0	600	

FOLDING RULES

Wooden folding rule, yellow

- Out of ten yellow dividers
- Outside visible joints with spring fi tings
- Through riveted joints
- Two sided mm divisions on the upper and lower edge
- Large decimal scale
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Beech wood

	L m	Width mm	Number of links	g	
300.0060	2.0	16.0	10	100	

Wooden folding rule, white

- Out of ten white dividers
- Outside visible joints with brass spring fi tings
- Through riveted joints
- Two sided mm divisions on the upper and lower edge
- Large decimal scale red marking
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Beech wood

	L m	Width mm	Number of links	g	
300.0062	2.0	16.0	10	110	

Wooden folding rule, white/yelllow

- Out of ten white/yelllow dividers
- Outside visible joints with brass spring fi tings
- Through riveted joints
- Two sided mm divisions on the upper and lower edge
- Large decimal scale red marking
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Beech wood

	L m	Width mm	Number of links	g	
300.0063	2.0	16.0	10	100	

Plastic folding rule, yellow

- Out of ten yellow dividers
- Durable special joint connection
- Two sided mm divisions on the upper and lower edge
- Large decimal scale
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Glass fib e reinforced and bends resistant ABS-plastic

	L m	Width mm	Number of links	g	
300.0061	2.0	16.0	10	100	

REEL TAPE MEASURES

Tape measure with locking device and belt clip

- Yellow varnished steel strip
- mm divisions on the upper and lower edge
- Scale division in black
- Decimal in red marking
- Automatic tape returns and tape locking
- Plastic tape guide
- Wrist strap
- Measuring accuracy according to EC accuracy class II
- Weathering spring band steel
- Dual component plastic housing

	L m	Tape width mm	g	
300.0113	3.0	16.0	100	
300.0114	5.0	19.0	130	
300.0115	5.0	25.0	190	
300.0116	8.0	25.0	210	

Tape measure with locking device and belt clip

- Yellow lacquered, abrasion proof polyamide coated steel tape
- mm divisions on the upper and lower edge
- Scale division in black
- Decimal in red marking
- Automatic tape returns and tape locking
- Metallic tape guide
- Wrist strap
- Measuring accuracy according to EC accuracy class II
- Flexible, kink proof weathering spring band steel
- ABS two component housing

	L m	Tape width mm	g	
300.0131	3.0	16.0	100	
300.0132	5.0	19.0	150	
300.0133	5.0	25.0	150	
300.0134	8.0	25.0	370	
300.0135	10.0	30.0	500	

Tape measure with locking device, belt clip and magnetic stop

- Yellow lacquered, abrasion proof polyamide coated steel tape
- mm divisions on the upper and lower edge
- Scale division in black
- Decimal in red marking
- Automatic tape returns and tape locking
- Magnetic stop
- Measuring accuracy according to EC accuracy class II
- Flexible, kink proof weathering spring band steel
- ABS two component housing

	L m	Tape width mm	g	
300.0143	5.0	25.0	150	

Enclosed tape measure with plastic tape

- Yellow glass fib e reinforced plastic tape
- Stretch, abrasion resistant and washable
- Measuring begins at 100 mm after measurement stop
- cm division on the lower edge
- Large decimal scale-red marking
- Scale division in black
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class III
- Impact resistant, ABS plastic housing

	L m	Tape width mm	g	
300.0040	10.0	10.0	350	
300.0041	20.0	10.0	400	
300.0042	30.0	10.0	550	
300.0043	50.0	10.0	690	

Frame tape measure with yellow steel tape

- Yellow laquered, abrasion proof polyamide coated steel tape
- Measuring begins at 100 mm after measurement stop
- mm division on the lower edge
- Large decimal scale red marking
- Scale division in black
- Two ball bearings guarantee easy winding in and out
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class III
- Impact resistant, ABS plastic housing

	L m	Tape width mm	g	
300.0055	30.0	13.0	800	
300.0056	50.0	13.0	1000	

Frame tape measure with yellow steel tape

- Yellow laquered, abrasion proof polyamide coated steel tape
- mm division on the lower edge
- Large decimal scale
- Scale division in black
- Two ball bearings guarantee easy winding in and out
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class II
- Glass fib e reinforced and bend resistant plastic
- Impact resistant steel framework with plastic handle

	L m	Tape width mm	g	
300.0049	20.0	13.0	800	
300.0050	30.0	13.0	900	
300.0051	50.0	13.0	1000	

Reel tape measure with plastic tape

- White glass fib e reinforced plastic tape
- Stretch, abrasion resistant and washable
- Large decimal scale
- Scale division in black
- Two ball bearings guarantee easy winding in and out
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class III
- Impact resistant steel framework with plastic handle

	L m	Tape width mm	g	
300.0052	20.0	13.0	800	
300.0053	30.0	13.0	900	
300.0054	50.0	13.0	1000	

SPIRIT LEVELS

Aluminium profile pirit level with fine a justment

- Smooth aluminium rectangular profil
- Light profile eight
- Accurate to 0,5 mm per meter
- 4 robust Acrylglas-vials (0° + 45° + 90°)
- Fine adjustment
- 1,8 mm wall thickness
- Hanging hole
- Aluminium

	L mm	B mm	H mm	g
204.5610	600.0	22.0	50.0	250
204.5810	800.0	22.0	50.0	350
204.5910	1000.0	22.0	50.0	450

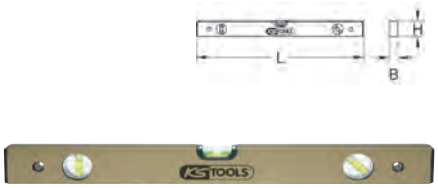
Aluminium profile pirit level with pipe levelling

- Aluminium rectangular profil
- Profile raduated for pipe leveling
- Light profile eight
- 2 through handles for easier handling
- Accurate to 0,5 mm per meter
- 3 robust Acrylglas vials (0° + 90°)
- Push softening end caps
- Measuring area milled
- 1,8 mm wall thickness
- Hanging hole
- Aluminium

	L mm	B mm	H mm	g
204.7050	500.0	27.0	64.0	450
204.7060	600.0	27.0	64.0	550
204.7080	800.0	27.0	64.0	730
204.7100	1000.0	27.0	64.0	910
204.7150	1500.0	27.0	64.0	1370

Aluminium profile pirit level

- Smooth aluminium rectangular profil
- Light profile eight
- Accurate to 0,5 mm per meter
- 3 robust Acrylglas vials (0° + 45° + 90°)
- 1,8 mm wall thickness
- Hanging hole
- Aluminium



	L mm	B mm	H mm	g
204.5400	400.0	22.0	50.0	200
204.5500	500.0	22.0	50.0	240
204.5600	600.0	22.0	50.0	300
204.5800	800.0	22.0	50.0	350
204.5900	1000.0	22.0	50.0	400

Heavy aluminium die cast spirit level

- Skeleton profil
- Accurate to 0,5 mm per meter
- 3 robust Acrylglas vials (0° + 45° + 90°)
- Very high torsional stiffness
- All sides of the level can be used as the reading edge
- Measuring area and front sides milled
- Hanging hole
- Aluminium

	L mm	B mm	H mm	g
204.4410	400.0	23.0	44.0	200
204.4610	600.0	23.0	44.0	400
204.4810	800.0	23.0	44.0	600

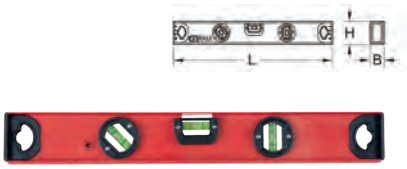
Aluminium profile pirit level, magnetic

- DIN 877
- Smooth aluminium rectangular profil
- Light profile eight
- Accurate to 0,5 mm per meter
- 2 robust Acrylglas vials (0° + 90°)
- Hanging hole
- Magnetic
- Aluminium

	L mm	B mm	H mm	g
204.5470	400.0	21.0	50.0	280
204.5471	600.0	21.0	50.0	280

Spirit level, magnetic

- DIN 877
- Skeleton profil
- With 2 through handles for easier handling
- Accurate to 0.5 mm per metre
- 3 robust Acrylglas-block vials (0° + 90° + angle vial)
- With hanging hole
- Magnetic
- made of stabilised cast iron
- Shock-absorbing end caps



	L mm	B mm	H mm	g
204.5480	600.0	25.0	54.0	280
204.5481	800.0	25.0	54.0	300

Heavy aluminium die cast spirit level in torpedo form

- Skeleton profil
- Accurate to 0,5 mm per meter
- 2 robust Acrylic vials (0° + 90°)
- Very high torsional stiffness
- Torpedo form
- Measuring area milled
- Hanging hole
- Made from aluminium die cast

	L mm	B mm	H mm	g
204.4400	400.0	23.0	47.0	260
204.4500	500.0	23.0	47.0	300
204.4600	600.0	23.0	47.0	400
204.4800	800.0	23.0	47.0	650
204.4900	1000.0	23.0	47.0	800

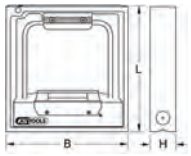
Heavy aluminium die cast spirit level in torpedo form, magnetic

- Skeleton profil
- Accurate to 0,5 mm per meter
- 2 robust Acrylglas vials (0° + 90°)
- Very high torsional stiffness
- Torpedo form
- Magnetic
- Measuring area milled
- Hanging hole
- Made from aluminium die cast

	L mm	B mm	H mm	g
204.6400	400.0	23.0	47.0	470
204.6500	500.0	23.0	47.0	600
204.6600	600.0	23.0	47.0	600
204.6800	800.0	23.0	47.0	1000

Spirit level with a frame

- DIN 877
- made of stabilised cast iron
- Lateral surfaces are fi ted with anti-slip insulating plates
- Accurate to 0.04 mm per metre
- 1 robust Acrylglas-block vial (0°)
- Vial is protected behind transparent Plexiglas
- in a durable metal case



	L mm	B mm	H mm	kg	
204.5487	200.0	200.0	42.5	2.00	

RULERS

Semi fl xible steel ruler

- Upper edge 1 mm
- Lower edge 1 mm
- Large decimal scale
- Units engraved
- Scale division in black
- Anti glare matt finish efle tion free
- Rounded edges
- Measuring accuracy according to EC accuracy class II
- Rust proof
- Hard tempered spring steel

	L mm	H mm	g	
300.0110	300.0	30.0	70	
300.0111	500.0	30.0	105	
300.0112	1000.0	30.0	245	
300.0117	1500.0	30.0	370	
300.0118	2000.0	30.0	490	

Flexible steel ruler

- Upper edge1/2 mm
- Lower edge 1 mm
- Large decimal scale
- Units engraved
- Scale division in black
- Anti glare matt finish efle tion free
- Rounded edges
- Measuring accuracy according to EC accuracy class II
- Rust proof
- Hard tempered spring steel

	L mm	H mm	g	
300.0101	150.0	13.0	9	
300.0102	200.0	13.0	11	
300.0103	250.0	13.0	14	
300.0104	300.0	13.0	16	
300.0105	500.0	13.0	37	
300.0106	1000.0	13.0	72	

Precision ruler

- mm division on the upper edge
- Chamfer
- Without protective layer
- Hanging hole
- Finely polished and zinc plated
- Steel

	L mm	H mm	S mm	g	
300.0121	300.0	50.0	5.0	186	
300.0122	500.0	50.0	5.0	292	
300.0123	600.0	50.0	5.0	350	
300.0124	800.0	50.0	5.0	460	
300.0125	1000.0	50.0	5.0	600	

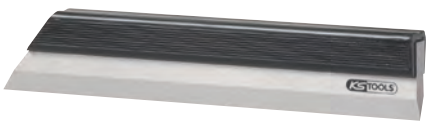
Precision straightedge

- For the inspection and the exact working on cylinder heads
- In accordance with DIN 874/1
- Double T profile ail with rear 5 hand slots
- On edge and fl t sides examination process
- Hanging hole
- Steel

	L mm	H mm	S mm	kg	
152.1090	600.0	30.0	16.0	2.10	

Precision straightedge

- In accordance with DIN 874/00
- Hand warmth protection
- Test area precise and fin ly engineered
- Flatness tolerance for highest accuracy
- For controlled and test working in the light gap procedure
- Hardened
- Stainless steel



	L mm	H mm	g	
300.0630	50.0	25.0	40	
300.0631	75.0	25.0	60	
300.0632	100.0	25.0	80	
300.0633	125.0	25.0	100	
300.0634	150.0	25.0	120	
300.0635	200.0	25.0	160	
300.0636	300.0	25.0	240	
300.0637	400.0	25.0	320	
300.0638	500.0	25.0	400	
300.0639	600.0	25.0	480	

MARKING GAUGE & SCRIBER

Scriber

- For marking of work pieces
- Straight and 70° bent tip
- Knurled handle
- Hardened point
- Burnished
- Special steel

	L mm	D mm	g	
300.0300	190.0	4.0	10	

Hard metal scriber

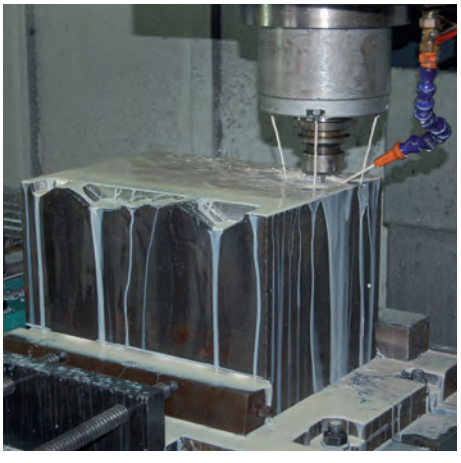
- For marking of work pieces
- Straight form
- Hard metal tip
- Pocket clip
- Hardened point
- Chrome plated
- Special steel

	L mm	D mm	g	
300.0301	145.0	5.0	60	

Hard metal scriber in ball-point pen form

- For marking of work pieces
- Straight form
- Hardened and interchangeable hard metal tips
- Pocket clip
- Protection through foldaway needle tip
- Adjustable and lead bow mine
- Metal housing

	L mm	D mm	Replacement tip	g	
300.0302	150.0	8.0	300.0303	40	



Mechanics marking gauge

- Revolving base
- Fine adjustment by means of a fi ed adjusting screw
- For simple marking of workpieces
- Hardened scribing iron
- Bar made out of stainless steel
- Prism shaped socket made out of cast iron

	H mm	B mm	T mm	g
300.0627	300.0	100.0	80.0	700
300.0628	400.0	400.0	80.0	750
300.0629	500.0	500.0	80.0	780

Precision vernier height gauge

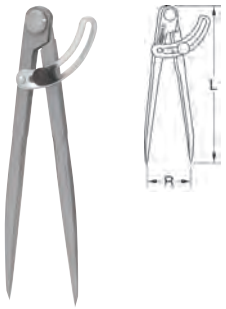
- DIN 862
- Measuring range 0-300 mm
- Fine adjustment by means of a fi ed adjusting screw
- For simple marking of work pieces
- With hardened scribing iron
- Bar made out of stainless steel
- Base made out of cast iron
- Accurate to 0.02mm
- Adjustable magnifying glass
- Measuring table supplied
- in an elegant wooden box

	H mm	B mm	T mm	kg
300.0652	555.0	130.0	90.0	2.90

DIVIDERS

Pointed dividers with regulating arc

- Square edged irgs and riveted hinge
- Locking screw
- Hardened points
- Ground and fin ly polished
- Special steel



	R mm	L mm	g
300.0416	300.0	150.0	135
300.0417	400.0	200.0	190
300.0418	500.0	250.0	275
300.0419	600.0	300.0	320

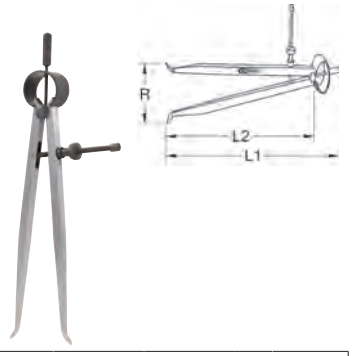
Pointed dividers without regulating arc

- Square edged irgs and riveted hinge
- Hardened points
- Ground and fin ly polished
- Special steel

	R mm	L mm	g
300.0412	300.0	150.0	125
300.0413	400.0	200.0	180
300.0414	500.0	250.0	245
300.0415	600.0	300.0	295

Precision spring gap dividers inside callipers

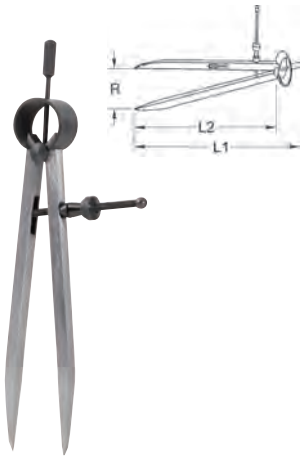
- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and fin ly polished
- Special steel



	R mm	L1 mm	L2 mm	g
300.0421	144.0	200.0	150.0	120
300.0422	200.0	250.0	200.0	160
300.0423	245.0	300.0	250.0	205
300.0424	300.0	355.0	300.0	240

Precision spring pointed dividers

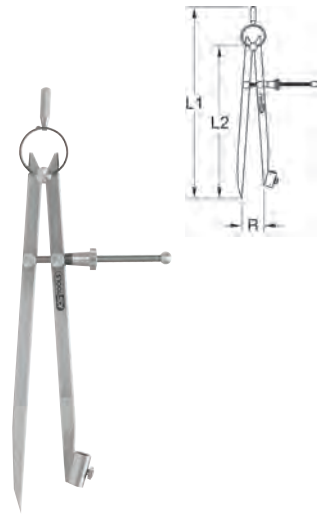
- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and fin ly polished
- Special steel



	R mm	L1 mm	L2 mm	g
300.0402	138.0	200.0	150.0	120
300.0404	190.0	255.0	200.0	160
300.0405	235.0	300.0	250.0	200
300.0406	280.0	360.0	300.0	235

Precision spring pointed dividers with pencil holder

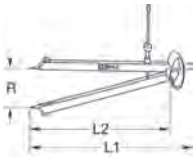
- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and fin ly polished
- Special steel



	R mm	L1 mm	L2 mm	g
300.0411	210.0	260.0	205.0	150

Precision spring pointed dividers with interchangeable tips

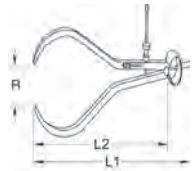
- Extra square edged legs
- Through stay spindle and fast clamping nut
- Interchangeable tips
- Hardened points
- Ground and fin ly polished
- Special steel



	R mm	L1 mm	L2 mm	Replacement tip	g	
300.0429	130.0	190.0	150.0	300.0434	120	
300.0431	190.0	260.0	200.0	300.0434	155	
300.0432	240.0	300.0	250.0	300.0434	205	
300.0433	285.0	355.0	300.0	300.0434	245	

Precision spring gryphon dividers outside callipers

- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and fin ly polished
- Special steel



	R mm	L1 mm	L2 mm	g	
300.0425	180.0	200.0	150.0	135	
300.0426	190.0	260.0	200.0	185	
300.0427	235.0	310.0	250.0	225	
300.0428	280.0	345.0	300.0	260	

Universal marking gauge with stop roller

- Ideal for simple marking of work pieces
- Vernier calliper 1/128"
- Interchangeable tip
- Locking screw
- Measuring bar with mm divisions
- Hardened
- Stainless steel

	Measuring range mm	L mm	Display accuracy mm	Replacement tip	g	
300.0626	200,0	265.0	1/20 mm; 1/128"	300.0651	200	

Precision beam compass

- In accordance with DIN 866/B
- Interchangeable tips
- Fine adjustment
- Measuring bar with mm divisions
- Position slider with reference marker
- Hardened
- Stainless steel

	Measuring range mm	L mm	Display accuracy mm	Replacement tip	kg	
300.0407	0 - 500	660.0	1/10	300.0410	1.18	
300.0408	0 - 1000	1170.0	1/10	300.0410	2.24	

MEASURING AND TESTING TOOLS

Infared thermometer

- Laser pistol for non contact temperature measurement
- Ideally suited for the automotive sector, industrial, and construction usage Chemical and foodsuffs industry
- Laser measuring beam with a red measuring point
- Illuminating Display
- LCD Digital display
- Automatic swiching off
- Includes 9V block battery
- Stable plastic housing

Application range: In turning motors, diffi ult to access places, fluid , under current line directions, in heating appliances, gas and, air-conditioning, coolent systems, brake discs aggressive chemicals and groceries

Technical data:

Switchable:	°C / °F
Working range:	-50° - 500 °C
Emission factor:	adjust to 0.95
Power output max:	1mW
Power requirement:	9V block battery

		g	
150.3040	Infared thermometer	250	

Photoelectric rev counter, LED display/laser

- Portable laser measuring instrument, digital
- For touchless measuring of the rotating speed / number of revolutions
- LED display 18mm
- Automatic back up: last test result / maximum and minimum value
- Laser aim point to focus exactly on the measuring point
- Solid state RPM measurement by refle tors supplied

Application range: Trucks, land and construction machines, municipally and forestery technology, conveyor belts, machinery, revolution motor shafts etc.

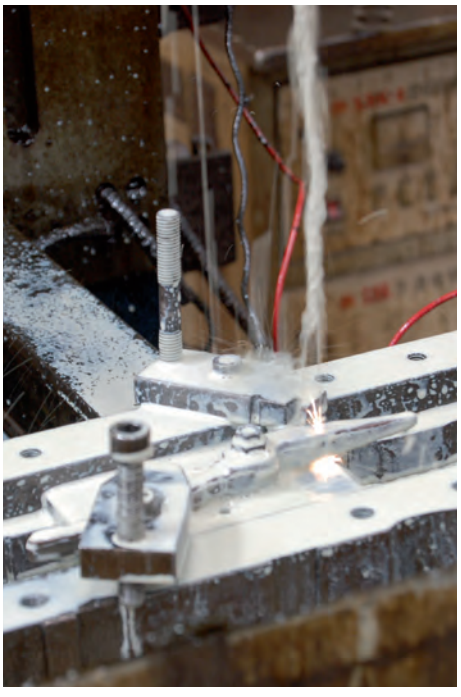
Technical data:

Working range:	2,5 - 99.999 U/min
Measuring distance:	50-500 mm
Resolution:	0.1 RPM up to 999.9 , 1 RPM from 1000
Display accuracy:	0,05% +/- 1
Power requirement:	3x 1,5V AAA (not in the delivery)
Dimensions:	185x73x37mm
Working temperature:	0° / +40°C

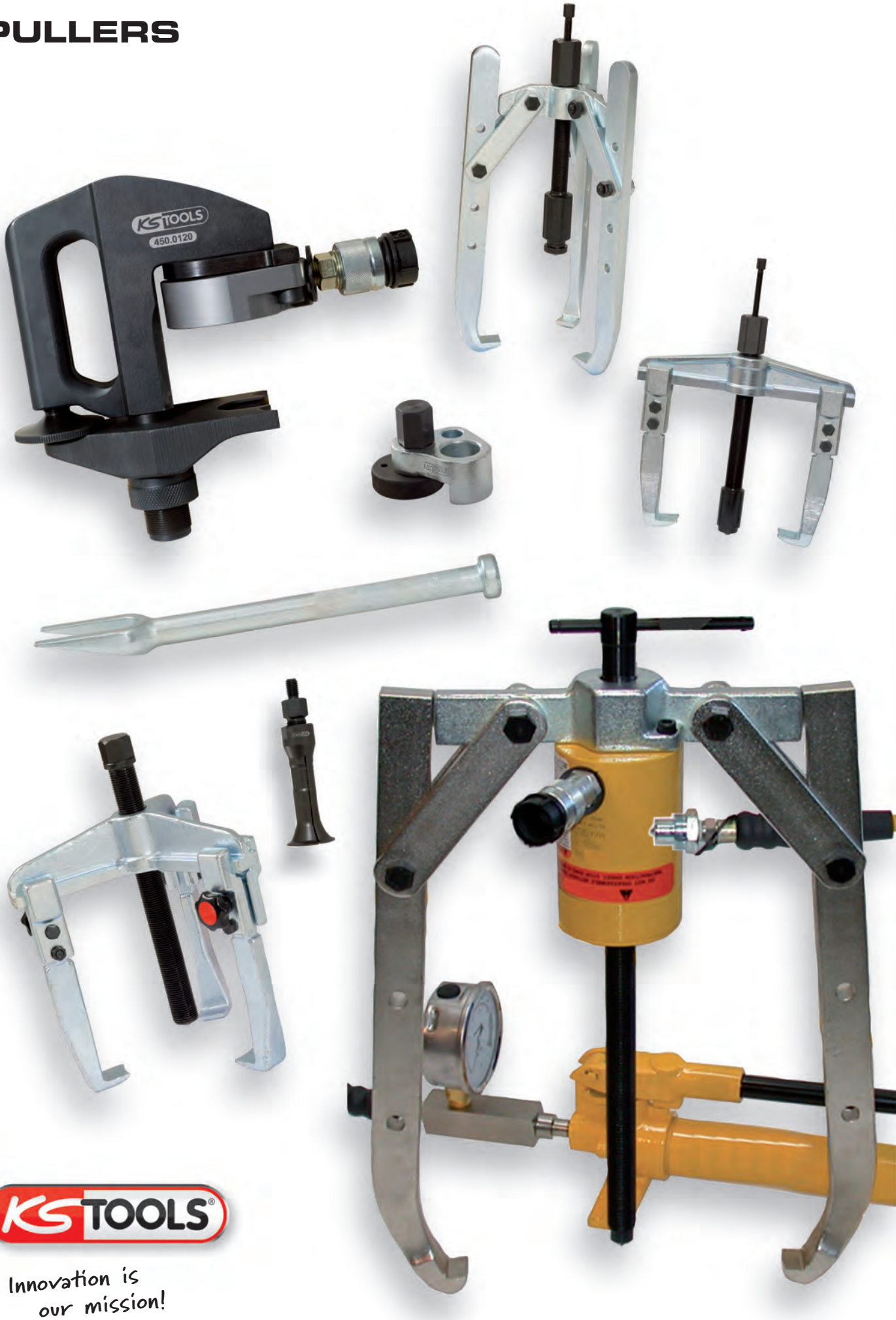
		g	
455.0130	Photoelectric rev counter, LED display/laser	415	

accessories:

		g	
455.0131	Refle tive tape stripes 3 pcs L 200 x W 12 mm	1	



13 PULLERS



KSTOOLS®

Innovation is our mission!

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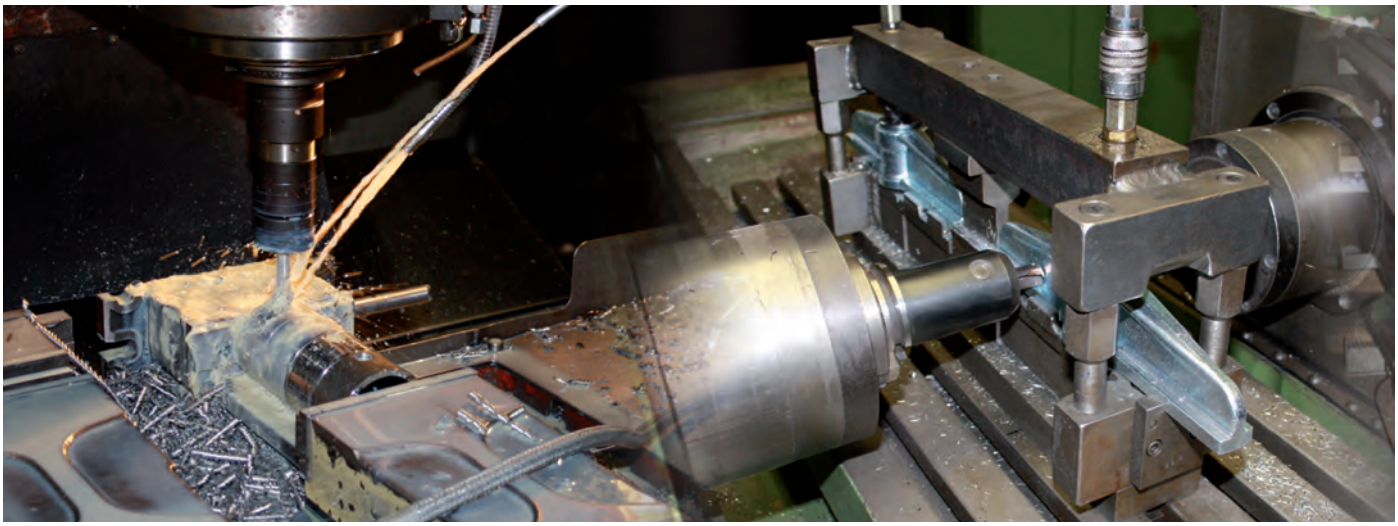
SAFETY AND USAGE INSTRUCTIONS

Removing components may require very high forces. The use of a puller involves risks that should not be underestimated.
Therefore great care must be observed and attention given to safety during each pulling process.

- Prior to commissioning, read through the operating instructions thoroughly and obtain advice from the manufacturer's application consultancy service if anything is unclear.
- Before use, learn about the correct employment of the tool to be used, taking into account the safety measures required.
- Apply pullers securely and monitor the forces that occur during the pulling procedure. If there are signs of overloading for example stiffness - break off pulling procedure immediately and use a larger puller or if necessary another puller model.
- Check the application of force on spindle drives with a torque wrench and on pump-driven, hydraulic puller tools using a pressure gauge. Never exceed the torque and load information on manufacturers' nameplates, in operating instructions or tables.
- Do not use electrical or pneumatic force or impact wrenches to operate pulling tools.
- The use of an extension to increase the transferred torque on the active tool can lead to overload and thus to breakage.
- **Caution:** The load and torque details are to be determined in the laboratory with new pullers and pulling equipment under normal conditions of use. Wear and tear caused by use and unfavourable usage circumstances can negatively influen e the values.
- **Important:** The performance capacity of a combination piece of equipment, such as a puller with a hydraulics system, always depends on the weakest element.
- During the pulling procedure, always cover the danger zone, puller/part to be pulled, with an accident protection tarpaulin, in order to avoid injuries.
- Warming up the component is one method of positively influenci g the pulling procedure.
  Caution: In the process, the puller should never be warmed, as otherwise its strength characteristics can be negatively influen ed.
- Check state of the puller tool prior to any use and immediately replace damaged, manipulated or worn parts.
- Keep spindle threads or traverses clean and well-oiled.
- Regular maintenance lengthens the lifespan of the equipment, protects against accidents and ensures that the puller tool is ready for use.
- Make no alterations whatsoever to the puller tools. Any alteration may lead to dangerous consequences for the operator and automatically results in the expiry of the guarantee claim.
- In accordance with the UVV (Accident Prevention Regulations) or country-specific l gislation, always wear prescribed personal protective equipment such as safety shoes, helmet, protective goggles, gloves, etc.



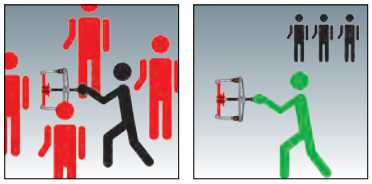
PREVENTIVE ACCIDENT PROTECTION MEASURES

Accident protection tarpaulin covers

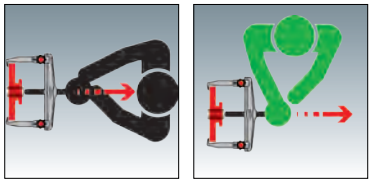
During pulling work there are typically very powerful forces which can jerk components loose or even cause parts to break off or splinter from the pulling object. Parts flyi g around out of control represent a potential danger to the life and limb of the operator.
Our accident protection tarpaulins were developed to effectively eliminate this danger.
The tarpaulins consist of particularly highly-elastic, tear-resistant and oil-resistant special material and will be tautened prior to the pulling procedure around component and puller.
To ensure that it is still possible to properly monitor and control the pulling procedure, the tarpaulins are transparent.
When the working area is being enclosed, the tarpaulins will be securely fastened and held in position with worked-in belts.

General safety instructions

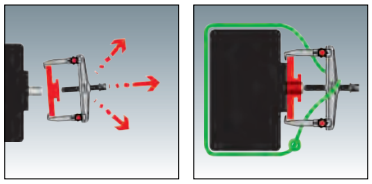
During the pulling procedure as few people as possible should be in the puller‘s working area.



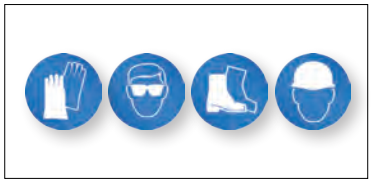
During the pulling procedure, always position yourself at the side and not in the puller‘s pulling axis.
If the component comes loose abruptly, it can lead to the puller shooting away.



If necessary secure the puller against falling or uncontrolled motion away, after successful loosening of the component, with chain or belt, etc.



In accordance with the UVV (accident-prevention regulations) or country-specific l gislation always wear prescribed, personal protective equipment, e.g. safety shoes, helmet, protective goggles, gloves, etc.



SMALL PULLING PRIMER

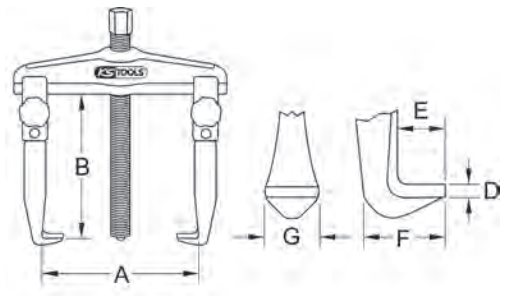
Selection of the puller according to the work task

Inquire about:

type of component	bearing / belt pulley / gear wheel / bushes, etc.
diameter of the component	selection of the work area
pulling depth	selection of the arm length
gripping options on the component	external puller / internal puller / special puller
spatial conditions	standard puller or slim design / 2-arm or 3-arm
support options on the component	on the central axle (spindle) / outside of the housing (bridge yoke) / no support option (slide hammer)

In general, the model determined in this way will exhibit the required characteristics. Regardless of this, however, the largest possible model should always be used as safety must always be paramount here.

Insofar as spatial conditions permit, a three-armed variant should always be preferred to a two-armed variant. Three-armed pullers have a better load distribution of the pulling force than two-armed pullers. This ensures easy, secure and even pulling.



Diameter and pulling depth from the table directly at the item

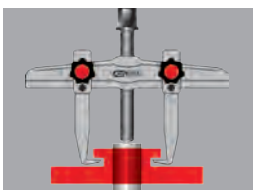
Torque and max. load

	A mm	B mm	C mm	max t	mm	SW mm	D mm	E mm	F mm	G mm	kg
620.1701	20-90	100	70-130	4,5	M14x1,5 x 130	17	3	13	25	20	1,00
620.1702	25-130	100	80-180	4,5	M14x1,5 x 130	17	3	13	25	20	1,20
620.1703	50-160	150	108-220	6,5	G1/2"x14g x 210	22	4	16	35	25	3,00
620.1704	60-200	150	120-270	6,5	G1/2"x14g x 210	22	4	16	35	25	3,30
620.1705	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	35	7,40
620.1706	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	35	8,50

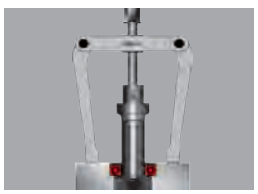
	max. Drehmoment	max. Belastung t
	30	2
	40	2,5
	70	
605.0114	90	5

max. Belastung t
2
2,5
4

External puller

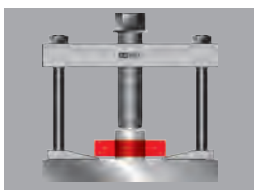


Internal puller

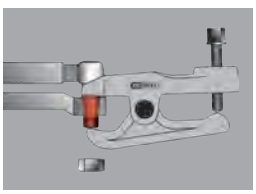


Puller and extractor

Separation equipment

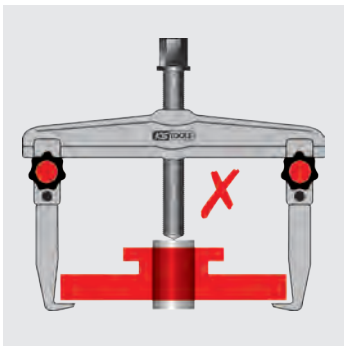


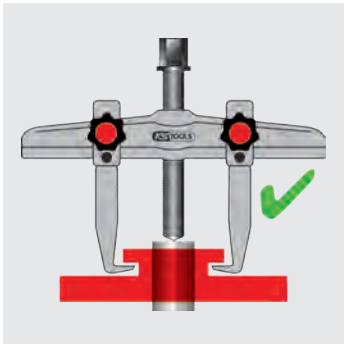
Special puller



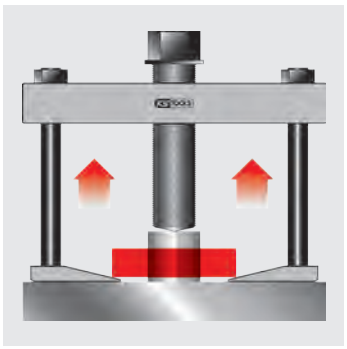
CORRECT PLACEMENT OF A PULLER

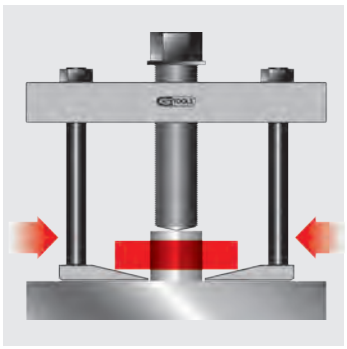
When pulling from belt pulleys, gear wheels, fla ges, etc. the puller arm should always be placed as close as possible in the direction of the centre (at the shaft) (between the spokes / at a collar, etc.). With large components in particular the direct application of force in the base area is signifi antly more effective than on the external diameter and the dimensions of the traverse / arm can be smaller.



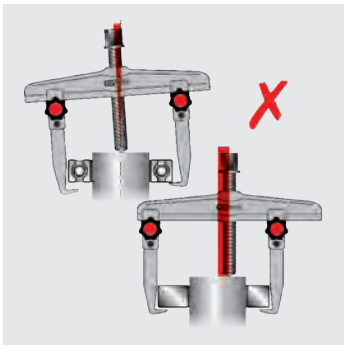


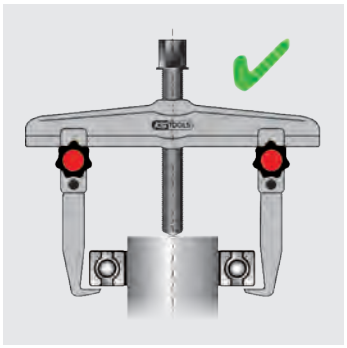
Components lying flush equire tapered gripping elements, such as a knife (e.g. slitting knife/internal extractor/separating puller). To ensure the the gripping elements have an optimal and secure fi , after a brief, powerful pull of the working spindle the puller should be loosened again, in order for the clamping element to then be able to clamp again. This allows the gripping elements to get an even better rear grip.



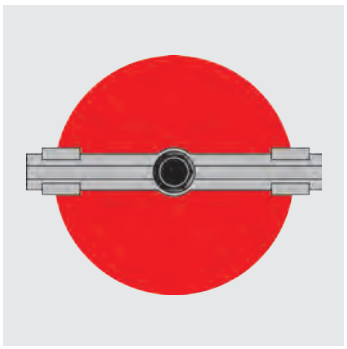


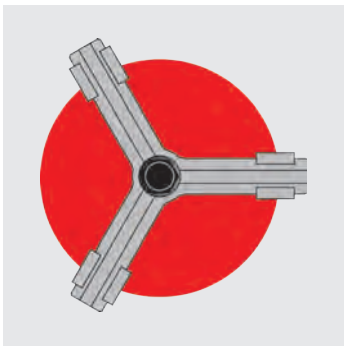
Place the puller arm carefully and ensure that the puller sits precisely in the pulling axis.



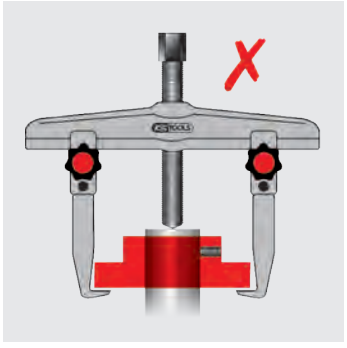


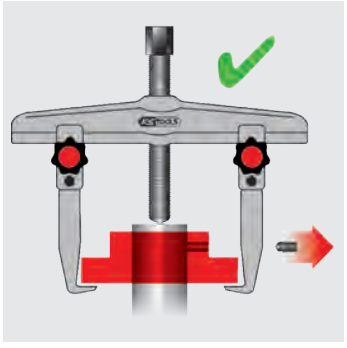
Insofar as spatial conditions permit, a three-armed variant should always be preferred over a two-armed variant. Three-armed pullers have a better load distribution of the pulling force than two-armed pullers. This ensures easy, secure and even pulling.





Before the pulling procedure remove everything that would prevent the unobstructed outwards movement of the part to be pulled. (wedges, screws, fla ges, nuts, dowel pins, etc.)





USE OF THE CORRECT DRIVE TOOLS

Torque wrench

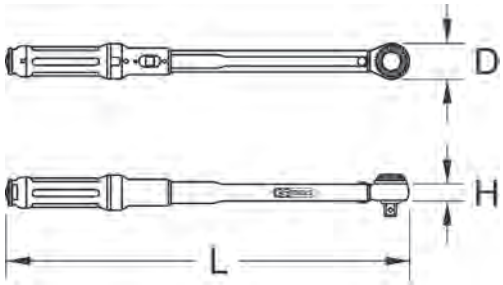
To achieve optimal work results, it is necessary to monitor the application of force to mechanical spindle drives with a suitable torque wrench. On the next page is a table with technical data such as information on the maximum input torque at the drive spindle and the maximum load-bearing capacity of the puller. Note that this input torque is to be measured in such a way that the maximum draw-off strength can be achieved.
Therefore avoid extending the drive tools as this may lead to overload and thus to breakage.
The torque tools listed below are of matched perfectly in type and design to the usage requirements of all KS Tools pullers and correspond to the DIN EN 6789 standards.

ERGOTORQUE®*precision*
torque wrench with rotary button reversible ratchet head

1/4" 3/8" 1/2"

- Release accuracy: ±3 % tolerance from set scale value
- Repeat-accurate and precise for at least 5,000 load reversals
- for controlled clockwise and counterclockwise operation
- with ribbed knob at the reversal square for manual pulling
- The direction of operation is changed by reversing the drive square
- Double scale in N•m and lbf•ft division for precise setting
- including fin ly divisible N•m micrometer scale for fine and p ecise setting
- large viewing window with magnifying function optimises readability
- clearly audible and palpable torque release through close-gap release
- with robust 30-tooth ratchet mechanism
- Torque-setting quickly and safely by turning the handle
- secure locking option on the handle
- ergonomic and hand-friendly 2-component grip with soft zone
- square drive in accordance with DIN 3120 - ISO 1174 with ball-locking device
- individual series number for clear product identifi ation
- including certfi ate in accordance with DIN EN ISO 6789:2003 - traceable to national standard

item	■	N•m	lbf•ft	Division N•m	L mm	D mm	H mm	kg	
516.1412	1/4"	1 - 25	0,8 - 18	0,10	289,0	35,0	18,0	0,46	
516.1422	3/8"	5 - 50	4 - 37	0,25	350,0	45,0	23,0	0,61	
516.1432	1/2"	10 - 100	8 - 75	0,50	412,0	45,0	23,0	0,91	
516.1442	1/2"	20 - 200	15 - 150	1,00	500,0	45,0	23,0	1,30	
516.1472	1/2"	60 - 320	45 - 236	1,00	585,0	45,0	23,0	1,45	
516.1482	1/2"	80 - 420	60 - 310	1,00	678,0	45,0	23,0	2,10	



DRIVE TORQUES AND MAXIMUM TENSILE FORCE (1t=1Mp=10KN)

item	Max. torque Nm	max. t
150.2075	200	6
150.2130	-	10
150.2145	300	-
150.2146	300	-
150.2250	200	6
150.2350	300	-
150.3115	40	2,5
150.3130	35	2,5
150.3140	35	2,5
150.3170	35	2,5
152.1005	100	-
152.1006	100	-
152.1007	100	-
152.1008	100	-
152.1010	100	-
152.1012	100	-
152.1014	100	-
152.1080	30	1,5
152.1100	100	-
152.1101	100	-
450.0000	700	15
450.0001	700	15
450.0002	700	15
450.0003	700	15
450.0004	700	15
450.0035	400	12
450.0040	700	20
450.0050	60	10
450.0051	450	10
450.0060	300	-
450.0061	600	-
450.0062	600	-
450.0070	170	7
450.0071	170	7
450.0075	220	-
450.0076	220	-
450.0085	700	10
450.0120	-	20
450.0126	-	20
450.0300	280	-
450.0305	280	-
500.8610	100	2,5
500.8620	180	2,25
500.8700	-	2,6
605.0111	30	2
605.0112	40	2,5
605.0113	70	4
605.0114	90	5
605.0115	140	7
605.0116	150	13
615.0001	30	12
615.0002	60	12
615.0003	60	12
615.0004	70	15
620.0101	80	4,5
620.0102	80	4,5
620.0103	150	6,5
620.0104	150	6,5
620.0105	320	11
620.0106	320	11

item	Max. torque Nm	max. t
620.0107	360	13
620.0108	400	18
620.0301	60	12
620.0302	60	12
620.0303	60	12
620.0304	60	12
620.0305	60	12
620.0306	60	12
620.0307	70	15
620.0501	80	4,5
620.0502	80	4,5
620.0503	150	6,5
620.0504	150	6,5
620.0505	320	11
620.0506	320	11
620.0507	360	13
620.0508	320	11
620.0509	320	11
620.0510	360	13
620.0511	320	11
620.0512	320	11
620.0513	360	13
620.0701	60	12
620.0702	60	12
620.0703	60	12
620.0704	60	12
620.0705	60	12
620.0706	60	12
620.0707	60	12
620.0708	60	12
620.0709	60	12
620.0710	60	12
620.0711	60	12
620.0901	80	4,5
620.0902	80	4,5
620.0903	150	6,5
620.0904	150	6,5
620.1101	80	4,5
620.1102	80	4,5
620.1103	150	6,5
620.1104	150	6,5
620.1301	60	3,5
620.1302	60	3,5
620.1303	120	6
620.1304	120	6
620.1305	150	8
620.1306	150	8
620.1701	80	4,5
620.1702	80	4,5
620.1703	150	6,5
620.1704	150	6,5
620.1705	320	11
620.1706	320	11
620.1901	60	12
620.1902	60	12
620.1903	60	12
620.1904	60	12
620.3001	50	3,5
620.3002	60	4
620.3101	18	1

item	Max. torque Nm	max. t
620.3102	20	1,2
620.3103	24	2
620.3401	50	3,5
620.3402	60	4
620.3601	20	2,5
620.3602	50	3,5
620.3603	60	4
620.3604	120	6
620.3605	120	6
620.3606	120	6
620.3607	120	6
620.3608	120	6
620.3609	120	6
620.3610	120	6
620.3801	60	12
620.3802	60	12
620.3803	60	12
620.3804	60	12
620.3805	60	12
620.3806	60	12
620.4101	25	2,5
620.4102	35	3
620.4103	45	3,5
620.4301	25	2,5
620.4302	35	3
620.4303	45	3,5
620.4304	50	4
620.5201	25	1,5
620.5202	60	3,5
620.5203	80	4,5
620.5301	18	1
620.5302	35	2
620.5401	120	5
620.5402	120	6
620.5403	150	8
620.5501	120	5
620.5502	120	6
620.5503	150	8
630.0101	90	5,5
630.0102	90	5,5
630.0103	180	7
630.0104	180	7
630.0301	60	12
630.0302	60	12
630.0901	90	5
630.0902	90	5
630.0903	150	6,5
630.0904	150	6,5
630.1101	90	5
630.1102	90	5
630.1103	150	6,5
630.1104	150	6,5
630.1701	90	5,5
630.1702	90	5,5
630.1703	180	7
630.1704	180	7
630.1901	60	12
630.1902	60	12
630.2301	400	15
630.3001	60	4

item	Max. torque Nm	max. t
630.3002	70	4,5
630.3101	20	1,2
630.3102	21	1,3
630.3103	40	2,5
630.3401	60	4
630.3402	70	4,5
630.3601	25	3
630.3602	60	4
630.3603	70	4,5
630.3604	220	12
630.3605	220	12
630.3606	220	12
630.3607	220	12
630.3608	220	12
630.3609	220	12
630.3610	220	12
630.3801	60	12
630.3802	60	12
630.3803	60	12
630.3804	60	12
630.3805	60	12
630.3806	60	12
630.3807	60	12
630.4101	25	2,5
630.4102	35	3
630.4103	45	3,5
630.4301	25	2,5
630.4302	35	3
630.4303	45	3,5
630.4304	50	4
640.0110	-	10
640.0120	-	15
640.0130	-	17
640.0140	-	10
640.0150	-	20
640.0160	60	8
640.0165	70	15
640.0170	-	20
640.0180	-	30
640.0190	-	50
640.0210	-	10
640.0215	-	15
640.0217	-	17
640.0220	-	20
640.0230	-	30
640.0250	-	50
640.0310	-	10
640.0315	-	15
640.0317	-	17
640.0320	-	20
640.0330	-	30
640.0350	-	50
640.2315	-	15
640.2317	-	17
640.2415	-	15
640.2417	-	17
640.2420	-	20
640.2430	-	30
640.2450	-	50
660.0601	30	-

DRIVE TORQUES AND MAXIMUM TENSILE FORCE (1t=1Mp=10KN)

item	Max. torque Nm	max. t
660.0602	60	-
660.0603	60	-
660.0604	70	-
660.0605	100	-
670.0013	280	14
670.0014	280	14
670.0015	280	14
670.0021	70	3,5
670.0031	70	3,5
670.0041	60	1,8
670.0051	60	1,8
670.0060	80	4
670.0061	60	4
670.0062	60	4
670.0063	80	4
670.0101	50	-
670.0102	120	-
670.0103	160	-
670.0104	280	-
670.0105	400	-
670.0106	280	-
670.0111	70	3,5
670.0121	40	3,5
670.0122	40	3,5

item	Max. torque Nm	max. t
670.0131	200	10
670.0141		10
670.0151	-	10
670.0161	200	20
670.0171	30	20
670.0181	-	20
670.0191	70	4
670.0201	30	2,5
670.0211	40	2,5
670.0221	60	-
670.0231	120	-
670.0232	120	-
670.0233	120	-
670.0241	120	-
700.1100	35/50	-
700.1120	18	1,2
700.1130	30	1,2
700.1150	45	-
700.1160	80	-
700.1170	80	-
700.1180	80	-
700.1181	10	-
700.1182	40	-
700.1183	60	-

item	Max. torque Nm	max. t
700.1184	80	-
700.1185	30	2
700.1190	30	1,2
700.1191	15	1
700.1192	20	1,5
700.1193	15	1
700.1200	60	10
700.1240	40	2,5
700.1260	35	1,2
700.1300	70	4
700.1400	60/400	10
700.1400-1	60	10
700.1400-5	400	-
700.1405	400	-
700.1410	60	10
700.1415	-	11
700.1420	-	11
700.1470	-	11
700.1500	15	1,5
700.1650	20	1,5
700.1700	250	4,3
700.1710	60	1
700.1711	100	1,9
700.1712	180	3,2

item	Max. torque Nm	max. t
700.1713	250	4,3
700.1740	-	15
700.1750	60	10
700.1755	300	-
700.1757	300	-
700.1790	-	20
700.1791	-	20
700.1796	300	16
700.5610	40	3
700.5615	40	3
700.5620	40	2,5
700.5625	40	2,5
700.5630	70	3,5

Handling puller spindles

The overloading of a spindle is under no circumstances dependent on the number of applications and should therefore be avoided by a considered approach in the selection (e.g. dimension) or use.
The foundation for a long working life will already be laid at the time of fi st use. If work is done here without the lubrication required, it leads quickly to overheating and thus to spindle wear, which naturally has an abrupt negative influen e on the working life.

To avoid this:

- Excessive heating, e.g. with a welding torch leads to structural alterations in the spindle material, which will adversely influen e characteristics such as breakage resistance and stretchability.
- Ensure that the spindle is precisely positioned in the pulling axis to prevent the spindle suffering from bending stress.
- Introduce work breaks in order to avoid excessive overheating of the spindle, traverse thread or nut.
- Under no circumstances may spindles be operated with electrical or impact wrenches.

Maintenance and care:

- Regular cleaning of the spindle with cleaner's solvent, brake cleaner, part-cleaning solution etc.
- After cleaning, lubricate spindle with machine oil
- For conditions of extreme stress the use of a high-performance lubricant is recommended on the stressed spindle parts
- Suitable lubricants: See below for high-performance fi ting lubricant
- Check spindles regularly for bending by rolling them on a plane surface
- Spindles showing signifi ant bending should be replaced

Special thread compound

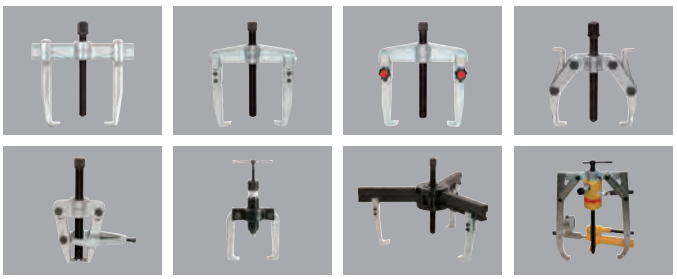
This special compound is an outstanding lubricant for static highly-stressed components such as, for example, thread spindles. Influen e factors, e.g. moisture or friction,lead as a rule to increased wear and jamming.
Thanks to its special composition and the solids it contains the surface roughness of the surface to be protected is completely filled i .
In this way a fully enclosed surface is formed, which signifi antly reduces friction and offers an effective protection from corrosion.
This increases the working life of the thread spindles substantially and ensures problem-free functioning even at intense heating of up to max. 1200°C.

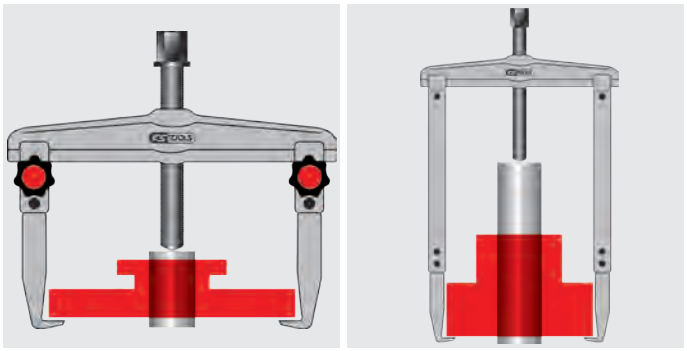
Item		
980.1085	Special thread grease, gun	50
980.1090	Special thread grease, tube	5

BASIC PULLER VARIANTS AND AREAS OF APPLICATION

External pulling

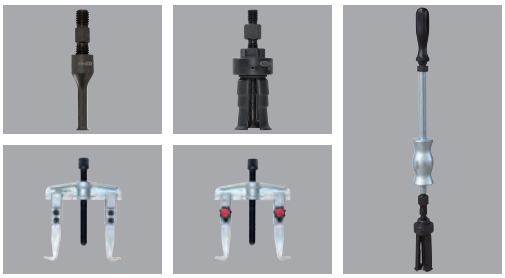
Pulling component of a shaft or axle
e.g.: Ball bearing, tapered roller bearing, gear wheels, belt pulleys, etc.

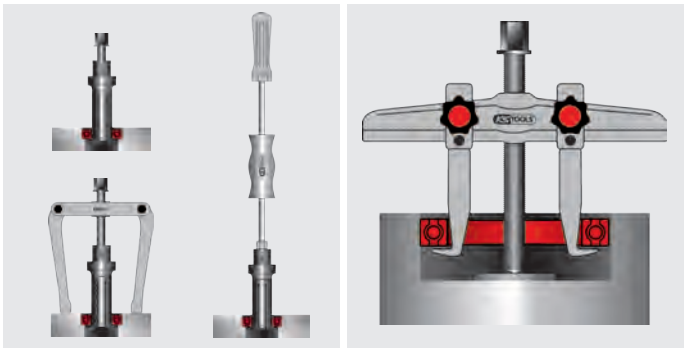




Internal pulling

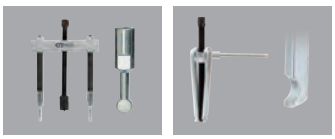
Component is in a housing (hole)
e.g.: Ball bearing, needle bearing, outer bearing ring, bushes, sleeves, etc.

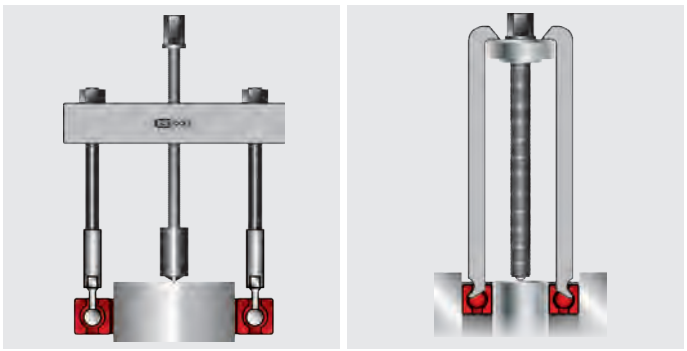




Extraction and pulling from housings

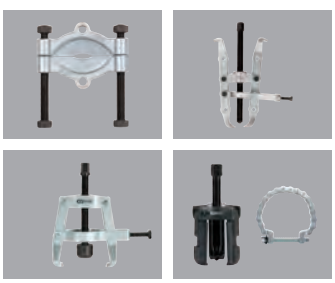
Component is in the housing and on a shaft or axle
e.g.: Ball-bearing

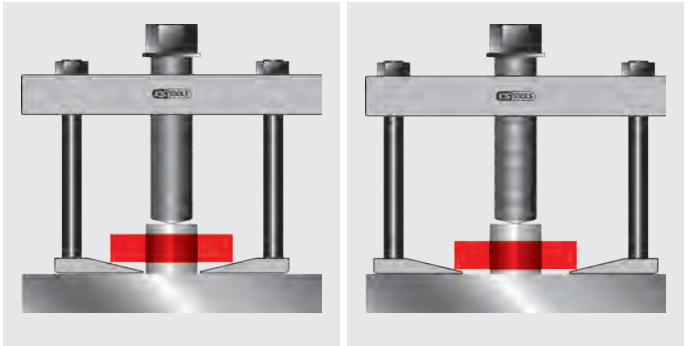




Separator puller

Pull component from a shaft or axle - back is tight or flush on
e.g.: Ball bearing, roller bearing, gear wheels, bushes, sleeves, etc.





SPECIAL PULLER

Ball bearing extractor

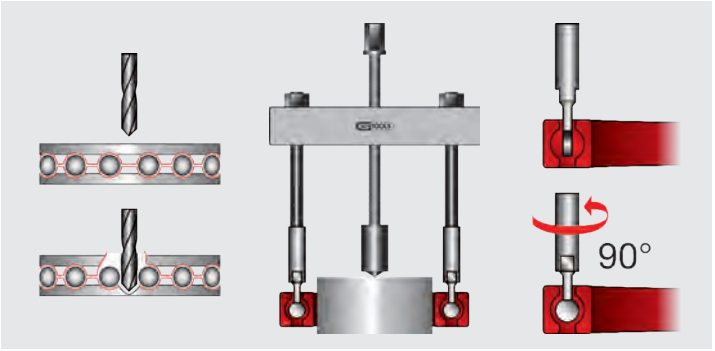
Application areas:

These special pullers are always used when the ball bearing sits on a shaft and at the same time in a housing and cannot be gripped through the hole either from outside or from inside. Thanks to the slim design lower-lying bearings can also be extracted or pulled.

Ball bearing extractor (hemisphere)

Work steps:

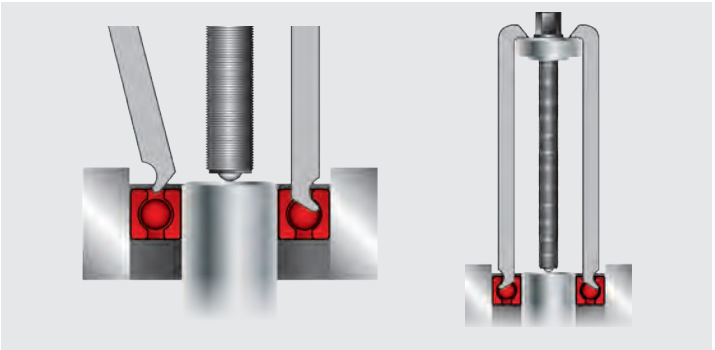
1.) Drill bearing cage at two opposite points in each case between two balls
2.) Bend cage plate and create space for the hemisphere adapter
3.) Position puller with the spindle on the shaft spigot
4.) Place appropriate hemisphere into the bearing (ball groove) and turn by 90°
5.) By activating the spindle bring the hooks to the pull and extract earing.



Ball bearing extractor (claws)

Work steps:

1.) Determine the number of ball bearings to be pulled
2.) Using the application table (see below) select the right puller with the appropriate claws.
Tip: If the number of ball bearings to be pulled cannot be define , the distance between the outer and inner bearing ring is to be measured. When this measurement is rounded to the nearest millimetre, the result is usually the shaft strength of the hook required.
3.) Place the hooks as symmetrically as possible after one another with the claws between the balls in the external bearing ring.
4.) Position spindle on the shaft spigot of the shaft end and hang hooks on the traverse.
5.) By activating the spindle bring the hooks to the pull and extract bearing.



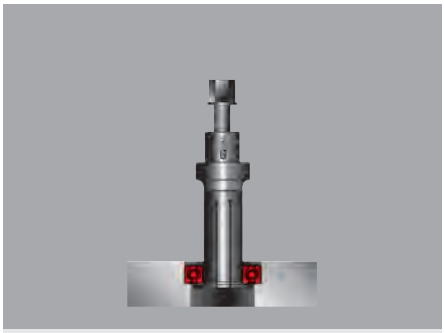
Application table for 650.0010

Extractor no.	Hook set no.	for ISO ball bearing no.			
650.0011	655.0011	6000	6200		
		6001			
		6002			
		6003			
	655.0012	6004	6201		
		6005	6202		
650.0012	655.0013	6006	6203	6300	
	655.0014	6007	6204	6301	
		6008	6205	6302	
	655.0015			6303	
				6304	
650.0013	655.0014				

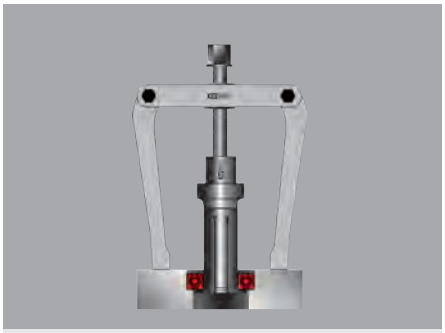
Extractor no.	Hook set no.	for ISO ball bearing no.			
650.0013	655.0015		6206		
	655.0016		6207	6305	
650.0014	655.0015	6009			
	655.0017		6208	6306	
650.0015	655.0015	6010			
	655.0016	6011			
		6012			
	655.0018		6209	6307	6403
			6210	6308*	6404*
			6211*	6309*	6405*
			6212*	6310*	6406*
					6410*

Ball bearing nos. with (*) are held and pulled with the spacer plates screwed on to the hook base (655.0018).
Using 12 screwed-on, folding spacer plates each, the distance between the inner bearing ring and hook base is variably balanced out.
Unlisted bearings or special sizes are available on demand.

PRECISION INTERNAL EXTRACTOR

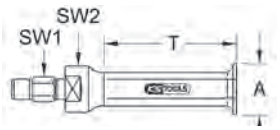


Strut adapter



Strut adapter with bridge

Strut adapter with hammer



Item	Ø A mm min. - max.	T mm	Internal extractors need as removing tool suitable: double ended support	Internal extractors need as removing tool suitable: slide hammer	Adaptor thread C	SW1 mm	SW2 mm	max. torque with double ended support: max Nm	max. torque with double ended support: Double ended support
660.0101	5-7	30	660.0601	660.0501	M10	10	13	3	660.0601
660.0102	6-8	30	660.0601	660.0501	M10	10	13	3	660.0601
660.0103	7-9	30	660.0601	660.0501	M10	10	13	7	660.0601
660.0104	8-10	30	660.0601	660.0501	M10	10	13	7	660.0601
660.0105	9-12	30	660.0601	660.0501	M10	10	13	12	660.0601
660.0106	10-13	30	660.0601	660.0501	M10	10	13	15	660.0601
660.0107	12-15	30	660.0601	660.0501	M10	10	13	15	660.0601
660.0108	13-17	50	660.0601	660.0501	M10	10	13	24	660.0601
660.0109	14-19	60	660.0601	660.0501	M10	10	13	28	660.0601
660.0111	15-20	60	660.0601	660.0501	M10	10	13	28	660.0601
660.0112	16-21	60	660.0601	660.0501	M10	10	13	32	660.0601
660.0113	18-23	60	660.0601	660.0502	M10	10	17	40	660.0601
660.0114	20-25	60	660.0601	660.0502	M10	10	17	40	660.0601
660.0115	22-27	60	660.0601	660.0502	M10	10	17	40	660.0601
660.0116	25-30	60	660.0601	660.0502	M10	10	17	40	660.0601
660.0117	25-40	45	660.0602	660.0501	M10	13	19	45	660.0601
660.0118	28-35	60	660.0602	660.0502	M10	10	17	45	660.0601
660.0119	30-37	70	660.0602	660.0502	M10	17	22	45	660.0601
660.0121	35-42	70	660.0602	660.0502	M10	17	22	45	660.0601
660.0122	38-45	70	660.0602	660.0502	M10	17	22	45	660.0601
660.0123	40-47	70	660.0602	660.0502	M10	17	22	45	660.0601
660.0124	43-50	70	660.0602	660.0502	M10	17	22	45	660.0601
660.0125	40-75	100	660.0603	660.0502	G 3/8"	17	27	45	660.0602
660.0126	45-55	100	660.0604 660.0605	660.0503	G 3/8"	19	27	45	660.0602
660.0127	50-60	100	660.0604 660.0605	660.0503	G 3/8"	19	27	45	660.0602
660.0128	70-115	100	660.0604 660.0605	660.0504 660.0605	G 3/8"	19	27	45	660.0602

STRUCTURE OF A PULLER

Quick-clamp device

- The quick-clamping device enables tool-free and secure clamping of the arms by hand
- To move - loosen the knurled thumb screws

Traverse

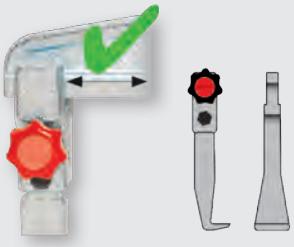
- Traverse formed from quenched and tempered steel
- Precision-milled guides
- Designed for the highest stress

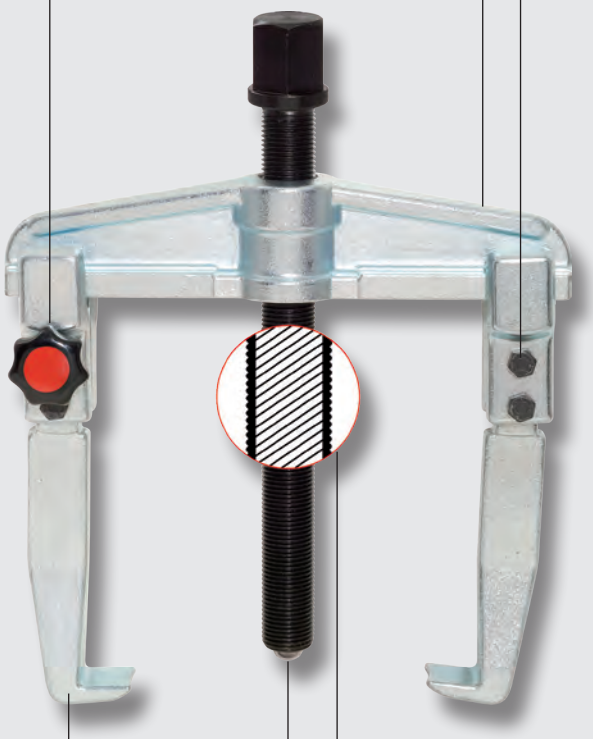
Two-screw quick-clamp device

- Using the fixi g screws the hooks are braced securely on the traverse. The lower screw forms a positive connection of the adjustable block with the hooks. The upper screw clamps the adjustable block on the traverse.

Hook with stepping

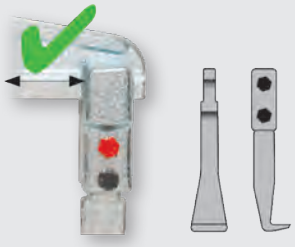
- Hooks can be moved by loosening the upper quick-clamping device





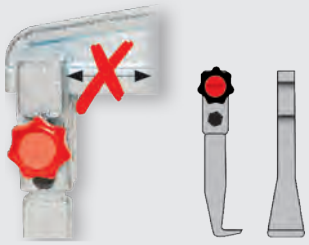
Hook with stepping

- Hooks can be moved by loosening the upper nut



Standard hook without stepping

- Movement of the hooks by loosening the upper fast-action nut not possible. Here the fast-action nuts and lower nuts need to be loosened.



Universal hooks

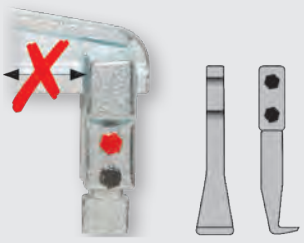
- Formed from quenched and tempered steel and functional surfaces are precision-milled
- Positive and force-closed connection between traverse hooks

Spindle

- Turned from quenched and tempered steel
- The thread is rolled and thus has a high stability and precision
- Especially wear-resistant, case-hardened spindles, from G1/2“ all spindles inductively hardened
- Hex drive with anti-slip device (collar)

Standard hook without stepping

- Movement of the hooks by loosening the upper fast-action nut not possible. Here both nuts must be loosened.

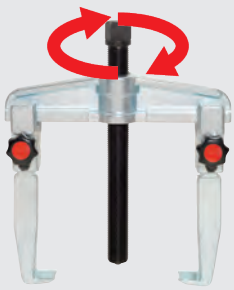


Different pressure peaks

Spindle with ball

- No wear recognisable
- Central pressing of the spindle continues to be guaranteed

Differences after few work cycles



Spindle with live centre

- Jamming in the spindle body
- Deformation of the dead centre
- Pressing the spindle centrally is no longer possible
- Replacement of the spindle required

HYDRAULIC SPINDLES WITH MECHANICAL DRIVE

Advantages

- Low force
- Compact form with very high compressive force
- Spindle-saving straight-line motion - min. friction at the pressure peaks
- Prevention of turning movement especially with rotating parts
- Minimum application of force 60- 70 N•m at maximum output of up to 15t/150KN

Hydraulic press

- Draw-off strength 8t/80KN or 15t/150KN
- Short stroke of 8 or 12 mm
- Can be used in conjunction with all mechanical pullers
- Used between shaft end and puller spindle
- The use saves the thread of the original puller spindle

Grease hydraulic spindle short

- Draw-off strength 10t/100KN / 12t/120KN
- Short stroke 10 mm
- Use in the module system and special pullers with UN support 1-1/2“x16 thead
- Pre-tensioning and positioning via the external thread on the cylinder
- The hydraulics are activated with a tommy bar or hex drive of the pressure spindle
- 12t spindle with safety pin

Grease hydraulic spindle long

- Lean form - draw-off strength 12t/120KN or 15t/150KN
- Short stroke 12 mm
- Use in standard and special pullers with G support 1/2“x14 thread / G 3/4“x14 thread and G 1“x11 thread
- Pre-tensioning and positioning via the external thread of the large spindle
- The hydraulics are activated using the small pressure spindle

Guide on switching to a grease hydraulic spindle long

- Loosen stud
- Screw off whole cap (SW large)
- Screw spindle body into puller
- Screw cap back on up to limit stop
- Place stud on again and secure by tightening

Working method:
- Place on puller
- Pre-tension mechanically with large width across fl ts
- Secure puller position sichern
- Screw pressure spindle into the press
  Caution: Power wrench prohibited
- If the piston stroke is not sufficient or loosening, the work step must be repeated. Turn pressure spindle back, pre-tension again mechanically and screw pressure spindle in again

Safety note:
- Tighten all screw connections before pulling, as otherwise there is a danger of slipping

OIL HYDRAULICS

Advantages

- Highest-performance drive form for the use of 10t/100KN up to max. 50t/100KN
- As screw-in / spindle / fl t-topped and trunk piston cylinder
- Hydraulic pumps optionally as manual / pneumatic or electrical variant
- Hydraulic units work very conveniently and with low application of force
- The advantages lie in the long work path (stroke) of the pistons and the extremely high pressure force

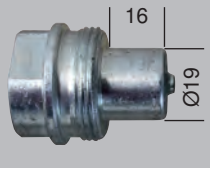
Combination options oil hydraulics with puller

	Spindle hydraulics cylinder		Flat hydraulics cylinder		Screw-in hydraulics cylinder			Trunk piston hydraulics cylinder			
Hydraulics cylinder	**640.0130**		**640.0140**	**640.0150**	**640.0110**	**640.0120**		**640.0170**	**640.0180**	**640.0190**	
Driver thread	G1“ x 11g		2xthread M6 depth gauge 36,6	2xbore hole M10 depth gauge 36,6	UNC 2.1/4“x14	M68x2		UNC 1“ -8	UNC 1.1/4“ -7	UNS 1.5/8“-5.1/2“	
Max. power	17t / 170KN		10t / 100KN	20t / 200KN	10t / 100KN	15t / 150KN		20t / 200KN	30t / 300KN	50t / 500KN	
		Arms/ Mod.					Arms/ Mod.				Arms/ Mod.
Use with puller	**620.0108** **640.0217** **640.0317** **640.2317** **640.2417**	2 B 2 B 3 L 3 BRS 3 LRS	**670.0151** **670.0181**	**670.0181**	**640.0210** **640.0310**	**640.0215** **640.0315** **640.2315** **640.2415**	2 B 3 L 3 BRS 3 LRS	**640.0220** **640.0320** **640.2420**	**640.0230** **640.0330** **640.2430**	**640.0250** **640.0350** **640.2450**	2 L 3 L 3 LRS
Use with puller leg	**645.0217** **645.0317** **645.2317** **645.2417**	3 L 3 BRS 3 LRS			**645.0210** **645.0310**	**645.0215** **645.0315** **645.2315** **645.2415**	3 L 3 BRS 3 LRS	**645.0220** **645.0320** **645.2420**	**645.0230** **645.0330** **645.2430**	**645.0250** **645.0350** **645.2450**	3 L 3 LRS

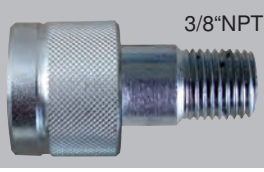
KS Standard hydraulics coupling appropriate for typical systems in the market such as Celette, Enerpac, Sun, etc.

All oil hydraulics cylinders can be combined or operated with the following pumps:

Loose half - tube side



Fixed half - cylinder side

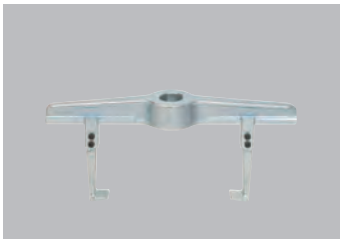


640.0010

640.0020

640.0030

B = Standard/ bar puller



L = side plate puller

BRS = Standard/ bar puller

with radially swivelling arms

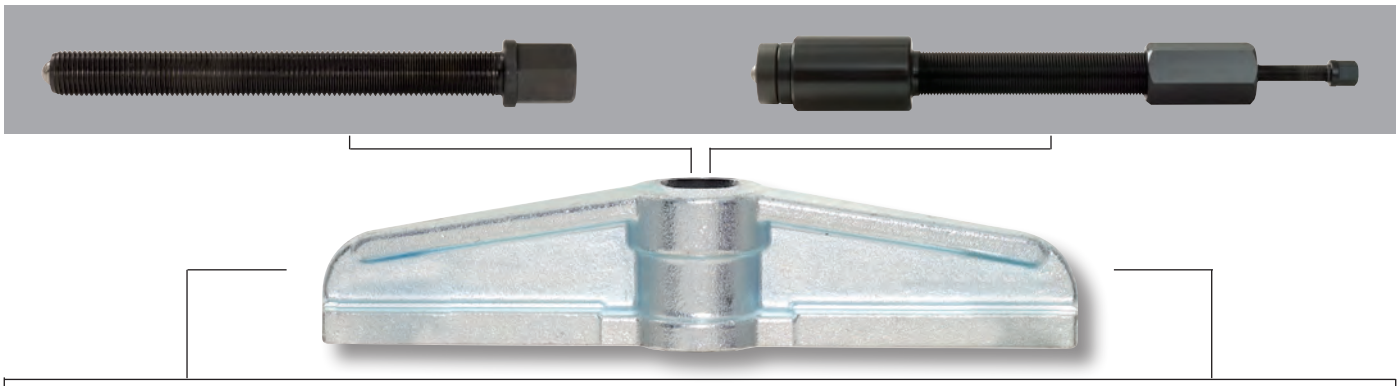
LRS = side plate puller

with radially swivelling arms

COMBINATION OPTIONS FOR STANDARD / BAR PULLER

Mechanical spindle

Hydraulic spindle



Hooks with quick-clamping device

Standard

615.1101-03

Slim design

615.1004-06
Hook base
2 mm

615.1001-03
Hook base
3.6 mm

615.1007-09
Hook base
5 mm

Hooks with two-screw clamping device

Slim design

615.0907-09
Hook base
2 mm

615.0901-03
Hook base
3.6 mm

615.0904-06
Hook base
5 mm

Standard length

615.0501-08

Standard

615.0101-04

Quick-clamping hooks

No. hooks	for puller
615.1001	620.1101 / 620.1102 630.1101 / 630.1102
615.1002	620.1101 / 620.1102 630.1101 / 630.1102
615.1003	620.1101 / 620.1102 630.1101 / 630.1102
615.1004	620.1101 / 620.1102 630.1101 / 630.1102
615.1005	620.1101 / 620.1102 630.1101 / 630.1102
615.1006	620.1101 / 620.1102 630.1101 / 630.1102
615.1007	620.1103 / 620.1104 630.1103 / 630.1104
615.1008	620.1103 / 620.1104 630.1103 / 630.1104
615.1009	620.1103 / 620.1104 630.1103 / 630.1104
615.1101	620.1701 / 620.1702 630.1701 / 630.1702
615.1102	620.1703 / 620.1704 630.1703 / 630.1704
615.1103	620.1705 / 620.1706 630.1903 / 630.1904

Caution: The hooks marked in red are not the original hooks relating to the pullers indicated, but can be used in these.

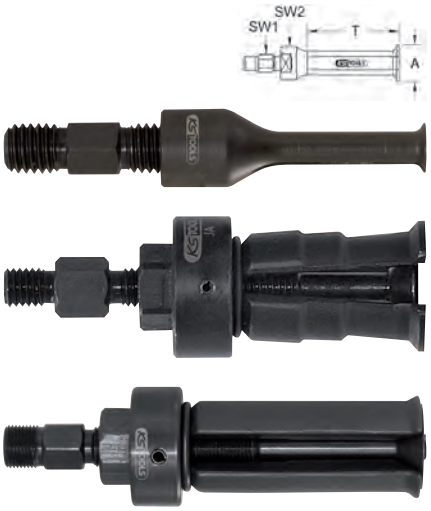
Two-screw clamp hooks

No. hooks	for puller
615.0101	620.0101 / 620.0102 630.0101 / 630.0102
615.0102	620.0103 / 620.0104 630.0103 / 630.0104
615.0103	620.0105 / 620.0106 620.0107 620.0303 / 620.0304 620.0305 / 620.0306
615.0104	620.0108 620.0307 630.2301 640.0210 / 640.0215 640.0217 640.2315 /640.2317
615.0501	620.0101 / 620.0102 620.0103 / 620.0104 620.0301 / 620.0302 620.0501 / 620.0502 630.0101 / 630.0102 630.0103 / 630.0104 630.0301 /630.0302
615.0502	620.0103 / 620.0104 620.0503 / 620.0504 620.0701 / 620.0702 630.0103 / 630.0104 630.0301 / 630.0302
615.0503	620.0105 / 620.0106 620.0107 620.0505 / 620.0506 620.0507 620.0703 / 620.0704 620.0705
615.0504	620.0105 / 620.0106 620.0107 620.0508 / 620.0509 620.0510 620.0706 / 620.0707 620.0708
615.0505	620.0105 / 620.0106 620.0107 620.0511 / 620.0512 620.0513 620.0709 / 620.0710 620.0711
615.0506	620.0108 630.2301 640.0210 / 640.0215 640.0217 640.2315 / 640.2317
615.0507	620.0108 630.2301 640.0210 / 640.0215 640.0217 640.2315 / 640.2317
615.0508	620.0108 630.2301 640.0210 / 640.0215 640.0217 640.2315 / 640.2317
615.0901	620.0901 / 620.0902 630.0901 / 630.0902
615.0902	620.0901 / 620.0902 630.0901 / 630.0902
615.0903	620.0901 / 620.0902 630.0901 / 630.0902
615.0904	620.0103 / 620.0104 620.0903 / 620.0904 630.0903 / 630.0904
615.0905	620.0103 / 620.0104 620.0903 / 620.0904 630.0903 / 630.0904
615.0906	620.0103 / 620.0104 620.0903 / 620.0904 630.0903 / 630.0904
615.0907	620.0101 / 620.0102 620.0901 / 620.0902 630.0901 / 630.0902
615.0908	620.0101 / 620.0102 620.0901 / 620.0902 630.0901 / 630.0902
615.0909	620.0101 / 620.0102 620.0901 / 620.0902 630.0901 / 630.0902

INTERNAL EXTRACTORS

Precision internal extractor

- Centering shaft
- For the accurate fi tingl of bearings and bushes
- Special steel



	A mm	Connection thread mm	SW1 mm	SW2 mm	T mm	max N·m	g
660.0101	5-7	M10	10	13	30.0	3	50
660.0102	6-8	M10	10	13	30.0	3	50
660.0103	7-9	M10	10	13	30.0	7	50
660.0104	8-10	M10	10	13	30.0	7	50
660.0105	9-12	M10	10	13	30.0	12	50
660.0106	10-13	M10	10	13	30.0	15	50
660.0107	12-15	M10	10	13	30.0	15	50
660.0108	13-17	M10	10	13	50.0	24	70
660.0109	14-19	M10	10	13	60.0	28	90
660.0111	15-20	M10	10	13	60.0	28	90
660.0112	16-21	M10	10	13	60.0	32	90
660.0113	18-23	M10	10	17	60.0	40	110
660.0114	20-25	M10	10	17	60.0	40	110
660.0115	22-27	M10	10	17	60.0	40	110
660.0116	25-30	M10	10	17	60.0	40	120
660.0117	25-40	M10	13	19	45.0	45	260
660.0118	28-35	M10	10	17	60.0	45	280
660.0119	30-37	M10	17	22	70.0	45	280
660.0121	35-42	M10	17	22	70.0	45	280
660.0122	38-45	M10	17	22	70.0	45	290
660.0123	40-47	M10	17	22	70.0	45	300
660.0124	43-50	M10	17	22	70.0	45	310
660.0125	40-75	G 3/8"	17	27	100.0	45	760
660.0126	45-55	G 3/8"	19	27	100.0	45	650
660.0127	50-60	G 3/8"	19	27	100.0	45	680
660.0128	70-115	G 3/8"	19	27	130.0	45	1400

Double ended support for internal extractor

- Extremely robust spindle with inductively hardened thread
- Special steel

	A mm	max N·m	mm	Internal extractors	mm	kg
660.0601	35-75	30	12	M10	M16x1,5 x 136	0.70
660.0602	60-130	60	19	M10xG3/8"	M24x1,5 x 160	1.60
660.0603	60-130	60	19	G3/8"	M24x1,5 x 160	1.50
660.0604	60-210	70	19	G3/8"	M24x1,5 x 160	3.70
660.0605	55-205	100	22	G3/8"	G1/2"x14g x 210	3.80

Slide hammer

- Suitable for small ball bearings
- Ideal for limited access areas
- Special steel

	L1 mm	L2 mm	D1 mm	D2 mm	mm	kg
660.0501	170	40.0	10,0	30.0	M10	0.40
660.0502	170	80.0	10,0	50.0	M10	0.90
660.0503	250	100.0	16,0	45.0	M10	1.30
660.0504	250	100.0	16,0	45.0	M10+G3/8"	1.40
660.0505	250	100.0	16,0	60.0	G3/8"	2.60

INTERNAL EXTRACTORS SETS

Precision internal extractor set ø 10,0 - 37,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case
- For pulling/hitting the pilot bearing

			kg
660.0014	7 pcs	Precision internal extractor set ø 10,0 - 37,0 mm	2.42

consists of:

		g
660.0106	Precision internal extractor, 10-13mm	50
660.0109	Precision internal extractor, 14-19mm	90
660.0114	Precision internal extractor, 20-25mm	110
660.0116	Precision internal extractor, 25-30mm	120
660.0119	Precision internal extractor, 30-37mm	280
660.0601	Double ended support for internal extractor, 35-75mm	700
660.0501	Slide hammer, 170mm, M10, variante1	400

Precision internal extractor set ø 10,0 - 45,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg
660.0011	7 pcs	Precision internal extractor set ø 10,0 - 45,0 mm	2.36

consists of:

		g
660.0106	Precision internal extractor, 10-13mm	50
660.0109	Precision internal extractor, 14-19mm	90
660.0114	Precision internal extractor, 20-25mm	110
660.0116	Precision internal extractor, 25-30mm	120
660.0119	Precision internal extractor, 30-37mm	280
660.0122	Precision internal extractor, 38-45mm	290
660.0601	Double ended support for internal extractor, 35-75mm	700

Precision internal extractor set ø 10,0 - 75,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg
660.0012	9 pcs	Precision internal extractor set ø 10,0 - 75,0 mm	4.92

consists of:

		g
660.0106	Precision internal extractor, 10-13mm	50
660.0109	Precision internal extractor, 14-19mm	90
660.0114	Precision internal extractor, 20-25mm	110
660.0116	Precision internal extractor, 25-30mm	120
660.0119	Precision internal extractor, 30-37mm	280
660.0122	Precision internal extractor, 38-45mm	290
660.0125	Precision internal extractor, 40-75mm	760
660.0601	Double ended support for internal extractor, 35-75mm	700
660.0602	Double ended support for internal extractor, 60-130mm, M10xG3/8"	1600

Precision internal extractor set ø 15,0 - 75,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
660.0015	5 pcs	Precision internal extractor set ø 15,0 - 75,0 mm	3.60	

consists of:

		g	
660.0111	Precision internal extractor, 15-20mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0117	Precision internal extractor, 25-40mm	260	
660.0125	Precision internal extractor, 40-75mm	760	
660.0602	Double ended support for internal extractor, 60-130mm, M10xG3/8"	1600	

Precision internal extractor set ø 10,0 - 115,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
660.0013	10 pcs	Precision internal extractor set ø 10,0 - 115,0 mm	9.72	

consists of:

		g	
660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0125	Precision internal extractor, 40-75mm	760	
660.0128	Precision internal extractor, 70-115mm	1400	
660.0601	Double ended support for internal extractor, 35-75mm	700	
660.0604	Double ended support for internal extractor, 60-210mm	3700	

INTERNAL EXTRACTORS & PULLER SETS

Precision internal extractor and puller set 10 - 45 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
660.0022	10 pcs	Precision internal extractor and puller set 10 - 45 mm	5.58	

consists of:

		g	
660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0601	Double ended support for internal extractor, 35-75mm	700	
620.0101	Universal 2 arm puller, 20-90mm, legs 100mm	1000	
620.3101	Pole clamp 2-jaw puller, 10-60mm	160	
670.0221	Draw off lining, Ø 5-32mm	1400	

Precision internal extractor and puller set 10 - 75 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
660.0023	13 pcs	Precision internal extractor and puller set 10 - 75 mm	11.60	

consists of:

		g	
660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0125	Precision internal extractor, 40-75mm	760	
660.0128	Precision internal extractor, 70-115mm	1400	
660.0601	Double ended support for internal extractor, 35-75mm	700	
660.0605	Double ended support for internal extractor, 55-205mm	3800	
620.0101	Universal 2 arm puller, 20-90mm, legs 100mm	1000	
620.0103	Universal 2 arm puller, 50-160mm, legs 150mm	3000	
620.3101	Pole clamp 2-jaw puller, 10-60mm	160	
670.0221	Draw off lining, Ø 5-32mm	1400	

consists of:

		g	
660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0125	Precision internal extractor, 40-75mm	760	
660.0601	Double ended support for internal extractor, 35-75mm	700	
660.0603	Double ended support for internal extractor, 60-130mm, G3/8"	1500	
620.0101	Universal 2 arm puller, 20-90mm, legs 100mm	1000	
620.0103	Universal 2 arm puller, 50-160mm, legs 150mm	3000	
620.3101	Pole clamp 2-jaw puller, 10-60mm	160	
670.0221	Draw off lining, Ø 5-32mm	1400	

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Precision internal extractor and puller set 10 - 115 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
660.0021	14 pcs	Precision internal extractor and puller set 10 - 115 mm	15.63	

consists of:

		g	
660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0125	Precision internal extractor, 40-75mm	760	
660.0128	Precision internal extractor, 70-115mm	1400	
660.0601	Double ended support for internal extractor, 35-75mm	700	
660.0605	Double ended support for internal extractor, 55-205mm	3800	
620.0101	Universal 2 arm puller, 20-90mm, legs 100mm	1000	
620.0103	Universal 2 arm puller, 50-160mm, legs 150mm	3000	
620.3101	Pole clamp 2-jaw puller, 10-60mm	160	
670.0221	Draw off lining, Ø 5-32mm	1400	

BALL BEARING EXTRACTORS

Universal ball bearing extractor set

- Less risk of slipage due to the automatically closing draw off arms
- 13 puller variants possible
- Extremely robust spindle with inductively hardened thread
- Excellent power transfer
- Special steel
- Supplied in a durable plastic case

			kg	
650.0010	37 pcs	Universal ball bearing extractor set	8.00	

consists of:

		g	
650.0011	Ball bearing extractor without legs,26mm	300	
650.0012	Ball bearing extractor without legs,34mm	400	
650.0013	Ball bearing extractor without legs,41mm	500	
650.0014	Ball bearing extractor without legs,49mm	900	
650.0015	Ball bearing extractor without legs,63mm	1200	
655.0011	Adaptor legs, 4pcs, 120mm	100	
655.0012	Adaptor legs, 4pcs, 120mm	100	
655.0013	Adaptor legs, 4pcs, 130mm	200	
655.0014	Adaptor legs, 4pcs, 130mm	200	
655.0015	Adaptor legs, 4pcs, 150mm	300	
655.0016	Adaptor legs, 4pcs, 150mm	400	
655.0017	Adaptor legs, 4pcs, 190mm	600	
655.0018	Adaptor legs, 4pcs, 190mm	800	

Ball bearing extractor without legs

- Consists of adaptor and spindle
- For ball bearings in waves or housings
- Extremely robust spindle with inductively hardened thread
- Special steel

	Ø mm	mm	dim mm	kg	
650.0011	26	M10 x 150	12	0.30	
650.0012	34	M12 x 199	14	0.40	
650.0013	41	M14x1,5 x 200	17	0.50	
650.0014	49	M18x1,5 x 240	19	0.90	
650.0015	63	G1/2"x14g x 230	22	1.20	

Adaptor legs for ball bearing extractor, 4 pcs

- Can be used with adaptor legs and spindles available separately
- For ball bearings in waves or housings
- Special steel

	L mm	Suitable for ISO bearing	kg	
655.0011	120	6000, 6001, 6002, 6003, 6200	0.10	
655.0012	120	6004, 6005, 6201, 6202	0.10	
655.0013	130	6006, 6203, 6300	0.20	
655.0014	130	6007, 6008, 6204, 6205, 6301, 6302	0.20	
655.0015	150	6009, 6010, 6206, 6303, 6304	0.30	
655.0016	150	6011, 6012, 6207, 6305	0.40	
655.0017	190	6208, 6306	0.60	
655.0018	190	6209- 6212, 6307- 6310, 6403- 6406, 6410	0.80	

Universal ball bearing puller set

- For simple and fast removing of ball bearings without removal of the shaft
- Pulling power influen es uniformly on the interior and outside ring
- Special steel
- In durable plastic storage case
- Suited for ISO bearings: 6004-6010, 6201-6206, 6300-6304

Ideal for use in SKF, FAG, Timken, NTN bearings, etc.
Adaptor diameter: 5.5 - 6 - 8 mm

			kg	
700.1500	21 pcs	Universal ball bearing puller set	0.82	

consists of:

		g	
700.1501	Extension set long, 2 pcs	110	
700.1502	Centre point	30	
700.1503	Tie rod set, 2 pcs	60	
700.1504	Ball head bearing adaptor set, 2 pcs, Ø 5.5 mm	24	
700.1505	Ball head bearing adaptor set, 2 pcs, Ø 6.0 mm	24	
700.1506	Ball head bearing adaptor set, 2 pcs, Ø 8.0 mm	26	
700.1507	Extension set short, 2 pcs	30	
700.1508	U disc set for tie rod, 4 pcs	10	
700.1509	Spindle	164	
700.1510	Traverse	202	
700.1511	Nut set for tie rod, 2 pcs	10	

Universal ball bearing puller set

- For simple and fast removing of ball bearings without removal of the shaft
- Pulling power influen es uniformly on the interior and outside ring
- Special steel
- In durable plastic storage case
- Suited for ISO bearings: 6207-6211, 6205-6208, 6303-6305

Ideal for use in SKF, FAG, Timken, NTN bearings, etc.
Adaptor diameter: 11 - 12.5 - 15 mm

			kg	
700.1600	21 pcs	Universal ball bearing puller set	1.69	

consists of:

		g	
700.1601	Extension set long, 2 pcs	204	
700.1602	Centre point	50	
700.1603	Tie rod set, 2 pcs	178	
700.1604	Ball head bearing adaptor set, 2 pcs, Ø 11.0 mm	88	
700.1605	Ball head bearing adaptor set, 2 pcs, Ø 12.5 mm	96	
700.1606	Ball head bearing adaptor set, 2 pcs, Ø 15.0 mm	110	
700.1607	Extension set short, 2 pcs	88	
700.1608	U disc set for tie rod, 4 pcs	10	
700.1609	Spindle	130	
700.1610	Traverse	345	
700.1611	Nut set for tie rod, 2 pcs	10	

BEARING AND BUSH DRIVER

Bearing punch set Ø 25.0 mm

- In durable plastic storage case

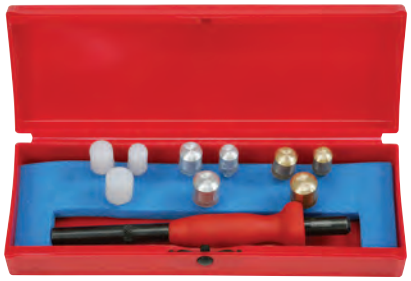
			g	
156.0425	7 pcs	Bearing punch set Ø 25.0 mm	640	

consists of:

		g	
156.0426	Punch holder without impact	355	
156.0447	Punch attachable head 2 pcs, polyamide, Ø 25 mm	20	
156.0455	Punch attachable head 2 pcs, aluminium, Ø 25 mm	50	
156.0463	Punch attachable head 2 pcs, brass, Ø 25 mm	150	

Bearing punch set Ø 10.0 - 14.0 mm

- In durable plastic storage case



			g	
156.0440	10 pcs	Bearing punch set Ø 10.0 - 14.0 mm	240	

consists of:

		g	
156.0436	Punch holder	100	
156.0441	Punch attachable head 2 pcs, polyamide, Ø 10 mm	10	
156.0442	Punch attachable head 2 pcs, polyamide, Ø 12 mm	10	
156.0443	Punch attachable head 2 pcs, polyamide, Ø 14 mm	10	
156.0449	Punch attachable head 2 pcs, aluminium, Ø 10 mm	10	
156.0450	Aluminium punch set, 2 pcs., Ø 12 mm	10	
156.0451	Punch attachable head 2 pcs, aluminium, Ø 14 mm	20	
156.0457	Punch attachable head 2 pcs, brass, Ø 10 mm	20	
156.0458	Punch attachable head 2 pcs, brass, Ø 12 mm	20	
156.0459	Punch attachable head 2 pcs, brass, Ø 14 mm	50	

Universal bearing and bush driver set

- Universal applicable range
- Can be used manually with a hammer or workshop press
- Applications from 18.0 - 65.0 mm
- Pressure plates are for the two driving spindles
- Special steel
- In durable plastic storage case

			kg	
700.1350	51 pcs	Universal bearing and bush driver set	8.00	

consists of:

		g	
700.1348	Reception adaptor, 45mm	500	
700.1349	Impact drive knurled grip, 220mm	42	
700.1351	Pressure plate, 18mm	12	
700.1352	Pressure plate, 19mm	14	
700.1353	Pressure plate, 20mm	16	
700.1354	Pressure plate, 21mm	20	
700.1355	Pressure plate, 22mm	22	
700.1356	Pressure plate, 23mm	27	
700.1357	Pressure plate, 24mm	30	
700.1358	Pressure plate, 25mm	34	
700.1359	Pressure plate, 26mm	38	
700.1360	Pressure plate, 27mm	43	
700.1361	Pressure plate, 28mm	47	
700.1362	Pressure plate, 29mm	50	
700.1363	Pressure plate, 30mm	53	
700.1364	Pressure plate, 31mm	59	
700.1365	Pressure plate, 32mm	65	

consists of:

		g	
700.1366	Pressure plate, 33mm	68	
700.1367	Pressure plate, 34mm	72	
700.1368	Pressure plate, 35mm	77	
700.1369	Pressure plate, 36mm	82	
700.1370	Pressure plate, 37mm	89	
700.1371	Pressure plate, 38mm	94	
700.1372	Pressure plate, 39mm	97	
700.1373	Pressure plate, 40mm	105	
700.1374	Pressure plate, 41mm	111	
700.1375	Pressure plate, 42mm	119	
700.1376	Pressure plate, 43mm	125	
700.1377	Pressure plate, 44mm	132	
700.1378	Pressure plate, 45mm	138	
700.1379	Pressure plate, 46mm	144	
700.1380	Pressure plate, 47mm	153	
700.1381	Pressure plate, 48mm	159	
700.1382	Pressure plate, 49mm	165	
700.1383	Pressure plate, 50mm	172	
700.1384	Pressure plate, 51mm	181	
700.1385	Pressure plate, 52mm	188	
700.1386	Pressure plate, 53mm	196	
700.1387	Pressure plate, 54mm	205	
700.1388	Pressure plate, 55mm	213	
700.1389	Pressure plate, 56mm	221	
700.1390	Pressure plate, 57mm	231	
700.1391	Pressure plate, 58mm	238	
700.1392	Pressure plate, 59mm	247	
700.1393	Pressure plate, 60mm	258	
700.1394	Pressure plate, 61mm	266	
700.1395	Pressure plate, 62mm	276	
700.1396	Pressure plate, 63mm	284	
700.1397	Pressure plate, 64mm	294	
700.1398	Pressure plate, 65mm	305	
700.1399	Support plate, 75mm	500	

Brass and aluminium punch

- For extracting bearing, bolts and bushes, etc.
- Rimed handle for better control
- Brass / Aluminium

	Material	Ø mm	L mm	kg	
156.0415	brass	20,0	300.0	1.13	
156.0416	aluminium	30,0	300.0	1.89	

Bearing assembly and deassembly tool set

- Can be used manually with a hammer or workshop press
- Optimal placing through the pressure plates
- For easy and damage free assembly
- For the correct dismantling and assembly of bearings
- Suitable for commercial, agricultural engineering and construction machines
- Forged, robust execution
- Special steel
- In durable plastic storage case

		Replacement jaws	kg	
450.0080	5 pcs	450.0081	6.45	

consists of:

		kg	
450.0082	Pressure plates (use with press)	0.51	
450.0083	Impact plates long (use with a hammer)	1.91	
450.0084	Special 6 point socket for mandral shaft	0.34	
450.0088	Universal 3 jaw thrust piece	0.32	
450.0087	Locking bolt for jaw spreading	0.02	

UNIVERSAL 2 ARM PULLER

Universal 2 arm puller set with hardened steel legs

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special steel

	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
620.1301	15 -80	100	70-130	3,5	M14x1,5 x 130	17	3	12	22	22	0.90
620.1302	15-120	100	80-170	3,5	M14x1,5 x 130	17	3	12	22	22	1.00
620.1303	20-160	150	110-210	6	G1/2"x14g x 210	22	4	16	30	29	2.70
620.1304	20-200	150	120-250	6	G1/2"x14g x 210	27	4	16	30	29	3.00
620.1305	40-250	200	170-300	8	G3/4"x14g x 280	27	6,5	23	43	38	6.50
620.1306	40-350	200	190-400	8	G3/4"x14g x 280	27	6,5	23	43	38	7.60

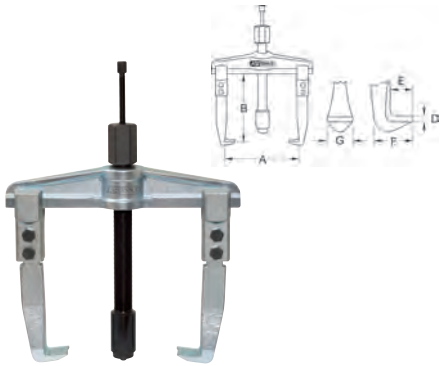
Universal 2 arm puller

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4" / G1"
- Extremely robust spindle with inductively hardened thread
- Special steel

	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
620.0101	20-90	100	70-130	4,5	M14x1,5 x 140	17	3	13	25	20	1.00
620.0102	25-130	100	80-180	4,5	M14x1,5 x 140	17	3	13	25	20	1.20
620.0103	50-160	150	105-220	6,5	G1/2"x14g x 210	22	4	16	35	25	3.00
620.0104	60-200	150	120-270	6,5	G1/2"x14g x 210	22	4	16	35	25	3.30
620.0105	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	35	7.40
620.0106	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	35	8.50
620.0107	110-520	200	195-600	13	G3/4"x14g x 280	27	5	25	54	35	13.00
620.0108	170-640	225	250-720	18	G1"x11g x 310	36	10	33	55	50	23.70

Hydraulic universal 2 arm puller

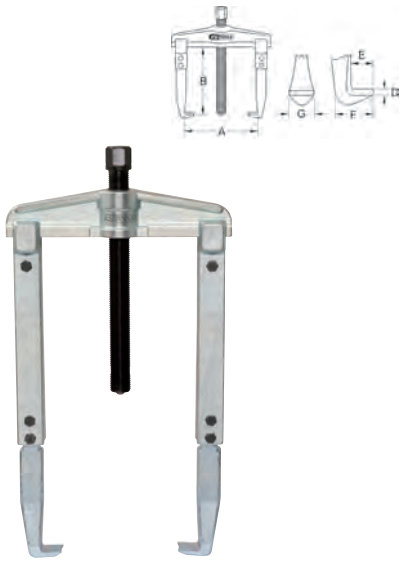
- Quickly modified or internal or external applications
- Different leg varients available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	max t	Hydraulic spindle	mm	D mm	E mm	F mm	G mm	kg	
620.0301	50-160	145	12	615.0002	13/32	4	16	35	25	3.40	
620.0302	50-200	145	12	615.0002	13/32	4	16	35	25	3.80	
620.0303	80-250	125	12	615.0003	13/36	5	25	54	35	8.00	
620.0304	80-350	125	12	615.0003	13/36	5	25	54	35	9.00	
620.0305	110-520	125	12	615.0003	13/36	5	25	54	35	13.50	
620.0306	170-640	125	12	615.0003	13/36	5	25	54	35	21.00	
620.0307	170-640	210	15	615.0004	17/41	10	33	55	50	27.00	

Universal 2 arm puller set with extended legs

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	mm	D mm	E mm	F mm	G mm	kg	
620.0501	20-90	200	4,5	M14x1,5 x 140	17	3	13	25	20	1.50	
620.0502	25-130	200	4,5	M14x1,5 x 140	17	3	13	25	20	1.70	
620.0503	50-160	300	6,5	G1/2"x14g x 210	22	4	16	35	25	4.00	
620.0504	60-200	300	6,5	G1/2"x14g x 210	22	4	16	35	25	4.30	
620.0505	80-250	300	11	G3/4"x14g x 280	27	5	25	54	35	9.20	
620.0506	80-350	300	11	G3/4"x14g x 280	27	5	25	54	35	10.30	
620.0507	110-520	300	13	G3/4"x14g x 280	27	5	25	54	35	14.80	
620.0508	80-250	400	11	G3/4"x14g x 280	27	5	25	54	35	10.50	
620.0509	80-350	400	11	G3/4"x14g x 280	27	5	25	54	35	11.60	
620.0510	110-520	400	13	G3/4"x14g x 280	27	5	25	54	35	16.10	
620.0511	80-250	500	11	G3/4"x14g x 280	27	5	25	54	35	11.90	
620.0512	80-350	500	11	G3/4"x14g x 280	27	5	25	54	35	13.00	
620.0513	110-520	500	13	G3/4"x14g x 280	27	5	25	54	35	17.50	

Hydraulic universal 2 arm puller

- Quickly modified or internal or external applications
- Hydraulic spindles available for thread G1/2"
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel

	A mm	B mm	C mm	max t	Hydraulic spindle	mm	D mm	E mm	F mm	G mm	kg	
620.0701	50-160	225	105-220	12	615.0002	13	4	16	35	25	3.90	
620.0702	50-200	225	120-270	12	615.0002	13	4	16	35	25	4.80	
620.0703	80-250	225	160-330	12	615.0002	13	5	25	54	35	9.80	
620.0704	80-350	225	160-420	12	615.0002	13	5	25	54	35	10.80	
620.0705	110-520	225	195-600	12	615.0002	13	5	25	54	35	15.30	
620.0706	80-250	325	160-330	12	615.0002	13	5	25	54	35	11.10	
620.0707	80-350	325	160-420	12	615.0002	13	5	25	54	35	12.10	
620.0708	110-520	325	195-600	12	615.0002	13	5	25	54	35	16.60	
620.0709	80-250	425	160-330	12	615.0002	13	5	25	54	35	12.50	
620.0710	80-350	425	160-420	12	615.0002	13	5	25	54	35	13.50	
620.0711	110-520	425	195-600	12	615.0002	13	5	25	54	35	18.00	

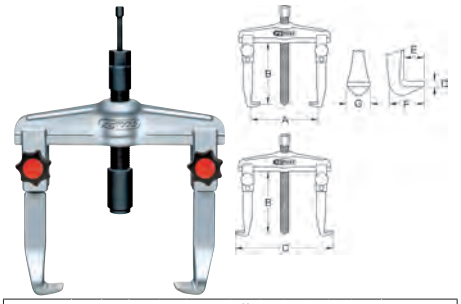
Quick release universal 2 arm puller

- Quick release function
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special steel

	A mm	B mm	C mm	max t	mm	mm	D mm	E mm	F mm	G mm	kg	
620.1701	20-90	100	70-130	4,5	M14x1,5 x 130	17	3	13	25	20	1.00	
620.1702	25-130	100	80-180	4,5	M14x1,5 x 130	17	3	13	25	20	1.20	
620.1703	50-160	150	108-220	6,5	G1/2"x14g x 210	22	4	16	35	25	3.00	
620.1704	60-200	150	120-270	6,5	G1/2"x14g x 210	22	4	16	35	25	3.30	
620.1705	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	35	7.40	
620.1706	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	35	8.50	

Hydraulic quick release universal 2 arm puller

- Quick release function
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	C mm	max t	Hydraulic spindle	mm	D mm	E mm	F mm	G mm	kg	
620.1901	50-160	145	105-220	12	615.0003	13/32	4	16	35	25	3.40	
620.1902	50-200	145	120-270	12	615.0003	13/32	4	16	35	25	3.80	
620.1903	80-250	125	160-330	12	615.0004	13/32	5	25	54	35	8.00	
620.1904	80-350	125	160-420	12	615.0004	13/32	5	25	54	35	9.00	

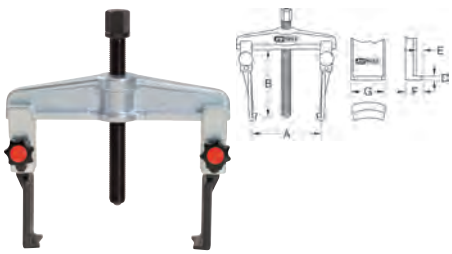
Universal 2 arm puller set with narrow legs

- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Supplied with different leg variants and hydraulic thrust spindle
- Extremely robust spindle with inductively hardened thread
- Special steel

	A mm	B mm	max t	mm	mm	D mm	E mm	F mm	G mm	kg	
620.0901	20-90	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.00	
620.0902	25-130	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.20	
620.0903	50-160	150	6,5	G1/2x14g x 210	22	5	8	17	40	3.00	
620.0904	60-200	150	6,5	G1/2x14g x 210	22	5	8	17	40	3.30	

Quick release universal 2 arm puller set with narrow legs

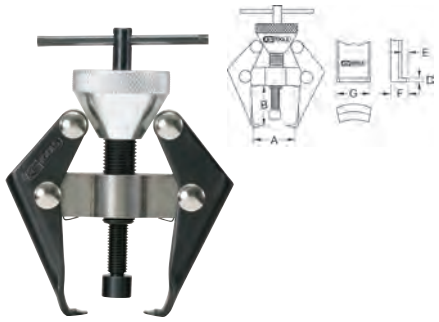
- Quick release function
- Best suited for limited access areas
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	mm	D mm	E mm	F mm	G mm	kg	
620.1101	20-90	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.00	
620.1102	25-130	100	4,5	M14x1,5 x 140	17	3,6	6	13	27	1.20	
620.1103	50-160	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.00	
620.1104	60-200	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.30	

Battery clamp and wiper arm puller 2 arm

- Ideally suited for drawing-off small parts
- T-handle drive
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
700.1190	15	32	1,2	M8 x 50	2,5	9	10,5	11	0.30

Pole clamp 2 arm puller

- Ideally suited for drawing off small parts
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel

	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	g
620.3101	10-60	40	1	M8 x 85	10	1	5	12	8	160
620.3102	10-70	44/74	1,2	M8 x 85	10	1	5	12	8	200
620.3103	10-90	84	2	M10 x 105	12	1,8	10	20	12	300

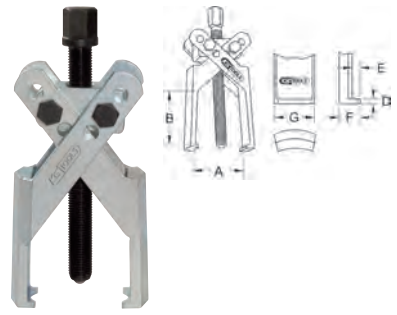
Universal 2 arm puller

- Robust spindle with hexagon drive
- 640.4103 with locking handle
- Special steel

	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.4101	10-60	45	2,5	M10x1 x 90	12	2	9	18	10	0.27
620.4102	10-70	65	3	M10x1 x 110	12	2	9	18	10	0.30
620.4103	10-100	80	3,5	M12x1,25 x 140	14	2,3	12	25	13	0.61

Universal 2 arm puller

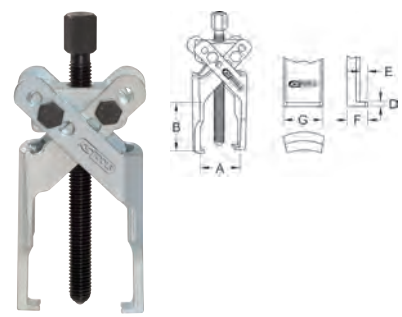
- Legs are adjustable in the working depth
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5201	6-100	70/85	1,5	M10 x 105	12	2,5	4,5	8,5	23	0.40
620.5202	10-140	85/120	3,5	M14x1,5 x 130	17	3,5	5	10	31	0.90
620.5203	15-140	125/155	4,5	M14x1,5 x 200	17	3,5	5	10	31	1.10

Universal 2 arm puller set with narrow legs

- Legs are adjustable in the working depth
- Ideal for confined spa es
- Independent pressure of the hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5301	6-100	70/85	1	M10 x 105	12	2,5	4,5	8,5	11	0.40
620.5302	15-140	125/155	2	M14x1,5 x 200	17	3,5	5	11	12	1.00

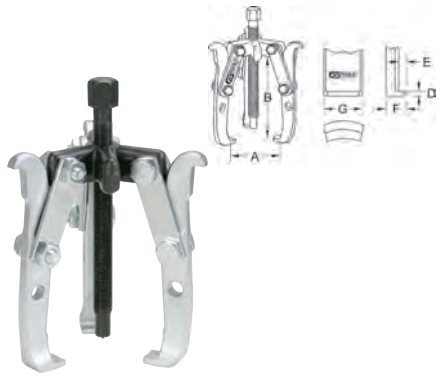
Universal bearing ring puller 2 arm with clamping yoke

- Clamp compresses hooks firm y
- Prevents slippage
- Pressure peak centers itself optimally in the cone of the hub boring
- Extremely robust spindle with inductively hardened thread
- Special steel

	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
700.1260	90	100	1,2	M16 x 150	17	6,5	8,5	22,5	27,1	1.76

Universal puller 2 and 3 arm

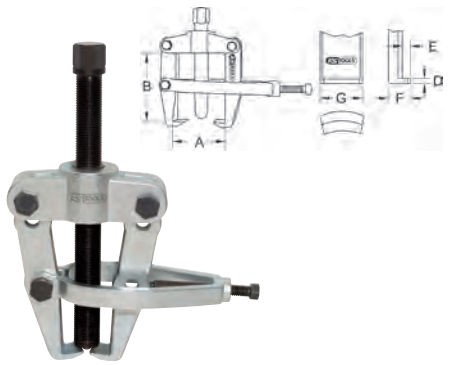
- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
700.1120	70	75	1,2	3/8"x24Gg x 120	13	3,2	8,4	20	8,4	0.96
700.1130	120	150	1,2	M14x1,25 x 175	16	7,2	7	17,8	7,0	1.83

Universal 2 arm puller set with clamping yoke

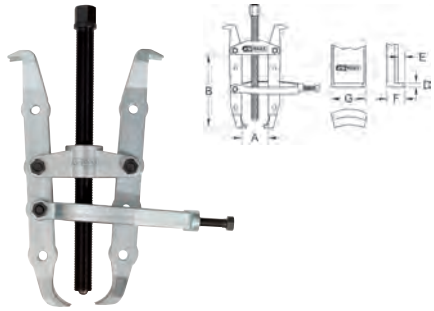
- Clamping yoke compresses the legs firm y
- Prevents slipping
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5401	80	90	5	M18 x 1,5 x 130	19	3	12	26	24	1.70
620.5402	100	110	6	G1/2"x14g x 210	22	3	14	25	24	2.60
620.5403	150	150	8	G1/2"x14g x 210	22	3	14	25	24	3.40

Universal 2 arm puller set with clamping yoke

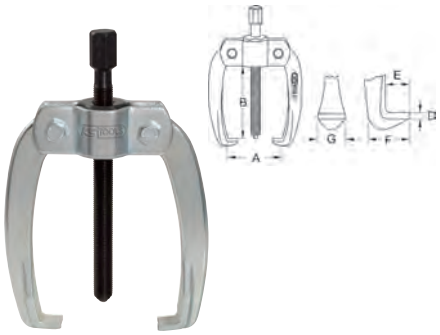
- Legs are adjustable in the working depth
- Double ended puller legs
- Clamping yoke compresses the legs firm y
- Prevents slipping
- Ideally suited for flush si ting bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
620.5501	110	170	5	M18x1,5 x 240	19	3	12	25	24	2.30
620.5502	150	270	6	G1/2"x14g x 270	22	3	14	25	24	4.10
620.5503	150	330	8	G1/2"x14g x 270	22	3	14	25	24	4.50

Basic universal 2 arm puller

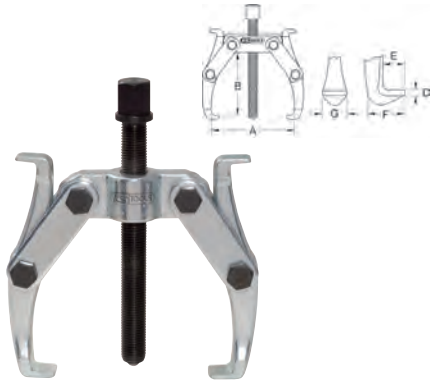
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm		D mm	E mm	F mm	G mm	kg
620.4301	10-100	80	2,5	M12x1,25 x 162	14	4	12	26	13	0.68
620.4302	10-120	120	3	M14x1,5 x 193	17	5	14	30	16	1.14
620.4303	20-160	160	3,5	M18x1,5 x 243	19	6	18	36	20	2.00
620.4304	20-200	200	4	M22x2 x 293	24	7	22	40	24	3.50

Universal 2 arm puller

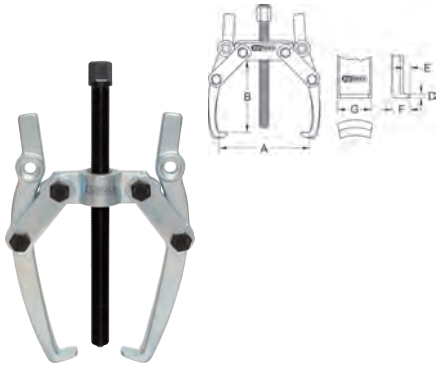
- Double ended legs
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm		D mm	E mm	F mm	G mm	kg
620.3001	20-150	85	3,5	M14x1,5 x 130	17	2	9	21	12	0.90
620.3002	40-220	130	4	M18x1,5 x 240	19	4	11	25	21	2.20

Universal 2 arm puller

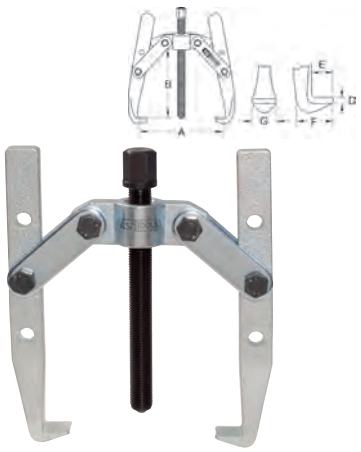
- Legs are adjustable in the working depth
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm		D mm	E mm	F mm	G mm	kg
620.3401	20-170	130	3,5	M14x1,5 x 130	17	2	11	23	16	1.00
620.3402	20-230	200	4	M18x1,5 x 240	19	4,5	16	33	20	2.30

Universal 2 arm puller

- Legs are adjustable in the working depth
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t mm		D mm	E mm	F mm	G mm	kg
620.3601	18-100	85	2,5	M10 x 105	12	2	10	20	14	0.40
620.3602	20-200	150	3,5	M14x1,5 x 130	17	3	14	25	18	1.20
620.3603	35-250	220	4	M18x1,5 x 240	19	4	20	35	25	2.80
620.3604	50-300	250	6	G1/2"x14g x 270	22	5	25	48	30	5.40
620.3605	50-350	350	6	G1/2"x14g x 270	22	5	25	48	30	6.10
620.3606	50-400	400	6	G1/2"x14g x 270	22	5	25	48	30	6.40
620.3607	50-450	450	6	G1/2"x14g x 270	22	5	25	48	30	6.90
620.3608	50-500	500	6	G1/2"x14g x 270	22	5	25	48	30	7.00
620.3609	50-500	650	6	G1/2"x14g x 270	22	5	25	48	30	8.40
620.3610	50-500	1000	6	G1/2"x14g x 270	22	5	25	48	30	11.00

Hydraulic universal 2 arm puller

- Legs are adjustable in the working depth
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel

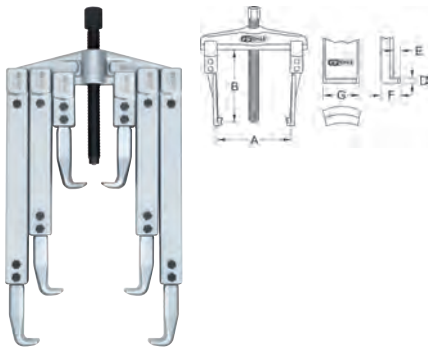
	A mm	B mm	max t mm	Hydraulic spindle	D mm	E mm	F mm	G mm	kg
620.3801	50-300	175	12	615.0002	13/32	5	25	48	30	5.70
620.3802	50-350	275	12	615.0002	13/32	5	25	48	30	6.40
620.3803	50-400	325	12	615.0002	13/32	5	25	48	30	6.70
620.3804	50-450	375	12	615.0002	13/32	5	25	48	30	7.20
620.3805	50-500	425	12	615.0002	13/32	5	25	48	30	7.30
620.3806	50-500	575	12	615.0002	13/32	5	25	48	30	8.70

UNIVERSAL 2 ARM PULLER SET

Universal puller set

- Through reconnecting the hooks internal and external applications are suitable
- Two armed traverse for 2 or 3 hooks
- Different hook variants and hydraulic spindles can be retrofitted
- Extremely robust spindle with inductively hardened thread
- Special steel

Application range: Gear wheels, bearings, pinions, synchroniser hubs, etc.



		A mm	B mm	max t mm	max N·m		mm	kg
700.1320	8 pcs	120	260	4,5	80	M14x1,5x150	17	3.54

consists of:

		g
700.1311	Spindle, M14x1,5	180
700.1312	Two armed traverse	485
700.1321	Draw-off arm, 120mm	260
700.1322	Draw-off arm, 230mm	540
700.1323	Draw-off arm, 280mm	640

Universal 2 arm puller set with display stand

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special steel
- Supplied inclusive of substaintial steel bench display

			kg
620.0250	5 pcs	Universal 2 arm puller set with display stand	17.80

consists of:

		kg
620.0101	Universal 2 leg puller, 20-90mm, legs 100 mm	1.00
620.0102	Universal 2 leg puller, 25-130mm, legs 100 mm	1.20
620.0103	Universal 2 leg puller, 50-160mm, legs 150 mm	3.00
620.0104	Universal 2 leg puller, 60-200mm, legs 150 mm	3.30
620.0105	Universal 2 leg puller, 80-250mm, legs 200 mm	7.40

Universal 2 arm puller set with display stand

- Quick release function
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special steel
- Supplied inclusive of substaintial steel bench display

			kg	
620.1850	5 pcs	Universal 2 arm puller set with display stand	17.80	

consists of:

		kg	
620.1701	Quick release universal 2 arm puller, 20-90mm	1.00	
620.1702	Quick release universal 2 arm puller, 25-130mm	1.20	
620.1703	Quick release universal 2 arm puller, 50-160mm	3.00	
620.1704	Quick release universal 2 arm puller, 60-200mm	3.30	
620.1705	Quick release universal 2 arm puller, 80-250mm	7.40	

Universal puller set

- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
700.1100	3 pcs	Universal puller set	4.39	

consists of:

		kg	
700.1120	Mechanical 2 and 3 leg puller, 4"	0.96	
700.1130	Mechanical 2 and 3 leg puller, 6"	1.83	
700.1140	Bearing splitter, for max. Ø 50 mm	1.15	

Quick adjustment universal puller set

- With quick release fuction
- Ideal for confined spa es
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofi - ted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

		A mm	B mm	mm	max t	kg	
625.1701	7 pcs	20 - 90	100	M14 x 1,5	5,5	2.30	

consists of:

		kg	
620.1701	Quick release universal 2 arm puller, 20-90mm	1.00	
630.1701	Quick release 3 arm puller, 20-90mm	1.30	
980.1090	Special thread grease, tube	0.01	

Quick adjustment universal puller set

- With quick release fuction
- Ideal for confined spa es
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofi - ted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

		A mm	B mm	mm	max t	kg	
625.1703	7 pcs	50 - 160	150	G1/2"x14Gg	5.5	6.50	

consists of:

		kg	
620.1703	Quick release universal 2 arm puller, 50-160mm	3.00	
630.1703	Quick release 3 arm puller, 50-160mm	3.50	
980.1090	Special thread grease, tube	0.01	

Hydraulic universal puller set 2 arm and 3 arm

- Less risk of slipage due to automatically closing pulling arm
- 8 length positions possible
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel
- In durable plastic storage case

			kg	
700.1200	22 pcs	Hydraulic universal puller set 2 arm and 3 arm	16.40	

consists of:

		g	
700.1202	Puller legs, ground pulling lugs, 4"	410	
700.1203	Puller legs, ground pulling lugs, 6"	600	
700.1204	Puller legs, ground pulling lugs, 8"	840	
700.1205	Yoke f.2 legs, quickly modifie	300	
700.1206	Yoke f.3 legs, quickly modifie	760	
700.1207	Thrust bolt extension, 20 mm	50	
700.1208	Thrust bolt extension, 35 mm	130	
700.1209	Thrust bolt extension, 85 mm	320	
700.1210	Pulling ring f.hydraulic thrust bolt	322	
700.1220	Separator/puller tool,for max. Ø 105 mm	2540	
700.1221	Yoke f.bearing separator tool	1480	
700.1222	Spigot f.bearing separator tool, 235mm	1060	
700.1223	Extension f.bearing separator tool,185mm	1110	
700.1400-1	Hydraulic spindle 10 t	1344	

Universal puller set

- Slim hooks
- Ideal for confined spa es
- Uniform load distribution and centered tightening
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofi - ted
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel

			kg	
700.1300	12 pcs	Universal puller set	6.69	

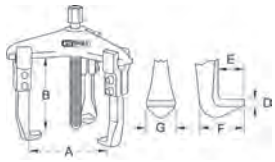
consists of:

		g	
700.1311	Spindle, M14x1,5	180	
700.1312	Two armed traverse	485	
700.1313	Three armed traverse	675	
700.1314	Puller arm, 100mm	250	
700.1315	Puller arm, 210mm	530	
700.1316	Puller arm, 260mm	640	

UNIVERSAL 3 ARM PULLER

Universal 3 arm puller

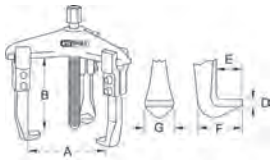
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Excellent power transfer
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
630.0101	20-90	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.30
630.0102	25-130	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.50
630.0103	50-160	150	7	G1/2"x14g x 210	22	4	16	35	25	3.50
630.0104	50-200	150	7	G1/2"x14g x 210	22	4	16	35	25	4.00

Quick release 3 arm puller

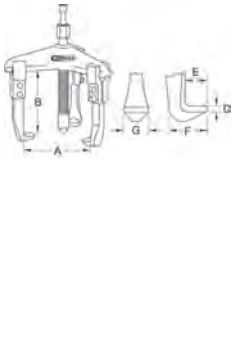
- Quick release
- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
630.1701	20-90	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.30
630.1702	25-130	100	5,5	M14x1,5 x 130	17	3	13	25	20	1.50
630.1703	50-160	150	7	G1/2"x14g x 210	22	4	16	35	25	3.50
630.1704	60-200	150	7	G1/2"x14g x 210	22	4	16	35	25	4.00

Hydraulic universal 3 arm puller

- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	max t	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.0301	50-160	145	12	615.0003	13/32	4	16	35	25	4.00
630.0302	60-200	145	12	615.0003	13/32	4	16	35	25	4.40

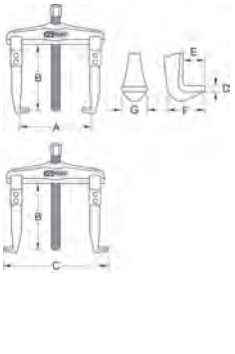
Hydraulic quick release universal 3 arm puller

- Quick release function
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel

	A mm	B mm	max t	Hydraulic spindle	dim mm	D mm	E mm	F mm	G mm	kg
630.1901	50-100	145	12	615.0002	13/32	4	16	35	25	4.00
630.1902	50-200	145	12	615.0002	13/32	4	16	35	25	4.40

Universal 2 + 3 arm puller

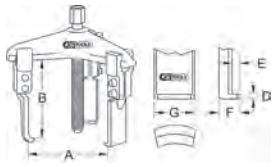
- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
640.4203	60	65	2,0	G3/8"x1,06px110	13	3	10	18	11	0.44
640.4204	90	100	5,0	G9/16"x2,0px190	17	4	15,5	29	17	1.40
640.4205	165	170	7,0	G3/4"x2,0px285	22	4	15,5	29	17	2.88

Universal 3 arm puller set with narrow legs

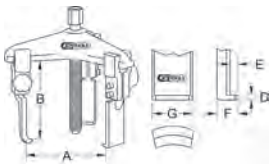
- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
630.0901	20-90	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.30
630.0902	25-130	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.50
630.0903	50-160	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.50
630.0904	60-200	150	6,5	G1/2"x14g x 210	22	5	8	17	40	4.00

Quick release 3 arm puller set with narrow legs

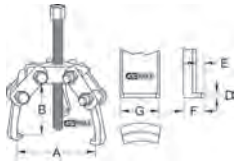
- Quick release
- Best suited for limited access areas
- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
630.1101	20-90	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.30
630.1102	25-130	100	5	M14x1,5 x 130	17	3,6	6	13	27	1.50
630.1103	50-160	150	6,5	G1/2"x14g x 210	22	5	8	17	40	3.50
630.1104	60-200	150	6,5	G1/2"x14g x 210	22	5	8	17	40	4.00

Pole clamp 3 arm puller

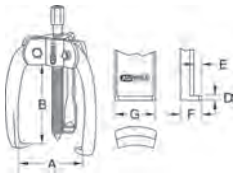
- Uniform load distribution and self centered
- Ideally suited for extracting small parts
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.3101	10-60	40	1,2	M8 x 85	10	1	5	12	8	0.20
630.3102	10-70	44/74	1,3	M8 x 85	10	1	5	12	8	0.30
630.3103	10-90	84	2,5	M10 x 105	12	1,8	10	20	12	0.50

Basic universal 3 arm puller

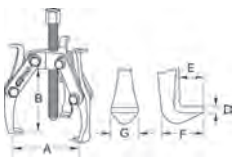
- Uniform load distribution and self centered
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.4301	10-100	80	2,5	M12x1,25 x 162	14	4	12	26	13	0.91
630.4302	10-120	120	3	M14x1,5 x 193	17	5	14	30	16	1.49
630.4303	20-160	160	3,5	M18x1,5 x 243	19	6	18	36	20	2.50
630.4304	20-200	200	4	M22x2 x 293	24	7	22	40	24	4.20

Universal 3 arm puller

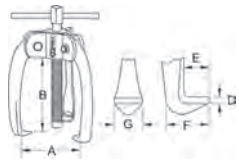
- Double ended legs
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.3001	20-150	85	4	M14x1,5 x 130	17	2	9	21	12	1.20
630.3002	40-220	130	4,5	M18x1,5 x 240	19	4	11	25	21	2.90

Universal 3 arm puller

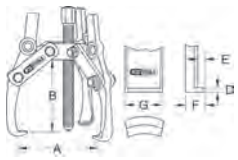
- Locking handle
- Uniform load distribution and self centered
- Ideally suited for extracting small parts
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special steel



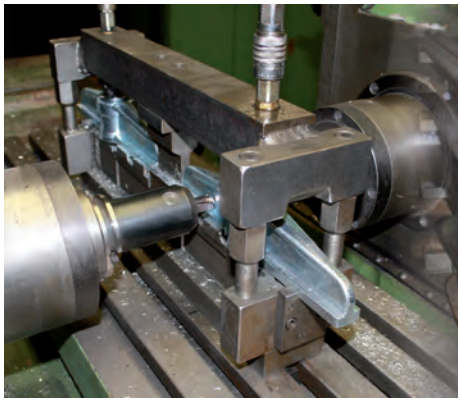
	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.4101	10-60	45	2,5	M10x1 x 90	12	2	9	18	10	0.30
630.4102	10-70	65	3	M10x1 x 110	12	2	9	18	10	0.30
630.4103	10-100	80	3,5	M12x1,25 x 140	14	2,3	12	25	13	0.80

Universal 3 arm puller

- Legs are adjustable in the working depth
- Uniform load distribution and self centered
- Extremely robust spindle with inductively hardened thread
- Special steel

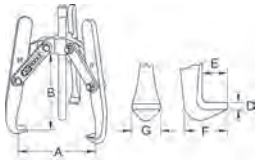


	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.3401	20-170	130	4	M14x1,5 x 130	17	2	11	23	16	1.30
630.3402	20-230	200	4,5	M18x1,5 x 240	19	4,5	16	33	20	3.10



Universal 3 arm puller

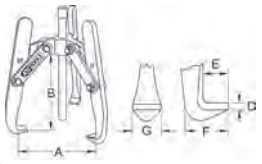
- Legs are adjustable in the working depth
- Uniform load distribution and self centered
- Hydraulic spindles available for thread G1/2”
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.3601	18-100	85	3	M10 x 105	12	2	10	20	14	0.50
630.3602	20-200	150	4	M14x1,5 x130	17	3	14	25	18	1.70
630.3603	35-250	220	4,5	M18x1,5 x240	19	4	20	36	25	3.90
630.3604	50-300	250	12	G1/2"x14g x 270	22	5	25	48	30	7.30
630.3605	50-350	350	12	G1/2"x14g x 270	22	5	25	48	30	8.30
630.3606	50-400	400	12	G1/2"x14g x 270	22	5	25	48	30	8.80
630.3607	50-450	450	12	G1/2"x14g x 270	22	5	25	48	30	9.40
630.3608	50-500	500	12	G1/2"x14g x 270	22	5	25	48	30	10.00
630.3609	50-500	650	12	G1/2"x14g x 270	22	5	25	48	30	11.60
630.3610	50-500	1000	12	G1/2"x14g x 270	22	5	25	48	30	16.00

Hydraulic universal 3 arm puller

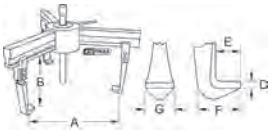
- Legs are adjustable in the working depth
- Uniform load distribution and self centered
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.3801	50-300	250	12	M14x1,5 x 100	17	5	25	48	30	12.50
630.3802	50-350	350	12	M14x1,5 x 100	17	5	25	48	30	13.50
630.3803	50-400	400	12	M14x1,5 x 100	17	5	25	48	30	14.00
630.3804	50-450	450	12	M14x1,5 x 100	17	5	25	48	30	14.50
630.3805	50-500	500	12	M14x1,5 x 100	17	5	25	48	30	15.00
630.3806	50-500	650	12	M14x1,5 x 100	17	5	25	48	30	16.60
630.3807	50-500	1000	12	M14x1,5 x 100	17	5	25	48	30	21.50

Universal 3 arm puller

- Uniform load distribution and self centered
- Through reversing the arms internal and external applications are possible
- Draw off arms radial revolving
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
630.2301	150-700	200	15	G1"x11g x 370	36	10	33	55	50	42.50	

UNIVERSAL 3 ARM PULLER SET

Universal puller set

- Hooks for double sided applications
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
700.1100	3 pcs	Universal puller set	4.39	

consists of:

		kg	
700.1120	Mechanical 2 and 3 leg puller, 4"	0.96	
700.1130	Mechanical 2 and 3 leg puller, 6"	1.83	
700.1140	Bearing splitter, for max. Ø 50 mm	1.15	

Quick adjustment universal puller set

- With quick release fuction
- Ideal for confined spa es
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofi - ted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

		A mm	B mm	mm	max t	kg
625.1701	7 pcs	20 - 90	100	M14 x 1,5	5,5	2.30

consists of:

		kg	
620.1701	Quick release universal 2 arm puller, 20-90mm	1.00	
630.1701	Quick release 3 arm puller, 20-90mm	1.30	
980.1090	Special thread grease, tube	0.01	

Quick adjustment universal puller set

- With quick release fuction
- Ideal for confined spa es
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofi - ted
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

		A mm	B mm	mm	max t	kg
625.1703	7 pcs	50 - 160	150	G1/2"x14Gg	5.5	6.50

consists of:

		kg	
620.1703	Quick release universal 2 arm puller, 50-160mm	3.00	
630.1703	Quick release 3 arm puller, 50-160mm	3.50	
980.1090	Special thread grease, tube	0.01	

Hydraulic universal puller set 2 arm and 3 arm

- Less risk of slipage due to automatically closing pulling arm
- 8 length positions possible
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel
- In durable plastic storage case

			kg	
700.1200	22 pcs	Hydraulic universal puller set 2 arm and 3 arm	16.40	

consists of:

		g	
700.1202	Puller legs, ground pulling lugs, 4"	410	
700.1203	Puller legs, ground pulling lugs, 6"	600	
700.1204	Puller legs, ground pulling lugs, 8"	840	
700.1205	Yoke f.2 legs, quickly modifie	300	
700.1206	Yoke f.3 legs, quickly modifie	760	
700.1207	Thrust bolt extension, 20 mm	50	
700.1208	Thrust bolt extension, 35 mm	130	
700.1209	Thrust bolt extension, 85 mm	320	
700.1210	Pulling ring f.hydraulic thrust bolt	322	
700.1220	Separator/puller tool,for max. Ø 105 mm	2540	
700.1221	Yoke f.bearing separator tool	1480	
700.1222	Spigot f.bearing separator tool, 235mm	1060	
700.1223	Extension f.bearing separator tool,185mm	1110	
700.1400-1	Hydraulic spindle 10 t	1344	

Universal puller set

- Slim hooks
- Ideal for confined spa es
- Uniform load distribution and centered tightening
- Through reconnecting the hooks internal and external applications are suitable
- Different hook variants and hydraulic spindles can be retrofi - ted
- Extremely robust spindle with inductively hardened thread
- Requires light expenditure of energy
- Special steel

			kg	
700.1300	12 pcs	Universal puller set	6.69	

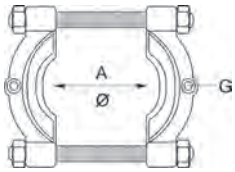
consists of:

		g	
700.1311	Spindle, M14x1,5	180	
700.1312	Two armed traverse	485	
700.1313	Three armed traverse	675	
700.1314	Puller arm, 100mm	250	
700.1315	Puller arm, 210mm	530	
700.1316	Puller arm, 260mm	640	

SEPARATOR PULLER TOOL

Separator puller tool

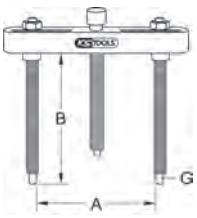
- To be used with separately available separator device
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel



	A mm	G	mm	mm	kg	
605.0501	5-60	M12	M10 x 120	17	0.40	
605.0502	12-75	M12	M12 x 140	19	0.70	
605.0503	22-115	M16	M16x1,5 x 180	24	1.90	
605.0504	25-155	M20x1,5	M20x1,5 x 250	30	4.20	
605.0505	30-220	M20x1,5	M24x1,5 x 410	36	12.00	
605.0506	40-280	M24x1,5	M28x1,5 x 410	41	15.80	

Yoke for bearing separator tool

- For use with the separator
- The train bolts are screwed into the threads of the separator
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel



	A mm	B mm	G	max t	mm	mm	kg	
605.0111	40-115	150	M12	2	M14x1,5 x 130	17	0.80	
605.0112	45-140	150	M12	2,5	M14x1,5 x 130	17	1.10	
605.0113	55-205	210	M16	4	G1/2"x14g x 210	22	2.70	
605.0114	90-260	315	M20x1,5	5	G1/2"x14g x 210	22	5.20	
605.0115	100-360	305	M20x1,5	7	G3/4"x14g x 280	27	8.80	
605.0116	140-435	320	M24x1,5	13	G1"x11g x 370	36	16.70	

Hydraulic thrust bolt with yoke for bearing separator tool

- For use with the separator
- The train bolts are screwed into the threads of the separator
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special steel

	A mm	B mm	G	max t	mm	Hydraulic spindle	mm	kg	
605.0301	55-205	135	M16	12	M16 x 280	615.0002	13/32	3.20	
605.0302	90-260	240	M20x1,5	12	M20x1,5 x 370	615.0002	13/32	5.70	
605.0303	100-360	230	M20x1,5	12	M20x1,5 x 370	615.0003	13/36	9.10	
605.0304	140-435	230	M24x1,5	15	M24x1,5 x 460	615.0004	17/41	17.60	

SEPARATOR PULLER TOOL SET

Separator set inclusive with yoke ø 5,0 - 60,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
605.0001	3 pcs	Separator set inclusive with yoke ø 5,0 - 60,0 mm	1.90	

consists of:

		kg	
605.0501	Bearing separator, 5-60mm	0.40	
605.0111	Yoke for bearing separator tool, 40-115mm	0.80	
605.0401	Extension for pull rod M12 x100mm	0.20	

Separator set inclusive with yoke ø 12,0 - 75,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special steel
- In durable plastic storage case

			kg	
605.0002	3 pcs	Separator set inclusive with yoke ø 12,0 - 75,0 mm	2.40	

consists of:

		kg	
605.0502	Bearing separator, 12-75mm	0.70	
605.0112	Yoke for bearing separator tool, 45-140mm	1.10	
605.0401	Extension for pull rod M12 x100mm	0.20	

Separator set inclusive with yoke ø 22,0 - 115,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel
- In durable plastic storage case

			kg	
605.0003	3 pcs	Separator set inclusive with yoke ø 22,0 - 115,0 mm	6.10	

consists of:

		kg	
605.0503	Bearing separator, 22-115mm	1.90	
605.0113	Yoke for bearing separator tool, 55-205mm	2.70	
605.0401	Extension for pull rod M12 x100mm	0.20	

Separator set inclusive with yoke ø Ø 25,0 - 155,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel
- In durable plastic storage case

			kg	
605.0004	3 pcs	Separator set inclusive with yoke ø Ø 25,0 - 155,0 mm	11.48	

consists of:

		kg	
605.0504	Bearing separator, 25-155mm	4.20	
605.0114	Yoke for bearing separator tool, 90-260mm	5.20	
605.0401	Extension for pull rod M12 x100mm	0.20	

Separator set inclusive with yoke ø 30,0 - 220,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special steel

			kg	
605.0005	3 pcs	Separator set inclusive with yoke ø 30,0 - 220,0 mm	29.00	

consists of:

		kg	
605.0505	Bearing separator, 30-220mm	12.00	
605.0115	Yoke for bearing separator tool, 100-360mm	8.80	
605.0401	Extension for pull rod M12 x100mm	0.20	

ACCESSORIES

Universal clamping yoke

- For universal 2 arm puller
- Clamping yoke compresses the legs firm y
- Prevents slipping
- Special steel

	A mm	g	
615.5101	10-130	800	

Special thread grease for puller and pusher spindles and nuts subjected high loads

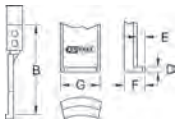
- Lubricant for components subjected to high static loads, e.g. threaded spindles
- Prevents excessive wear and seizing
- Irregularities in the surface to be protected are completely filled
- Minimises the friction thanks to the closed surface
- Effective protection against corrosion
- Increases the service life of threaded spindles
- Ensures reliable function even at high temperatures up to max. 1200 °C

		g	
980.1085	Special thread grease	22	
980.1090	Special thread grease	5	

REPLACEMENT HOOK

Puller legs, forged ground steel

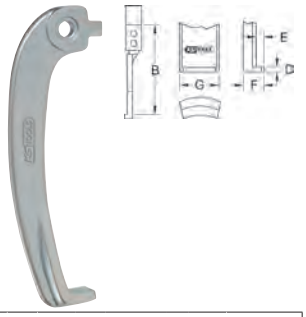
- For 2 arm and 3 arm basic universal puller
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.4101	620.4101+630.4101	45	2	9	18	10	40	
615.4102	620.4102+630.4102	65	2	9	18	10	50	
615.4103	620.4103+630.4103	80	2,3	12	25	13	100	

Puller legs, forged ground steel

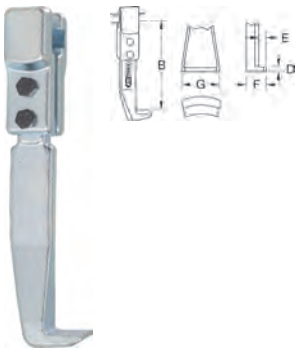
- For 2 arm and 3 arm basic universal puller
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.4301	620.4301+630.4301	80	4	12	26	13	130	
615.4302	620.4302+630.4302	120	5	14	30	16	210	
615.4303	620.4303+630.4303	160	6	18	35	20	350	
615.4304	620.4304+630.4304	200	7	22	40	24	600	

Puller legs

- For 2 arm and 3 arm pullers
- Special steel



	B mm	max t	D mm	E mm	F mm	G mm	g	
615.0101	100	4,5	3	13	25	20	250	
615.0102	150	6,5	4	16	35	25	650	
615.0103	200	11,0	5	25	54	35	1650	
615.0104	225	11,0	10	33	50	55	2150	

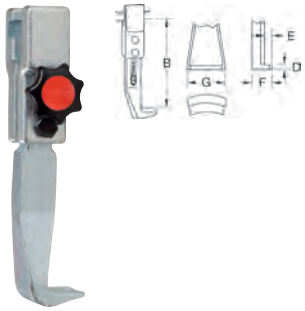
Puller legs, extra long design

- For 2 arm and 3 arm pullers
- Special steel

	B mm	D mm	E mm	F mm	G mm	kg	
615.0501	200	3	13	25	20	0.50	
615.0502	300	4	16	35	25	1.10	
615.0503	300	5	25	54	35	2.50	
615.0504	400	5	25	54	35	3.20	
615.0505	500	5	25	54	35	3.90	
615.0506	300	10	33	55	50	3.00	
615.0507	400	10	33	55	50	3.70	
615.0508	500	10	33	55	50	4.40	

Quick adjustment puller legs

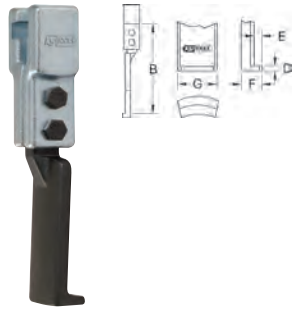
- Quick release function
- For 2 arm and 3 arm pullers
- Special steel



	B mm	D mm	E mm	F mm	G mm	g	
615.1101	100	3	13	25	20	200	
615.1102	150	4	16	35	25	700	
615.1103	200	3	13	25	20	500	

Puller legs, narrow design

- Best suited for limited access areas
- For 2 arm and 3 arm pullers
- Special steel



	B mm	D mm	E mm	F mm	G mm	g	
615.0901	100	3,6	6	13	27	200	
615.0902	200	3,6	6	13	27	500	
615.0903	250	3,6	6	13	27	600	
615.0904	100	2	6	13	27	200	
615.0905	200	2	6	13	27	500	
615.0906	250	2	6	13	27	1100	
615.0907	150	5	8	17	40	600	
615.0908	220	5	8	17	40	800	
615.0909	300	5	8	17	40	1800	

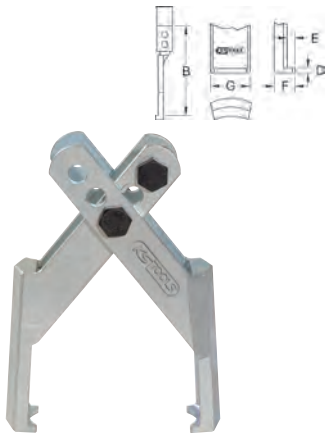
Quick adjustment puller legs, narrow design

- Quick release function
- Best suited for limited access areas
- For 2 arm and 3 arm pullers
- Special steel

	B mm	D mm	E mm	F mm	G mm	g	
615.1001	100	3,6	6	13	27	250	
615.1002	200	3,6	6	13	27	500	
615.1003	250	3,6	6	13	27	600	
615.1004	100	2,0	6	13	27	250	
615.1005	200	2,0	6	13	27	500	
615.1006	250	2,0	6	13	27	600	
615.1007	150	5,0	8	17	40	650	
615.1008	220	5,0	8	17	40	900	
615.1009	300	5,0	8	17	40	1100	

Pair of puller legs

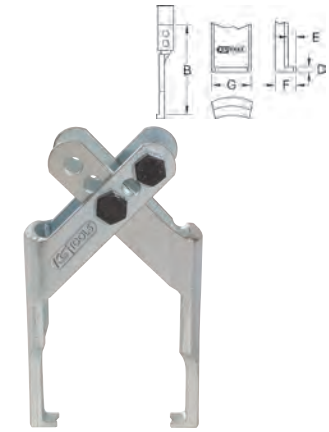
- Legs are adjustable in the working depth
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.5201	620.5201	70-85	2,5	4,5	8,5	23	180	
615.5202	620.5202	85-120	3,5	5	10	31	450	
615.5203	620.5203	125-155	3,5	5	10	31	550	

Pair of puller legs, narrow design

- Legs are adjustable in the working depth
- Best suited for limited access areas
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.5301	620.5301	70-85	2,5	4,5	8,5	11	150	
615.5302	620.5302	85-120	3,5	5	11	12	500	

Puller legs with clamping yoke

- For puller legs with quick adjustment
- Clamping yoke compresses the legs firm y
- Prevents slipping
- Special steel

	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.5401	620.5401	90	3	12	26	24	260	
615.5402	620.5402	110	3	14	25	24	320	
615.5403	620.5403	150	3	14	25	24	420	

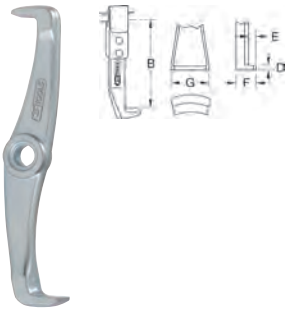
Puller legs with clamping yoke

- For 2 arm pullers with quick adjustment
- Legs are adjustable in the working depth
- Legs double ended usable
- Clamping yoke compresses the legs firm y
- Extremely robust spindle with inductively hardened thread
- Special steel

	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.5501	620.5501	170	3	12	25	24	530	
615.5502	620.5502	270	3	14	25	24	800	
615.5503	620.5503	330	3	14	25	24	850	

Puller legs double ended usable

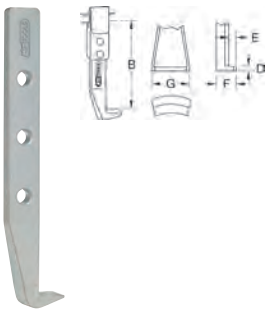
- Legs double ended usable
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.3001	620.3001+630.3001	85	2	9	21	12	100	
615.3002	620.3002+630.3002	130	4	11	25	21	320	

Puller legs

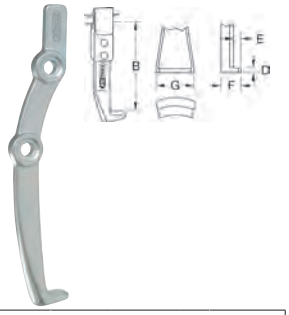
- Legs are adjustable in the working depth
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	g	
615.3601	620.3601+630.3601	85	3	14	25	18	100	
615.3602	620.3602+630.3602	150	4	20	36	25	260	
615.3603	620.3603+630.3603	220	5	25	48	30	650	
615.3604	620.3604+630.3604	250	5	25	48	30	1200	
615.3605	620.3605+630.3605	350	5	25	48	30	1600	
615.3606	620.3606+630.3606	400	5	25	48	30	1800	
615.3607	620.3607+630.3607	450	5	25	48	30	2000	
615.3608	620.3608+630.3608	500	5	25	48	30	2200	
615.3609	620.3609+630.3609	650	5	25	48	30	2800	
615.3610	620.3610+630.3610	1000	5	25	48	30	4200	

Puller legs

- Legs are adjustable in the working depth
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	g
615.3401	620.3401+630.3401	130	2	11	23	16	150
615.3402	620.3402+630.3402	200	4,5	16	33	20	400

REPLACEMENT SPINDLE

Spindle

- Extremely robust spindle with inductively hardened thread
- Special steel

	dim mm	L mm	H mm	Ø mm	mm	g
610.1401	12	150	15	10	M10	100
610.1402	14	190	20	12	M12	200
610.1701	17	60	21	14	M14 x 1,5	100
610.1702	17	130	21	14	M14 x 1,5	200
610.1703	17	200	21	14	M14 x 1,5	300
610.1704	17	250	21	14	M14 x 1,5	550
610.1705	17	60	20	16	M16 x 1,5	100
610.1706	17	70	20	16	M16 x 1,5	100
610.1707	17	90	20	16	M16 x 1,5	200
610.1901	19	70	20	18	M18 x 1,5	200
610.1902	19	130	20	18	M18 x 1,5	300
610.1903	19	170	20	18	M18 x 1,5	400
610.1904	19	240	20	18	M18 x 1,5	500
610.2201	22	110	23	21	G1/2"x14g	300
610.2202	22	160	23	21	G1/2"x14g	400
610.2203	22	175	23	21	G1/2"x14g	500
610.2204	22	210	23	21	G1/2"x14g	600
610.2205	22	235	23	21	G1/2"x14g	700
610.2206	22	270	23	21	G1/2"x14g	800
610.2701	27	180	35	26	G3/4"x14g	1000
610.2702	27	280	35	26	G3/4"x14g	1300
610.2703	27	360	35	26	G3/4"x14g	1700
610.3601	36	310	45	33	G1"x11g	2300
610.3602	36	360	45	33	G1"x11g	2650
610.3603	36	455	45	33	G1"x11g	3100
700.5612	21	113	27	16	M16 x 130	200

Hydraulic compression spindle

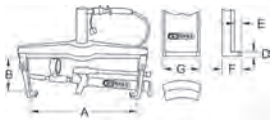
- With low effort maximal pressure
- Special steel

	L mm	H mm	max t	Ø Body mm	Body mm	Pressure spindle mm	dim mm	kg
615.0001	260	23	12	41	UN1.1/2"x16	M11x85	17	1.60
615.0002	410	55	12	32	G1/2"x14	M10x90	13	1.10
615.0003	410	55	12	36	G3/4"x14	M10x90	13	1.60
615.0004	460	80	15	41	G1"x11	M11x1,5x100	17	3.50

HYDRAULIC PULLERS AND PUMP

Universal 2 arm puller for using with hydraulic cylinder

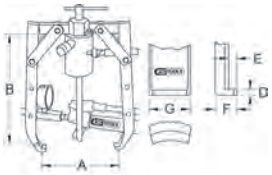
- Consists of traverse and legs
- Through reversing the arms internal and external applications are possible
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel

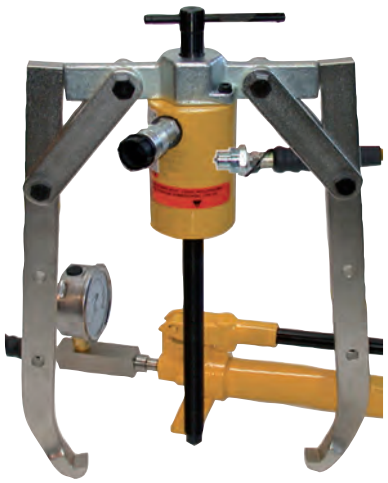


	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.0210	640	225	10	10	33	55	50	20.00
640.0215	640	225	15	10	33	55	50	20.00
640.0217	640	225	17	10	33	55	50	21.50

Universal 2 arm puller for using with hydraulic cylinder

- Consists of traverse and legs
- Through reversing the arms internal and external applications are possible
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel

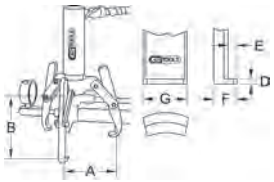




	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.0220	420	290	20	17	16	32	32	11.50
640.0230	700	400	30	24	23	48	40	20.00
640.0250	1000	700	50	35	42	87	50	50.00

Universal 3 arm puller for using with hydraulic cylinder

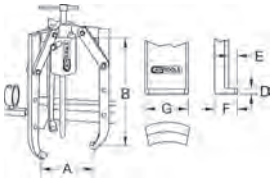
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	mm	max t	D mm	E mm	F mm	G mm	kg
640.0310	350	250	UNC2.1/4" x 14	10	5	25	48	30	9.50
640.0315	350	250	M68 x 2	15	5	25	48	30	7.50
640.0317	350	250	G 1"x11g	17	5	25	48	30	8.50

Universal 3 arm puller for using with hydraulic cylinder

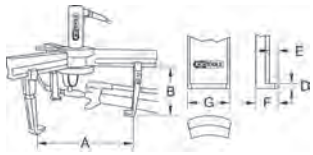
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.0320	420	290	20	17	16	32	32	17.00
640.0330	700	400	30	24	23	48	40	30.00
640.0350	1000	700	50	35	42	87	50	70.00

Universal 3 arm puller for using with hydraulic cylinder

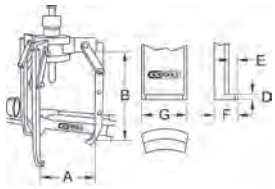
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	mm	max t	D mm	E mm	F mm	G mm	kg	
640.2315	150-700	200	M68x2	15	10	33	55	50	38.00	
640.2317	150-700	200	G1"x11g	17	10	33	55	50	40.00	

Hydraulic universal 3 arm puller

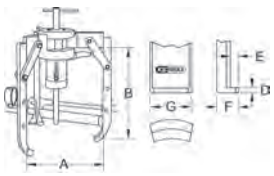
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Uniform load distribution and centered tigthening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	mm	max t	D mm	E mm	F mm	G mm	kg	
640.2415	500	440	M68x2	15	17	16	32	32	22.00	
640.2417	500	440	G1"x11g	17	17	16	32	32	24.00	

Universal 3 arm puller for using with hydraulic cylinder

- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Uniform load distribution and centered tigthening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special steel



	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg	
640.2420	500	270	20	17	16	32	32	27.00	
640.2430	750	310	30	24	23	48	40	26.00	
640.2450	1000	660	50	35	42	87	50	106.00	

Spare traverse

- For hydraulic 2 arm puller
- Special steel

	max t	For pullers	kg	
645.0210	10	640.0210	16.00	
645.0215	15	640.0215	15.00	
645.0217	17	640.0217	16.00	
645.0220	20	640.0220	5.00	
645.0230	30	640.0230	8.00	
645.0250	50	640.0250	16.00	

Spare traverse

- For hydraulic 3 arm puller
- Special steel

	max t	For pullers	kg	
645.0310	10	640.0310	4.00	
645.0315	15	640.0315	3.50	
645.0317	17	640.0317	4.50	
645.0320	20	640.0320	7.00	
645.0330	30	640.0330	11.50	
645.0350	50	640.0350	20.00	
645.2315	15	640.2315	10.00	
645.2317	17	640.2317	12.50	
645.2415	15	640.2415	10.00	
645.2417	17	640.2417	12.50	
645.2420	20	640.2420	15.00	
645.2430	30	640.2430	27.00	
645.2450	50	640.2450	27.00	

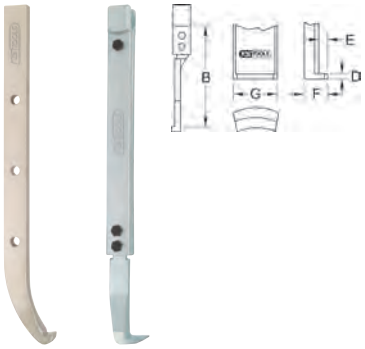
Traverse arm for hydraulic gear puller

- For hydraulic 3 arm puller
- Special steel

	For pullers	kg	
645.2316	640.2315-17	7.00	
645.2416	640.2415-17	4.00	
645.2421	640.2420	4.00	
645.2431	640.2430	5.00	
645.2451	640.2450	10.00	

Puller legs

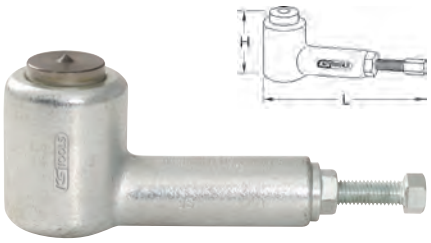
- For 2 arm and 3 arm hydraulic pullers
- Special steel



	For pullers	B mm	D mm	E mm	F mm	G mm	kg
645.0251	640.0210-17 +640.2315-17	225	10	33	55	50	2.10
645.0252	640.0210-17 +640.2315-17	300	10	33	55	50	3.00
645.0253	640.0210-17 +640.2315-17	400	10	33	55	50	3.70
645.0254	640.0210-17 +640.2315-17	500	10	33	55	50	4.40
645.0261	640.0220	290	17	16	32	32	3.30
645.0262	640.0230	400	24	23	48	40	6.50
645.0263	640.0250	700	35	42	87	50	17.00
645.0351	640.0310-17	250	5	25	48	30	1.80
645.0352	640.0310-17	350	5	25	48	30	1.90
645.0353	640.0310-17	400	5	25	48	30	2.00
645.0354	640.0310-17	500	5	25	48	30	2.20
645.0361	640.0320	290	17	16	32	32	3.30
645.0362	640.0330	400	24	23	48	40	6.50
645.0363	640.0350	700	35	42	87	50	17.00
645.2461	640.2415-17	440	17	16	32	32	3.30
645.2462	640.2420	270	17	16	32	32	3.30
645.2463	640.2430	310	24	23	48	40	6.50
645.2464	640.2450	660	35	42	87	50	17.00

Hydraulic press

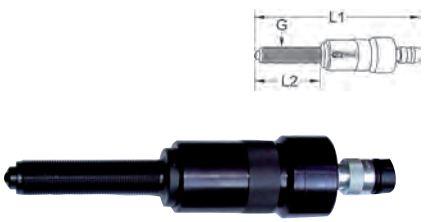
- For mechanical pullers
- Power increase with the normal pressure spindle
- Maximum pressure power with slight power expense
- Special steel



	L mm	H mm	max t	Hydraulic lift mm	mm	kg
640.0160	150.0	75,0	8	8	M14x1,5 x 60	0.80
640.0165	180.0	90,0	15	12	M14x1,5 x 85	1.80

Spindle hydraulic cylinder

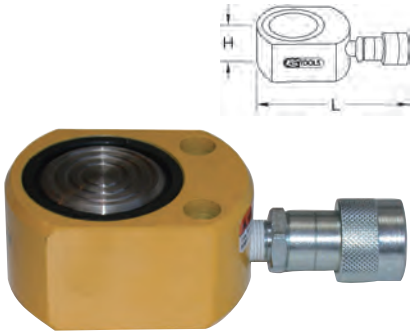
- Simply working with spring withdrawal
- Necessary minimal oil volume 120 cm³ = 0,12 l
- Maximum pressure power with slight power expense
- Special steel



	Connection thread mm	L1 mm	L2 mm	Stroke mm	G	max t	kg
640.0130	3/8" - 18 NPT	403	150.0	156	G1"x11g	17	4.50

Flat hydraulic cylinder

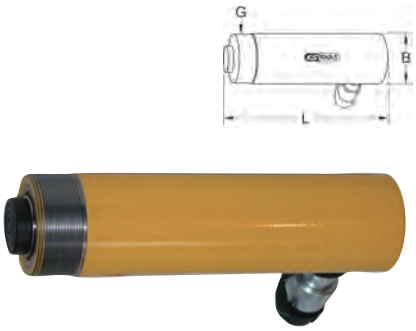
- Simple working with spring withdrawal
- Maximum pressure power with slight power expense
- Special steel



	Connection thread mm	L mm	H mm	Stroke mm	Minimal oil volume cm³/l	max t	kg
640.0140	3/8" - 18 NPT	140	42	12	18/0,018	10	1.60
640.0150	3/8" - 18 NPT	170	51	11	32/0,032	20	2.80

Single screw hydraulic cylinder

- Simply working with spring withdrawal
- Interchangeable pressure piece
- Low effort maximal pressure
- Special steel

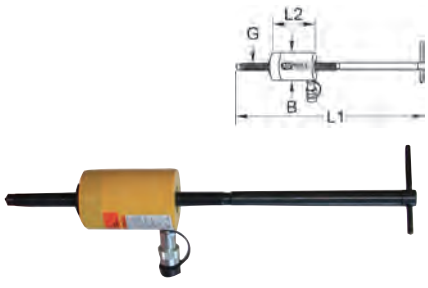


	Connection thread mm	L mm	B mm	Stroke mm	G	max t	kg
640.0110	3/8" - 18 NPT	403	247	156	UNC2.1/4x14	10	4.00
640.0120	3/8" - 18 NPT	423	271	152	M68x2	15	7.00

Hollow piston hydraulic cylinder with spindle

- Simply working with spring withdrawal
- Nickel plated appliance pipe
- Maximum pressure power with slight power expense
- Special steel

Mounting thread at cylinder: 1.) 2 threaded hole with cylinder base (tube side) 2.) external thread: 20t=3-7/8"x12G30t=4-1/2"x12G50t=6-1/4"x12G



	Connection thread mm	L1 mm	L2 mm	B mm	Stroke mm	G	max t	kg
640.0170	3/8" - 18 NPT	670	162.0	98	49	UNC1"-8	20	10.60
640.0180	3/8" - 18 NPT	790	178.0	114	64	UNC1.1/4"-7	30	15.20
640.0190	3/8" - 18 NPT	975	247.0	159	76	UNC1.5/8"-5.1/2"	50	40.50

Hydraulic hand pump

- Single stage
- Reverse valve for advance and return stroke
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Operating pressure max. 700 bar

	Connection thread mm	L mm	B mm	H mm	Flow rate per hub cm³	kg
640.0010	3/8" - 18 NPT	585	133	119	2.62	9.00

Pneumatic hydraulic pump

- Compressed air working
- For simply agent press cylinders
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Operating pressure max. 700 bar
- Output per stroke:
- 0.8 l/min up to 200 bar
- 0.1 l/min up to 700 bar

	Connection thread mm	L mm	B mm	H mm	kg
640.0020	3/8" - 18 NPT	255	130	200	11.00

Electric hydraulic pump

- Two stepped for simply agent press cylinders
- Safety valve for overload protection
- Usable tank volume 1900 cm³ = 1.9l
- Includes pressure tube 1.8 meters
- Motor specifi ation 0.37kW - 220/230 V - 50/60 hertz, single phase (3.2 amps)
- 1st Step: max. 13 bar
- 2nd. Step: max. 700 bar
- Output per stroke:
- 1. Steps 3.31 l/min
- 2. Step: 0.32 l/ min

	Connection thread mm	L mm	B mm	H mm	kg	
640.0030	3/8" - 18 NPT	244	244	362	14.00	

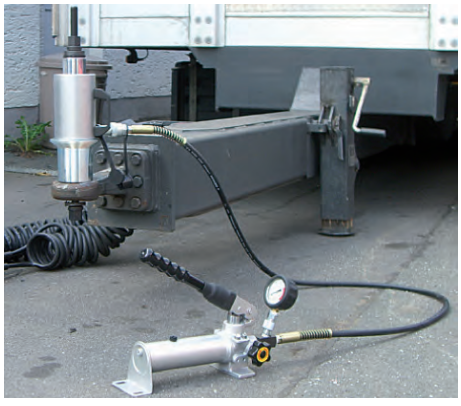
Hydraulic tension and pressure unit

- For the dismantling and assembly of silent support, steering pin, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Industrial execution with forged piston
- Suitable for both pressure and train uses
- Ideally suited for commercial vehicles
- Special steel
- In durable plastic storage case

			kg	
700.1790	4 pcs	Hydraulic tension and pressure unit	15.40	

consists of:

		kg	
700.1791	Hydraulic hollow piston cylinder, 20 t	7.30	
700.1792	Hydraulic hand pump, 700 bar	5.50	
700.1793	Hydraulic hose, 2 m	1.10	
700.1796	Feed shaft for hydraulic M20 x 500 mm	1.50	



Hydraulic hollow piston spindle

- Simply working with spring withdrawal
- Nickel plated centre tube
- With low effort maximal pressure
- Special steel

Technical data:

Capacity:	20 t
Connection thread:	3/8" NPT IG
Piston:	industrial forged execution

	L mm	H mm	D1 mm	D2 mm	D3 mm	kg	
700.1791	164.0	52.0	100.0	26.0	55.0	7.30	

Hydraulic hand pump

- For the dismantling and assembly of silent support, steering pin, track rod ends, wheel bearings, etc.
- Extremely high and uniform power construction
- Suitable for both pressure and train uses
- Ideally suited for commercial vehicles
- Supplied without without manometer and hydraulic tube
- Special steel

Technical data:

Connection thread:	3/8" NPT IG
Hand pump:	700 bar high pressure pump
Dimensions:	410 x 150 x 135

		kg	
700.1792	Hydraulic hand pump	5.50	

Hydraulics tube, 2 m including connection

- Ideally suited for commercial vehicles

Technical data:

Connection thread:	3/8" NPT AG x 3/8" NPT AG
Length:	2000 mm

		kg	
700.1793	Hydraulics tube, 2 m including connection	1.10	

Feed shaft for hydraulic

- Including nuts and spherical washer

Technical data:

Flat collar nut:	SW 30
Spherical washer :	Ø 36 mm
U-Washer:	Ø 51 x 7.5 mm, with central cone

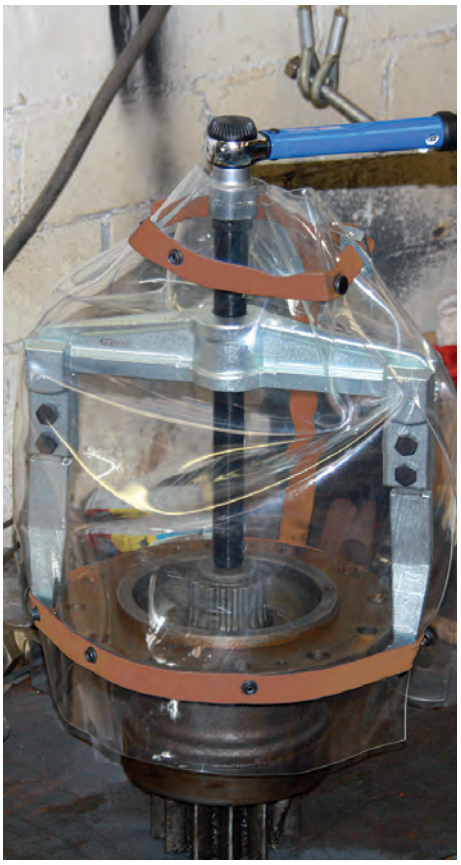
	L mm	Thread	kg	
700.1796	500.0	M 20 x 2.5	1.50	

SAFETY COVERING FOIL

Safety covering foil

- Two ply welded
- High tearing resistance
- Variable adjustment
- UV resistant
- Temperature range of -25°C to +50°C

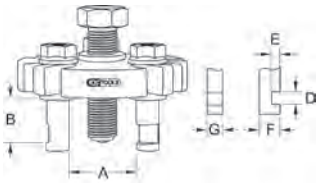
	B mm	L mm	max t	kg	
610.0100	510.0	915.0	18	3.90	



UNIVERSAL BELT PULLER

Universal belt pulley puller 3 arm

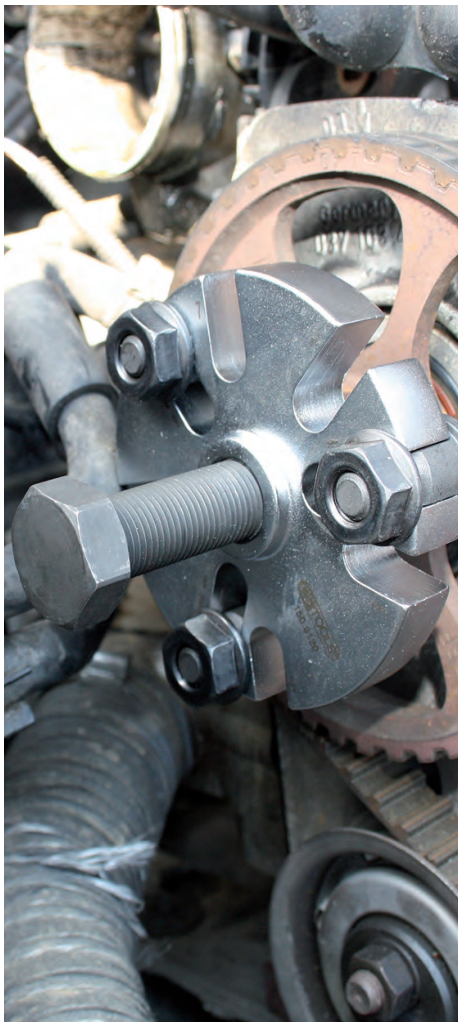
- For the damage free drawing off of pulley belts
- Universal suitable for several diameters and different hole divisions
- Less space requirement through compact method of building
- Suited for working on and finishing engine
- Special steel



	A mm	B mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
150.3130	90	30	M16x1,5 x 75	24	10	6	11	12	0.90

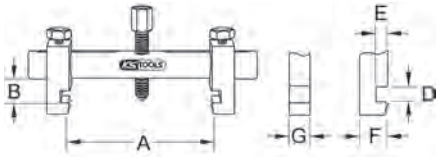
accessories:

		g
150.3133	Spare traverse for 150.3130	300



Universal belt pulley puller 2 arm

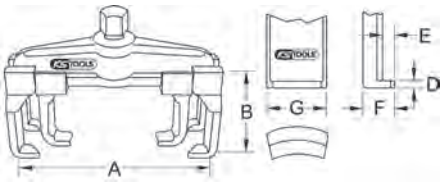
- For grooved belt pulleys
- Draw-off arms with locking device
- Clamp compresses hooks firm y
- Prevents slippage
- Less space requirement through compact method of building
- Suited for working on and finishing engine
- Special steel

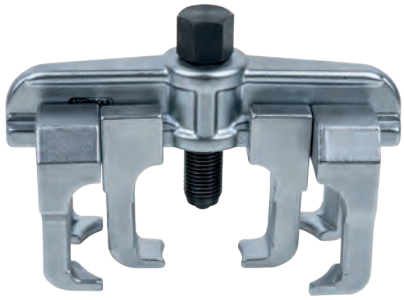


	A mm	B mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
150.3170	40-165	30	M12 x 75	17	10	9	18	35	1.60

Universal camshaft solid wheel puller 2 arm

- Four special hooks for 5 and 6 armed spoked wheels
- Suitable for many VAG models
- Extremely robust spindle with inductively hardened thread
- Special steel



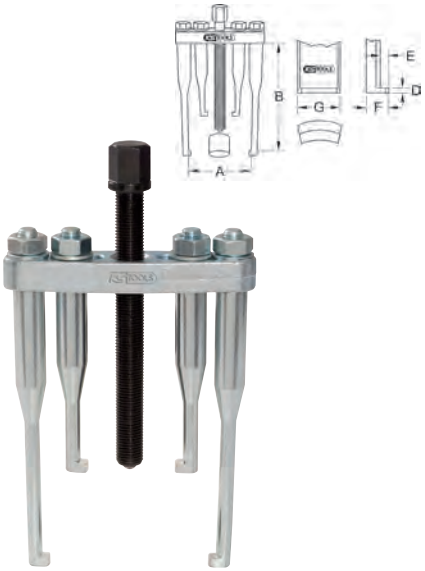


	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
670.0211	130	44	2,5	M14x1,5 x 55	17	4	9	20	15	0.90

STEERING WHEEL PULLER

Universal steering wheel puller 2 arm for cars

- Short and long hooks as well as pressure piece for spindle
- Extremely robust spindle with inductively hardened Thread
- Special steel



	A mm	B mm	max t	mm	dim mm	D mm	E mm	F mm	G mm	kg
670.0201	90	135	2,5	M14x1,5 x 130	17	5	3,5	11	7,5	0.90

Universal steering wheel puller 3 arm

- For steering wheels with three or four spokes
- Tie rings with rubber sleeve for protection on the steering wheel
- Special steel

	Ø mm	L mm	max t	dim mm	mm	kg
670.0191	160	120	4	17	M14x1,5 x 130	1.90

WINDSCREEN WIPER ARM PULLER

Universal windscreen wiper arm puller type 1

- Special steel

	A mm	B mm	mm	dim mm	kg
700.1193	16	28	M8 x 45	11	0.14

Universal windscreen wiper arm puller type 2

- Spindle end with brass cap to prevent damage to the windscreen wiper arm
- Special steel

	A mm	B mm	mm	dim mm	kg
700.1191	26	28	M8 x 75	13	0.45

Universal windscreen wiper arm puller type 3

- Spindle end with brass cap to prevent damage to the windscreen wiper arm
- Heavy execution for loosening the tightest of wiper arms
- Suitable for many automobiles and commercial vehicles
- Special steel

	A mm	B mm	mm	dim mm	kg
700.1192	16	41	M10 x 80	17	0.51

Universal windscreen wiper arm puller 2 arm

- Hollow draw off spindle to prevent any damage to the rear wiper blades
- Special steel

	A mm	B mm	mm	dim mm	D mm	E mm	F mm	G mm	kg
700.1185	10-60	34	M12x1,25 x 34	17	3	5	14	15	1.00

Universal windscreen wiper arm puller set

- Suited for a multitude of vehicle types and car brands
- Alternatively can be used mechanically or with an impact spindle
- Special steel
- In durable plastic storage case

			kg
700.1240	13 pcs	Universal windscreen wiper arm puller set	3.81

consists of:

		g
700.1231	Slide hammer	1130
700.1232	Hollow spindle, L=95mm, M12	170
700.1233	Pull hook Gr.1, opening 22 mm, H = 50 mm	110
700.1234	Pull hook Gr.2, opening 25 mm, H = 50 mm	140
700.1235	Pull hook Gr.3, opening 16 mm, H = 60 mm	150
700.1236	Pull hook Gr.4, opening 25 mm, H = 41 mm	110
700.1237	Pull hook Gr.5, opening 30 mm, H = 50 mm	150
700.1238	Pull hook Gr.6, opening 20 mm, H = 50 mm	100
700.1239	Pull hook Gr.7, opening 17 mm, H = 56 mm	100
700.1241	Pull hook Gr 8, opening 16 mm, H = 80 mm	170
700.1242	Universal 2 Arm Wiper arm puller set with two pairs of arms	690
700.1243	Spindle extension, 30 mm, for 700.1232 and 700.1242	20
700.1244	Spindle design hollow, for 700.1232 and 700.1242	20

BALL JOINT PULLERS

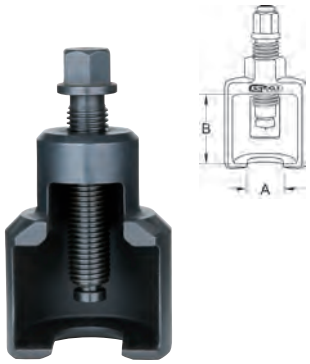
Ball joint extractor cap „VIBRO IMPACT“

- Pressure pieces in the spindle rotating mouted
- Spindle suitable for impact wrenches
- Less space required
- Cast forged execution
- Special steel
- With inspection panel

	A mm	B mm	mm	dim mm	kg
450.0060	30	58	Tr.22	18	1.10
450.0061	32	90	Tr.24	25	2.51

Ball joint extractor cap „VIBRO IMPACT“

- Pressure pieces in the spindle rotating mouted
- Spindle suitable for impact wrenches
- Less space required
- Cast forged execution
- Special steel
- Without inspection panel



	A mm	B mm	mm	dim mm	kg
450.0062	39	58	Tr.24	25	2.83

Ball joint puller„VIBRO-IMPACT“ with window

- Pressure pieces in the spindle rotating mouted
- Spindle suitable for impact wrenches
- Less space required
- Cast forged execution
- Special steel

Application range: Universal in the HGV sector, e.g. SCANIA, MB, MAN (e.g. 414 drag link), HINO, etc.

	mm	A mm	B mm	mm	kg
450.0066	Tr.26	39	60	39	3.80

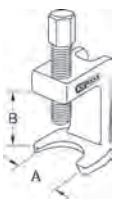
Impact ball joint puller

- Optimal positioning between suspension arm and axle casing
- Mouted spherical centering point
- Special steel

	A mm	B mm	mm	mm	kg
450.0085	35	60	M27 x 130	24	2.52

Universal ball joint ejector

- For many automobiles and commercial vehicles
- Special steel



	A mm	B mm	max t	mm	mm	g
670.0061	23	55	4	17	M16x1,5 x 60	800
670.0062	28	55	4	17	M16x1,5 x 60	800
670.0063	34	63	4	19	M18x1,5 x 70	900

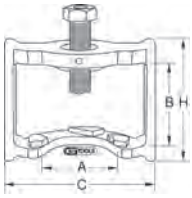
Universal ball joint extractor

- Tools for removing of carrier joint and tie rod joints or track rod joint studs for steering gear, suspension arm, axle casing and stabiliser
- Universal suitable for passenger cars to commercial vehicles
- Compact and durable design
- Extremely robust spindle with inductively hardened thread

			kg
670.0060	3 pcs	23 - 28 - 34 mm	2.90

Brake linkage adjuster extractor, BPW

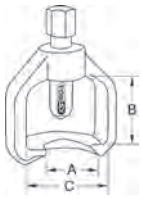
- Substantial construction for drawing off firm y sitting BPW brake linkage adjusters
- Suitable for older and automatic linkage adjusters
- Special steel



	A mm	B mm	C mm	H mm	mm	mm	kg
450.0305	65	78	160	127	M22x1,5 x 90	32	2.70

Universal ball joint separator

- For many automobiles and commercial vehicles
- Special steel



	A mm	B mm	C mm	max N·m	mm	mm	kg
670.0101	18	40	40	50	M14x1,5x60	17	0.30
670.0102	25	50	50	120	M16x1,5x60	17	0.70
670.0103	29	60	60	160	M18x1,5x75	19	1.00
670.0104	40	80	80	280	G1/2“x14gx110	22	2.10
670.0105	45	100	90	400	G3/4“x14gx125	27	2.80
670.0106	58	80	100	280	G1/2“x14gx110	22	2.10

Brake linkage adjuster extractor, HALDEX

- Substantial construction for drawing off firm y sitting brake linkage adjuster
- Certain stop through ring shaped bearing area
- Special steel

	A mm	B mm	C mm	H mm	mm	mm	kg
450.0300	65	78	160	127	M22x1,5 x 95	32	3.10

Universal ball joint extractor

- Robust model for loosening the track heads and push pole heads
- Optimal positioning through compact design and slim fork piece
- Special steel

	A mm	B mm	C mm	mm	mm	kg
450.0075	45	75	63	24	M22 x 135	1.63
450.0076	55	100	76	24	M22 x 135	1.84

Universal ball joint separator 2 stage adjustable

- Separator 2 stage adjustable
- Ideal for confined spa es
- Spindle hexagonal with additional drive point
- Forged
- Special steel

	A mm	B mm	mm	mm	kg
700.5610	24	0-55	M16 x 90	20	1.05

Universal ball joint separator 4 stage adjustable

- Separator 4 stage adjustable
- Spindle hexagonal with additional drive point
- Forged
- Special steel
- Stage 1: 24 mm
- Stage 2: 30 mm
- Stage 3: 40 mm
- Stage 4: 45 mm

	A mm	B mm	mm	mm	kg
700.5630	20	24-45	M14 x 105	18	1.50

Universal ball joint separator

- Extra fl t execution
- Forged
- Special steel

	A mm	B mm	mm	mm	kg
700.5620	18	20-37	M14 x 85	16	0.97

Universal ball joint separator

- Extra strong execution
- Forged
- Special steel

	A mm	B mm	mm	mm	kg
700.5625	20	20-37	M12 x 85	16	1.07

Universal ball joint extractor

- Robust model for loosening the track heads and push pole heads
- Optimal positioning through compact design and slim fork piece
- Adjustment of the clamp by means of the spindle
- Special steel

	A mm	B mm	mm	mm	kg
450.0070	32	75	M22 x 90	30	2.49
450.0071	45	80	M22 x 90	30	2.61

Ball joint puller HGV, mechanical

- Massive execution for loosening the track heads and push pole heads
- Enormous power through lever transmission
- Special steel

	A mm	B mm	mm	mm	kg
450.0051	36	70	M24x3x160	36	4.34

Hydraulic universal ball joint extractor set

- Massive execution for loosening the track heads and push pole heads
- Enormous power through lever transmission
- Requires light expenditure of energy
- Special steel

			kg
450.0050	3 pcs	Hydraulic universal ball joint extractor set	6.55

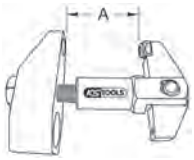
consists of:

		kg
450.0051	Ball Joint Puller HGV, mechanical	4.34
450.0052	Adaptor M24 x 3 for Hydraulic Thrust bolt.	0.66
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	1.34

Clamp screw ejector set

- For loosening seized clamping screws (M10) on 4-link axles
- For right and left wishbone clamping screws
- For aluminium and steel four link axles
- Release force up to max. 12 t
- Universally applicable hydraulic spindle (mounting thread 1.1/2"x16 start)
- Fine adjustment for optimum efficien y
- In durable plastic storage case

Application range: Audi A4, A6, Volkswagen Passat from 97, identical group vehicles



		A mm	kg
670.0075	4 pcs	65 - 125	4.17

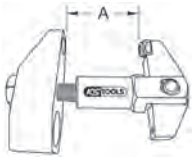
consists of:

		kg
615.0001	Hydraulic pressure spindle,17mm,UN 1.1/2"x16Gx260mm	1.60
670.0074	Clamp screw ejector	0.50
670.0077	Flat thrust piece	0.03
670.0078	Mandrel thruster	0.03

Clamp screw ejector set without spindle

- For loosening seized clamping screws (M10) on 4-link axles
- For right and left wishbone clamping screws
- For aluminium and steel four link axles
- Release force up to max. 12 t
- Universally applicable hydraulic spindle (mounting thread 1.1/2"x16 start)
- Fine adjustment for optimum efficien y
- In durable plastic storage case

Application range: Audi A4, A6, Volkswagen Passat from 97, identical group vehicles



		A mm	kg	
670.0076	3 pcs	65 - 125	2.74	

consists of:

		kg	
670.0074	Clamp screw ejector	0.50	
670.0077	Flat thrust piece	0.03	
670.0078	Mandrel thruster	0.03	

Hydraulic universal ball joint ejector set

- For extracting the ball joints and ball plug at track rod ends, direct transmissions and suspension axles
- Revolving cylinder reception
- Compact construction
- Requires light expenditure of energy
- Special steel

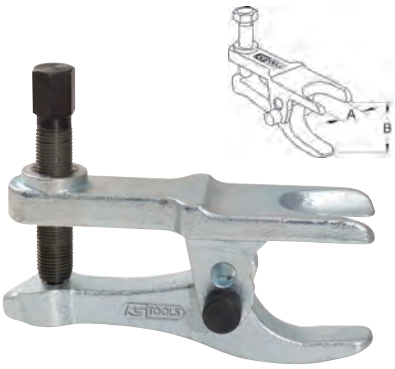
			kg	
450.0120	6 pcs	Hydraulic universal ball joint ejector set	9.57	

consists of:

		kg	
450.0121	Ball joint ejector	2.40	
450.0122	Clevis, Ø max 25mm	1.35	
450.0123	Clevis, Ø max 33mm	1.27	
450.0124	Clevis, Ø max 47mm	1.21	
450.0126	Hydraulic fl t cylinder, 20 t	2.90	
450.0127	Safety chain	0.44	

Universal ball joint separator

- For separating the ball plug in the extension of the ball joint
- Suitable for many vehicles + transporter
- Also suitable for aluminum undercarriages
- Special steel



	A mm	B mm	max t	mm	mm	kg	
670.0121	24	50	3,5	17	M16x1,5x70	1.40	
670.0122	24	60-80	3,5	17	M15x1,5x90	1.80	

Universal ball joint separator 2 stage adjustable

- Separator 2 stage adjustable
- Ideal for confined spa es
- Extremely high clamping range
- Spindle hexagonal with additional drive point
- Forged
- Special steel

	A mm	B mm	mm	mm	kg	
700.5615	18-24	23-110	M16 x 130	16	1.20	

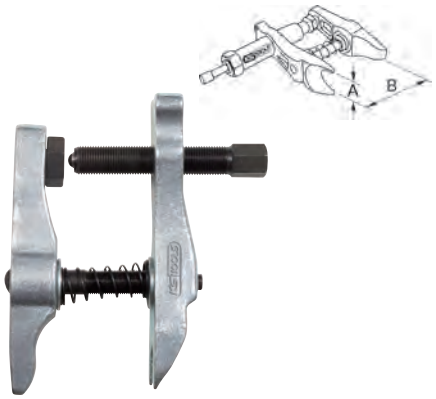
Universal ball joint separator

- For separating the ball plug in the extension of the ball joint
- Suitable for many vehicles
- Special steel

	A mm	B mm	max t	mm	mm	kg	
670.0111	18-22	50	3,5	19	M14x1,5x48	0.90	

Universal ball joint separator

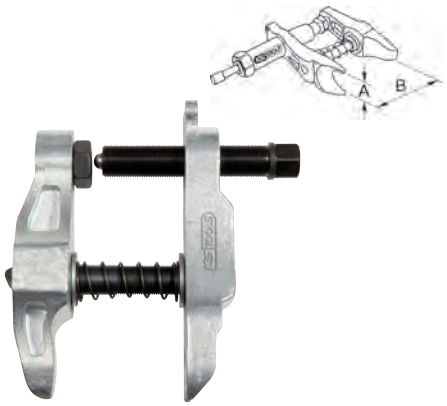
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- Special steel



	A mm	B mm	max t	mm	mm	kg	
670.0131	36	90	10	22	G1/2"x14gx110	3.70	

Universal ball joint separator

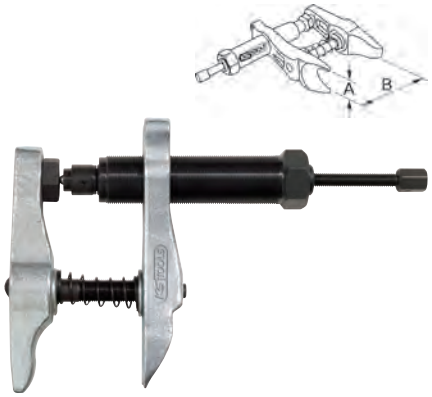
- For separating the ball plug in the extension of the ball joints
- Suitabl for many heavy trucks, buses + low floor bu
- For bolts Ø 35.0 - 45.0 mm
- Special steel



	A mm	B mm	max t	mm	mm	kg	
670.0161	45	115	20	27	G3/4"x14gx125	6.40	

Hydraulic universal ball joint separator

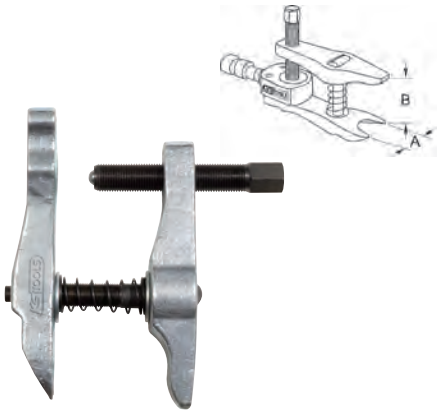
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Special steel



	A mm	B mm	max t	mm	mm	kg	
670.0141	36	90	10	17	1.1/2"x16G	4.70	

Universal ball joint separator without hydraulic cylinder

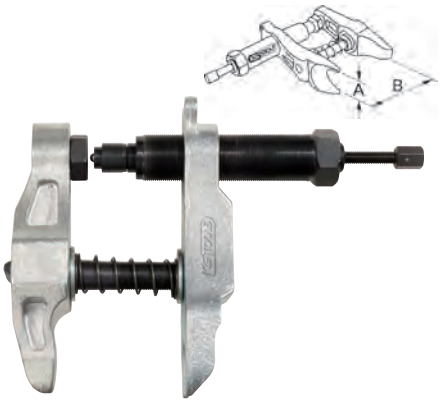
- For separating the ball plug in the extension of the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Special steel
- For use with 640.0140



	A mm	B mm	max t	Adjusting screw mm	Ambos spindle mm		kg
670.0151	36	90	10	M18x1,5x120	G1/2"x14x110	22	3.50

Hydraulic universal ball joint separator

- For separating the ball plug in the extension of the ball joints
- Suitably for many heavy trucks, buses + low floor bu
- For bolts Ø 35.0 - 45.0 mm
- Special steel



	A mm	B mm	max t		mm	kg
670.0171	45	115	20	17	M14x1,5x50	7.00

Universal ball joint separator without hydraulic cylinder

- For separating the ball plug in the extension of the ball joints
- Suitably for many heavy trucks, buses + low floor bu
- For bolts Ø 35.0 - 45.0 mm
- Special steel
- For use with 640.0140 / 640.0150

	A mm	B mm	max t		mm	kg
670.0181	45	115	20	27	G3/4"x14gx125	6.00

Draw off fla ge with impact puller

- For stuck axles with 4 or 5 hole divisions
- Special steel

	Rim diameter Ø mm	Bolt Ø mm	Hammer Ø mm	Slide rail Ø mm	Adaptor thread mm	kg
670.0001	100-150	max. 14	60	60	M16 x 1,5	3.70

WHEEL HUB EXTRACTOR & DRIVE SHAFT EJECTOR

Flange extractor set

- In order to separate the fla ges in pipes to enable gasket changing or maintenance works
- For screws M16 - M24
- Special steel

		Ø mm	mm		kg
670.0251	2 pcs	80-250	M24x1,5x110	24	5.60

Separating and assembly fork

- For quick loosening of track and steering rod ends steering arms and additional controlling parts
- Ideal for confined spa es
- Special steel

	A mm	L mm	kg
670.0091	18	330.0	0.90
670.0092	23	330.0	0.90
670.0093	31	330.0	1.10
670.0094	35	330.0	1.30
670.0095	45	330.0	1.50

Universal wheel hub extractor set

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel

			kg
670.0013	5 pcs	Universal wheel hub extractor set	3.60

Universal wheel hub extractor set

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel

			kg
670.0014	6 pcs	Universal wheel hub extractor set	4.10

Universal wheel hub extractor set

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special steel

			kg
670.0015	7 pcs	Universal wheel hub extractor set	4.60

accessories:

		g
670.0017	Traverse bar for weehl hub extractor set	820
670.0018	Puller leg + reception ring Ø14mm + Ø18mm	540
670.0019	Reception ring Ø 14mm	22
670.0020	Reception ring Ø 18mm	16
610.2701	Spindle, 27mm, G3/4"x14Gx180mm	1000

Universal wheel bearing puller and drive shaft puller, hydraulic

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special steel

			kg
700.1400	11 pcs	Universal wheel bearing puller and drive shaft puller, hydraulic	9.34

consists of:

		g
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	1344
700.1400-2	Disc traverse 100 mm	920
700.1400-3	Puller pull arm set, 5 pcs	500
700.1400-4	Impact spanner, 30mm, L=200mm	935
700.1400-5	Impact spindle	2015
700.1400-7	Extension, small	60

Universal wheel hub extractor

- Variable use for bolt circle diameter up to 300 mm
- Universal use for bolts up to max. Ø 22 mm
- With 2 rods and trapezoid thread spindle
- Optionally upgradeable with hydraulic spindle or slide hammer
- Special steel

			kg
450.0040	12 pcs	Universal wheel hub extractor	15.00

consists of:

		g
450.0041	Tapered thrust bolt Tr.30	1680
450.0043	Traverse, 370 mm	8000
450.0044	Extension and nut	800
450.0045	Thread adaptor, M18 x 1,5	600
450.0046	Thread adaptor, M20 x 1,5	600
450.0055	Thread adaptor, M22 x 1,5	604
450.0048	Locating thrust piece size1, 90 mm / 65 mm	1140
450.0049	Locating thrust piece size2, 110 mm / 85 mm	1340

Universal wheel hub extractor set

- Extra heavy and solid execution
- For the extension of the wheel hub
- Ideal for passenger cars and small vans
- Enormous impact delivery of up to 11 t
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1.5 mm connection thread
- Weights variably attachable and removable
- Special steel

	Rim diameter Ø mm	Bolt Ø mm	mm	L mm	kg
700.1420	98-138	max. M14	AG M20x1,5	930.0	15.27

consists of:

		kg
700.1411	Wheel hub/drive fla ge dismatling tool	2.55
700.1415	Universal slide hammer 6 + 3 kg, 850mm	12.00
700.1421	Adaptor ET UN 1.1/2" x IT M20 x 1.5	0.72

Brake disc puller set for Ford Transit

- For damage free removal of the brake disc
- No damages to wheel bearing and ABS sensor
- Quick attachment - large working freedom
- Optimum release force thanks to axially guided impact
- Extra heavy and solid execution
- Enormous impact delivery of up to 11 t
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1.5 mm connection thread
- Weights variably attachable and removable
- Special steel

Application range:
Ford Transit 2000.5 (01/200 - 05/2006)
Ford Transit 2006.5 (04/2006 -)
except vehicles with reinforced front axle (payload over 1850 kg)

	Bolt Ø mm	mm	L mm	kg
700.1470	M10	AG M20x1,5	1000.0	14.50

consists of:

		kg
700.1415	Universal slide hammer 6+3kg, 850mm	12.00
700.1471	Brake disc puller fla ge Ford Transit	2.00
700.1472	Adaptor for slide hammer f.700.1471	0.50

Wheel hub and bearing dismantling set

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special steel

			kg
700.1410	7 pcs	Wheel hub and bearing dismantling set	4.80

consists of:

		g
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	1344
700.1411	Wheel hub/drive fla ge dismatling tool	2550
700.1412	Reception ring set, 5 pcs.	150

Universal wheel hub extractor for commercial vehicles

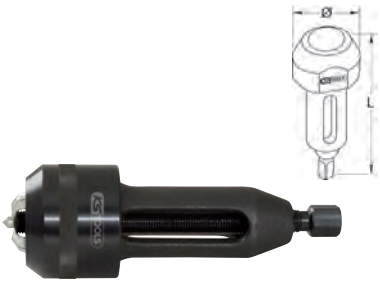
- Extracting the wheel hubs and/or housing over the grease cap thread
- Six sided drive enable unscrewing on the cap
- Robust execution
- Trapezoid thread spindle for high removal power drive SW 30
- Special steel

	Ø mm	mm	mm	kg
450.0000	AG M115x1,5	Tr.30x260	30	3.74
450.0001	AG M125x2,0	Tr.30x260	30	1.56
450.0002	IG M135x2,0	Tr.30x260	30	2.19
450.0003	IG M136x2,5	Tr.30x260	30	1.48
450.0004	AG M155x3,0	Tr.30x260	30	0.71

UNIVERSAL AUTOMOTIVE PULLERS

Draw off lining

- For drawing off the shoulder housings interior ring of light machines, motor parts and other machine parts
- Special steel



	Ø mm	L mm	max N•m	mm	mm	kg
670.0221	5-32	135	60	17	M14x1,5 x 130	1.40

Universal press support

- Universal adjustable support
- Through the height adjustable bolts a fix ure and vibration safe 3 level points construction is created
- The amount and arrangement at thread enable the conformity to almost every component surface
- Includes lateral safety device

	L mm	B mm	H mm	Replacement bolt & nut set	kg
700.1740	245.0	200.0	40.0	700.1741	8.10

Universal slide hammer

- Extra heavy and solid execution
- For universal use for automobiles + trucks
- Enormous impact delivery of up to 11 tonnes
- With 6 kg impact weight
- Includes 3 kg additional weight
- With M 20 x 1.5 mm connection thread
- Additional weights can be screwed together
- Special steel

	L mm	kg	
700.1415	850.0	12.00	

accessories:

		kg	
700.1411	Wheel hub/drive fla ge dismatling tool	2.55	
700.1421	Adaptor ET UN 1.1/2" x IT M20 x 1.5	0.72	
700.1423	Adaptor for double hook	0.27	
700.1424	Universal hook M20 x 1.5 for ball joints + car body	2.40	
700.1425	Double hook	0.75	
700.1428	Adaptor ET UN 1.1/2" x IT M16 x 2.0	0.72	
700.1430	Adaptor ET UN 1.1/2" x IT M16 x 1,5	0.72	
152.1056	Single screw adaptor AG M17 x 1	0.24	

WHEEL BEARING PULLER

VAG wheel bearing tool set

- For the new VAG models with wheel housings/hub unit
- Required for the correct installation
- High time saving - faster execution at workshop press than at the vehicle ideally suited for Wheel bearing diameters 62 mm / 66 mm / 72 mm (13 "/ 14 "/ 15 „-undercarriages)
- The extension of the wheel housing takes place by means of the available workshop facility

Application range: Volkswagen-Polo new, Audi A2, Skoda Fabia, Seat Ibiza

			kg	
150.2130	14 pcs	VAG wheel bearing tool set	17.20	

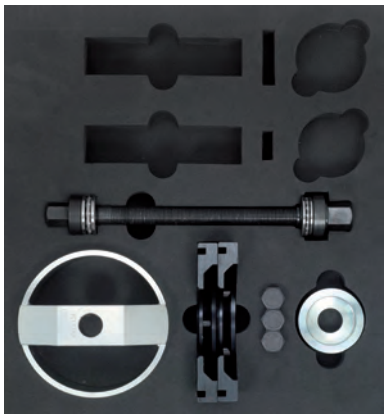
consists of:

	X		kg	
150.2131	1	Half cup pair anodised for bearing Ø62mm	1.99	
150.2132	1	Half cup pair chrome for bearing Ø66mm	1.46	
150.2133	1	Half cup pair black for bearing Ø72mm	1.71	
150.2134	1	Pressure bell universal with bore hole M22	2.10	
150.2135	1	Thrust bearing, 66/72mm,L=160mm	4.20	
150.2136	1	Thrust bearing, 62mm, L=160mm	4.03	
150.2137	2	Fixing screw for half cup, M12x1,5	0.03	
150.2138	3	Fixing screw for half cup, M14x1,5	0.05	

Tool set for compact wheel hub/bearing unit

- Includes spindle M18/M20
- Enables use directly on the vehicle
- Minimum labour - high time savings
- Safe and simple use
- Use also in connection with workshop press
- Possible expansion for bearing Ø 62+66 mm
- Special steel

Application area: Audi A2 from MY 00, Skoda Fabia from MY 00, Volkswagen Polo from MY 02 / Fox from MY 05, Seat Ibiza from MY 02, etc.



		Ø mm	kg	
150.2145	10 pcs	72,0	9.74	

consists of:

	X		kg	
150.2146	1	Drive unit, 3 pcs	0.54	
150.2134	1	Pressure bell universal with bore hole M22	2.10	
150.2133	1	Half cup pair black for bearing Ø72mm	1.71	
150.2149	1	Thrust piece for 150.2143	0.43	
150.2138	3	Fixing screw for half cup, M14x1,5	0.05	

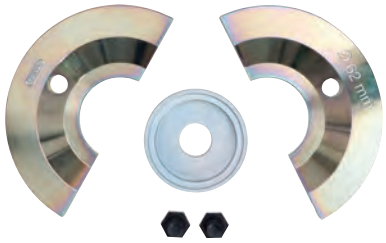
accessories:

		kg	
150.2145-1	Compact wheel hub tool set,Ø72mm -spindle	5.93	

Half cup auxiliary kit Ø 62 mm

- As complement to 150.2145
- Special steel

Application range: Volkswagen Lupo, Audi A2 1,2L, etc.



		Ø mm	kg	
150.2141	5 pcs	62,0	3.00	

consists of:

	X		g	
150.2147	1	Thrust piece for 150.2141	427	
150.2131	1	Half cup pair anodised for bearing Ø62mm	1990	
150.2137	2	Fixing screw for half cup, M12x1,5	30	

Half cup auxiliary kit Ø 66 mm

- As complement to 150.2145
- Special steel

Application range: Volkswagen Polo from MY 02, Skoda Fabia from MY 00, etc.

		Ø mm	kg	
150.2142	6 pcs	66,0	3.10	

consists of:

	X		kg	
150.2148	1	Thrust piece for 150.2142	0.43	
150.2132	1	Half cup pair chrome for bearing Ø66mm	1.46	
150.2138	3	Fixing screw for half cup, M14x1,5	0.05	

Half cup auxiliary kit Ø 72 mm

- As complement to 150.2145
- Special steel

Application range: Audi A2 from MY 00, Skoda Fabia from MY 00, Volkswagen Polo from MY 02 / Fox from MY 05, Seat Ibiza from MY 02, etc.

		Ø mm	kg	
150.2143	6 pcs	72,0	2.90	

consists of:

	X		kg	
150.2149	1	Thrust piece for 150.2143	0.43	
150.2133	1	Half cup pair black for bearing Ø72mm	1.71	
150.2138	3	Fixing screw for half cup, M14x1,5	0.05	

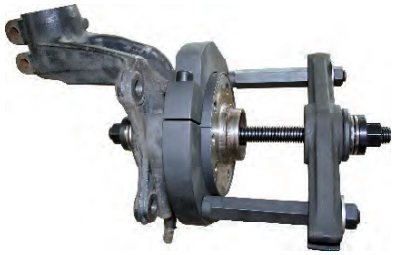
Drive spindle

- As complement to wheel bearing puller 150.2145-1
- Special steel

Technical data:

Thread:	M20
Drive spindle:	SW 22
Drive nut:	SW 30

		L mm	g	
150.2146	3 pcs	300.0	540	



Wheel bearing tool set

- Removal and installation of the compact wheel hubs / bearing unit
- Enables de -and assembly directly on the vehicle
- Minimum labour
- Safe and simple use
- Special steel
- In durable plastic storage case

Application range: VW T5 Transporter

			kg	
150.2350	13 pcs	Wheel bearing tool set	20.00	

consists of:

		kg	
150.2351	Cross member with threaded ring	2.60	
150.2352	Tie rod set, 2 pcs	1.10	
150.2353	Half cup mounting, 2 pcs	4.95	
150.2354	Half cup set, 2 pcs Removal	1.70	
150.2355	Half cup set, 2 pcs Installation	1.90	
150.2356	Thrust piece removal	0.55	
150.2357	Thrust piece installation	0.95	
150.2358	Trapezoidal threaded spindle with 2x thrust beating and nut	1.25	
980.1085	Special thread grease	0.02	

Wheel hub and bearing extractor supplement set

- By means of this supplement assortment wheel hubs with a hub alliance of more than Ø 75 mm can be correctly dismantled
- The wheel hub- and joint cover dismantling fla ge is through long thread bolts and Distance sheath is a slight distance away so the hub alliance can be placed
- Special bevelled edge which the hub can easily be replaced with contamination to the wheel hub housings
- Includes wall holder

			kg	
700.1435	21 pcs	Wheel hub and bearing extractor supplement set	2.88	

consists of:

		g	
700.1436	Wall holder for supplement set	600	
700.1437	Spacer sleeve, length 40 mm	115	
700.1438	Threaded bolt M12 x 1.5 mm, length 80 mm	90	
700.1439	Threaded bolt M14 x 1.5 mm, length 40 mm	90	
700.1440	Threaded bolt M14 x 1.5 mm, length 80 mm	90	

Universal car wheel bearing tool set

- For the dismantling and assembly of wheel housings and hub directly on the vehicle
- Extension of the suspension strut and axle joint is no longer required
- Correct and protective installation of the housings through the correct pressure point at the bearing outer ring
- Suited for axle tube and for axle with the housing adjoining at an alliance
- High time savings as reactive axle alignment is not necessarily required
- 300 mm gear pulling spindle
- Through enclosed bolts (M12 + M14) wheel hubs can be removed
- Pressure bearing protects against increased friction during the process
- Special steel
- In durable plastic storage case

Application range: VW, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW

			kg	
150.2250	27 pcs	Universal car wheel bearing tool set	11.24	

consists of:

		g	
150.2092	Threaded bolt, f.150.2250, M12x1,5 3p	100	
150.2093	Threaded bolt, f.150.2250, M14x1,5 3p	120	
150.2251	Bearing plate #1 f.150.2250	525	
150.2252	Bearing plate #2 f.150.2250	458	
150.2253	Bearing plate #3 f.150.2250	432	
150.2254	Bearing plate #4 f.150.2250	386	
150.2255	Bearing plate #5 f.150.2250	358	
150.2256	Bearing plate #6 f.150.2250	340	
150.2257	Bearing plate #7 f.150.2250	304	
150.2258	Bearing plate #8 f.150.2250	344	
150.2259	Bearing plate #9 f.150.2250	304	
150.2260	Bearing plate #10 f.150.2250	282	
150.2261	Bearing plate #11 f.150.2250	247	
150.2262	Bearing plate #12 f.150.2250	200	
150.2263	Bearing plate #13 f.150.2250	217	
150.2264	Bearing plate #14 f.150.2250	203	
150.2265	Stepped plate, small f.150.2250,Ø77+68mm	608	
150.2266	Stepped plate, large f.150.2250,Ø92+81mm	879	
150.2267	Puller sleeve f.150.2250, 68mm	399	
150.2268	Puller sleeve f.150.2250, 77mm	552	
150.2269	Puller sleeve f.150.2250, 81mm	639	
150.2270	Puller sleeve f.150.2250, 92mm	707	
150.2271	Spindle sleeve f.150.2250	227	
150.2272	Thrust bolt f.150.2250	230	
150.2273	Washer f.150.2250	20	
150.2274	Spindle f.150.2250	911	
150.2275	Bearing f.150.2250	55	

Bearing assembly and deassembly tool set

- Can be used manually with a hammer or workshop press
- Optimal placing through the pressure plates
- For easy and damage free assembly
- For the correct dismantling and assembly of bearings
- Suitable for commercial, agricultural engineering and construction machines
- Forged, robust execution
- Special steel
- In durable plastic storage case

			kg	
450.0080	5 pcs	Bearing assembly and deassembly tool set	6.45	

consists of:

		kg	
450.0082	Pressure plates (use with press)	0.51	
450.0083	Impact plates long (use with a hammer)	1.91	
450.0084	Special 6 point socket for mandral shaft	0.34	
450.0088	Universal 3 jaw thrust piece	0.20	
450.0087	Locking bolt for jaw spreading	2.07	

accessories:

			kg	
450.0081	Spare jaw set, 7 pcs	➡ 450.0080	6.55	

Press and pull sleeve set

- For the disassembly and assembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearing, simmerrings, etc
- Universal use for automobile, truck, municipally, country and forestery technology, etc.
- Outstanding to use also in connection with workshop press or hollow piston cylinder
- According to use application the sheaths individually can be reworked
- Pressure bearing protects against increased friction during the process
- In durable plastic storage case

Attention: the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

Maximum permitted torque:
Spindle M10x1,5 60 Nm
Spindle M12x1,5 100 Nm
Spindle M14x1,5 180 Nm
Spindle M16x1,5 250 Nm

			kg	
700.1700	36 pcs	Press and pull sleeve set	14.80	

consists of:

		g	
700.1701	Thrust bolt, M10 with bearing	125	
700.1702	Thrust bolt, M12 with bearing	124	
700.1703	Thrust bolt, M14 with bearing	130	
700.1704	Thrust bolt, M16 with bearing	130	
700.1706	Stepped plate, #1	350	
700.1707	Stepped plate, #2	390	
700.1708	Stepped plate, #3	420	
700.1709	Stepped plate, #4	450	
700.1710	Spindle, M10, 350 mm	170	
700.1711	Spindle, M12, 350 mm	253	
700.1712	Spindle, M14, 350 mm	350	
700.1713	Spindle, M16, 350 mm	473	
700.1714	Pressure sleeve, Internal Ø: 34 mm, External Ø: 44 mm	250	
700.1715	Pressure sleeve, Internal Ø: 36 mm, External Ø: 46 mm	260	
700.1716	Pressure sleeve, Internal Ø: 38 mm, External Ø: 48 mm	280	
700.1717	Pressure sleeve, Internal Ø: 40 mm, External Ø: 50 mm	290	
700.1718	Pressure sleeve, Internal Ø: 42 mm, External Ø: 52 mm	300	
700.1719	Pressure sleeve, Internal Ø: 44 mm, External Ø: 54 mm	320	
700.1720	Pressure sleeve, Internal Ø: 46 mm, External Ø: 56 mm	330	
700.1721	Pressure sleeve, Internal Ø: 48 mm, External Ø: 58 mm	340	
700.1722	Pressure sleeve, Internal Ø: 50 mm, External Ø: 60 mm	350	
700.1723	Pressure sleeve, Internal Ø: 52 mm, External Ø: 62 mm	370	
700.1724	Pressure sleeve, Internal Ø: 54 mm, External Ø: 64 mm	380	
700.1725	Pressure sleeve, Internal Ø: 56 mm, External Ø: 66 mm	390	
700.1726	Pressure sleeve, Internal Ø: 58 mm, External Ø: 68 mm	410	
700.1727	Pressure sleeve, Internal Ø: 60 mm, External Ø: 70 mm	420	
700.1728	Pressure sleeve, Internal Ø: 62 mm, External Ø: 72 mm	430	
700.1729	Pressure sleeve, Internal Ø: 64 mm, External Ø: 74 mm	440	
700.1730	Pressure sleeve, Internal Ø: 66 mm, External Ø: 76 mm	460	
700.1731	Pressure sleeve, Internal Ø: 68 mm, External Ø: 78 mm	470	
700.1732	Pressure sleeve, Internal Ø: 70 mm, External Ø: 80 mm	480	
700.1733	Pressure sleeve, Internal Ø: 72 mm, External Ø: 82 mm	490	

Press and pull sleeve kit

- For the assembly and disassembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearings, simmer rings, etc.
- Universal use for passenger cars, trucks, communal, agricultural and forest vehicles
- Outstanding to use also in connection with workshop press or hollow piston cylinder
- According to use application the sheaths individually can be reworked
- Pressure bearing protects against increased friction during the process
- In durable plastic storage case

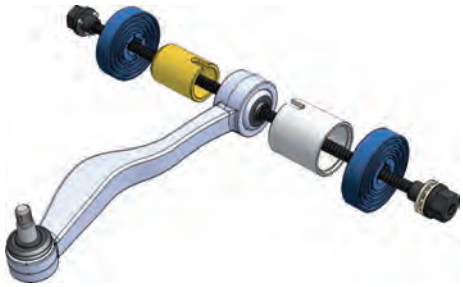
Caution: The spindles must be greased before fi st use! Overloading leads to unwanted material stresses or breakage Always check the power settings on the drive with a torque wrench Not to be combined with other systems

Maximum allowable torque moments:
Spindle (ACME) M10 x P1.5 60 Nm
Spindle (ACME) M12 x P2.0 120 Nm
Spindle (ACME) M14 x P2.0 150 Nm
Spindle (ACME) M16 x P2.5 250 Nm

			kg	
700.1550	29 pcs	Press and pull sleeve kit	17.00	

consists of:

		g	
700.1550-34	Pull sleeve,internal Ø 34mm,external Ø 44mm	250	
700.1550-36	Pull sleeve,internal Ø 36mm,external Ø 46mm	260	
700.1550-38	Pull sleeve,internal Ø 38mm,external Ø 48mm	280	
700.1550-40	Pull sleeve,internal Ø 40mm,external Ø 50mm	290	
700.1550-42	Pull sleeve,internal Ø 42mm,external Ø 52mm	300	
700.1550-44	Pull sleeve,internal Ø 44mm,external Ø 54mm	320	
700.1550-46	Pull sleeve,internal Ø 46mm,external Ø 56mm	330	
700.1550-48	Pull sleeve,internal Ø 48mm,external Ø 58mm	340	
700.1550-50	Pull sleeve,internal Ø 50mm,external Ø 60mm	350	
700.1550-52	Pull sleeve,internal Ø 52mm,external Ø 62mm	360	
700.1550-54	Pull sleeve,internal Ø 54mm,external Ø 64mm	380	
700.1550-56	Pull sleeve,internal Ø 56mm,external Ø 66mm	390	
700.1550-58	Pull sleeve,internal Ø 58mm,external Ø 68mm	410	
700.1550-60	Pull sleeve,internal Ø 60mm,external Ø 70mm	420	
700.1550-62	Pull sleeve,internal Ø 62mm,external Ø 72mm	430	
700.1550-64	Pull sleeve,internal Ø 64mm,external Ø 74mm	440	
700.1550-66	Pull sleeve,internal Ø 66mm,external Ø 76mm	460	
700.1550-68	Pull sleeve,internal Ø 68mm,external Ø 78mm	470	
700.1550-70	Pull sleeve,internal Ø 70mm,external Ø 80mm	480	
700.1550-72	Pull sleeve,internal Ø 72mm,external Ø 82mm	490	
700.1550-75	Pull sleeve,internal Ø 75mm,external Ø 85mm	500	
700.1550-80	Pull sleeve,internal Ø 80mm,external Ø 90mm	520	
700.1551	Spindle M10x1.5	170	
700.1552	Spindle M12x2.0	200	
700.1553	Spindle M14x2.0	350	
700.1554	Spindle M16x2.5	380	
700.1555	Pressure adapter for step panel hgv size	350	
700.1556	Step panel adaptor with 3 holes, A+B side	350	
700.1551-01	Pressure nut for M10 x P1,5	30	
700.1551-02	Pressure nut with bearing for M10xP1,5	30	
700.1552-01	Pressure nut for M12 x P1,75	30	
700.1552-02	Pressure nut with bearing for M12xP1,75	30	
700.1553-01	Pressure nut for M14 x P2,0	30	
700.1553-02	Pressure nut with bearing for M14xP2,0	30	
700.1554-01	Pressure nut for M16 x P2,0	30	
700.1554-02	Pressure nut with bearing for M16xP2,0	30	



Press and pull sleeve set BASIC

- For the disassembly and assembly of bearings
- Ideally for silent bearings, hydro bearings, bushings, ball bearing, simmerrings, etc
- Universal use for automobile, truck, municipally, country and forestery technology, etc.
- Outstanding to use also in connection with workshop press or hollow piston cylinder
- According to use application the sheaths individually can be reworked
- Pressure bearing protects against increased friction during the process
- In durable plastic storage case

Attention: the spindles need to be greased with a good lubricant for each application! Do not overload spindles, otherwise the thread lengthens and the pitch of the nut and spindle no longer match. The result: the nuts will seize up. Always check the applied force at the drive with a torque wrench!

Maximum permitted torque:
Spindle M10x1,5 60 Nm
Spindle M12x1,5 100 Nm
Spindle M14x1,5 180 Nm
Spindle M16x1,5 250 Nm

			kg	
700.1760	20 pcs	Press and pull sleeve set BASIC	8.32	

consists of:

		g	
700.1702	Thrust bolt, M12	124	
700.1704	Thrust bolt, M16	130	
700.1706	Stepped plate, #1	350	
700.1707	Stepped plate, #2	390	
700.1708	Stepped plate, #3	420	
700.1709	Stepped plate, #4	450	
700.1711	Spindle, M12, 350 mm	253	
700.1713	Spindle, M16, 350 mm	473	
700.1714	Pressure sleeve, internal Ø 34 mm, external Ø 44 mm	250	
700.1718	Pressure sleeve, internal Ø 42 mm, external Ø 52 mm	300	
700.1719	Pressure sleeve, internal Ø 44 mm, external Ø 54 mm	320	
700.1720	Pressure sleeve, internal Ø 46 mm, external Ø 56 mm	330	
700.1723	Pressure sleeve, internal Ø 52 mm, external Ø 62 mm	370	
700.1729	Pressure sleeve, internal Ø 64 mm, external Ø 74 mm	440	
700.1732	Pressure sleeve, internal Ø 70 mm, external Ø 80 mm	480	
700.1733	Pressure sleeve, internal Ø 72 mm, external Ø 82 mm	490	

Universal car wheel bearing tool set

- For the dismantling and assembly of wheel housings and hub directly on the vehicle
- Extension of the suspension strut and axle joint is no longer required
- Suited for axle tube and for axle with the housing adjoining at an alliance
- High time savings as reactive axle alignment is not necessarily required
- With 300 mm gear pulling spindle
- Through enclosed bolts (M12 + M14) wheel hubs can be removed
- Extra long execution 65 mm pressure nut for better load distribution
- Pressure bearing protects against increased friction during the process
- Special steel
- In durable plastic storage case

Application range: Volkswagen, Audi, Opel, Mercedes Benz, Peugeot, Citroen, Renault, Ford, Honda, Mazda, Mitsubishi, Nissan, Toyota, Austin-Maestro, BMW

			kg	
150.2075	19 pcs	Universal car wheel bearing tool set	7.51	

consists of:

		g	
150.2076	Ball bearing Adaptor 55.5 mm	175	
150.2077	Ball bearing Adaptor 59 mm	200	
150.2078	Ball bearing Adaptor 62 mm	220	
150.2079	Ball bearing Adaptor 65 mm	245	
150.2080	Ball bearing Adaptor 66 mm	250	
150.2081	Ball bearing Adaptor 71.5 mm	315	
150.2082	Ball bearing Adaptor 73 mm	335	
150.2083	Ball bearing Adaptor 78 mm	380	
150.2084	Ball bearing Adaptor 84 mm	470	
150.2085	Reducing sheath 76 mm	270	
150.2086	Bell 88 mm	850	
150.2087	Bell 91 mm	920	
150.2089	Spindle includes Nut, bearing, Discs and sheaths	540	
150.2092	Threaded bolt Set M12 x 1.5 (3 pieces)	100	
150.2093	Threaded bolt Set M14 x 1.5 (3 pieces)	120	

Universally press frame with hydraulic spindle

- For the use in connection with the pressure and pull sleeve set 700.1700 for pressing out and pressing on of silent bearings, hydro bearings, bushings, etc.
- Enables de- and assembly directly on the vehicle
- Through the long trailing arm also especially high housings release themselves without problem on and pressing out
- Extremely robust spindle with inductively hardened thread
- Special steel

			kg	
700.1750	6 pcs	Universally press frame with hydraulic spindle	9.80	

consists of:

		kg	
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	1.34	
700.1751	Universally-press frame-set, 5 pcs without hydraulic spindle	8.90	

Universal press frame, 5 pcs without hydraulic spindle

			kg	
700.1751	5 pcs	Universal press frame, 5 pcs without hydraulic spindle	8.90	

accessories:

		kg	
700.1751-1	Connection bar 205 mm for 700.1751 (1 piece)	0.71	
700.1751-2	Connection bar 350 mm for 700.1751 (1 piece)	1.20	

C-clamp and adaptor set, long

- Very robust execution
- Valuable supplement to the pressure set and hub sheath set 700.1700
- The drive can be used alternatively mechanically or hydraulically
- Suitable for impact wrenches
- Through use of trapezoid spindle and Impact screw maximum power can be tranferred (Hammer impact effect)
- Removeable spindle and clamping device with staged reception plate
- Silent bearings, sheaths, bushings etc. lets it incorporated itself in that or expanded condition on and compressed
- Trapezoid thread spindle Tr.27 with ball stored pressure tip
- Special steel

		Max span width mm	Max span depth mm	Length mm	Width mm	kg	
700.1755	5 pcs	245.0	95.0	380.0	180.0	7.82	

consists of:

		kg	
700.1754	Threaded adaptor with AG 1-1/2" x 16G and IG trapezoid thread Tr.27	0.60	
700.1756	Universal C-clamp	7.00	
700.1757	Spindle with trapezoid thread Tr.27, length 300 mm, drive 24 mm	2.00	
700.1758	Spindle reception adaptor	0.80	
700.1759	C-Clamp reception adaptor	0.60	

accessories:

		g	
700.1400-1	Hydraulic spindle with centering point - Ag 1.1/2" x 16 G	1344	
700.1208	Thrust bolt extension, 35 mm	130	
700.1209	Thrust bolt extension, 85 mm	320	

Silent bearing tool set for VAG Front axle consoles

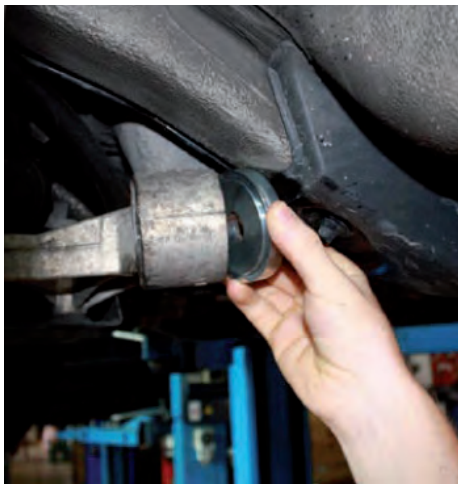
- With this tool the plastic silent bearing of the front axle console can be correctly and quickly dismantled and mounted
- By means of the specially pressure piece the plastic housing is safely accepted by what means a damage-free assembly is enabled
- With this the tool it can incorporated the condition and can the costly correction of the axle alingment and the dismantling of often strongly console-reinforcements-screws that cam be corroded
- Simple handling
- Enables use directly on the vehicle
- High time savings
- Adapter with protective axle-pressure thrust bearing -spindle
- Axle alignment can been omitted
- In durable plastic storage case

Application range: Volkswagen Polo (9N), Seat Ibiza IV, Cordoba (from model 2002), Altea, Skoda Fabia, Roomster, Audi A2 + structurally identical group vehicles

			kg	
700.1650	8 pcs	Silent bearing tool set for VAG Front axle consoles	3.20	

consists of:

700.1651	Working spindle M10 x 1,25, 180 mm	170
700.1652	Spindle extension M10 x 1,25, 200 mm	140
700.1653	Special nut with cone shaft 45mm	80
700.1654	Special adaptor with thrust bearing	160
700.1655	Thrust plate stepped Ø 74mm, Installation	390
700.1656	Special thrust piece Ø 74mm, installation	1070
700.1657	Distance piece with knurled, extension	240
700.1658	Distance piece with collar, extension	240



INJECTOR & GLOW PLUG EXTRACTORS

Glow plug extractor for CDI engines

- For turning off and pulling out the glow plugs from the glow plug canal in the cylinder head
- Especially suitable in glow plugs jammed by corrosion and/ or soot coal
- Optimum power transmission with rotary and train movements
- Correct easy and damage free dismantling of the glow plug
- Chrome vanadium

Application range: Glow plug dim/10 mm, CDI engines.

3/8"

	■	L mm	
152.1080	3/8"	190.0	315

Injector extractor for 1.25 kg impact weight

- For Mercedes CDI Bosch common rail injectors
- For the extraction of the firm y burned injectors in the cylinder head
- Arched lever area on the handle hook for exact extraction
- Tilting and jamming of the injector is avoided
- Claw and impact weight can be used separately
- Includes impact weight
- Special steel

	Impact weight kg	Thread impact weight	L mm	Replacement claw	Replacement impact weight	
152.1050	1.25	M10 x 1,5	410.0	152.1045	152.1040	1.45

Injector extractor with 6 + 3 kg impact weight

- For Mercedes CDI Bosch common rail injectors
- Robust execution
- For the extraction of the firm y burned injectors in the cylinder head
- Enables short and intensive impact through impact weight
- Cylinder head does not work against the thrust bearing
- Tilting and jamming of the injector is avoided
- Includes impact weight
- Special steel

152.1055	3 pcs	Injector extractor with 6 + 3 kg impact weight	12.50

consists of:

700.1415	Universal slide hammer 6 + 3 kg, 850mm	12.00
152.1056	Single screw adaptor AG M17 x 1	0.24
152.1057	Hexagon socket, tamperproof 10 mm	0.10

STUD BOLT PULLER

Stud bolt puller

- For screwing in or extracting out stud bolts
- Clockwise and anticlockwise clamping function
- Also suitable for extra long stud bolts
- Special steel

	Ø mm	max N·m	⬢	
670.0231	5 - 15	120	19 mm	360
670.0232	10 - 19	120	19 mm	400
670.0233	18 - 28	120	19 mm	450

Stud bolt puller

- For screwing in or extracting out stud bolts
- Clockwise and anticlockwise clamping function
- Also suitable for extra long stud bolts
- Special steel

	Ø mm	max N·m	⬢	
670.0241	5 - 20	120	19 mm	400

Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- 1/2" drive
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel

1/2"

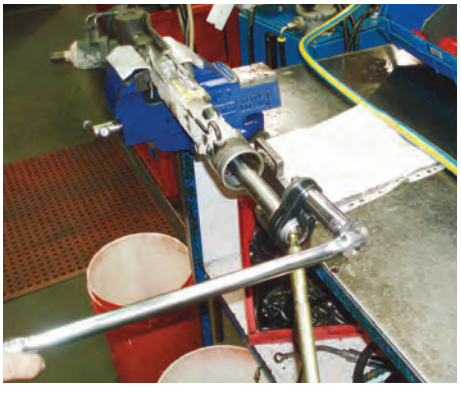
	Ø mm	Ø mm	
150.1640	23-45	31-35	300

Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- 1/2" drive
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special steel

1/2"

	Ø mm	Ø mm	
150.1642	25-55	25-46	800



Stud bolt puller

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium

		g
152.1005	M5	150
152.1006	M6	160
152.1007	M7	160
152.1008	M8	170
152.1010	M10	180
152.1012	M12	200
152.1014	M14	200

Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic storage case

			kg
152.1100	4 pcs	M6 - M8 - M10 - M12	0.79

Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagon socket 21 mm
- Right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Chrome plated and mirror polished
- Chrome vanadium
- In durable plastic case

			kg
152.1101	7 pcs	M5 - M6 - M7 - M8 - M10 - M12 - M14	1.50

Screw extractor set

- For screws from M3 - M18
- Enable the loosening of screws and bolts with turned off heads
- Conical tapered spiral
- In durable plastic storage case

			g
150.1330	6 pcs	M3-M6 - M6-M8 - M8-M11 - M11-M14 - M14-M18 - M18-M24	64

NUT SPLITTER

Mechanical nut splitter set

- For the splitting of seized or over tightened bolts without damage to the bolt thread
- Suitable for nuts to a tensile strength class 6
- Special steel

			kg
700.1180	4 pcs	Mechanical nut splitter set	1.58

consists of:

		g
700.1181	Nut splitter 9 - 12 mm, drive 12 mm	90
700.1182	Nut splitter 12 - 16 mm, drive 14 mm	170
700.1183	Nut splitter 16 - 22 mm, drive 19 mm	380
700.1184	Nut splitter 22 - 27 mm, drive 21 mm	660

Hydraulic nut splitter set

- For the splitting of seized or over tightened bolts without damage to the bolt thread
- Working range from 7.0 - 36.0 mm
- Inductively hardened cutting edge
- Suitable for nuts to a tensile strength class 10
- Requires light expenditure of energy
- Special steel

			kg
700.1170	7 pcs	Hydraulic nut splitter set	5.00

consists of:

		g
700.1150	Hydraulic nut splitter 7.0 - 21.0 mm	700
700.1163	Nut splitter	3600
700.1151	Replacement chisel small	50
700.1152	Replacement plate small	50
700.1161	Replacement chisel large	100
700.1162	Replacement plate large	100
151.2073	Hexagon key 3/8" for replacement plate large	110

Hydraulic nut splitter

- Small execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 5 t
- Especially suitable for narrow hard to access areas

	mm	L mm	g
700.1150	7 -21	210.0	700

Hydraulic nut splitter set

- Large execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 13 t
- In durable plastic storage case

			kg	
700.1160	4 pcs	22 - 36 mm; M14 - M24	3.80	

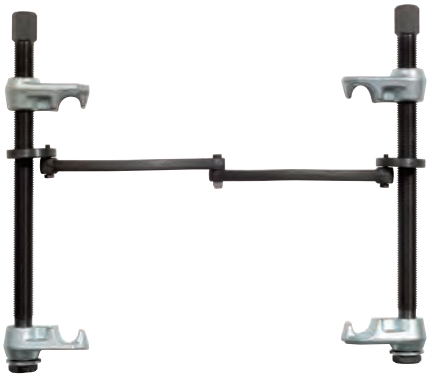
consists of:

		g	
700.1161	Replacement chisel large	100	
700.1162	Replacement plate large	100	
700.1163	Nut splitter	3600	
151.2073	Hexagon key 3/8" for replacement plate large	110	

COIL SPRING COMPRESSOR

Coil spring compressor with safety latch

- Change without removing the shock absorber strut
- Variable safety bar prevents slipping
- For vehicles up to max. 2000 kg
- Meets the requirements of the professional (ZH1/454)
- GS approved
- Special steel



	Ø mm	H mm	max N·m	Max travel mm	max t	mm	mm	kg	
670.0021	110-180	240	70	200	3,5	M18x2x280	19	2.40	
670.0041	110-180	300	60	300	1,8	M16x2x380	17	2.80	

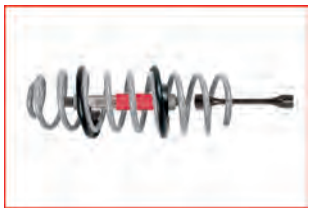
Coil spring compressor with safety latch and plastic coated hook

- Change without removing the shock absorber strut
- Variable safety bar prevents slipping
- For vehicles up to max. 2000 kg
- Meets the requirements of the professional (ZH1/454)
- GS approved
- Special steel

	Ø mm	H mm	max N·m	Max travel mm	max t	mm	mm	kg	
670.0031	110-180	240	70	200	3,5	M18x2x280	19	2.50	
670.0051	110-180	300	60	300	1,8	M16x2x380	17	2.90	

Universal telescopic centre clamp kit

- For removal/installation of spiral springs on spring strut and independent multilink suspensions
- Safe removal and installation without dismantling the axle
- High time savings
- New, revised version with longer clamping stroke
- Suitable cup springs for reliable holding of the spiral spring
- Clamps the spring reliably in the middle of the spring
- Good positioning thanks to compact form
- Overload protection with torsion drive element
- Suitable for use on vehicles with very small access bores
- Only coil spring compressor which can be used for Volkswagen Touran, Citroen C3, Skoda Octavia and Peugot 107
- Spring holder with special geometry



Technical data:

Opening of jaws min:	95.0 mm
Jaw width max:	220.0 mm
Square drive:	1/4"
Spring force max:	2500 kg

			kg	
500.8610	6 pcs	Universal telescopic centre clamp kit	4.42	

consists of:

		kg	
500.8611	Spring compressor based unit, 2500 kg	0.64	
500.8612	Spring holder pair Ø 90-120 mm	0.84	
500.8613	Spring holder pair Ø120-140 mm	1.15	
500.8614	Torsion drive 1/2"x1/2", 100 Nm	0.26	

Coil spring compressor set

- Universal for 90% of all common types of vehicles
- With 2 standard jaw holders
- Simple and secure clamping in the vise
- Ergonomic high-tech polyurethane grip
- With working spindle that can be used with an impact wrench
- Jaw holders plastic coated
- Jaws are fi ted with a nose that locks the spring during stretching to increase security and safety
- Can bear according to the TÜV approval extraordinarily high loads with a maximum capacity of 2250 kg
- A shear pin protects against overload
- Special steel

technical data:

Spring force max:	2250 kg
Opening of jaws min:	65.0 mm
Jaw width max:	375.0 mm
Spring capacity:	80,0 - 195,0 mm

			kg	
500.8620	5 pcs	Coil spring compressor set	11.66	

consists of:

		kg	
500.8621	Base body max. load 2250 kg	5.20	
500.8504	Special jaws for spring compressor 80 - 165 mm ➡ 500.8501/8601/8621	1.30	
500.8505	Special jaws for spring compressor 145 - 195 mm ➡ 500.8501/8601/8621	1.70	

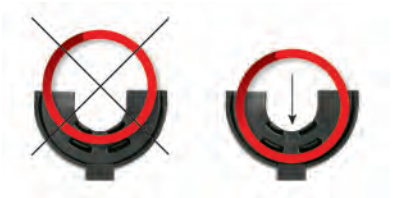
accessories:

		kg	
500.8503	Standard spring jaw, 1 pcs	3.36	
500.8504	Standard spring jaw No.III 80-145mm, 1 pair	1.30	
500.8505	Standard spring jaw No.V, 145-195mm, 1 pair	1.70	
500.8507	Standard spring jaw, 1 pcs, Ø 80-145mm	1.44	
500.8509	Spring holder, for BMW and Renault	2.40	
500.8510	Spring holder, for MERCEDES C classe type 203	0.80	
500.8511	Standard jaw, 1 pc, Ø 140-170mm, 1 pcs	3.50	
500.8513	Special jaw, 1 pc, Mercedes E class+Renault Megane2	2.40	
500.8514	Special spring holder, Peugeot Break+ Citroën C15	2.32	
500.8515	Special jaw, 1 pc, Chrysler voyager	2.80	

Other tools in relation to special automotive tools can be found in our special automotive catalogue or on our homepage: www.kstools.com

Universal coil spring compressor set

- For all standard vehicle springs in the cars and vans sector
- 2 standard jaw holders
- Robust execution
- Cost effective and robust alternative to conventional spring compressor
- Also suitable for conical and ball springs
- Universal for 90% of all common types of vehicles
- Working spindle that can be used with an impact wrench
- Jaw holders plastic coated
- Can bear according to the TÜV approval extremely high loads, with a maximum load of 2600 kg
- A shear pin protects against overload
- Special steel
- Includes safety arrester rope



Technical data:

Spring force max:	2600 kg
Opening of jaws min:	50.0 mm
Jaw width max:	310.0 mm
Spring capacity:	80,0 - 195,0 mm

			kg	
500.8700	5 pcs	Universal coil spring compressor set	13.50	

consists of:

		kg	
500.8701	Spring compressor based unit, 500 mm, max spring pressure. 2600 kg	8.20	
500.8703	Safety pin set 4 + 5 mm, 10 pcs.	0.10	
500.8705	Standard spring holder with a double stop fuction, gr. 1 80 - 160 mm	3.50	
500.8706	Standard spring holder with a double stop fuction, gr. 2 140 - 195 mm	4.00	
500.8707	Safety rope for 500.8700	0.20	

Adaptor set for Mercedes Benz and BMW

- For Mercedes Benz C-and E-class, BMW 3 Series (E64) and 5 series (E39)
- Can be used in conjunction with the spring compressor 500.8700
- Adapter is used in conjunction with the standard jaws
- Special steel

			g	
500.8710	2 pcs	Adaptor set for Mercedes Benz and BMW	500	

consists of:

		g	
500.8711	Adaptor large	350	
500.8712	Adaptor small	150	

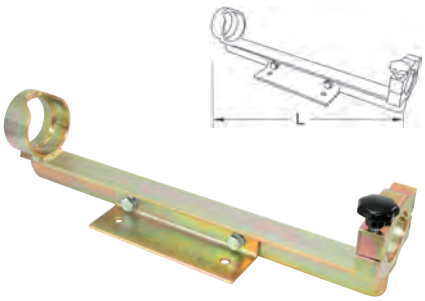
Special adaptor for BMW E90/81

- For BMW E 90/81
- Use only in combination with adapter set 500.8710
- For spring compressor 500.8700
- Adapter is used in conjunction with the standard jaws
- Special steel

		kg	
500.8713	Special adaptor for BMW E90/81	1.34	

Spring compressor bracket

- Bracket specially designed for spring compressor 500.8700
- Makes working on suspension struts easy and safe
- Can be wall or vice mounted
- Special steel



	L mm	kg	
500.8704	500.0	1.50	

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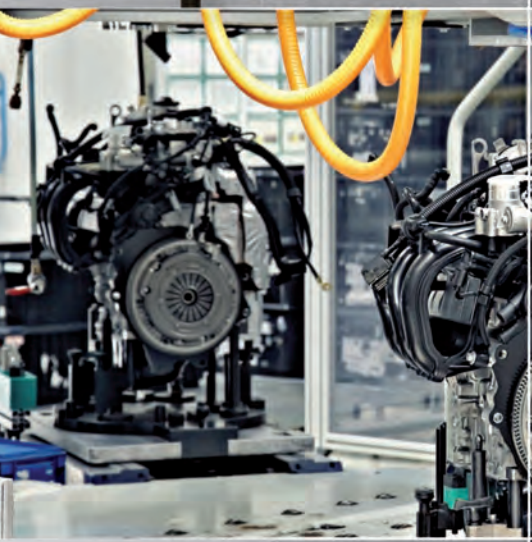
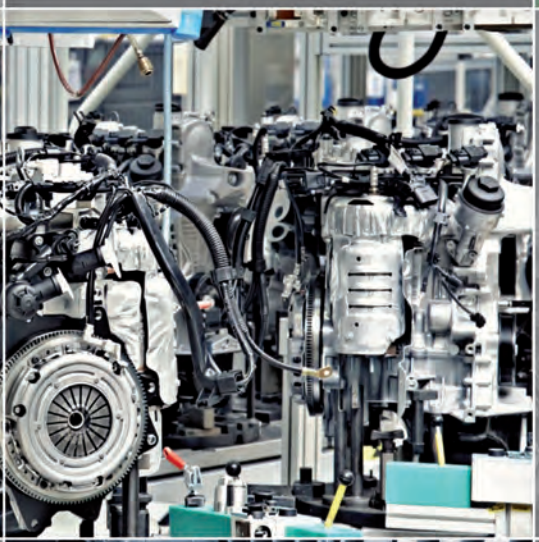
Innovation is our mission!

PULLERS





VIDEOSCOPE TECHNOLOGY

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VIDEOSCOPE TECHNOLOGY

Technical Videoscope

The application of videoscope in the technical area has grown in the course of the last years and increased in importance. Not only under the aspect of the simple and recognized investigation but can also be used as proof to suppliers, however in particularly in regard to warranty quotations and statements to service providers towards future manufacturing. Another plus for the acquisition of a videoscope lies in the partly immense saving of valuable working hours with searching for the repair.

To be able to do justice to the different demands for the devices or equipment, now there are 3 different executions within the KS Tools range for the correct choice. All the same whether you simply want to consider or review in parallel by video / photo or audio admission, we are sure that you will find a sui able device over the next pages. The operation of the devices is very user friendly and, moreover, can be communicated in the provided, simply understandable manuals.

Concerning the assigned sofeware, fi st of all, the probes set new graduations. So the picture is produced directly in a mini camera head of the probe end and with led lights that are adjustable in perfect quality and transfered by data cable to the handle (wireless) or to the hand device.
Also the light appears directly in the probe head white, adjustable high performance LEDs grant a perfect illumination.

Various application possibilities e.g.:

Automotive
Engine, transmission, tank, car body, dashboard, expert etc.

Aviation
Engine, turbine, conduit systems etc.

Construction
Evaluation of building substance, water damage, parasite attack etc.

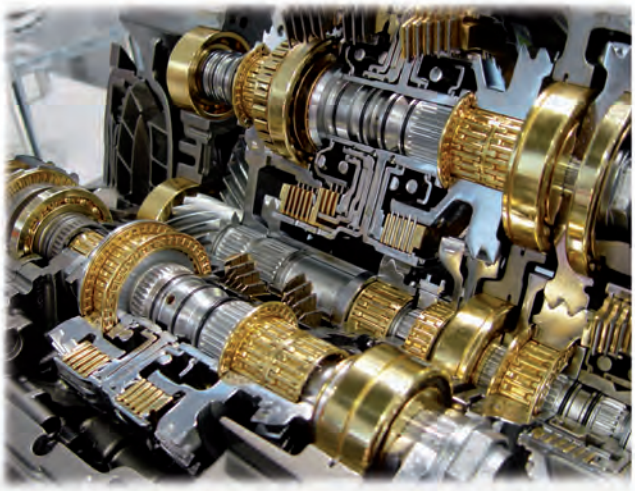
Pipeline construction
Welding seams, tracking down of foreign objects, leakages etc.

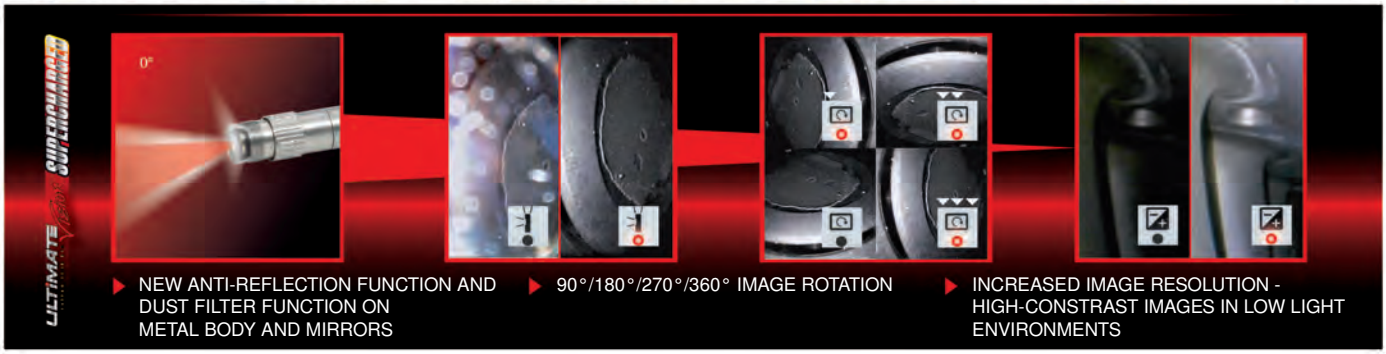
Hydraulic systems
Cylinders leakages etc

Heating sanitary air conditioning
Ovens, fi eplaces, boiler, air conditioning, sewage systems etc.

Pest control etc
Hives, wasp nest, bird nest, insect infestations etc.

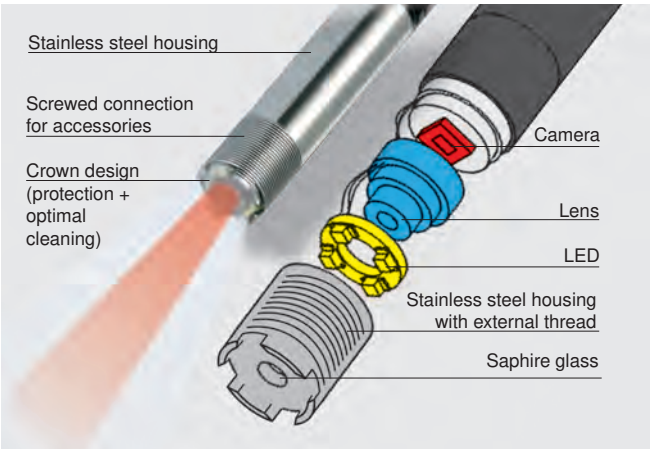
Police, customs.
Contraband, stolen goods, drugs, house searches, espionage etc.

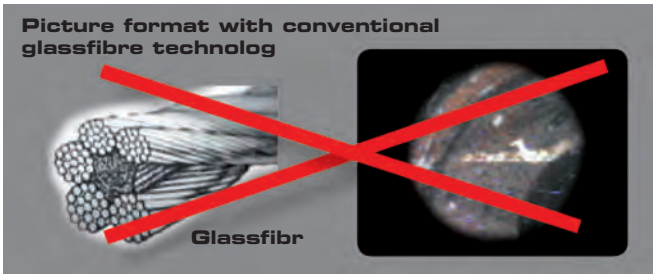


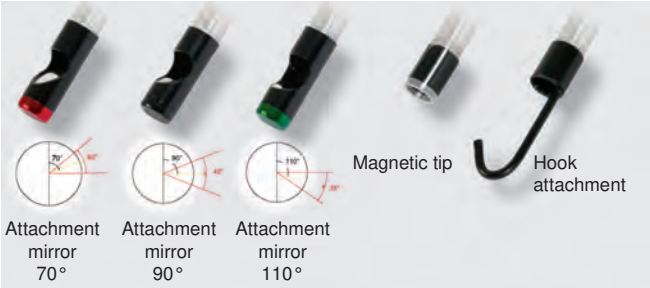


- NEW ANTI-REFLECTION FUNCTION AND DUST FILTER FUNCTION ON METAL BODY AND MIRRORS
- 90°/180°/270°/360° IMAGE ROTATION
- INCREASED IMAGE RESOLUTION - HIGH-CONSTRAST IMAGES IN LOW LIGHT ENVIRONMENTS

VIDEOSCOPE TECHNOLOGY Accessories

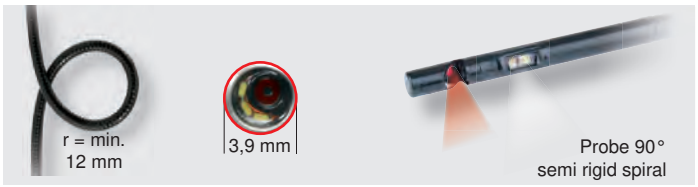


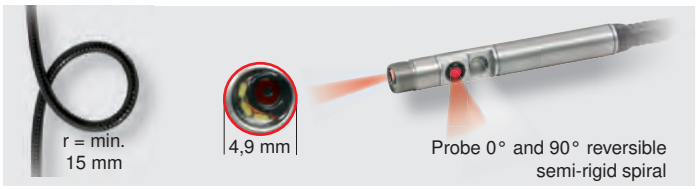


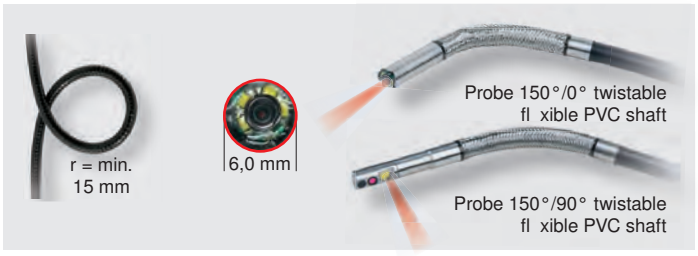


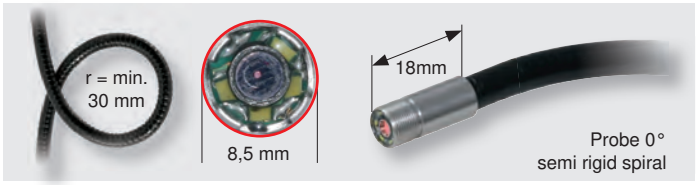
SUPERCHARGED probes

MASTER probes









ULTIMATE*vision* MASTER VIDEOSCOPE SETS

ULTIMATE*vision* MASTER Videoscope set

- Adjustable function for the angle of vision through the one way sending device
- 3 adjustable Mini-LED-lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, as no glass fib e cable
- Working temperature of + 0 °C to +55 °C
- Excellent picture quality and viewing through special camera in the probe head
- Optionally expandable with other probes
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in MPEG4 format
- View on a TV monitor with AV cable possible
- Multilingual menu (14 languages)
- Versatile usage
- Incl. 4xAA batteries
- 2-component housing protects against light impacts
- With high-quality foam protection material
- In durable plastic storage case

Scope of delivery:
- Basic unit
- AV cable
- 4 GB SD card
- USB data cable
- Battery set 4xAA
- Selected videoscope probe

Technical data hand held unit:

Screen:	3,5" TFT LCD VGA
Output format:	NTSC and PAL
Picture storage format:	AVI, JPG (640x480)
Storage medium:	SD card up to a max. 32 GB
Battery:	4 x AA
Operating time:	ca. 4 h
Operating temperature:	-20 °C to +60 °C
Language manual:	DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG

Technical data sensor:

Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	640 (H) x 480 (V) = 307,200 Pixel
Focused depth of fi ld:	1 cm - 6 cm
AV Magnifi ation:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Mirror attachment:	line of vision 70° - aperture angle 40° line of vision 90° - aperture angle 36° line of vision 110° - aperture angle 32°
Light source:	3 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

consists of:

		g	
550.7999	ULTIMATE Vision handset, no probe	340	
550.5008	4 GB SD card	11	
550.5003	AV-Cable 2 m	20	
550.5018	USB data cable	28	

ULTIMATE*vision* MASTER Videoscope set with 90° front camera probe, semi-rigid spiral shaft, 6-pcs.

Ø	1 m	2 m	3 m
3,9 mm	550.7391	550.7392	550.7393

ULTIMATE*vision* MASTER Videoscope set with 90° front camera probe, semi-rigid spiral shaft, 6-pcs.

Ø	1 m	2 m	3 m
5,5 mm	550.7591	550.7592	550.7593

ULTIMATE*vision* MASTER Videoscope set with 0° + 90° probe, reversible, 6-pcs.

Ø	1 m	2 m	3 m
4,9 mm	550.7049	550.7462	550.7463

ULTIMATE*vision* MASTER Videoscope set with 150°/0° camera probe, fl xible PVC shaft 6-pcs.

Ø	1 m	2 m	3 m
6,0 mm	550.7611	550.7612	550.7613

ULTIMATE*vision* MASTER Videoscope set with 0° front camera probe, semi-rigid spiral shaft, 6-pcs.

Ø	1 m	2 m	3 m
5,5 mm	550.7055	550.7502	550.7503

ULTIMATE*vision* MASTER Videoscope set with 150°/90° front camera probe, fl xible PVC shaft 6-pcs.

Ø	1 m	2 m	3 m
6,0 mm	550.7621		

ULTIMATE*vision* MASTER Videoscope set with 0° front camera probe, semi-rigid spiral shaft, 6-pcs.

Ø	1 m	2 m	3 m
8,5 mm	**550.7801**	**550.7802**	**550.7803**

ULTIMATE*vision* MASTER CAMERA PROBE

ULTIMATE*vision* Cable extension

- Cable diameter: 8.5 mm
- Connection diameter: 16 mm
- Universal for all ULTIMATE*vision* Videoscope applicable

	L m		
550.7854	3.0	600	

ULTIMATE*vision* MASTER 90° front camera probe semi rigid spiral shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE*vision* MASTER videoscope

Technical data probe:

Format:	semi rigid
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnifi ation:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		L m		
550.7351	3.9	90°	1.0	180	
550.7352	3.9	90°	2.0	250	
550.7353	3.9	90°	3.0	320	

ULTIMATE*vision* MASTER Camera probe reversible, 0° and 90°

- Contains 2 cameras and 2 independent light sources
- Bend radius max. 15 mm
- Semi rigid spiral shaft
- The tip of the probe's head is threaded for convenient attachment of different accessories (mirror / hook / magnet)
- Compatible with KS Tools ULTIMATE*vision* MASTER videoscope

Technical data probe:

Format:	semi rigid
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	640 (H) x 480 (V) = 307,200 Pixel
Focused depth of fi ld:	1 cm - 6 cm
AV Magnifi ation:	is up to 15" over cinch
Operating temperature:	+0°C to +60°C
Light source:	3 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		L m		
550.7491	4.9	0°/90°	1.0	105	
550.7492	4.9	0°/90°	2.0	105	
550.7493	4.9	0°/90°	3.0	105	

ULTIMATE*vision* MASTER 0° front camera probe semi rigid spiral shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE*vision* MASTER videoscope

Technical data probe:

Format:	semi rigid
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnifi ation:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		L m		
550.7551	5.5	0°	1.0	140	
550.7552	5.5	0°	2.0	140	
550.7553	5.5	0°	3.0	140	

ULTIMATE*vision* MASTER 90° front camera probe semi rigid spiral shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE*vision* MASTER videoscope

Technical data probe:

Format:	semi rigid
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnifi ation:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		L m		
550.7571	5.5	90°	1.0	230	
550.7572	5.5	90°	2.0	260	
550.7573	5.5	90°	3.0	400	

ULTIMATE*vision* MASTER front camera probe 150°/0° fl xible PVC shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE*vision* MASTER videoscope

Technical data probe:

Format:	fl xible PVC casing
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Operating temperature:	+0°C to +55°C
Line of vision:	0°, revolving in 2 directions each to 150°
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
AV Magnifi ation:	is up to 15" over cinch
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		L m	g	
550.7601	6.0	150°/0°	1.00	140	
550.7602	6.0	150°/0°	2.00	180	
550.7603	6.0	150°/0°	3.00	220	

ULTIMATE*vision* MASTER front camera probe 150°/90° fl xible PVC shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE*vision* MASTER videoscope

Technical data probe:

Format:	fl xible PVC casing
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Operating temperature:	+0°C to +55°C
Line of vision:	90°, revolving in 2 directions each to 150°
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
AV Magnifi ation:	is up to 15" over cinch
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		L m	g	
550.7606	6.0	150°/90°	1.00	140	

ULTIMATE*vision* MASTER 0° front camera probe semi rigid spiral shaft

- 6 adjustable mini LED lamps
- Bend radius max. 30 mm
- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

Technical data probe:

Format:	semi rigid
Bend radius:	min. 30 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
Operating temperature:	+0°C to +55°C
AV Magnifi ation:	is up to 10" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Mirror attachment:	line of vision 90° - aperture angle 36°
Light source:	6 dimmable white mini LED lamps
Brightness:	0 ~ 420 LUX / 4 cm

	Head Ø mm		L m	g	
550.7851	8.5	0°	1.0	140	
550.7852	8.5	0°	2.0	140	
550.7853	8.5	0°	3.0	140	

ULTIMATE*vision* MASTER videoscope set with sensor drum

- Probe with dimensionally stable pushrod
- Flexible probe head for optimum bend fl xibility
- 8 dimmable white mini LED lamps
- Mobile and network independent system
- Abrasion resistant, spring sheathed probe head shaft
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- 1.5 times digital zoom function
- Horizontal picture refle tion function
- Picture reception in JPEG format
- Video records in MPEG4-format
- View on large monitor with AV cable
- Data transfer directly through USB cable possible
- SD port for SD card
- Multi lingual menu (14 languages)
- Wide range of applications in pipes and shafts
- 2 Component housing protects against light impacts
- In durable plastic storage case

Contents:
Sensor drum with pushrod + camera head
Basic unit ULTIMATE*vision* MASTER
2 GB SD card

Technical data hand held unit:

Screen:	3,5" TFT LCD VGA
Output format:	NTSC and PAL
Picture storage format:	AVI, JPG (640x480)
Storage medium:	SD card up to a max. 32 GB
Battery:	4 x AA
Operating time:	ca. 4 h
Operating temperature:	-20°C to +60°C
Language manual:	DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG
Length:	24,3 mm
Ø:	28,0 mm

Technical data probe head:

Aperture angle:	diagonal 150.8°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	10 ~ ∞ mm
AV Magnifi ation:	is up to 15" over cinch
Light source:	8 dimmable white mini LED lamps
Brightness:	33 Lux
Operating temperature:	-20°C to +60°C
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Bend radius:	max. 30 mm
Application:	40-100mm - 90° bend fl xibility above Ø50mm

Technical data drum with pushrod:

Length:	22.00 m
Ø:	6 mm
Bend radius:	min. 150 mm
Operating temperature:	-10°C up tp +70°C
Protection class:	IP 65
Drum Ø:	300 mm

			kg	
550.7221	3 pcs	ULTIMATE*vision* MASTER videoscope set with sensor drum	10.60	

Aluminium adaptor for videoscope

- Suitable for use with videoscopes

	Ø mm	L mm	g	
550.7229	50,0	36.0	61	

Brush for videoscope

- Suitable for use with videoscopes
- For centric use of the camera

	DN	L mm	g	
550.7228	100	150.0	64	
550.7227	150	150.0	151	

ULTIMATE*vision* MASTER PROBE ACCESSORIES

ULTIMATE*vision* MASTER 2 in 1 Magnet sleeve + hook attachment

- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

	Head Ø mm	g	
550.7459	4.9	20	

ULTIMATE*vision* MASTER Mirror attachment

- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

	Head Ø mm		g	
550.7555	5.5	70°	20	
550.7556	5.5	90°	20	
550.7557	5.5	110°	20	

ULTIMATE*vision* MASTER Magnet sleeve

- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

	Head Ø mm	g	
550.7559	5.5	20	

ULTIMATE*vision* MASTER Hook attachment

- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

	Head Ø mm	g	
550.7558	5.5	20	

ULTIMATE*vision* MASTER Mirror attachment

- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

	Head Ø mm		g	
550.7857	8.5	70°-110°	20	

ULTIMATE*vision* MASTER Magnet sleeve

- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

	Head Ø mm	g	
550.7859	8.5	20	

ULTIMATE*vision* MASTER Hook attachment

- Suitable for connection to ULTIMATE*vision* MASTER Videoscope

	Head Ø mm	g	
550.7858	8.5	20	

ULTIMATE*vision* SUPERCHARGED VIDEOSCOPE SETS

ULTIMATE*vision* SUPERCHARGED Videoscope set

- Adjustable function for the angle of vision through the one way sending device
- 3 adjustable Mini-LED-lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, as no glass fib e cable
- Working temperature of + 0 °C to +55 °C
- Excellent picture quality and viewing through special camera in the probe head
- Optionally expandable with other probes
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in MPEG4-format
- View on a TV monitor with AV cable possible
- Multilingual menu (14 languages)
- Versatile usage
- Incl. 4xAA batteries
- 2-component housing of the basic unit protects against light impacts with high-quality foam insert
- In durable plastic storage case

Scope of delivery:
- Basic unit
- Mirror attachment
- AV cable
- 4 GB SD card
- USB data cable
- Battery set 4xAA
- Selected videoscope probe

Technical data hand held unit:

Screen:	3,5" TFT LCD VGA
Output format:	NTSC and PAL
Picture storage format:	AVI, JPG (640x480)
Storage medium:	SD card up to a max. 32 GB
Battery:	4 x AA
Operating time:	ca. 4 h
Operating temperature:	-20 °C to +60 °C
Language manual:	DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG

Technical data sensor:

Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	640 (H) x 480 (V) = 307,200 Pixel
Focused depth of fi ld:	1 cm - 6 cm
AV Magnifi ation:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Mirror attachment:	line of vision 70° - aperture angle 40° line of vision 90° - aperture angle 36° line of vision 110° - aperture angle 32°
Light source:	3 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

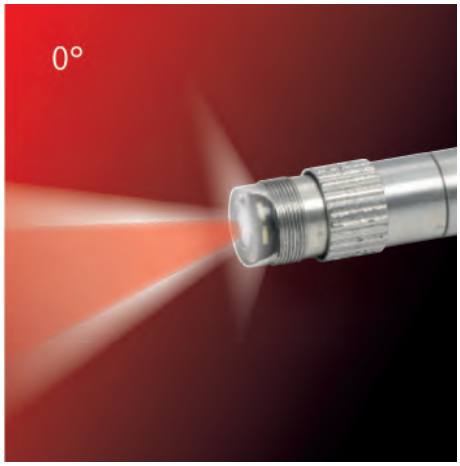
consists of:

		g	
550.7999	ULTIMATE Vision handset, no probe	340	
550.5008	4 GB SD card	11	
550.5003	AV-Cable 2 m	20	
550.5018	USB data cable	28	

ULTIMATE*vision* SUPERCHARGED Videoscope set with 0° front camera probe, fl xible spiral shaft, 7-pcs.

SUPERCHARGED

Ø	1 m	2 m	3 m
5,5 mm	**550.8055**	**550.8002**	



ULTIMATE*vision* SUPERCHARGED Videoscope set with 0° front camera probe, fl xible PVC-shaft, 7 pcs.

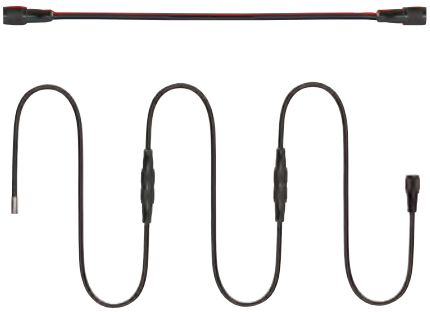
SUPERCHARGED

Ø	1 m	2 m	3 m
6,0 mm	**550.8061**	**550.8062**	

ULTIMATE*vision* SUPERCHARGED CAMERA PROBE

ULTIMATE*vision* Cable extension

- Cable diameter: 8.5 mm
- Connection diameter: 16 mm
- Universal for all ULTIMATE*vision* Videoscope applicable



	L m	
550.7854	3.0	600

ULTIMATE*vision* SUPERCHARGED 0° front camera probe fl xible spiral shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE*vision* SUPERCHARGED videoscope

SUPERCHARGED

Technical data probe:

Format:	fl xible PVC casing
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse
	camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnifi ation:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m
	oil and petrol resistant probe
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		L m		
550.8551	5.5	0°	1.00	140	
550.8552	5.5	0°	2.00	140	

ULTIMATE*vision* SUPERCHARGED 0° front camera probe fl xible PVC shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE*vision* SUPERCHARGED videoscope

SUPERCHARGED

Technical data probe:

Format:	fl xible PVC casing
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse
	camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnifi ation:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m
	oil and petrol resistant probe
Mirror attachment:	line of vision 70° - aperture angle 40°
	line of vision 90° - aperture angle 36°
	line of vision 110° - aperture angle 32°

	Head Ø mm		L m		
550.8601	6.0	150°	1.00	140	
550.8602	6.0	150°	2.00	140	

ULTIMATE*vision* SUPERCHARGED PROBE ACCESSORIES

ULTIMATE*vision* SUPERCHARGED Mirror attachment

- Suitable for connection to ULTIMATE*vision* SUPERCHARGED videoscope

SUPERCHARGED

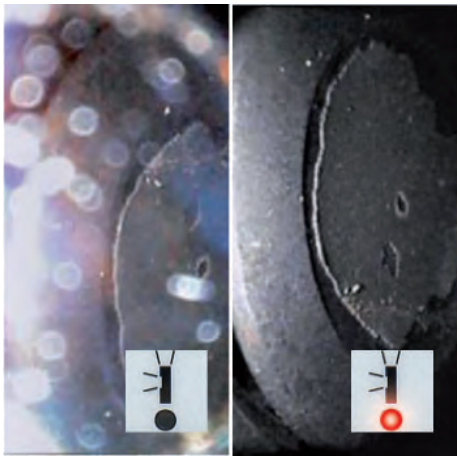
	Head Ø mm		
550.8555	5.5	70°	3
550.8556	5.5	90°	3
550.8557	5.5	110°	3

ULTIMATE*vision* SUPERCHARGED Hook attachment

- Suitable for connection to ULTIMATE*vision* SUPERCHARGED Videoscope

SUPERCHARGED

	Head Ø mm	
550.8558	5.5	3



ULTIMATE*vision* SUPERCHARGED Mirror attachment

- Suitable for connection to ULTIMATE*vision* SUPERCHARGED videoscope

SUPERCHARGED

	Head Ø mm		g	
550.8605	6.0	70°	3	
550.8606	6.0	90°	3	
550.8607	6.0	110°	3	

GENERAL ACCESSORIES

AV cable

- Suitable for all ULTIMATE*vision* Videoscopes
- Does not transmit sound
- Available plugs: AV jack on video cinch

	L m	g	
550.5003	1.00	20	

4 GB SD card

- Suitable for all ULTIMATE*vision* Videoscopes

		g	
550.5008	4 GB SD card	12	

USB-Data cable

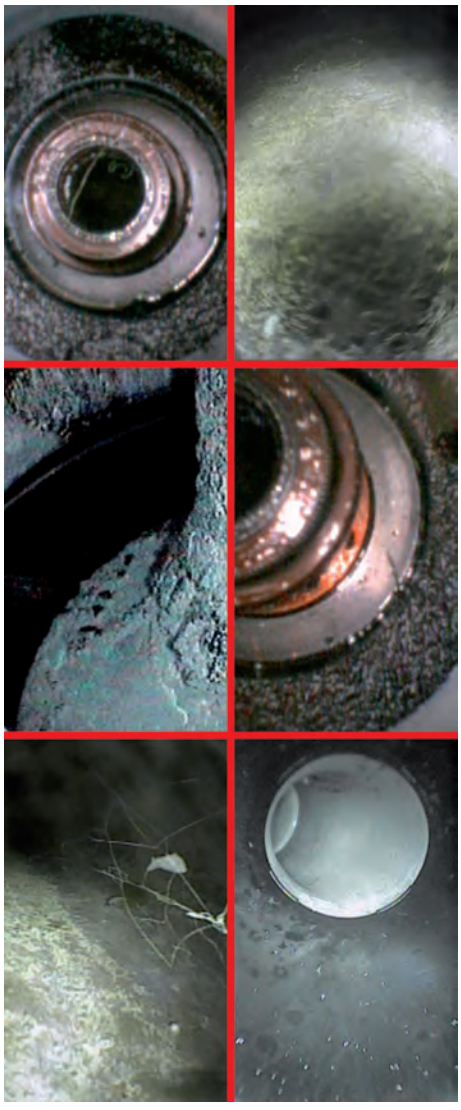
- Suitable for all ULTIMATE*vision* Videoscopes

		g	
550.5018	USB-Data cable	30	

Alcohol cleaning set

- Suitable for all ULTIMATE*vision* Videoscopes

		g	
550.7998	Alcohol cleaning set	50	



USB video grabber

- Just process the fil s and then burn DVDs, VCDs and more
- Live image broadcasting to TV and laptop
- Supports qualitative high-quality video resolution
- With video software
- Universal serial bus specifi ation Rev.2.0
- NTSC, PAL, video format
- Video and audio input
- USB bus power

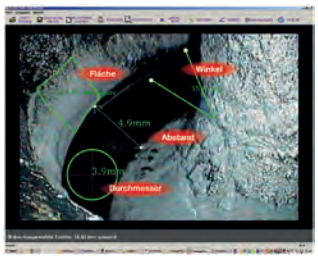
Technical data:

Main memory:	256 MB
Operating system:	Windows 2000, XP, 7, Vista 32 bit
Hard disc capacity:	50 MB (free)
USB port:	USB 2.0

		g	
550.8603	USB video grabber	135	

Measurement software

- Only usable in association with ULTIMATEvision MASTER videoscope with 0° 5,5 mm probe
- Ideal for bonding in technical documentation
- Only now with this software it is possible to correctly estimate, measure and interpret damages
- Measuring of angles
- Measuring of gaps
- Measurement of radius
- Calculation of arreas
- Saving of the arranged photos
- JPEG data format
- Contains distance blade in the delivery



		g	
550.5015	Measurement software	300	

PNEUMATIC TOOLS

KSTOOLS®

Innovation is our mission!

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PNEUMATIC TOOLS

Advantages

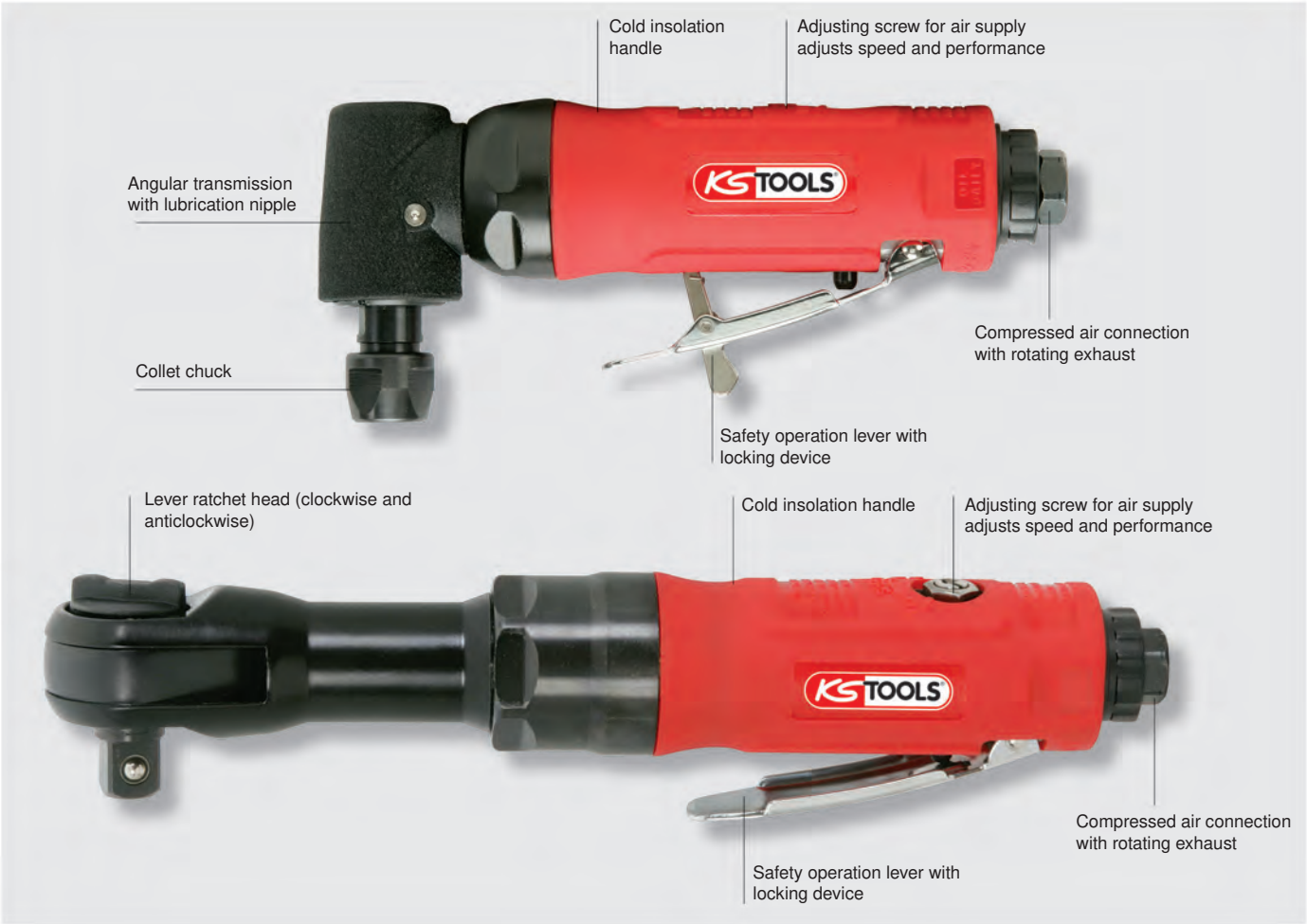
Extremely versatile

- For hard to reach places
- Particularly low air consumption
- Low vibration
- Long service life
- Easy operation
- Supplied incl. coupling connector

Extremely strong

- Particularly low air consumption
- Low vibration
- Cold insulated handle
- Long service life
- Easy operation
- Supplied incl. coupling connector

Composition



Our pneumatic tools correspond to the demands of the following standards:

Standards 2006/42/EC
EN ISO 12100-1+A1:2009
EN ISO 12100-2+A1:2009
EN ISO 14121-1:2007, EN 792-6+A1:2008
EN ISO 15744:2008, EN ISO 8662-7:1997

Striking mechanisms

Single hammer striking mechanisms

- Traditional approved construction
- Grease lubrication

Pin clutch

- Reliable construction
- Low vibration
- Fast torque progression
- Oil lubrication

Twin hammer striking mechanisms / cluch

- Excellent power to weight ratio
- Low sensitivity to air pressure flu tuations
- Constant impact with continuous torque progression
- Suitable for heavey and light duty
- Grease lubrication
- Industrial striking mechanisms e.g 515.1215

Pneumatic profil

Reversing ratchets

Drilling machines

Spot weld drilling machines

Grinding tools

Burnishing tools

Erasing machines

Needle scaler

Pneumatic-nibbler

Impact wrenches

Blind rivet gun

Oscillating cutter

Grease guns

Wheel filling gaug

Combination spray guns

Compressed air guns

Sawing

REVERSIBLE RATCHET

SlimPOWER mini-pneumatic-reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle rear end
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- With stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing

1/4"

Technical data:

Square drive:	1/4"
Max. tightening torque:	34 N•m
Max. loosening torque:	34 N•m
No load current:	420 r.p.m.
Vibration:	< 2,3 ms²
Noise performance level:	92 dbA
Noise pressure level:	85 dbA
Recomended torque:	25 N•m
Air consumption:	240.66 l/min
Operating pressure:	max. 5,5 bar (80 psi)
Min. tube diameter:	1/4" - 4,8 mm
Connection thread:	1/4"PT

	B mm	L mm	g
515.5005	35.5	135.0	400

Mini pneumatic reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle rear end
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

1/4"

Technical data:

Square drive:	1/4"
Max. tightening torque:	40,6 N•m
Max. loosening torque:	40,6 N•m
No load current:	250 r.p.m.
Vibration:	< 4,4 ms²
Noise performance level:	97 dbA
Noise pressure level:	87 dbA
Recomended torque:	30 N•m
Air consumption:	90 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	1/4" - 6,35 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.3080	41.0	180.0	0.60

SlimPOWER mini-pneumatic-reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle rear end
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- With stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing

3/8"

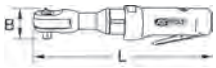
Technical data:

Square drive:	3/8"
Max. tightening torque:	34 N•m
Max. loosening torque:	34 N•m
No load current:	420 r.p.m.
Vibration:	< 2,3 ms²
Noise performance level:	92 dbA
Noise pressure level:	85 dbA
Recomended torque:	25 N•m
Air consumption:	240.66 l/min
Operating pressure:	max. 5,5 bar (80 psi)
Min. tube diameter:	3/8" - 4,8 mm
Connection thread:	1/4"PT

	B mm	L mm	g
515.5010	35.5	135.0	400

Pneumatic reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle rear end
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



Technical data:

Square drive:	3/8"
Max. tightening torque:	68 N•m
Max. loosening torque:	68 N•m
No load current:	160 r.p.m.
Vibration:	< 1,0 ms²
Noise performance level:	97 dbA
Noise pressure level:	85 dbA
Recomended torque:	50 N•m
Air consumption:	250 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.3085	50.0	260.0	1.20

SlimPOWER mini-pneumatic-reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle rear end
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- With stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing

1/2"

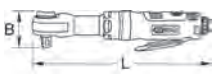
Technical data:

Square drive:	1/2"
Max. tightening torque:	34 N•m
Max. loosening torque:	34 N•m
No load current:	420 r.p.m.
Vibration:	< 2,3 ms²
Noise performance level:	92 dbA
Noise pressure level:	85 dbA
Recomended torque:	25 N•m
Air consumption:	240.66 l/min
Operating pressure:	max. 5,5 bar (80 psi)
Min. tube diameter:	1/4" - 4,8 mm
Connection thread:	1/4"PT

	B mm	L mm	g
515.5015	35.5	135.0	400

Pneumatic reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle rear end
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



Technical data:

Square drive:	1/2"
Max. tightening torque:	68 N•m
Max. loosening torque:	68 N•m
No load current:	175 r.p.m.
Vibration:	< 1,0 ms²
Noise performance level:	97 dbA
Noise pressure level:	85 dbA
Air consumption:	85 l/min
Recomended torque:	50 N•m Nm
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.3090	52.0	265.0	1.40

DIE & ANGLE DRILLING MACHINES

SlimPOWER Pneumatic straight drill

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Not reversible
- With quick release chuck capacity 1 - 6,5 mm
- For hard to reach places
- Ideally suited for car bodywork and industrial working
- With stepless speed regulation
- Vibration dampened through double bearing guides
- Includes 1/4" coupling connector
- Robust housing

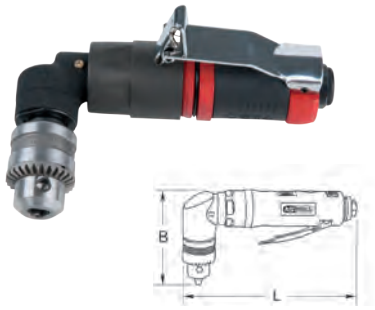
Technical data:

Chuck capacity:	1 - 6,5 mm
Chuck thread reception:	3/8" x 24 UNF
Capacity:	190 Watt
No load current:	6000 r.p.m.
Vibration:	< 0,7 ms²
Noise performance level:	95 dbA
Noise pressure level:	80 dbA
Air consumption:	240.66 l/min
Min. tube diameter:	1/4" - 4,8 mm
Operating pressure:	max. 5,5 bar (80 psi)
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5020	35.5	145.0	400

SlimPOWER Pneumatic angle drill

- Angled version
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Not reversible
- With gear rim drill chuck width 1 - 6,5 mm
- For hard to reach places
- Ideally suited for car body work
- With stepless speed regulation
- Vibration dampened through double bearing guides
- Includes 1/4" coupling connector
- Robust housing



Technical data:

Chuck capacity:	1 - 6,5
Chuck thread reception:	3/8" x 24 UNF
Capacity:	230 Watt
No load current:	4500 r.p.m.
Vibration:	< 0,7 ms²
Noise performance level:	95 dbA
Noise pressure level:	83 dbA
Air consumption:	240.66 l/min
Min. tube diameter:	1/4" - 6,4 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"

	B mm	L mm	g
515.5025	90.0	145.0	700

Pneumatic pistol grip drill

- Very handy and compact construction
- With non slip soft grip handle
- Air exhaust through the handle
- For one handed operation with ergonomic design
- With quick release chuck capacity 0 - 10 mm
- With practical clockwise and anticlockwise switch
- Suitable for continuous duty
- For working in hard to access areas
- Ideally suited for car bodywork and industrial working
- With stepless speed regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic

Technical data:

Chuck capacity:	1 - 10 mm
Chuck thread reception:	3/8" x 24 UNF
Capacity:	330 Watt
No load current:	1800 r.p.m.
Vibration:	< 0,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	113 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.3030	165.0	150.0	0.92

Pneumatic straight drill

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Not reversible
- With quick release chuck capacity 0 - 10 mm
- For hard to reach places
- Ideally suited for car bodywork and industrial working
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened through double bearing guides
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic

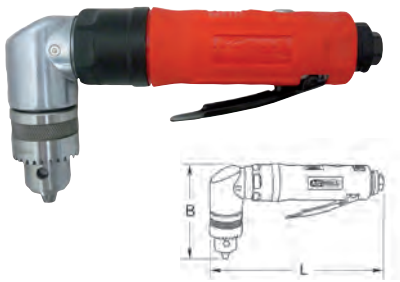
Technical data:

Chuck capacity:	1 - 10 mm
Chuck thread reception:	3/8" x 24 UNF
Capacity:	330 Watt
No load current:	2600 r.p.m.
Vibration:	< 0,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.3025	44.0	215.0	0.75

Pneumatic angle drill

- Angled version
- With planetary gearing
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Not reversible
- With gear rim drill chuck width 0 - 10 mm
- For hard to reach places
- Ideally suited for car body work
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened through double bearing guides
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



Technical data:

Chuck capacity:	1 - 10
Chuck thread reception:	3/8" x 24 UNF
Capacity:	330 Watt
No load current:	1800 r.p.m.
Vibration:	< 0,15 ms²
Noise performance level:	95 dbA
Noise pressure level:	87 dbA
Air consumption:	85 l/min
Operating pressure:	6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	L mm	B mm	kg
515.1265	200,0	100.0	1.15

Pneumatic pistol grip drill

- Low rotation speed
- Non slip soft grip handle
- Ultra light robust housing from special plastic
- Air exhaust through the handle
- Quick release chuck capacity 0 - 13 mm
- Practical clockwise and anticlockwise switch
- Suitable for continuous duty
- Ideally suited for working with hard to machine materials
- For spot weld drills, polishing and grinding wheels, erasing rubbers etc.
- Very substaintial guide
- Stepless speed regulation
- Vibration dampened
- Handle for 2 hand operation 360° revolving and lockable
- Cold insulated handle
- Includes 1/4" coupling connector

Technical data:

Chuck capacity:	1,5 - 13 mm
Chuck thread reception:	3/8" x 24 Gang
Capacity:	330 Watt
No load current:	450 r.p.m.
Vibration:	< 0,15 ms²
Noise performance level:	95 dbA
Noise pressure level:	87 dbA
Air consumption:	113 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	T mm	kg
515.3035	200.0	230.0	43.0	1.60

SPOT WELD DRILLING MACHINES

Pneumatic spot weld drill

- Air exhaust through the handle
- Easy operation
- Suitable for continuous duty
- Ideally suited for internal and external spot welds
- For spot weld drills
- Very substaintial guide
- With adjustable milling machine depth ring in steps of 0,05 mm
- With revolving and removable frame to the fi ation on the object
- With large frame for deep lying points
- Feed achievement through pneumatic cylinder
- With stepless speed regulation
- Includes 1/4" coupling connector
- Robust machined housing

Technical data:

Drive:	Ø 8 mm with set screw
Capacity:	500 Watt
No load current:	1600 r.p.m.
Vibration:	< 0,3 ms²
Noise performance level:	90 dbA
Noise pressure level:	81 dbA
Air consumption:	280 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" IG

	B mm	L mm	kg	
515.1206	200.0	235.0	2.20	

accessories:

		g	
515.1207	Counter bracket, small for 515.1206	300	
515.1208	Counter bracket, large for 515.1206	500	

Pneumatic spot weld drill set

- Air exhaust through the handle
- Easy operation
- Suitable for continuous duty
- Ideally suited for internal and external spot welds
- For spot weld drills
- Very substaintial guide
- Adjustable milling machine depth ring in steps of 0,05 mm
- Revolving and removable frame on the fi ation on the object
- Large frame for deep lying points
- Feed achievement through pneumatic cylinder
- Stepless speed regulation
- Includes 1/4" coupling connector
- Robust machined housing
- In durable plastic case

Technical data:

Drive:	Ø 8 mm with set screw
Capacity:	500 Watt
No load current:	1600 r.p.m.
Vibration:	< 0,2 ms²
Noise performance level:	90 dbA
Noise pressure level:	81 dbA
Air consumption:	280 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" IG

			kg	
515.1205	9 pcs	Pneumatic spot weld drill set	2.20	

consists of:

		kg	
515.1206	1/2" pneumatic spot weld drill	2.20	
515.1207	Counter bracket, small for 515.1206	0.30	
515.1208	Counter bracket, large for 515.1206	0.50	
332.0108	HSSE spot weld drill, Ø 8,0mm	0.02	
515.3361	Pneumatic tool oil, 100ml	0.25	

Fastdrill pneumatic spot weld drill

- Special drive for high torque
- With non-slip soft-grip-handle
- Air exhaust through the handle
- Suitable for continuous duty
- Ideally suited for internal and external spot welds
- For carbide spot weld drills
- Very substantial guide
- With revolving and removable frame on the fi ation on the object
- Feed achievement through pneumatic-cylinder
- With stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector
- Robust machined housing

Technical data:

Drive in mm	8 mm
Capacity:	280 Watt
No load current:	1000 r.p.m.
Vibration:	< 0,233 ms²
Noise performance level:	95.4 dbA
Noise pressure level:	82.4 dbA
Air consumption:	340 l/min
Operating pressure:	6 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.1311	175.0	315.0	1.85	

accessories:

		g	
515.1312	Bracket, small, for Fastdrill	550	
515.1313	Bracket, big, for Fastdrill	800	

Fastdrill pneumatic spot weld drill set

- Special gearbox for high torque
- With non slip soft grip handle
- Air exhaust through the handle
- Suitable for continuous duty
- Ideally suited for internal and external spot welds
- For carbide spot weld drills
- Very substaintial guide
- With revolving and removable frame on the fi ation on the object
- Feed achievement through Pneumatic-cylinder
- With stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector
- Robust machined housing

Technical data:

Drive in mm	8 mm
Capacity:	280 Watt
No load current:	1000 r.p.m.
Vibration:	< 0,233 ms²
Noise performance level:	95.4 dbA
Noise pressure level:	82.4 dbA
Air consumption:	340 l/min
Operating pressure:	6 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

			kg	
515.1310	3 pcs	Fastdrill pneumatic spot weld drill set	2.40	

consists of:

		kg	
515.1311	Fastdrill pneumatic spot weld drill	1.85	
515.1312	Bracket, small, for Fastdrill	0.55	
515.1314	T-handle wrench	0.04	

Spot weld drills can be found in the Cutting tools/brushes and fil s section.

PIN & DIE GRINDERS

Pneumatic pencil grinder, 70.000 rpm

- Straight design
- Air exhaust through the used air tube
- Ideal for carbide, corundum and tungsten carbide burrs
- For working in hard to access areas
- Very handy and compact construction
- Suitable for different repair works
- With stepless speed regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector and chuck wrench
- Aluminium housing

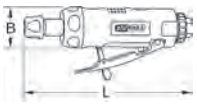
Technical data:

Tube length:	1 m
Tube diameter:	5 mm
Chuck capacity:	3 mm
Capacity:	150 KW
No load current:	70000 r.p.m.
Vibration:	< 2,5 ms²
Noise performance level:	86 dbA
Noise pressure level:	74 dbA
Air consumption:	140 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	1/4" - 6,35 mm
Connection thread:	1/4"PT

	D mm	L mm	g	
515.3198	16.0	132.0	330	

SlimPOWER pneumatic die grinder, straight

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Very handy and compact construction
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing



Technical data:

Chuck:	6 mm
Capacity:	230 Watt
No load current:	25000 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	95 dbA
Noise pressure level:	81 dbA
Air consumption:	319.93 l/min
Min. tube diameter:	1/4" - 6,4 mm
Operating pressure:	max. 5,5 bar (80 psi)
Connection thread:	1/4"PT

	B mm	L mm	g	
515.5030	35.0	123.0	300	

Mini pneumatic die grinder, straight

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Very handy and compact construction
- Secure operation lever with locking device
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic

Technical data:

Chuck:	6 mm
Capacity:	250 Watt
No load current:	25000 r.p.m.
Vibration:	< 0,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	g	
515.3005	365.0	155.0	920	

Long shaft die grinder

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in deep lying areas
- Secure operation lever with locking device
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

Technical data:

Chuck:	6 mm
Capacity:	330 Watt
No load current:	22000 r.p.m.
Vibration:	< 0,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3015	26.5	280.0	1.08	

consists of:

		kg	
515.3015	Long shaft die grinder, 22,000 r.p.m.	1.08	
337.2005	High performances thin disk, 1 mm, pack of 25	0.10	
515.3017	Clamping mandrel M6 f. thin cutting disk	0.07	

Thin disks can be found in the Cutting tools/brushes and fil s section on page 649

ANGLE DIE GRINDER

Pneumatic die grinder

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Very handy and compact construction
- Secure operation lever with locking device
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

Technical data:

Chuck:	6 mm
Capacity:	330 Watt
No load current:	21000 r.p.m.
Vibration:	< 0,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	g	
515.3010	44.0	175.0	920	

Long shaft die grinder set

- With 25 mini grinding wheels and mounting mandrel
- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grindstone with 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in deep lying areas
- Secure operation lever with locking device
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic

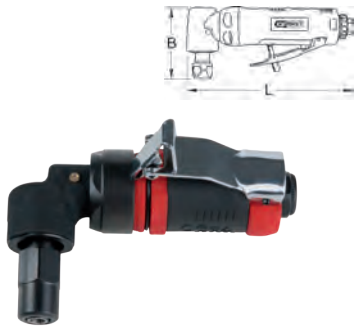
Technical data:

Chuck:	6 mm
Capacity:	330 Watt
No load current:	22000 r.p.m.
Vibration:	< 0,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3016	26.5	280.0	1.25	

SlimPOWER Pneumatic angled die grinder

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing



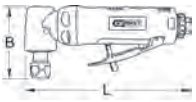
Technical data:

Chuck:	6 mm
Capacity:	190 Watt
No load current:	19000 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	240.66 l/min
Min. tube diameter:	1/4" - 4,8 mm
Operating pressure:	max. 5,5 bar (80 psi)
Connection thread:	1/4"

	B mm	L mm	g	
515.5035	75.0	123.0	300	

SlimPOWER mini-pneumatic angled die grinder

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing



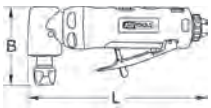
Technical data:

Chuck:	6 mm
Capacity:	230 Watt
No load current:	20000 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	95 dbA
Noise pressure level:	83 dbA
Air consumption:	319.93 l/min
Min. tube diameter:	1/4" - 6,4 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"

	B mm	L mm	g	
515.5040	70.0	270.0	700	

Pneumatic angled die grinder

- 90° offset execution
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Secure operation lever with locking device
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic
- Grease nipple for maintenance on striking mechanism ensures long life (KS grease gun 980.1070)



Technical data:

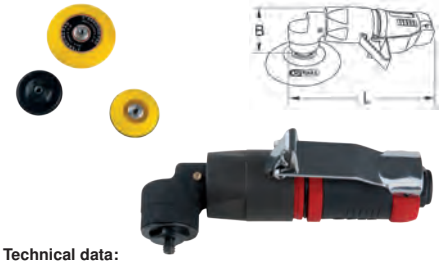
Angle size:	80 mm
Chuck:	6 mm
Capacity:	330 Watt
No load current:	18000 r.p.m.
Vibration:	< 0,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3020	80.0	180.0	0.92	

BURNISHER

SlimPOWER mini-pneumatic burnisher

- 90° offset execution
- Air exhaust through the handle rear end
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Very compact construction
- Receiver: External thread
- Includes 3 Velcro receivers
- Includes 1/4" coupling connector
- Robust housing



Technical data:

Capacity:	190 Watt
No load current:	4000 r.p.m.
Sponge diameter:	50 + 75 mm
Polishing sponge diameter:	46 mm
Vibration:	1,5 ms²
Noise performance level:	95 dbA
Noise pressure level:	81 dbA
Air consumption:	240.66 l/min
Min. tube diameter:	1/4" - 4,8 mm
Operating pressure:	max. 5,5 bar (80 psi)
Connection thread:	1/4"

	B mm	L mm	g	
515.5125	55.0	140.0	600	

Grinding disc

- With Velcro receiver
- With internal thread receiver

	Ø mm	Material	Content	g	
515.5101	46,0	fl xible	5	275	
515.5102	75,0	fl xible	5	125	
515.5103	46,0	rigid	5	55	

Burnishing pads

- For burnishing of smooth surfaces

	Ø mm	Material	Colour code	Content	g	
515.5126	50,0	plastic	yellow	5	10	
515.5122	85,0	plastic	yellow	5	55	
515.5127	50,0	plastic	white	5	10	
515.5123	85,0	plastic	white	5	55	
515.5128	50,0	plastic	black	5	10	
515.5129	50,0	leather		5	48	
515.5124	80,0	leather		5	80	

Mini pneumatic burnisher set

- For hard to reach places and improvement work
- With non-slip soft-grip-handle
- 90° offset execution
- Air exhaust through the handle rear end
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Vibration dampened
- Very compact construction
- Grinding disc with Velcro
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing
- In durable plastic storage case

Technical data:

No load current:	2500 r.p.m.
Vibration:	1,5 ms²
Noise performance level:	92 dbA
Noise pressure level:	81 dbA
Air consumption:	113 l/min
Operating pressure:	max. 5,2
Min. tube diameter:	10 mm
Connection thread:	1/4"

			kg	
515.5120	5 pcs	Mini pneumatic burnisher set	1.80	

consists of:

		g	
515.5121	1/4" mini burnishing machine	1000	
515.5122	Burnishing pads yellow, Ø 85,0mm	55	
515.5123	Burnishing pads weiß, Ø 85,0mm	55	
515.5124	Burnishing pads, Ø 80,0mm	80	
515.5112	Grinding disc Ø76.5 mm	20	

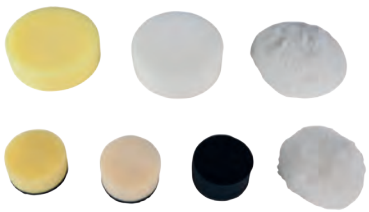
Grinding disc

- With Velcro receiver
- With external thread receiver

	Ø mm	Material	Content	g	
515.5113	46,0	fl xible	5	13	
515.5112	76,5	fl xible	5	20	

Burnishing pads

- For burnishing of smooth surfaces

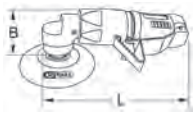


	Ø mm	Material	Colour code	Content	g	
515.5126	50,0	plastic	yellow	5	10	
515.5122	85,0	plastic	yellow	5	55	
515.5127	50,0	plastic	white	5	10	
515.5123	85,0	plastic	white	5	55	
515.5128	50,0	plastic	black	5	10	
515.5129	50,0	leather		5	48	
515.5124	80,0	leather		5	80	

GRINDING MACHINES

SlimPOWER mini pneumatic grinding machine

- 90° offset execution
- Air exhaust through the handle rear end
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Receiver: External thread
- Robust housing
- Incl. three grinding discs



Technical data:

Capacity:	190 Watt
No load current:	16500 r.p.m.
Sponge diameter:	50 + 75 mm
Polishing sponge diameter:	46 mm
Vibration:	< 1,5 ms²
Noise performance level:	95 dbA
Noise pressure level:	81 dbA
Air consumption:	240.66 l/min
Min. tube diameter:	1/4" - 4,8 mm
Operating pressure:	max. 5,5 bar (80 psi)
Connection thread:	1/4"

	B mm	L mm	g	
515.5100	40.0	120.0	300	

Grinding disc

- With Velcro receiver
- With internal thread receiver

	Ø mm	Material	Content	g	
515.5101	46,0	fl xible	5	13	
515.5102	75,0	fl xible	5	20	
515.5103	46,0	rigid	5	13	

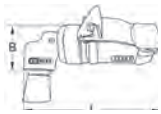
Grinding pads

- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges

	Ø mm	Grain	Content	g	
515.5119	50,0	320	10	16	
515.5116	75,0	320	10	19	
515.5118	50,0	400	10	16	
515.5115	75,0	400	10	19	
515.5117	50,0	600	10	16	
515.5114	75,0	600	10	19	

SlimPOWER mini pneumatic grinding machine for small pads

- 90° offset execution
- Air exhaust through the handle rear end
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Very compact construction
- For screw in pads with 26.7 mm diameter
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing



Technical data:

No load current:	16500 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	92 dbA
Noise pressure level:	81 dbA
Air consumption:	240.66 l/min
Min. tube diameter:	1/4" - 4,8 mm
Operating pressure:	max. 5,5 bar (80 psi)
Connection thread:	1/4"

	B mm	L mm	g	
515.5070	65.0	120.0	300	

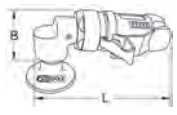
Grinding pads 26.7 mm

- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges
- With external thread receiver

	Material	Ø mm	Grain	Colour code	Content	g	
515.5071		26,7	60	brown	10	10	
515.5072		26,7	80	brown	10	20	
515.5073		26,7	150	purple	10	20	
515.5074		26,7	300	blue	10	20	
515.5075	Strip Rad	26,7		black	10	25	

SlimPOWER mini pneumatic grinding machine for large pads

- 90° offset execution
- Air exhaust through the handle rear end
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Very compact construction
- For screw in pads with 50.0 mm diameter
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing



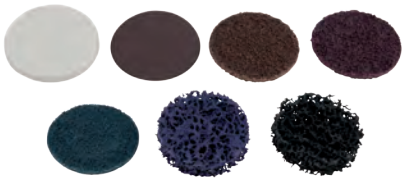
Technical data:

No load current:	16500 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	92 dbA
Noise pressure level:	81 dbA
Air consumption:	240.66 l/min
Min. tube diameter:	1/4" - 4,8 mm
Operating pressure:	max. 5,5 bar (80 psi)
Connection thread:	1/4"

	B mm	L mm	g	
515.5080	70.0	120.0	300	

Grinding pads 50.0 mm

- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges
- With external thread receiver

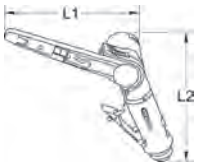


	Material	Ø mm	Grain	Colour code	Content	g	
515.5081	Scouring wool	50,0		white	10	100	
515.5083	Sand paper	50,0	80	brown	10	90	
515.5084	Sand paper	50,0	150	purple	10	100	
515.5082	Sand paper	50,0	240	brown	10	60	
515.5085	Sand paper	50,0	300	blue	10	90	
515.5086	Strip Rad	50,0		purple	10	160	
515.5087	Strip Rad	50,0		black	10	120	

BELT SANDER

Belt sander

- With non slip soft grip handle
- Air exhaust through the handle rear end
- Working head is 360° ajustable
- Adjustable for quick sanding belt change
- Ideal for narrow areas (10 mm belt width)
- Secure operation lever with locking device
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Light aluminium housing



Technical data:

Belt speed:	1188 m/min
No load current:	18000 r.p.m.
Vibration:	< 2,0 ms²
Noise performance level:	81 dbA
Noise pressure level:	73 dbA
Air consumption:	142 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	L1 mm	L2 mm	g	
515.3549	150.0	170.0	800	

Sanding belt for belt sander

- Sanding belt for belt sander 515.3549

	Grain	Content	g	
515.3551	80	10	60	
515.3552	100	10	80	
515.3553	120	10	100	

ROUGH GRINDERS

Pneumatic disc cutter

- Air exhaust through the handle rear end
- For grinding wheels up to Ø 125 mm x 22 mm
- With safety cover
- For grinding metal sheet and steel
- Secure operation lever with locking device
- With detachable second handle
- With stepless speed regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic

Technical data:

Tool holder:	5/8" - 11 Gang
No load current:	10000 r.p.m.
Capacity:	700 Watt
Vibration:	< 0,2 ms²
Noise performance level:	103 dbA
Noise pressure level:	90 dbA
Air consumption:	142 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3045	95.0	210.0	1.75	

Pneumatic disc cutter

- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For cutting wheels up to Ø 75 mm x 10 mm
- With safety cover
- For cutting metal sheet and steel
- Secure operation lever with locking device
- For working in inaccessible places
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

Technical data:

Tool holder:	5/16" - 24 mm
No load current:	21000 r.p.m.
Capacity:	330 Watt
Vibration:	< 0,2 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3040	80.0	195.0	1.00	

RANDOM ORBIT SANDERS

Mini pneumatic random orbital sander set

- For hard to reach places and improvement work
- With non-slip soft-grip-handle
- 90° offset execution
- Air exhaust through the handle rear end
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Vibration dampened
- Very compact construction
- Includes ¼" coupling connector
- Receiver: Internal thread
- Robust housing
- Grinding disc with Velcro
- In durable plastic storage case

Technical data:

No load current:	15000 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	92 dbA
Noise pressure level:	81 dbA
Air consumption:	113 l/min
Operating pressure:	max. 5,2
Min. tube diameter:	10 mm
Connection thread:	1/4"

			kg	
515.5110	63 pcs	Mini pneumatic random orbital sander set	1.45	

consists of:

		g	
515.5111	Mini random orbital sander	1000	
515.5119	Replacement grinding pads graining 320, Ø50 mm, 10pcs	16	
515.5118	Replacement grinding pads graining 400, Ø50 mm, 10pcs	16	
515.5117	Replacement grinding pads graining 600, Ø50 mm, 10pcs	16	
515.5116	Replacement grinding pads graining 320, Ø75 mm, 10pcs	19	
515.5115	Replacement grinding pads graining 400, Ø75 mm, 10pcs	19	
515.5114	Replacement grinding pads graining 600, Ø75 mm, 10pcs	19	
515.5113	Grinding disc Ø 46.0 mm	13	
515.5112	Grinding disc Ø76.5 mm	20	

Grinding disc

- With Velcro receiver
- With external thread receiver

	Ø mm	Material	Content	g	
515.5113	46,0	fl xible	5	13	
515.5112	76,5	fl xible	5	20	

Grinding pads

- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges

	Ø mm	Grain	Content	g	
515.5119	50,0	320	10	16	
515.5116	75,0	320	10	19	
515.5118	50,0	400	10	16	
515.5115	75,0	400	10	19	
515.5117	50,0	600	10	16	
515.5114	75,0	600	10	19	

Fine finish e centric sander with dust extraction

- Air exhaust through the used air tube
- With ergonomic design for fatigue free working
- Compact constuction height and light composite housing for controlled working
- For sanding or polishing
- Alternatively can be used with dust bag or industrial vacuum cleaner
- Includes fabric dust collection bag
- With 6 punched hole in pitch circle: 80 mm / Ø 11 mm
- With stepless speed regulation
- Low vibration
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

Technical data:

Sanding radius:	2,5 mm
Velcro disc receiver:	Ø 152,4 mm = 6"
Tube length:	2 m
Capacity:	240 Watt
No load current:	10000 r.p.m.
Vibration:	3,5 ms²
Noise performance level:	71 dbA
Noise pressure level:	60 dbA
Air consumption:	255 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	D mm	L mm	kg	
515.3061	150.0	196.0	1.50	

Rapid removal eccentric sander with dust extraction

- Air exhaust through the used air tube
- With ergonomic design for fatigue free working
- Compact construction height and light composite housing for controlled working
- For sanding or polishing
- Alternatively can be used with dust bag or industrial vacuum cleaner
- Includes fabric dust collection bag
- With 6 punched hole in pitch circle: 80 mm / Ø 11 mm
- With stepless speed regulation
- Low vibration
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

Technical data:

Sanding radius:	5 mm
Velcro disc receiver:	Ø 152,4 mm = 6"
Tube length:	2 m
Capacity:	240 Watt
No load current:	10000 r.p.m.
Vibration:	3,5 ms²
Noise performance level:	71 dbA
Noise pressure level:	60 dbA
Air consumption:	225 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	1/4" - 6,35 mm
Connection thread:	1/4"PT

	D mm	L mm	g	
515.3066	150.0	100.0	900	

MULTIGRINDER

Pneumatic multi-grinder set

- For removing underbody coating, sealant, rust, corrosion, clingages, paints, film , text as well as for paint stripping
- With non-slip soft-grip-handle
- For hard to reach places
- Air exhaust through the handle rear end
- Easy operation
- Ideal for grinding and erasing work
- For working in hard to access areas
- Vibration dampened
- Includes 1/4 coupling connector
- Robust housing
- In durable plastic storage case

Technical data:

No load current:	3500 r.p.m.
Vibration:	< 4,4 ms²
Noise performance level:	94 dbA
Noise pressure level:	88 dbA
Air consumption:	113 l/min
Operating pressure:	6,2
Min. tube diameter:	1/4“ - 6,3 mm
Connection thread:	1/4“

			kg	
515.5130	17 pcs	Pneumatic multi-grinder set	4.67	

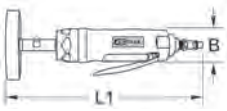
consists of:

		g	
515.5131	Mini multi-grinder with handle, 272 mm	1400	
515.5132	Film eraser, light execution, 105mm, pack of 5	1325	
515.5133	Film eraser, dark execution, 105mm, pack of 5	1400	
515.5134	Adaptor for film e aser, pack of 5	100	
515.5135	Brushing belt, coarse, curved tips, 11 mm, pack of 5	250	
515.5136	Brushing belt, coarse, curved tips, 23 mm, pack of 5	375	
515.5137	Brushing belt, straight tips, 11 mm, pack of 5	325	
515.5138	Brushing belt, straight tips, 23 mm, pack of 5	350	
515.5139	Eliminator disc 15 mm, pack of 5	500	
515.5166	Adaptor for 11 mm Ø brushing belt, pack of 5	80	
515.5167	Adaptor for individual eliminator disc, 19 mm, pack of 5	550	
515.5168	Adaptor for double eliminator disc, 31 mm, pack of 5	650	

ERASER

Pneumatic erasing machine

- Straight design
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Ideal for removing of stickers glue and color remainders
- Includes neutral colored rubber eraser disc
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4” coupling connector
- Ultra light robust housing from special plastic



Technical data:

Tool holder:	5/16” - 24
Capacity:	330 Watt
No load current:	2600 r.p.m.
Vibration acceleration:	< 0,70 m/s²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8” - 10 mm
Connection thread:	1/4”PT

	B mm	L mm	Eraser wheels	kg	
515.1244	40.0	225.0	515.1243	1.08	

Rubber eraser disc

- For removing of stickers, glue and color remainders on varnished areas
- Includes neutral colored rubber eraser preventing a smearing on the surface
- Not suitable for pneumatic die grinders

Technical data:

Speed:	4000 rpm
Shaft:	M8

	B mm	D mm	Content	g	
515.1243	15.0	90.0	1	110	
515.1285	15.0	90.0	6	660	

CHISEL HAMMER

Pneumatic chisel set

- Non slip soft grip handle
- Air exhaust through the handle
- Ultra light housing from two component plastic
- Ergonomic designed handle
- For ripping out car body sheet metal with pneumatic air
- Ideal for industry
- Also suitable for loosening firm y rusted fi tings
- Stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- In durable plastic case

Technical data:

Chisel holder:	10 mm
Number of blows:	3000 blows/min
No load current:	3200 r.p.m.
Vibration:	8,5 ms²
Noise performance level:	99.2 dbA
Noise pressure level:	110.9 dbA
Air consumption:	270 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8“ - 10 mm
Connection thread:	1/4“PT

			kg	
515.3810	7 pcs	Pneumatic chisel set	1.70	

consists of:

		g	
515.3801	Pointed chisel	137	
515.3802	Sheet metal cutting chisel	147	
515.3803	Rivet cutting chisel, curved	146	
515.3804	Flat chisel 19 mm	150	
515.3805	Curved cutting chisel	146	
515.3806	Pneumatic chisel with 1/4“ connector	1550	
515.3815	Holder for air chisel set	126	

Pneumatic chisel set

- Non slip soft grip handle
- Air exhaust through the handle
- Ergonomic designed handle
- For ripping out car body sheet metal with pneumatic air
- Ideal for industry
- Also suitable for loosening firm y rusted fi tings
- Quick release chuck for quick chisel changing
- Stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector and chuck
- Ultra light housing from two component plastic
- In durable plastic case

Technical data:

Chisel holder:	10 mm
Number of blows:	2900 blows/min
Vibration:	5,35 ms²
Noise performance level:	104.9 dbA
Noise pressure level:	90.4 dbA
Air consumption:	77.3 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"PT

			kg	
515.3840	7 pcs	Pneumatic chisel set	1.70	

consists of:

		kg	
515.3841	AIR CHISEL	1.73	
515.3842	Rivet cutting chisel	0.17	
515.3843	Spot weld chisel	0.16	
515.3844	Flat chisel	0.16	
515.3845	Pointed chisel	0.16	
515.3846	Curved sheet metal cutting chisel	0.16	
515.3847	Quick change retainer	0.32	

Vibro impact pneumatic chisel hammer set

- With non slip soft grip handle
- Air exhaust through the handle
- Ergonomic designed handle
- Ideal for industry
- Efficien , gentle loosening of screw fi tings
- With stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light housing from two component plastic

			kg	
515.3880	6 pcs	Vibro impact pneumatic chisel hammer set	5.70	

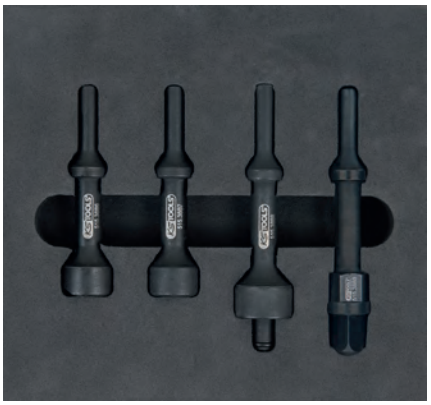
consists of:

		kg	
515.3881	Pneumatic chisel hammer	2.17	
515.3882	Holder for pneumatic chisel hammer	1.55	
515.3886	Pneumatic chisel track rod loosener,110mm	0.14	
515.3887	Pneumatic chisel hammer,110mm	0.15	
515.3888	Pneumatic chisel loosening adapter,130mm	0.16	
515.3889	Pneumatic chisel loosening mandrel,100x25x12mm	0.19	

Special Vibro chisel set

- For loosening seized screw joints and loosening components
- Gentle peeling and driving
- Vibration is transmitted directly to the screw connections
- Impact mandrel attachment as ingenious aid to any removal operation
- For hexagonal and round 10 mm machine mountings
- Including pressure plate adapter for driving out bearings, sleeves, bushings

Caution: Use only in conjunction with a pneumatic hammer chisel!



			g	
515.3885	4 pcs	Special Vibro chisel set	774	

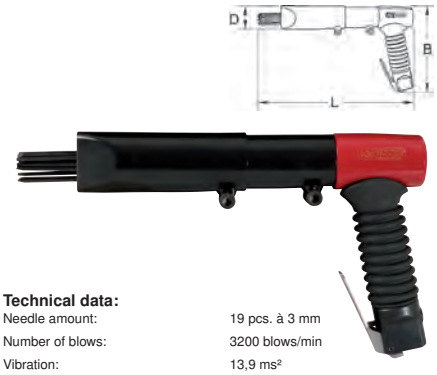
consists of:

		g	
515.3886	Pneumatic chisel track rod loosener,110mm	138	
515.3887	Pneumatic chisel hammer,110mm	148	
515.3888	Pneumatic chisel loosening adapter,130mm	159	
515.3889	Pneumatic chisel loosening mandrel,100x25x12mm	190	

NEEDLE SCALER

Pneumatic needle scaler

- In handy pistol design
- Air exhaust through the handle
- For removing and/or derusting of coatings and solid metal parts
- Is coarser than a sand balsting and finer han rust hammers
- Equipped with 19 needles of 3 mm a piece
- With adjustable needle cover
- Cold insulated handle
- Includes 1/4" coupling connector
- Robust steel housing



Technical data:

Needle amount:	19 pcs. à 3 mm
Number of blows:	3200 blows/min
Vibration:	13,9 ms²
Noise performance level:	110 dbA
Noise pressure level:	97 dbA
Air consumption:	170 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	D mm	L mm	Replacement needle pack	kg	
515.3070	205.0	45.0	330.0	515.3071	2.60	

NIBBLERS

Pneumatic nibbler

- 90° offset execution
- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Ideal for curved and straight cutting
- Cut is made by punching a series of holes sequentially in sheet metal
- Also suitable for plastic cutting
- For extremely small radius
- With stepless speed regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

Technical data:

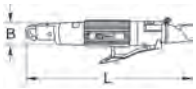
Cutting speed:	2,6 m/min
Cutting output:	steel 1,2 mm
	Aluminium 1,6 mm
Cutting width:	4,5 mm
Capacity:	330 Watt
Vibration:	< 0,5 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3050	100.0	190.0	1.15	

SAWING

SlimPOWER mini-pneumatic reciprocating bodywork key hole saw

- Air exhaust through the used air tube to the rear
- For one handed operation
- For works in car body panels, beams and profil
- Secure operation lever with locking device
- Suitable for small sawing radius
- Stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust metal housing



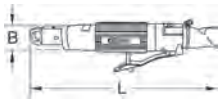
Technical data:

Stroke:	7.9 mm
Cutting strokes:	5760 strokes/min
Capacity:	190 Watt
Vibration:	< 16,4 ms²
Noise pressure level:	92 dbA
Noise performance level:	81.0 dbA
Air consumption:	LUFTVB#240.66 l/min
Operating pressure:	max. 5,5 bar (80 psi)
Min. tube diameter:	4,8 mm
Connection thread:	1/4"

	B mm	L mm		g	
515.5045	36.0	170.0	129.3740-46	500	

Pneumatic reciprocating bodywork saw, low vibration

- Air exhaust through the used air tube to the rear
- For one handed operation with ergonomic design
- For works in car body panels, beams and profil
- Secure operation lever with locking device
- Suitable for small sawing radius
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Robust metal housing



Technical data:

Stroke:	10 mm
Cutting strokes:	5760 strokes/min
Vibration:	< 9,1 ms²
Noise pressure level:	69.2 dbA
Noise performance level:	81.0 dbA
Air consumption:	196 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm		kg	
515.3000	45.0	790.0	129.3740-46	0.80	

LONG-DISC CUTTER

SlimPOWER mini-pneumaticshort disc cutter

- Air exhaust through the handle rear end
- For cutting wheels up to Ø 50,4 x 11 x 9,56 mm
- For grinding wheels up to Ø 59,0 x 4,0 x 9,56 mm
- Ideal for loosening worn down and/or rusted connections
- Adjustable sparkguard
- For working in inaccessible places
- Long service life
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing

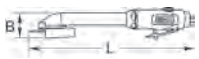
Technical data:

Tool holder:	9,60 mm
Capacity:	230 Watt
No load current:	16500 r.p.m.
Vibration:	< 2,0 ms²
Noise performance level:	95 dbA
Noise pressure level:	81 dbA
Air consumption:	240.66 l/min
Operating pressure:	max. 5,5 bar (80 psi)
Min. tube diameter:	1/4" - 4,8 mm
Connection thread:	1/4"

	B mm	L mm	g	
515.5050	60.0	125.0	400	

SlimPOWER mini-pneumatic long-disc cutter

- Air exhaust through the handle rear end
- For cutting wheels up to Ø 75.0 x 1.35 x 9.56 mm
- Ideal for loosening worn down and/or rusted connections
- Fixed sparkguard
- For working in inaccessible places
- Long service life
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



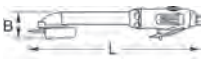
Technical data:

Tool holder:	9,56 mm
Capacity:	230 Watt
No load current:	19000 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	99.9 dbA
Noise pressure level:	81 dbA
Air consumption:	319.93 l/min
Operating pressure:	max. 6,2 bar (90 psi)
Min. tube diameter:	1/4" - 6,4 mm
Connection thread:	1/4"

	B mm	L mm	g	
515.5055	50.0	230.0	500	

SlimPOWER mini-pneumatic disc cutter, long

- Air exhaust through the handle rear end
- For cutting wheels up to Ø 75.0 x 1.35 x 9.56 mm
- Ideal for loosening worn down and/or rusted connections
- Fixed sparkguard
- For working in inaccessible places
- Long service life
- Secure operation lever with locking device
- With stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



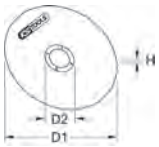
Technical data:

Tool holder:	9,56 mm
Capacity:	230 Watt
No load current:	19000 r.p.m.
Vibration:	< 1,5 ms²
Noise performance level:	99.9 dbA
Noise pressure level:	86 dbA
Air consumption:	319.93 l/min
Operating pressure:	max. 6,2 (90 psi)
Min. tube diameter:	1/4" - 6,4 mm
Connection thread:	1/4"

	B mm	L mm	g	
515.5060	50.0	275.0	700	

High performances thin disk

- Exact and clean cut
- No deburring necessary
- Very short cutting times
- Machine load reduced
- Inox stainless steel

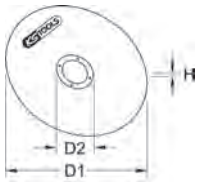


	RPM max	D1 mm	D2 mm	H mm	Content	g	
515.5056	3600	50,0	10	1.1	50	650	
515.5057	20100	75,0	10	1.5	50	710	

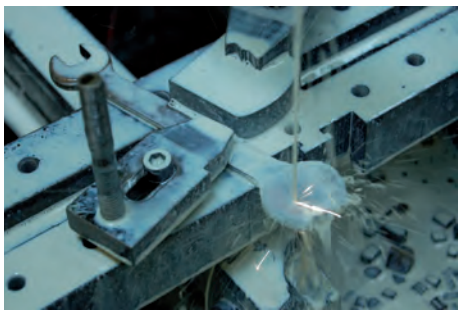
Allround fla wheel, curved

- For universal usage
- High level of fl xibilty
- Consistent high cutting power

Ideal for use in metal and stainless steel.

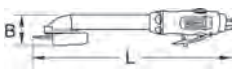


	RPM max	D1 mm	D2 mm	H mm	Content	g
515.5058	22000	59,0	9.56	4.0	25	600



Long disc cutter

- Air exhaust through the handle rear end
- With practical clockwise and anticlockwise switch
- For cutting wheels up to Ø 100 x 1,0 x 10 mm
- Ideal for loosening worn down and/or rusted connections
- Adjustable sparkguard
- For working in inaccessible places
- Long service life
- Secure operation lever with locking device
- With stepless speed regulation
- Number of revolutions adjustable through regulating wheel
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic
- Grease nipple for maintenance on striking mechanism ensures long life (KS grease gun 980.1070)



Technical data:

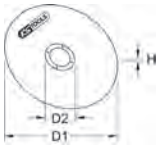
No load current:	12000 r.p.m.
Vibration:	< 2,0 ms²
Noise performance level:	100 dbA
Noise pressure level:	90 dbA
Air consumption:	142 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Drive:	16 mm / M10 x 1.0 mm
Min. tube diameter:	1/4“ - 6,35 mm
Connection thread:	1/4“PT

	B mm	L mm	Replacement cut off wheels	kg
515.3075	60.0	400.0	337.2010	1.80

High performances thin cutting disk

- Exact and clean cut
- No deburring necessary
- Very short cutting times
- Machine load reduced
- Inox stainless steel

Ideal for use in very thin materials until 2.5 mm, tool steel, sheet metal, thin walled pipes and profil s all type suited for locksmiths, car body building, sanitary and heating fi ting, plumbing, sheet metal processing, carpentry, joinery, roofi g, metal processing and all motor vehicles businesses.



	RPM max	D1 mm	D2 mm	H mm	Content	g
337.2010	15250	100,0	16.0	1.6	25	1200

METAL SHEARS

Pneumatic sheet metal shear

- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- Ideal for the cutting of car body sheet metal and aluminium sheet
- Eccentric cutting drive
- For curved cutting up to 100 mm radius
- With stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic

Technical data:

Cutting speed:	2,6 m/min
Cutting output:	steel 1,2 mm
	Aluminium 1,6 mm
Cutting width:	5,0 mm
Vibration:	< 9,1 ms²
Noise performance level:	95 dbA
Noise pressure level:	82 dbA
Air consumption:	85 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8“ - 10 mm
Connection thread:	1/4“PT

	B mm	L mm		kg
515.3055	59.0	250.0	515.3055-40	1.25

IMPACT WRENCHES

miniMONSTER High Performance Pneumatic impact wrench 1.390 Nm

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance industrial jumbo mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light housing

1/2"

Technical data:

Square drive:	1/2”
Max. tightening torque:	1 = 270 N•m
	2 = 640 N•m
	3 = 965 N•m
Max. loosening torque:	1.390 N•m
No load current:	10000 r.p.m.
Vibration acceleration:	< 9,18 m/s²
Noise performance level:	113 dbA
Noise pressure level:	102 dbA
Recomended torque:	615 N•m
Air consumption:	135 l/min
Operating pressure:	max. 6,3 bar
Max. screw size:	M 16
Min. tube diameter:	3/8” - 10 mm
Connection thread:	1/4”PT

	B mm	L mm	kg
515.1270	95.0	190.0	1.34

Mini pneumatic impact wrench 433 N•m

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light magnesium housing
- Grease nipple for maintenance on striking mechanism ensures long life (KS grease gun 980.1070)

1/2"

Technical data:

Square drive:	1/2“
Max. tightening torque:	1 = 217 N•m
	2 = 346 N•m
	3 = 433 N•m
Max. loosening torque:	433 N•m
No load current:	10000 r.p.m.
Vibration:	< 2.01 m/s²
Noise performance level:	103.8 dbA
Noise pressure level:	92.8 dbA
Recomended torque:	448 N•m
Air consumption:	75 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	1/4" - 8 mm
Max. screw size:	M13

	B mm	L mm	kg
515.1275	150.0	185.0	1.56

Pneumatic impact wrench 850 N•m

- With ergonomic soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance pin hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Light aluminium housing

1/2"

Technical data:

Square drive:	1/2"
Max. tightening torque:	1 = 474 N•m 2 = 609 N•m 3 = 677 N•m
Max. loosening torque:	850 N•m
No load current:	7000 r.p.m.
Vibration:	< 1.13 m/s²
Noise performance level:	106.1 dbA
Noise pressure level:	95.4 dbA
Recomended torque:	493 N•m
Air consumption:	128 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Max. screw size:	M16
Min. tube diameter:	1/4" - 8 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.1290	180.0	187.6	2.50

MONSTER High Performance Pneumatic impact wrench 1.690 N•m

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light Aluminium housing

1/2"

Technical data:

Square drive:	1/2"
Max. tightening torque:	1 = 510 N•m 2 = 680 N•m 3 = 931 N•m
Max. loosening torque:	1.690 N•m
No load current:	7930 r.p.m.
Vibration acceleration:	< 13,56 m/s²
Noise performance level:	104 dbA
Noise pressure level:	88 dbA
Recomended torque:	542 N•m
Air consumption:	178 l/min
Operating pressure:	max. 6,3 bar
Max. screw size:	M 16
Min. tube diameter:	1/2" - 13 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.1210	195.0	200.0	2.15

Pneumatic impact wrench 1490 N•m

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 3/8" coupling connector
- Ultra light magnesium housing

1"

Technical data:

Square drive:	1"
Max. tightening torque:	1 = 969 N•m 2 = 1267 N•m 3 = 1490 N•m
Max. loosening torque:	1490 N•m
No load current:	5500 r.p.m.
Vibration:	< 2,64 ms²
Noise performance level:	106.3 dbA
Noise pressure level:	95.3 dbA
Recomended torque:	1089 N•m
Air consumption:	204 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Max. screw size:	M 30
Min. tube diameter:	1/2"
Connection thread:	3/8"PT

	B mm	L mm	kg
515.3750	230.0	227.0	5.75

Pneumatic impact wrench 1490 N•m

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light magnesium housing

1/2"

Technical data:

Square drive:	1/2"
Max. tightening torque:	1 = 444 N•m 2 = 592 N•m 3 = 810 N•m
Max. loosening torque:	1490 N•m
No load current:	7500 r.p.m.
Vibration:	< 2,69 ms²
Noise performance level:	104 dbA
Noise pressure level:	88 dbA
Recomended torque:	542 N•m
Air consumption:	128 l/min
Operating pressure:	max. 6,3 bar
Max. screw size:	M 16
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.1215	190.0	208.0	2.86

Pneumatic impact wrench 1490 N•m

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 3/8" coupling connector
- Ultra light magnesium housing

3/4"

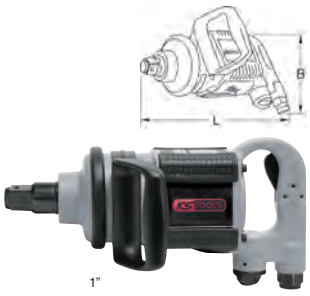
Technical data:

Square drive:	3/4"
Max. tightening torque:	1 = 969 N•m 2 = 1267 N•m 3 = 1490 N•m
Max. loosening torque:	1490 N•m
No load current:	5500 r.p.m.
Vibration:	< 2,64 ms²
Noise performance level:	106.3 dbA
Noise pressure level:	95.3 dbA
Recomended torque:	1084 N•m
Air consumption:	206 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Max. screw size:	M 30
Min. tube diameter:	1/2"
Connection thread:	3/8"PT

	B mm	L mm	kg
515.3735	197.0	227.0	5.70

Pneumatic impact wrench 2169 N•m

- With non slip handle
- Air exhaust through the handle rear end
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/2" coupling connector
- Ultra light magnesium housing



1"

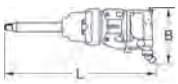
Technical data:

Square drive:	1"
Max. tightening torque:	1 = 651 N•m 2 = 1085 N•m 3 = 1518 N•m 4 = 2169 N•m
Max. loosening torque:	2169 N•m
No load current:	4500 r.p.m.
Vibration:	< 3,0 ms²
Noise performance level:	123.6 dbA
Noise pressure level:	111.3 dbA
Recomended torque:	1590 N•m
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Max. screw size:	M 33
Min. tube diameter:	3/4" - 19 mm
Connection thread:	1/2"PT

	B mm	L mm	kg
515.3770	230.0	334.0	9.74

Pneumatic impact wrench 3388 N•m

- With non slip handle
- Air exhaust through the handle rear end
- With practical clockwise and anticlockwise switch
- Easy operation
- 4 stage torque adjustment
- Low vibration
- High performance double hammer mechanism
- Long service life
- Includes 1/2" coupling connector
- Ultra light magnesium housing



1"

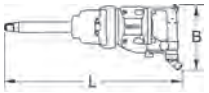
Technical data:

Square drive:	1"
Max. tightening torque:	1 = 1016 N•m
	2 = 1694 N•m
	3 = 2372 N•m
	4 = 3388 N•m
Max. loosening torque:	3388 N•m
No load current:	4200 r.p.m.
Vibration:	< 3,32 ms²
Noise performance level:	114.7 dbA
Noise pressure level:	103.8 dbA
Recomended torque:	2481 N•m
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Max. screw size:	M 50
Min. tube diameter:	3/4" - 19 mm
Connection thread:	1/2"PT

	B mm	L mm	kg
515.3765	230.0	630.0	16.20

Pneumatic impact wrench 2,441 N•m

- With non-slip handle
- Air exhaust through the handle sidewards
- With 3 stages torque control for loosening and tightening
- Draw-off is integrated in the handle
- Low vibration
- Low sound level
- With rubber housing
- High performance double hammer mechanism
- With bore for locking pin
- Long service life
- Includes 1/2" coupling connector
- Ultra light housing from aluminium



1"

Technical data:

Square drive:	1"
Max. tightening torque:	2033 Nm
Max. loosening torque:	2441 Nm
Vibration:	12,5 ms²
No load current:	6000 r.p.m.
Noise performance level:	86 dbA
Noise pressure level:	96 dbA
Operating pressure:	max. 6,3 bar (90 psi)
Air consumption:	282 l/min
Min. tube diameter:	1/2" - 13 mm
Max. screw size:	M 38
Connection thread:	1/2"PT

	B mm	L mm	kg
515.3745	170.0	467.0	7.30

IMPACT WRENCH SETS

Pneumatic impact wrench set

- With ergonomic soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance pin hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Light aluminium housing
- In durable plastic storage case

1/2"

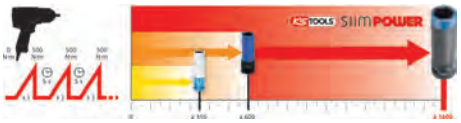
			kg
515.5140	17 pcs	Pneumatic impact wrench set	6.80
1 x		677 Nm	
10 x		12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 21 - 22 mm	
3 x		17 - 19 - 21 mm	
1 x		1/4"	
1 x		125 mm	
1 x		68 mm	

Pneumatic impact wrench set

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- In durable plastic storage case
- Ultra light magnesium housing

1/2"

			kg
515.1220	17 pcs	Pneumatic impact wrench set	6.32
1 x		740 Nm	
10 x		12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 21 - 22 mm	
3 x		17 - 19 - 21 mm	
1 x		1/4"	
1 x		125 mm	
1 x		68 mm	



Pneumatic impact wrench set

- With ergonomic soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- Low vibration
- High performance pin hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Light aluminium housing
- In durable plastic storage case

1/2"

			kg
515.5150	17 pcs	Pneumatic impact wrench set	7.30
1 x		1690 Nm	
10 x		12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 21 - 22 mm	
3 x		17 - 19 - 21 mm	
1 x		1/4"	
1 x		125 mm	
1 x		68 mm	

RIVETING TOOLS PISTOL

Pneumatic riveting tool pistol

- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For pop rivet working
- With swivel joint at the coupling connector for fl xible use
- Cold insulated
- Includes 1/4" coupling connector
- Robust aluminium housing

Technical data:

Rivet sizes:	2,4 - 3,2 - 4,0 - 4,8 mm
Stroke length:	14 mm
Driving power:	8677,5 N
Vibration:	< 2,5 ms²
Noise performance level:	98.6 dbA
Noise pressure level:	85 dbA
Air consumption:	1 l/Hub
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3102	195.0	290.0	1.50	

Pneumatic riveting tool pistol

- Air exhaust through the handle rear end
- For one handed operation with ergonomic design
- For professional riveting, continuous operation
- For steel, aluminium, stainless steel or copper riveting up to 6,4 mm
- With 6 mouth pieces, 4,8 mm is pre assembled
- Especially low noise level
- Swivel joint at the connection thread for fl xible use
- Cold insulated
- Includes 1/4" coupling connector
- Robust aluminium housing

Technical data:

Rivet sizes:	3,2 - 4,0 - 4,8 - 6,4 mm
Stroke length:	19 mm
Driving power:	13839,5 N
Vibration:	< 2,5 ms²
Noise performance level:	85 dbA
Noise pressure level:	73.3 dbA
Air consumption:	1,8 l/Hub
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3101	210.0	340.0	2.00	

OSCILLATING CUTTER

Pneumatic oscillating cutter

- 90° offset execution
- Air exhaust through used air tube
- For one handed operation with ergonomic design
- For the professional dismantling of vehicle discs
- Universal blade reception for all standard blades
- Secure operation lever with locking device
- Stepless speed regulation
- Includes 1/4" coupling connector and blade changing spanner
- Robust steel housing

Technical data:

Oscillating speed:	2000/min
No load current:	22000 r.p.m.
Vibration:	4,3 m/s²
Noise performance level:	79.8 dbA
Noise pressure level:	69.9 dbA
Air consumption:	300 l/min
Operating pressure:	6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	L mm	Drive	kg	
140.2251	725.0	Ø 22 mm	1.27	

Pneumatic oscillating cutter set

- 90° offset execution
- Air exhaust through used air tube
- For one handed operation with ergonomic design
- For the professional dismantling of vehicle discs
- Universal blade reception for all standard blades
- Secure operation lever with locking device
- Stepless speed regulation
- Includes 1/4" coupling connector and blade changing spanner
- Robust steel housing

			kg	
140.2219	6 pcs	Pneumatic oscillating cutter set	1.51	

1 x		57 mm
1 x		16 mm
1 x		57 mm
1 x		90 mm
1 x		50 mm
1 x		35 mm

Cutting / scraper blades

- For the pneumatic oscillating cutter
- Special steel

		g	
140.2252	Scraper blade, offset, blade width 16 mm	20	
140.2255	Cutting blade, straight, offset, length 50 mm	20	
140.2256	Cutting blade, straight, offset, length 90 mm	30	
140.2261	Cutting blade, angled, offset, cutting depth 55 mm	20	
140.2263	Cutting blade, straight, cutting depth 35 mm	10	

		g	
515.5093	Scraper blade, curved, curved, blade length 16 mm	13	
515.5094	Scraper blade, curved, curved, blade length 36 mm	15	
515.5095	Scraper blade, curved, curved, blade length 63 mm	19	
515.5096	Scraper blade, curved, curved, blade length 90 mm	25	
515.5097	Scraper blade, curved, straight, blade length 24 mm	12	

VIBRO EXTRACTOR

Glow plug vibro extractor set

- Ideal for loosening and extracting jammed glow plugs
- Especially suitable in glow plugs jammed by corrosion and/ or soot coal
- Produces controlled vibration impulse
- Suitable for all current glow plugs
- Loosening torque in 4 stages in accordance with manufacturer guidelines
- Extensive cost intensive repairs can be avoided through dismantling glow plugs
- Includes 1/4" coupling connector
- In durable steel storage case

Technical data:

Square drive:	1/4"
Max. tightening torque:	40 Nm
Max. loosening torque:	1 = 10 Nm
	2 = 20 Nm
	3 = 30 Nm
	4 = 40 Nm
No load current:	7500 r.p.m.
Vibration:	< 2,69 ms²
Noise performance level:	104 dbA
Noise pressure level:	88 dbA
Recomended torque:	42 Nm
Air consumption:	128 l/min
Operating pressure:	max. 6,3 (90 psi)
Max. screw size:	M16
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

			kg	
152.1060	5 pcs	Glow plug vibro extractor set	1.80	

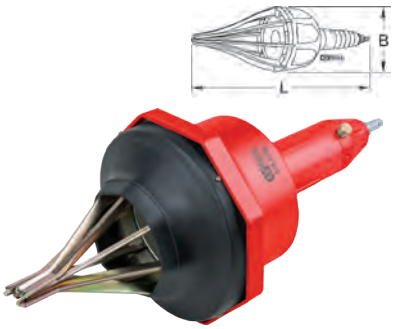
consists of:

		g	
152.1061	1/4" Vibro extractor 10-40 N•m	900	
152.1062	1/4" Impact wrench socket long 8 mm	30	
152.1063	1/4" Impact wrench socket long 10 mm	40	
152.1064	1/4" Impact wrench socket long 12 mm	50	
152.1065	1/4" Universal joint	40	

AXLE BOOTS ASSEMBLY DEVICES

Pneumatic assembly tool for CV joint boots

- Air exhaust through the handle rear end
- Suitable for all universal and original vehicle CV joint boots
- For CV joint boots diameter from 20 - 120 mm
- Expanding of the joint arms through pneumatic air
- Air pressure is regulated through a button
- No additional lubricant necessary
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



Technical data:

Max. expansion diameter:	25 - 115 mm
Operating pressure:	max. 8 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3100	200.0	490.0	2.27	

OILS & GREASES

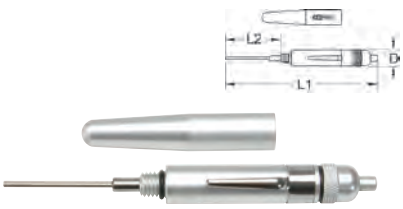
Pneumatic tool oil

- For the lubrication of pneumatic tools
- With lockable nozzle
- Contents 100 ml

	B mm	L mm	g	
515.3361	60.0	148.0	250	

Precision oiler

- In ball point pen form
- Practical pocket clip
- Protective cap
- Oil dosage through pushing a button
- Smallest angles and corners reached
- Suitable for a wide range of applications
- Light aluminium housing



	D mm	L1 mm	L2 mm	g	
550.1035	15.0	140.0	50.0	50	

Mini grease gun

- Grease gun for maintenance work
- Precise, exact dosage per pressure button with return spring
- For tubes
- Includes long, rigid nozzle
- Tube contents 100 g

	Replacement tube	g	
980.1070	980.1075	205	

Mini grease gun set

- Grease gun for maintenance work
- Precise, exact dosage per pressure button with return spring
- For exchangeable cartridges and bucket goods
- Includes long, rigid nozzle and an additional nozzle extension
- Tube contents 110 g

			g	
980.1095	3 pcs	Mini grease gun set	265	

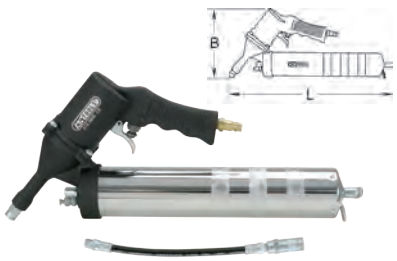
accessories:

		g	
980.1096	Lubricant 110 g	110	
980.1097	Replacement tip for mini grease gun, 1 mm	1	
980.1098	Replacement tip for mini grease gun long execution	30	

GREASE GUN

Pneumatic grease gun

- Air exhaust through the handle
- For one handed operation with balanced ergonomic design
- For cartridges and bucket goods and/or also for loose grease
- Includes flexible hose and nozzle
- Cold insulated handle
- Includes 1/4" coupling connector



Technical data:

Output pressure:	260 bar
Hauling capacity:	288 cm³/min
Capacity:	400g
Air consumption:	170 l/min
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4"PT

	B mm	L mm	kg	
515.3900	165.0	400.0	1.50	

Grease gun adaptor set

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

Application range: Cone, funnel, ball and flat grease nipples

			kg	
980.1100	7 pcs	Grease gun adaptor set	1.99	

WHEEL FILLING GAUGE

Tyre filling gauge

- For one hand operation
- Rubber coated manometer
- Manometer with bar and psi scale
- Filling lever and pressure release button
- Tube with integrated locking male nipple
- Robust rubber coated housing

Technical data:

Working range:	0 - 11 bar 9 - 160 psi
Tube length:	490 mm
Operating pressure:	max 6,3 bar (90 psi)
Connection thread:	1/4"PT

	Total length mm	g	
515.1950	530.0	600	

Calibrated tyre filli g gauge

- For one handed operation with ergonomic design
- Rubber coated manometer
- Manometer with bar scale
- With filli g lever and pressure release button
- Tube with integrated locking male nipple
- Hanging hole
- Includes 1/4” coupling connector
- Robust rubber coated housing

Technical data:

Working range:	0 - 10 bar
Tube length:	400 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4“PT

	Total length mm	g	
515.1960	600.0	450	

SPRAY GUNS

Pneumatic combination spray gun

- For underbody coating or acoustic protection or body cavity sealing with wax
- Handy and light
- For standard 1000 ml cartridges
- Attached, fl xible 500 mm-hose with spreader nozzle for all-round wax mist permits unproblematic wax application in cavities and interspaces
- Easy application of the underbody coating (or acoustic protection) with standard installed nozzles
- Application tip: Open cartridge, immerse suction pipe and screw in cartridge. Finished!
- Robust housing
- Includes 1/4" coupling connector

Technical data:

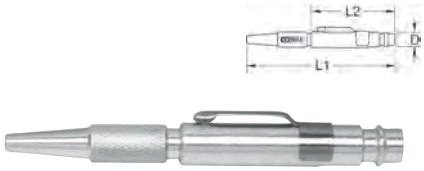
Air consumption:	225 l/min
Min. tube diameter:	1/4“ - 6,3 mm
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4“PT

	L mm	g	
515.5065	220.0	400	

AIR BLOW OUT TOOLS

Compressed blow out pen

- In ball point pen form
- With practical pocket clip
- Controllable air volume
- With 2,5 mm nozzle
- With Euro connection
- Direct air coupling suitable for connection
- Light aluminium housing



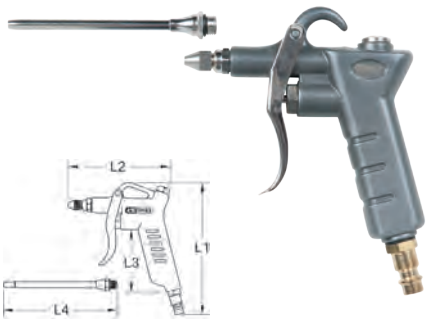
Technical data:

Input pressure:	max. 12 bar
Operating pressure:	max. 6,3 bar (90 psi)
Max. fl w rate:	360 l/min
Noise pressure level:	90 dbA
Connection thread:	1/4“PT

	D mm	L1 mm	L2 mm	g	
515.1908	10.0	110.0	70.0	150	

Pneumatic blow out pistol with extension

- Ergonomic handle
- Controllable air volume
- With 2,5 mm nozzle
- Direct air coupling suitable for connection
- Easily operated
- With hanging hole
- Includes 1/4" coupling connector
- Solid metal base body
- Robust metal housing



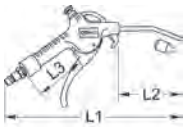
Technical data:

Input pressure:	max. 15 bar
Operating pressure:	max. 6,3 bar (90 psi)
Max. fl w rate:	130 l/min
Noise pressure level:	90 dbA
Connection thread:	1/4“PT

	L1 mm	L2 mm	L3 mm	L4 mm	g	
515.1930	125.0	110.0	75.0	125.0	180	

Pneumatic blow out pistol with fl w regulation

- With universal mouth piece
- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easily operated
- Slip proof handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic



Technical data:

Input pressure:	max. 15 bar
Operating pressure:	max. 6,3 bar (90 psi)
Max. fl w rate:	300 l/min
Noise pressure level:	90 dbA
Connection thread:	1/4“PT

	L1 mm	L2 mm	L3 mm	g	
515.1901	235.0	100.0	75.0	150	

Universal pneumatic blow out pistol

- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easily operated
- Slip proof handle
- Includes 1/4” coupling connector
- Ultra light robust housing from special plastic

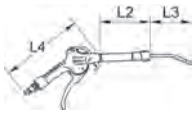
Technical data:

Input pressure:	max. 15 bar
Operating pressure:	max. 6,3 bar (90 psi)
Max. fl w rate:	300 l/min
Noise pressure level:	90 dbA
Connection thread:	1/4“PT

	L1 mm	L2 mm	L3 mm	g	
515.1902	235.0	95.0	75.0	170	
515.1903	470.0	330.0	75.0	240	
515.1904	650.0	510.0	75.0	280	

Telescopic pneumatic blow out pistol

- With stepless extendable nozzle
- Telescopic blast pipe in length and angle adjustable 65 - 280 mm / 360°
- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easily operated
- Slip proof handle
- Includes 1/4" coupling connector



	L2 mm	L3 mm	L4 mm	g
515.1907	110.0	55.0	140.0	230

Pneumatic blow out pistol set

- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easily operated
- Slip proof handle
- Includes 1/4" coupling connector
- Ultra light robust housing from special plastic

			g
515.1921	3 pcs	Pneumatic blow out pistol set	690
1 x		100 mm	
1 x		330 mm	
1 x		490 mm	

VACUUMS

Pneumatic suction and blow gun

- Includes reinforced fabric dust collection bag
- Versatile usage
- Includes 1/4” coupling connector
- Robust housing

Technical data:

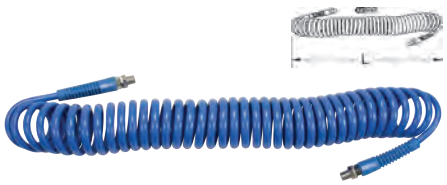
Operating pressure:	max. 6,3 bar (90 psi)
Max. fl w rate:	96 l/min
Noise performance level:	97 dbA
Noise pressure level:	92 dbA
Min. tube diameter:	3/8” - 10 mm
Connection thread:	1/4”

	L mm	g
515.5090	145.0	670

PNEUMATIC HOSE

PU pneumatic spiral coiled tube

- Flexible, crush resistant polyurethane hose
- Tube ends with anti kink device
- Rotating fi ting
- Flexible in cold
- Oil and petrol resistant



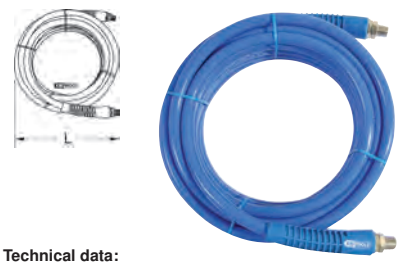
Technical data:

Max. pressure: 12 bar

	Tube inner Ø mm	Connection	L m	suitable coupling	suitable inlet connector	kg
515.3330	6	G1/4“ AG	8.00	515.3483	515.3492	0.60
515.3335	8	G1/4“ AG	15.00	515.3483	515.3492	1.20
515.3340	10	G3/8“ AG	15.00	515.3484	515.3493	1.80

PU pneumatic hose

- High quality pneumatic hose
- Suitable for pneumatic and water
- Light and crush free material
- Suitable accessories
- Long service life
- Oil and petrol resistant



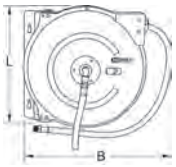
Technical data:

Temperature constancy:	-40°C - +70°C
Max. pressure:	15 bar

	Ø Tube mm	Connection	L m	suitable coupling	suitable inlet connector	kg
515.3344	6 x 9	G1/4“ AG	20.00	515.3483	515.3492	1.00
515.3345	9 x 12	G1/4“ AG	20.00	515.3483	515.3492	1.75

Automatic pneumatic hose reel Ø 6 mm x 15 m

- With wall mounting bracket
- For pneumatic and water
- Drum 180° freely tiltable by means of wall mounting
- Flexible PVC hose
- Automatic hose return
- Multi gearlock per rotation
- Device adjusting lock
- Include 1 m connecting hose
- Impact resistant plastic housing



Technical data:

Tube diameter:	6 mm
Hose external diameter:	12 mm
Tube length:	15 + 1 m m
Max. pressure:	20,0 bar
Connection thread:	1/4“ - 6,35 mm

	B mm	L mm	kg
515.3310	435.0	400.0	12.50

Air line hose reel

- With wall mounting bracket
- For pneumatic and water
- Drum 180° freely tiltable by means of wall mounting
- Flexible, crush resistant Hybrid-Polymer hose
- Automatic hose return
- Multi gearlock per rotation
- Device adjusting lock
- Include 1 m connecting hose
- Impact resistant plastic housing

Technical data:

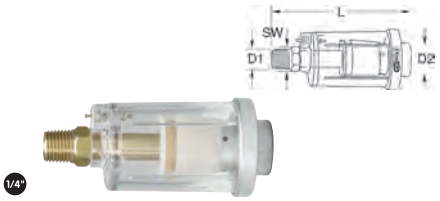
Tube diameter:	10.0 mm
Tube length:	15 m
Max. pressure:	20,0 bar

	Connection thread mm	kg
515.3410	3/8” - 10 mm	6.00
515.3415	1/2” - 13 mm	9.70

AIR SERVICE UNIT

Compressed air water trap

- For separating condensation
- Assembly directly in the access direction
- Made out of sitered metal

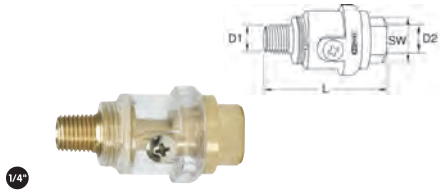


1/4"

	D1	D2	dim mm	L mm	g
515.3370	G1/4"AG	G1/4"IG	14	88.0	140

Compressed air side oiler

- For automatic oiling of compressed air tools
- To test oil state through transparent visibility glass
- Compact execution
- Usably in most compressed air tool
- Extends the service life of compressed air tools
- Refillabl
- Assembly directly in the access direction

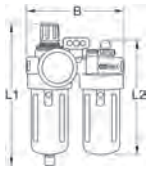


1/4"

	D1	D2	dim mm	L mm	g
515.3360	G1/4"AG	G1/4"IG	17	54.0	110

Air service unit

- Suitable for wall mounting
- Consists of fil er pressure reducer, oil regulator and manom- eter
- Inspection glass for fluid inspe tion
- For the assembly of compressed air tools
- Output pressure regulates independent of the input pressure
- Filters dirt particles and condensation
- With adjustable oil regulator
- With integrated wall mouting bracket



Technical data:

Max. pressure:	16 bar
Max. working pressure:	12 bar
Pressure gauge:	0,5 - 12 bar
Allowable temparture range:	-10° - +55°C
Air pressure up to 6,3 bar:	1/4" = 1800 l/min
	3/8" = 5000 l/min
	1/2" = 5000 l/min
Filter pressure more inferior:	1/4" = 30 ml
	3/8" = 50 ml
	1/2" = 50 ml
Oil trap:	1/4" = 40 ml
	3/8" = 170 ml
	1/2" = 170 ml

	Connection	B mm	L1 mm	L2 mm	kg
515.3355	1/4"	140.0	200.0	135.0	0.43
515.3350	3/8"	140.0	200.0	135.0	1.14
515.3356	1/2"	140.0	200.0	135.0	1.30

PNEUMATIC ADAPTERS & COUPLINGS

Metal swivel joint

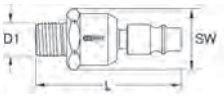
- For compressed air tools 1/4"
- Prevents damages of the compressed air tube
- Execution with compressed air regulator
- Body made out of metal

1/4"

	D1	D2	dim mm	L mm	g
515.3396	G1/4"AG	G1/4"IG	16	39.0	80

Metal ball joint fi ting nipple

- Prevents damages of the compressed air tube
- 360 ° rotating head and 30° angled
- For compressed air tools 1/4" AG
- Ideal for use with paint sprayers
- Body made out of metal

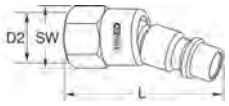


1/4"

	D1	dim mm	L mm	g
515.3395	G1/4"AG	21	56.0	50

Metal ball joint fi ting nipple

- Prevents damage of the compressed air tube
- Joint takes rotatable movements on the paint sprayer
- 360° rotating head and 30° angled
- For compressed air tools 1/4" IG
- Ideal for use with paint sprayers
- Body made out of metal

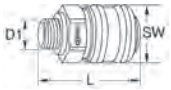


1/4"

	D2	dim mm	L mm	g
515.3394	G1/4"IG	16	46.0	30

Coupling with male thread

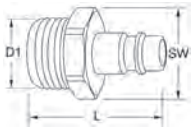
- With one handed operation
- Self sealing on the coupling
- Size 22
- Body made of brass

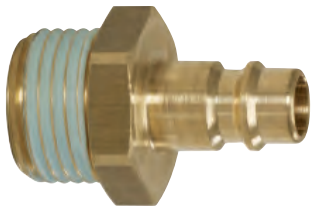


	D1	dim mm	L mm	g
515.3480	G1/4"AG	22	40.0	70
515.3481	G3/8"AG	22	41.0	90
515.3482	G1/2"AG	22	43.0	90

Male coupling with male thread

- Size 17, 19 and 24
- Body made of brass





	D1	dim mm	L mm	g
515.3489	G1/4"AG	17	33.0	20
515.3490	G3/8"AG	19	33.0	25
515.3491	G1/2"AG	24	35.0	41

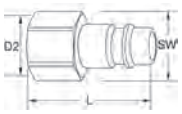
Brass coupling with female thread

- Self sealing on the coupling
- Unilaterally closing off
- Size 22 and 24
- Body made of brass

	D2	dim mm	L mm	g
515.3483	G1/4"IG	22	41.0	80
515.3484	G3/8"IG	22	41.0	85
515.3485	G1/2"IG	24	43.0	90

Brass male coupling with female thread

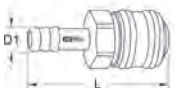
- Size 17, 19 and 24
- Body made of brass



	D2	dim mm	L mm	g	
515.3492	G1/4"IG	17	33.0	24	
515.3493	G3/8"IG	19	33.0	22	
515.3494	G1/2"IG	24	35.0	40	

Brass Coupling with hose connector

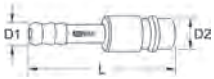
- With one handed operation
- Roller latch
- Non return valve
- Size 21
- Body made of brass



	D1 mm	L mm	g	
515.3486	Ø 6mm	55.0	70	
515.3487	Ø 9mm	55.0	80	
515.3488	Ø 13mm	55.0	90	

Male coupling with hose connector

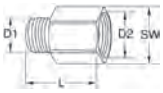
- Body made of brass

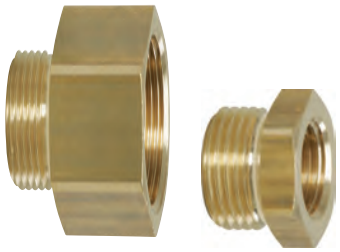


	D1 mm	D2 mm	L mm	g	
515.3495	Ø 6mm	7.2	44.0	10	
515.3496	Ø 9mm	7.2	44.0	20	
515.3497	Ø 13mm	7.2	46.0	25	

Brass reducing nipple

- Size 19 and 24
- Body made of brass

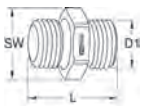


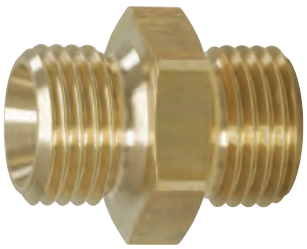


	D1	D2	dim mm	L mm	g	
515.3383	G3/8"AG	G1/4"IG	19	14.0	10	
515.3384	G1/2"AG	G3/8"IG	24	26.0	30	
515.3385	G3/8"AG	G1/2"IG	24	26.0	50	
515.3386	G1/4"AG	G3/8"IG	19	18.0	60	

Brass reducing nipple

- Size 17, 19 and 24
- Body made of brass

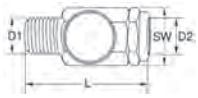




	D1	dim mm	L mm	g	
515.3380	G1/4"AG	17	23.0	20	
515.3381	G3/8"AG	19	23.0	30	
515.3382	G1/2"AG	24	30.0	50	

Brass compressed air regulator

- With regulation wheel
- For regulating the air fl w volume
- Assembly directly in the access direction
- Completely lockable
- Body made of brass

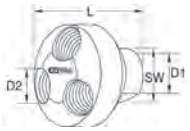


1/4"

	D1	D2	dim mm	L mm	g	
515.3365	G1/4"AG	G1/4"IG	18	43.0	80	

Brass compressed air 3 way separator

- Connection of 3 departure directions 1/4" IG at each access point
- Body made of soild brass

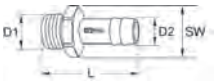


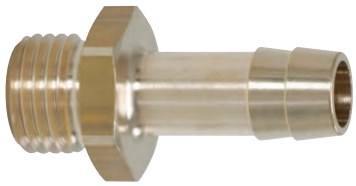
1/4"

	D1	D2	dim mm	L mm	g	
515.3375	G1/4"IG	3xG1/4"IG	19	32.0	160	

Brass hose nipple with male thread

- Size 17, 19 and 24
- Inner cone 45°
- Body made of brass





	D1	D2 mm	dim mm	L mm	g	
515.3387	G1/4"AG	Ø 6mm	17	35.0	20	
515.3388	G1/4"AG	Ø 9mm	17	35.0	20	
515.3389	G3/8"AG	Ø 9mm	19	36.0	30	
515.3390	G3/8"AG	Ø 13mm	19	42.0	30	
515.3391	G1/2"AG	Ø 9mm	24	40.0	50	
515.3392	G1/2"AG	Ø 13mm	24	46.0	50	

Ear protection can be found in the Industrial safety & workwear section.

KS TOOLS®

Innovation is our mission!

PNEUMATIC TOOLS

SLIMPOWER

- For hard to reach places
- Particularly low air consumption
- Low vibration
- Long service life
- Easy operation
- Supplied incl. DL connection

MONSTER

- Particularly low air consumption
- Low vibration
- Cold insulated handle
- Long service life
- Easy operation
- Supplied incl. DL connection

CORDLESS TOOLS

KS TOOLS®

Innovation is our mission!

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CORDLESS TOOLS Lithium Ion technology

- The high performance cordless tools for the perfect job
- Working without cables with Lithium ion technology
- Ergonomic design, perfect weight distribution
- Low vibration for fatigue free working

Advantages

- Lithium is the lightest metal and supplies the largest energy per unit of weight density (approximatly double that of a Standard Nickel Cadmium battery).
- No formatting, a single charge is enough
- Almost no self discharge
- No memory effect
- 30% less weight than conventional rechargeable batteries

One battery for several devices

Universal spare batteries 10.8V / 1.5Ah

Cordless reversible ratchet

Cordless drills / drivers

Cordless grinder

Cordless impact wrench

Cordless screwdriver

Universal spare batteries 18V / 3.0Ah

All 18 V batteries are suitable for fast charging and have a condition status

Display by pushing a button

Capacity:	25%	50%	75%	100%
LED:				

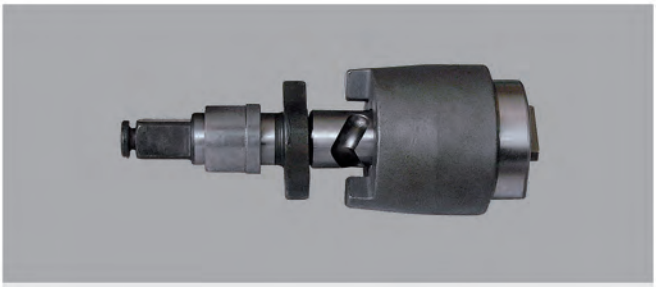
Cordless impact wrench

Cordless polisher

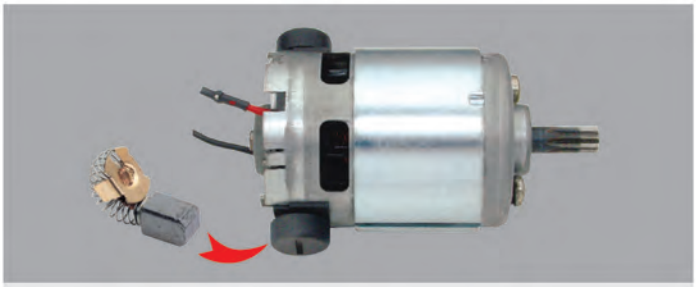
Cordless grease gun

Cordless impact wrench

- The high performance pneumatic tools for the hardest application
- Working without cables with Lithium ion technology
- Ergonomic design
- Perfect weight distribution
- Low vibration for fatigue free working



Striking mechanism:
- High performance striking mechanism, full metal execution
- Highest blow energy due to the extra large anvil weight
- Conventional striking mechanism

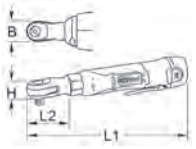


Motor/brushes:
- Super compact high performance motor
- High speed with extra strong torque
- Special carbon brushes, exchangeable
- 40% extended lifespan due to the special carbon brush conductors
- Up to 3-4 brushes changes possible without changing the motor

CORDLESS REVERSIBLE RATCHETS

Cordless reversible ratchet

- Light weight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120 / ISO 1174
- With practical clockwise and anticlockwise reversing function
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing



1/4"

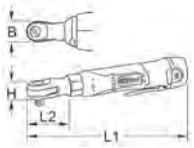
Technical data:

Drive:	1/4“
Capacity:	10,8 V
Speed:	220 r.p.m.
Torque max.	34 Nm
No load current:	5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah
Weight (basic unit + battery):	905 g

	L1 mm	L2 mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
515.3499	275.0	60.0	30.0	35.0	515.3595	515.3592	0	0	1.00
515.3500	275.0	60.0	30.0	35.0	515.3595	515.3592	1	1	1.90
515.3501	275.0	60.0	30.0	35.0	515.3595	515.3592	2	1	2.10

Cordless reversible ratchet

- Light weight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120 / ISO 1174
- With practical clockwise and anticlockwise reversing function
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing



3/8"

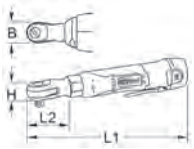
Technical data:

Drive:	3/8“
Capacity:	10,8 V
Speed:	220 r.p.m.
Torque max.	49 Nm
No load current:	5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah
Weight (basic unit + battery):	980 g

	L1 mm	L2 mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
515.3504	270.0	55.0	30.0	35.0	515.3595	515.3592	0	0	1.00
515.3505	270.0	55.0	30.0	35.0	515.3595	515.3592	1	1	1.90
515.3506	270.0	55.0	30.0	35.0	515.3595	515.3592	2	1	2.10

Cordless reversible ratchet

- Light weight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120
- With practical clockwise and anticlockwise reversing function
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing



1/2"

Technical data:

Drive:	1/2“
Capacity:	10,8 V
Speed:	180 rpm
Torque max.	62 Nm
No load current:	5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah
Weight (basic unit + battery):	1,30 kg

	L1 mm	L2 mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
515.3509	300.0	80.0	40.0	45.0	515.3595	515.3592	0	0	1.20
515.3510	300.0	80.0	40.0	45.0	515.3595	515.3592	1	1	2.10
515.3511	300.0	80.0	40.0	45.0	515.3595	515.3592	2	1	2.30

CORDLESS IMPACT WRENCH

Cordless impact screwdriver

- Light weight
- Handy and ergonomic dual component housing
- Tool holder female hexagon 6 point to DIN 3163 - E6,3
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With industrial hammer mechanism
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

1/4"

Technical data:

Drive:	1/4“
Capacity:	10,8 V
Speed:	0 - 1870 rpm
Torque max.	117 Nm
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
515.3539	190.0	55.0	195.0	515.3595	515.3592	0	0	1.50
515.3540	190.0	55.0	195.0	515.3595	515.3592	1	1	2.40
515.3541	190.0	55.0	195.0	515.3595	515.3592	2	1	2.60

Cordless impact wrench

- Light weight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With industrial hammer mechanism
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

Technical data:

Drive:	3/8“
Capacity:	10,8 V
Speed:	0 - 1870 rpm
Torque max.	117 Nm
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah
Weight (basic unit + battery):	1,10 kg

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
515.3514	190.0	55.0	195.0	515.3595	515.3592	0	0	1.80
515.3515	190.0	55.0	195.0	515.3595	515.3592	1	1	2.40
515.3516	190.0	55.0	195.0	515.3595	515.3592	2	1	2.60

Cordless impact wrench

- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120
- With practical clockwise and anticlockwise switch
- Stepless controllable motor speed through electronic switch
- With industrial hammer mechanism
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

Technical data:

Drive:	1/2"
Capacity:	18 V
Speed:	0 - 2000 rpm
Torque max.	402 Nm
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	18 V - 3,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3519	240.8	80.0	273.0	515.3596	515.3599	0	0	2.30	
515.3520	240.8	80.0	273.0	515.3596	515.3599	1	1	3.60	
515.3521	240.8	80.0	273.0	515.3596	515.3599	2	1	4.40	

Cordless impact wrench with torque control

- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120
- With practical clockwise and anticlockwise reversing function
- With 6 torque-stages
- With industrial hammer mechanism
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

1/2"

Technical data:

Drive:	1/2"
Capacity:	18 V
Speed:	0 - 1800 rpm
Torque max.	539 Nm
Torque stages:	6 stages
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	18 V - 3,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3524	256.0	80.0	273.0	515.3596	515.3599	0	0	2.50	
515.3525	256.0	80.0	273.0	515.3596	515.3599	1	1	3.80	
515.3526	256.0	80.0	273.0	515.3596	515.3599	2	1	4.60	

CORDLESS DRILL MACHINES

Cordless screwdriver

- Light weight
- Handy and ergonomic dual component housing
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With torque control
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

Technical data:

Drive:	1/4"
Capacity:	10,8 V
Speed:	0 - 400 rpm
Torque max.	24 Nm
Torque stages:	1 - 16 stages
No load current:	2,9 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3529	148.0	55.0	190.0	515.3595	515.3592	0	0	1.50	
515.3530	148.0	55.0	190.0	515.3595	515.3592	1	1	2.40	
515.3531	148.0	55.0	190.0	515.3595	515.3592	2	1	2.60	

Cordless drill machine

- Light weight
- Handy and ergonomic dual component housing
- Universal use through robust quick release chuck
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With torque control
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

Technical data:

Chuck capacity:	1 - 10 mm
Capacity:	10,8 V
Speed:	0 - 1870 rpm
Torque max.	24 Nm
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3534	190.0	55.0	200.0	515.3595	515.3592	0	0	1.60	
515.3535	190.0	55.0	200.0	515.3595	515.3592	1	1	2.50	
515.3536	190.0	55.0	200.0	515.3595	515.3592	2	1	2.70	

CORDLESS GRINDER

Cordless high performance grinder

- Light weight
- Handy and ergonomic dual component housing
- Ideal for carbide, corundum and tungsten carbide burrs
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

Technical data:

Chuck capacity:	3 mm
Capacity:	10,8 V
Speed:	22000 rpm
No load current:	3 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3544	145.0	50.0	180.0	515.3595	515.3592	0	0	1.20	
515.3545	145.0	50.0	180.0	515.3595	515.3592	1	1	0.81	
515.3546	145.0	50.0	180.0	515.3595	515.3592	2	1	2.30	

Cordless grinder

- Light weight
- Handy and ergonomic dual component housing
- For powerful grinding and polishing on small areas
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case

Technical data:

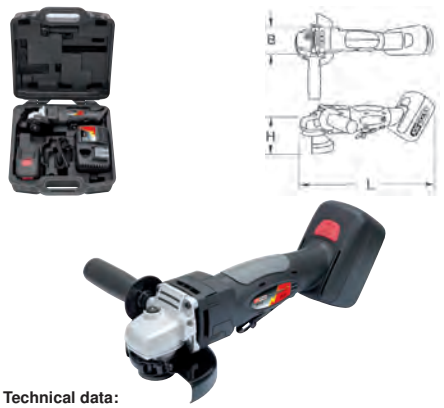
Capacity:	10,8 V
Speed:	3200 rpm
Velcro disc receiver:	Ø 75 mm
No load current:	3 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3548	130.0	50.0	185.0	515.3595	515.3592	0	0	1.30	
515.3550	130.0	50.0	185.0	515.3595	515.3592	1	1	2.20	
515.3558	130.0	50.0	185.0	515.3595	515.3592	2	1	2.40	

CORDLESS ANGLE GRINDER

Cordless angle grinder

- Light weight
- Handy and ergonomic dual component housing
- For powerful grinding and polishing on small areas
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



Technical data:

Velcro disc receiver:	Ø 115 mm = 4.1/2"
Capacity:	18.0 V
Speed:	7000 r.p.m.
No load current:	8,5 A
Charging time:	1 hour
Rechargeable battery:	18 V - 3,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.4109	390.0	56.0	80.0	515.3596	515.3599	0	0	3.78	
515.4110	390.0	56.0	80.0	515.3596	515.3599	1	1	5.03	
515.4111	390.0	56.0	80.0	515.3596	515.3599	2	1	5.83	

CORDLESS POLISHER

Cordless polisher

- Handy and ergonomic dual component housing
- Polishing with a fast and excellent work result
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- With lambswool bonnet
- In durable plastic storage case

Technical data:

Capacity:	18 V
Speed:	1600 - 2300 rpm
Polishing sponge diameter:	Ø 125 mm / 5"
No load current:	3 A
Charging time:	1 hour
Rechargeable battery:	18 V - 3,0 Ah
Weight (basic unit + battery):	2,5 kg

	L mm	B mm	H mm	Replacement pads	Lamswool bonnet	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3554	420.0	60.0	100.0	515.3555-21	515.3555-22	515.3596	515.3599	0	0	4.00	
515.3555	420.0	60.0	100.0	515.3555-21	515.3555-22	515.3596	515.3599	1	1	5.30	
515.3756	360.0	60.0	100.0	515.3555-21	515.3555-22	515.3596	515.3599	2	1	6.06	

CORDLESS GREASE GUN

Cordless grease gun 400 ml

- Handy and ergonomic dual component housing
- For standard grease cartridges or direct filli g
- Ideal for heavy greasing with counter pressure
- With fl xible 750 mm filli g tube
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- With a rechargeable battery that can be process up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case

Technical data:

Operating pressure:	420 bar / 42 MPa
NLGI class:	< 2
Grease filli g:	75 g / min
Capacity of the unit:	400 ml
No load current:	3 A
Operating current:	2,0 ~ 5,5 A
Charging time:	1 hour
Rechargeable battery:	18 V - 3,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3559	237.0	80.0	487.0	515.3596	515.3599	0	0	5.40	
515.3560	237.0	80.0	487.0	515.3596	515.3599	1	1	6.70	
515.3561	237.0	80.0	487.0	515.3596	515.3599	2	1	7.50	

Grease gun adaptor set

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

Application range: Cone, funnel, ball and fl t grease nipples

			kg	
980.1100	7 pcs	Grease gun adaptor set	1.99	

consists of:

		L mm	g	
980.1101	90° Lubricant adaptor	114.0	150	
980.1102	Tube extension, 300 mm	390.0	240	
980.1103	Straight extension	155.0	230	
980.1104	90° fl t nipple adaptor	135.0	160	
980.1105	Rubber grease tip	155.0	150	
980.1106	Needle shaped tip	135.0	143	
980.1107	360° Adaptor, adjustable	185.0	265	

CORDLESS CARTRIDGE GUN

Cordless cartridge gun 310 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temparture 20°C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case

Technical data:

Capacity:	10,8 V
Capacity of the unit:	310 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3569	410.0	138.0	245.0	515.3595	515.3592	0	0	3.60	
515.3570	410.0	138.0	245.0	515.3595	515.3592	1	1	4.50	
515.3571	410.0	138.0	245.0	515.3595	515.3592	2	1	4.70	

Cordless cartridge gun 400 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- Lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temparture 20°C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case

Technical data:

Capacity:	10,8 V
Capacity of the unit:	400 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg
515.3574	450.0	138.0	245.0	515.3596	515.3592	0	0	3.70
515.3575	450.0	138.0	245.0	515.3596	515.3592	1	1	4.60
515.3576	450.0	138.0	245.0	515.3596	515.3592	2	1	4.80

Cordless cartridge gun 600 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- Lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temparture 20°C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case

Technical data:

Capacity:	10,8 V
Capacity of the unit:	600 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg
515.3579	560.0	138.0	245.0	515.3596	515.3592	0	0	4.10
515.3580	560.0	138.0	245.0	515.3596	515.3592	1	1	2.20
515.3581	560.0	138.0	245.0	515.3596	515.3592	2	1	5.20

RIVETING TOOLS PISTOL

Cordless riveting tool pistol

- Handy and ergonomic dual component housing
- Universal use for aluminium and steel rivets Ø 2.4/3.2/4.0/4.8 mm
- Approx. 220 rivets per battery
- With practical clockwise and anticlockwise reversing function
- Very short setup time
- Fast change of rivets
- Short processing time
- Stepless controllable motor speed through electronic switch
- 40% extended lifespan due to changeable special carbon brush conductors
- With lithium-ion high performance rechargeable battery
- Includes automatic turn off charging station
- Fast charging function (1 hour)
- Blow mould plastic housing
- In durable plastic storage case

Technical data:

Rivet sizes:	2,4 / 3,2 / 4,0 / 4,8 mm
Stroke length:	15 mm
Vibration:	3,2 ms²
Noise performance level:	86,9 dbA
Noise pressure level:	75.9 dbA
Driving power:	4.900
Capacity:	10,8 V
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg
515.4104	235.0	55.0	200.0	515.3595	515.3592	0	0	1.15
515.4105	235.0	55.0	200.0	515.3595	515.3592	1	1	2.69
515.4106	235.0	55.0	200.0	515.3595	515.3592	2	1	3.07

RECHARGEABLE BATTERIES AND CHARGERS

Universal spare batteries

- Lithium ion high performance rechargeable battery
- Impact resistant polyethylene housing

Technical data:

Battery type:	Lithium-ion high performance rechargeable battery
Charging time:	1 hour
Working temperature:	-5° / +45°

		Ah	L mm	B mm	H mm	g
515.3592	10,8 V	1,5	60.5	54.0	84.8	200

Universal push in batteries

- Lithium ion high performance rechargeable battery
- Integrated automatic safety switching off
- With control LED to discharge
- Impact resistant polyethylene housing
- Ca. 1 hour charge time

Technical data:

Battery type:	Lithium-ion high performance rechargeable battery
Charging time:	1 hour
Working temperature:	-5° / +45°

		Ah	L mm	B mm	H mm	g
515.3597	10,8 V	1,5	73.0	80.0	109.6	300
515.3599	18 V	3,0	73.0	80.0	129.8	800

Universal fast charger

- Suitable for 10,8 V Ah lithium ion high performance rechargeable battery
- Integrated automatic safety switching off
- Impact resistant polyethylene housing

Technical data:

Battery type:	10,8 V
Charging time:	1 hour
Charging voltage:	AC 100 - 240 V ~ 50 / 60 Hz
Working temperature:	-5° / +45°

	L mm	B mm	H mm	g
515.3590	145.0	100.0	55.0	500

Universal fast charger

- Suitable for 18,0 V Ah lithium ion high performance rechargeable battery
- Integrated automatic safety switching off
- Impact resistant polyethylene housing

Technical data:

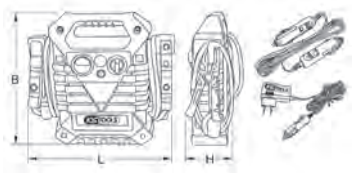
Battery type:	10,8 V - 18,0 V
Charging time:	1 hour
Charging voltage:	AC 100 - 240 V ~ 50 / 60 Hz
Working temperature:	-5° / +45°

	L mm	B mm	H mm	g
515.3591	175.0	115.0	65.0	700

BOOSTER

12 V battery booster - mobile starting aid 700 A

- Ideal for IC and diesel engines from passenger cars to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- Charge control indicator at press of button
- Acoustic warning if polarity is reversed
- 1.6 m cable length
- With sturdy 35 mm² cable cross section
- Current-free cable connection to the vehicle battery
- Charger and cable set included in scope of supply
- Cable can be conveniently stored on the housing
- Impact-resistant housing with rubberised base area



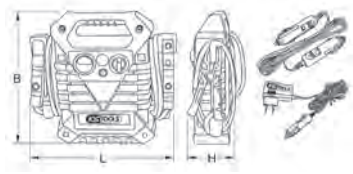
Technical data:

Battery:	12 Volt / 22 Ah
Starting current:	700 A
Peak voltage:	2200 A
Cable cross section:	35 mm²
Battery charger:	12V DC / 4 A

	L mm	B mm	H mm	Charger spare	Charging cable	kg
550.1710	405.0	380.0	120.0	550.1711	550.1712	10.00

12 V + 24 V battery booster - mobile starting aid 1400 A

- Ideal for IC and diesel engines from passenger cars to HGV < 12 t
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- Charge control indicator at press of button
- Acoustic warning if polarity is reversed
- 1.6 m cable length
- With sturdy 35 mm² cable cross section
- Current-free cable connection to the vehicle battery
- Automatic mains charger and cable set included in scope of supply
- Cable can be conveniently stored on the housing
- Impact-resistant housing with rubberised base area



Technical data:

Battery:	2 x 12 Volt / 22 Ah
Starting current:	1400 / 700 A
Peak voltage:	4400 / 2200 A
Cable cross section:	35 mm²
Battery charger:	12V DC / 4 A

	L mm	B mm	H mm	Charger spare	Charging cable	kg
550.1720	405.0	380.0	180.0	550.1721	550.1712	18.00

12 V + 24 V Battery Booster - mobile starting aid 3000 A

- Ideal for petrol and diesel engines in passenger cars or commercial vehicles
- Fully insulated battery clips (1000A)
- Integral electronics protection (voltage peak protected)
- Heavy-duty copper cable, cross-section 75 mm²
- 2.0 m cable length
- Intelligent, fully-integrated 3-stage automatic charging unit
- Multi-function display with coloured LED bars
- Intelligent protective circuits
- Polarity protection optical/acoustic
- Current-free cable connection to the vehicle battery
- Robust, wheeled housing with cable storage compartments
- Delivery scope includes vehicle charging cable

Technical data:

Battery:	2 x 12 Volt / 50 Ah
Starting current:	3000 / 1500 A
Peak voltage:	7200 / 3400 A
Cable cross section:	75 mm²

	L mm	B mm	H mm	kg
550.1725	450.0	300.0	750.0	47.00

ACCESSORIES FOR RECHARGEABLE BOOSTER PACKS

Battery charger for battery booster

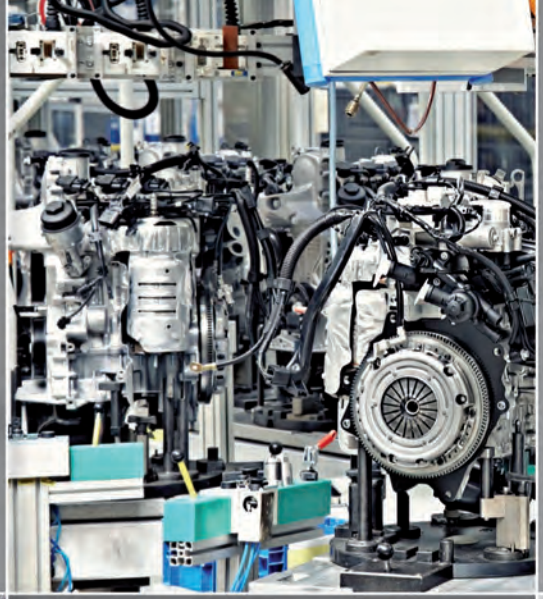
- Designed for continuous usage
- Intergrated automatic safety switching off
- Impact resistant polyethylene housing

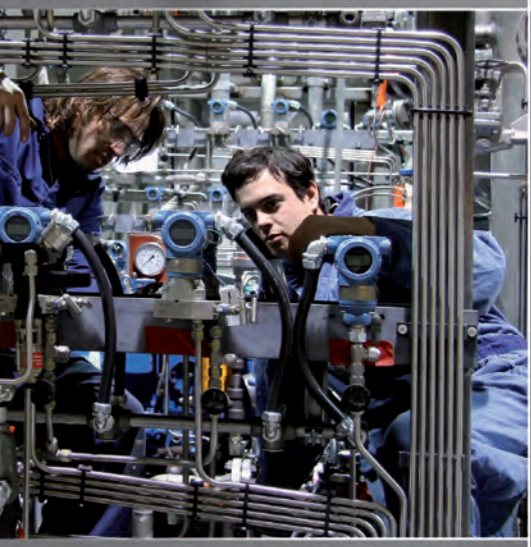
		Input current	Output current	g	
550.1711	550.1710	220 - 240 V	12 V / 4 A	439	
550.1721	550.1720	220 - 240 V	24 V / 4 A	439	

Car charger lead

- For temporary charge
- No safety switching off
- 1.6 mm cable diameter
- 2.0 m cable length
- With double connector

		g	
550.1712	➡ 550.1710 + 550.1720	62	





KS TOOLS®

Innovation is our mission!

CORDLESS BATTERY TOOLS

LITHIUM ION TECHNOLOGY

- The high performance cordless tools for the perfect job
- Working without cables with Lithium ion technology
- Ergonomic design, perfect weight distribution
- Low vibration for fatigue free working

17

LIGHTING TECHNOLOGY

KSTOOLS®

Innovation is our mission!

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LIGHTING TECHNOLOGY

Construction LEDMAX POWER STRIPE LED battery operating lamp

LED Cordless workshop lamp

- Ideal for very long network independent working
- 6 Watt Citizen Power LED
- Housing 180° foldable
- Housing body covered with high quality rubber
- Weatherproof protection IP64
- Shock and impact resistant
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- 3 hours charging time
- 3 hours lamp duration
- Impact resistant Polycarbonate housing

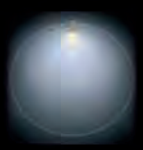
Technical data

Capacity:	illumination time 3 hours
Light source:	6 W POWER Stripe LED
Luminosity:	420 lumen
Rechargeable battery:	3,6 V / 3600 mAh
Battery type:	Li-polymer
Capacity:	6 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz DC 12-24 V
Working temperature:	-5° / +45°
Weight:	0.50 kg

Important basic concepts of light engineering

Technical data on the torch market are confusing and often not comparable.

lumens



Luminous fl x in lumens (lm)
The luminous fl x is the most important term to characterise the output of a lamp.
It describes the actual light quantity or light energy emitted from a light source.
What is actually measured? Some manufacturers specify the luminous fl x of the LED or light bulb and in the process don't mention that this is signifi antly reduced in the refle tor/lamp head (sometimes by more than 30%). Our luminous fl x values are values measured with spectrometers, which the lamps emit with new batteries from the refle tors.

lux

Illuminance in lux
This value indicates how intensely a surface is illuminated. This comes from photography and light architecture. There are clear specifi ations as to what illuminance work places or supermarket halls have to have.
The illuminance is measured with luxmeters.

candela

Light intensity in candela (cd)
The light intensity denotes - in a simplified orm - the intensity of the light output. This is dependent on the luminous fl x (quantity of light) and the output angle of the light. Example: 5 mm LEDs have different beam angles, e.g. 10 and 120°.
Despite the same light energy the 10° diode has 12 times more light intensity as the 120° diode. The same quantity of light is distributed once to 10 and once to 120°. 10 m away a 10° diode only operates at an angle of 10°, whereas the 120° diode operates at the same light at an angle of 120°. The light intensity is the designation for the part of the luminous fl x emitted in a certain direction.

LED (Light Emitting Diode)

Light emitting diodes are microstructural solid states and completely unsusceptible to vibrations. They last 1000 times longer than conventional light bulbs, unlike halogen lamps they produce no shades, hardly produce warmth and use less electricity. LEDs contain no harmful filli g gases and produce no ultraviolet rays.

Power consumption

The power consumption of a lamp and their bright performance are two completely different things. The fact that a lamp uses a lot of energy by no means that they produce a lot of light. The largest part of the energy is still moved in warmth.
This is also applies to LEDs a high efficient 1 att diode which can supply more light than one low quality 5 watt diode.

Light efficienc

1% Light*	1% Light**	13% Light*	13% Light*	20% Light*
Flash lights light bulb	Light bulb	High end LED	High end power chip	High end CREE chip
100 Hours*	1000 Hours*	100,000 Hours***	100,000 Hours***	80,000 Hours***

* In this juncture, it is about calculated average values. According to type of the lamp abnormalities can occur. ** With 15 / 25 watt lamps. According to type of the lamp abnormalities can occur. *** After 100.000 working hours LEDs still shine with 50% of the brightness.

Light engineering lines

LED ball point pen

Emergency lamps

Head lamps

Inspection lamps

LED hand lamps

Workshop lamps

Flash lights

Work lamps

Cable reels

IP Protection class identification mar

The housing protection degree, is fi ed as the standards IEC 529 or DIN EN 60 52 which contain several different protection types.
The illustration below shows an overview of the protection classes which are represented as follows.

- If for the designation the 1st or 2nd place is not important, it is replaced by X.
- Perhaps 3rd place Additional touch protection / perhaps 4th place Supplementary character
- Representation in accordance to DIN VDE 0470, DIN EN 60 529, IEC 60529

IP Protection class definitio

1. ref. number	range of protection
0	no touch protection, no protection against compact foreign objects
1	protection against extensive touch with hand protection against foreign objects Ø >50 mm
2	protection against touch with fi gers protection against foreign objects Ø >12 mm
3	protection against touch with tools, wire etc with Ø >2,5 mm protection against foreign objects Ø >2,5 mm
4	protection against touch with tools, wire etc with Ø >1 mm protection against foreign objects Ø >1 mm
5	protection against touch protection against dust deposit inside
6	complete protection against touch protection against entry of dust

2. ref. number	range of protection
0	no protection against water
1	protection against vertical falling raindrops
2	protection against angular falling raindrops (every angle up to 15° to vertical)
3	protection against water in every angle up to 60° to vertical
4	protection against splash water from all directions
5	protection against jet of water (blast pipe) every angle
6	protection against temporary floodi g
7	protection against ingress of water during temporary immersion
8	protection against pressure water during constant immersion

LED BALL POINT PEN

4 in 1 LED ball point pen

- Ball point pen
- LED lamp
- Laser pointer
- Handheld pencil
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 4 x LP 41 button cell
- Impact proof housing

	L mm	D mm	g	
10010	150.0	13.0	110	

3 in 1 LED ball point pen

- Ball point pen
- LED lamp
- Laser pointer
- Focus lens
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 3 x LP 41 button cell
- Impact proof housing

	L mm	D mm	g	
10012	130.0	13.0	100	

EMERGENCY LAMPS

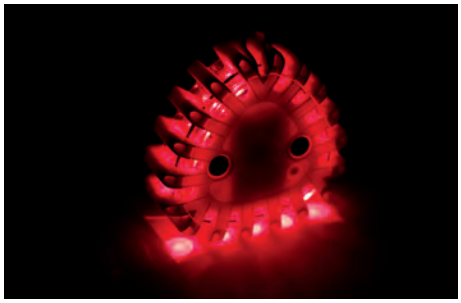
Emergency light

- In the event of an emergency
- 9 warning functions
- Magnetic
- With suspension device
- Ingress protection according to IP54
- Includes 1 x CR 123 battery
- Impact-resistant

Technical data:

Luminosity:	13.000 mcd
Battery:	CR 123
Working temperature:	-10° to +40°C

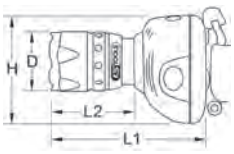
	Ø mm	H mm	g	
550.1360	107	35.0	230	



HEAD LAMPS

LEDMAX CREE Power LED headlamp with focus

- 3 Watt CREE Chip Power LED
- Luminous fl x 100 Lumen
- Headlight range of up to 100 meters
- Zoom from spot to flood l ght
- Multifunctional-button with 4 modes: On/Off / 5W / 3W / Blink
- Adjustable front and head band for comfort and to stay in place
- Lamp can be additionally tilted in 5 click stops
- Weatherproof protection IPX3
- 3 hours lamp duration
- Includes 3 x AAA 1,5V batteries



Technical data:

Headlight range:	max. 100,0 m
Luminosity:	3 W
Working temperature:	0° / +40°C

	D mm	H mm	L1 mm	L2 mm	g	
550.1238	30.0	40.0	65.0	30.0	170	

INSPECTION LAMPS

LEDMAX CREE-Power LED torch

- Ideal for smock and shirt pockets
- 1 Watt CREE Chip LED
- 85 Lumens luminous fl x
- 25 m headlight range
- Ingress protection according to IPX3
- Clip for the breast pocket
- 5 - 10 hours lamp duration
- Includes 2 x AA 1,5 V batteries
- Ultra light and impact resistant aluminium housing

Technical data:

Headlight range:	max. 25,0 m
Luminosity:	1 W
Working temperature:	0° / +40°C

	L mm	D mm	g	
150.4370	140.0	16.0	92	

Flexible UV inspection lamp

- LED UV lamp
- Flexible shaft
- Localizes leaks in air conditioning systems
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 3 x AAAA batteries
- Impact proof housing

	L mm	D mm	Spare bulb	g	
550.1165	450.0	7.5	550.1167	150	

Flexible inspection set

- Halogen lamp
- Flexible shaft
- Includes flexible fibreglass attachment
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 3 x 1,5 V AAA batteries
- Impact proof housing

	L mm	B mm	H mm	g
550.1160	210.0	150.0	25.0	230

Flexible inspection lamp with magnet

- Halogen lamp
- Flexible long shaft, 400 mm
- With optional clip-on light-flooded magnet
- Includes extension 500 mm
- Approx: 60 hours lamp duration
- Includes 3 x AA batteries
- Impact proof housing

	L mm	D mm	Spare bulb	g
550.1185	600.0	7.0	550.1188	120

Flexible inspection lamp with magnet and mirror

- Halogen lamp
- Flexible long shaft, 400 mm
- With optional attachable flexible mirror (20 x 35 mm)
- With optional clip-on light-flooded magnet
- Includes extension 500 mm
- Approx: 60 hours lamp duration
- Includes 3 x AA batteries
- Impact proof housing

	L mm	D mm	Mirror size mm	Spare bulb	g
550.1138	600.0	7.0	20 x 35	550.1188	215

LED HAND LAMPS

MONSTER CREE-Power LED lamp 800

- Ideal for network independent working
- On/off mode
- 1 x CREE LED light
- 800 lumens luminous flux
- 300 m range
- Scratchproof with hard-coat anodising
- shockproof and waterproof
- splashproof in accordance with IP65
- includes 1 x 3.7V lithium battery (BRC 18650)
- shockproof aluminium housing
- incl. belt clip
- incl. automatically switch off loading station

Technical data:

Light source:	1 x Cree Power LED
Headlight range:	max. 300,0 m
Luminosity:	800 lumen
Rechargeable battery:	3,7 V / 3000 mAh
Battery type:	Lithium-ion
Capacity:	10 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz DC 12-24 V
Working temperature:	-10° / +50°C

	L mm	D mm	Replacement battery	g
150.4360	145.0	45.0	150.4361	115

MONSTER CREE-Power LED lamp 2300

- Ideal for network independent working
- 5 lighting modes 3 levels of brightness, SOS and stroboscope
- 5 x CREE LED lights
- 2300 lumens luminous flux
- 300 m range
- digitally controlled for consistent brightness
- Aluminium reflector
- Clear glass lens
- Scratchproof with hard-coat anodising
- shockproof and waterproof
- splashproof in accordance with IP65
- includes 3 x 3.7V lithium battery (26650)
- shockproof aluminium housing
- incl. belt clip
- incl. automatically switch off loading station

Technical data:

Light source:	5 x Cree Power LEDs
Headlight range:	max. 300,0 m
Luminosity:	2300 lumen
Rechargeable battery:	3,7 V / 4000 mAh
Battery type:	Lithium-ion
Capacity:	24 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz DC 12-24 V
Working temperature:	-10° / +50°C

	L mm	D mm	Replacement battery	g
150.4365	310.0	62.0	150.4362	600

MONSTER CREE-Power LED lamp 2800

- Ideal for network independent working
- 5 lighting modes 3 levels of brightness, SOS and stroboscope
- 7 x CREE LED lights
- 2800 lumens luminous flux
- 300 m range
- digitally controlled for consistent brightness
- Aluminium reflector
- Clear glass lens
- Scratchproof with hard-coat anodising
- shockproof and waterproof
- splashproof in accordance with IP65
- includes 3 x 3.7V lithium battery (26650)
- shockproof aluminium housing
- incl. belt clip
- incl. automatically switch off loading station

Technical data:

Light source:	7 x Cree Power LEDs
Headlight range:	max. 300,0 m
Luminosity:	2800 lumen
Rechargeable battery:	3,7 V / 4000 mAh
Battery type:	Lithium-ion
Capacity:	35 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz DC 12-24 V
Working temperature:	-10° / +50°C

	L mm	D mm	Replacement battery	g
150.4366	320.0	63.0	150.4362	535

MONSTER CREE-Power LED lamp 3000

- Ideal for network independent working
- 5 lighting modes 3 levels of brightness, SOS and stroboscope
- 9 x CREE LED lights
- 3000 lumens luminous flux
- 300 m range
- digitally controlled for consistent brightness
- Aluminium reflector
- Clear glass lens
- Scratchproof with hard-coat anodising
- shockproof and waterproof
- splashproof in accordance with IP65
- includes 3 x 3.7V lithium battery (26650)
- shockproof aluminium housing
- incl. automatically switch off loading station

Technical data:

Light source:	9 x Cree Power LEDs
Headlight range:	max. 300,0 m
Luminosity:	3000 lumen
Rechargeable battery:	3,7 V / 4000 mAh
Battery type:	Lithium-ion
Capacity:	32 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz DC 12-24 V
Working temperature:	-10° / +50°C

	L mm	D mm	Replacement battery	g
150.4367	325.0	78.0	150.4362	665

MONSTER CREE-Power LED lamp 4000

- Ideal for network independent working
- 5 lighting modes 3 levels of brightness, SOS and stroboscope
- 12 x CREE LED lights
- 4000 lumens luminous flux
- 300 m range
- digitally controlled for consistent brightness
- Aluminium reflector
- Clear glass lens
- Scratchproof with hard-coat anodising
- shockproof and waterproof
- splashproof in accordance with IP65
- includes 3 x 3.7V lithium battery (26650)
- shockproof aluminium housing
- incl. automatically switch off loading station

Technical data:

Light source:	12 x Cree Power LEDs
Headlight range:	max. 300,0 m
Luminosity:	4000 lumen
Rechargeable battery:	3,7 V / 4000 mAh
Battery type:	Lithium-ion
Capacity:	36 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz
	DC 12-24 V
Working temperature:	-10° / +50°C

	L mm	D mm	Replacement battery	g	
150.4368	415.0	89.0	150.4362	1000	

WORKSHOP LAMPS

LEDMAX LED Cordless work lamp

- Ideal for very long network independent working
- 30 Power Chip LEDs
- Housing body covered with high quality rubber
- Weatherproof protection IP54
- Shock and impact resistant
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- 4-5 hours charging time
- 9 hours lamp duration
- Impact resistant Polycarbonate housing

Technical data:

Capacity:	illumination time 9 hours
Light source:	30 + 1 W LED
Luminosity:	800 Lux
Rechargeable battery:	3,7 V / 3500 mAh
Battery type:	Lithium-ion
Capacity:	1,2 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz
	DC 12-28 V
Working temperature:	-5° / +45°

	L mm	D mm	g	
150.4240	280.0	50.0	940	

LEDMAX SMD Cordless work lamp

- Ideal for very long network independent working
- 30 SMDs
- Housing body covered with high quality rubber
- Weatherproof protection IP54
- Shock and impact resistant
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- 4-5 hours charging time
- 9 hours lamp duration
- Impact resistant Polycarbonate housing

Technical data:

Capacity:	illumination time 9 hours
Light source:	30 SMDs
Luminosity:	95 lumen
Rechargeable battery:	3,7 V / 3500 mAh
Battery type:	Lithium-ion
Capacity:	1,2 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz
	DC 12-28 V
Working temperature:	-5° / +45°

	L mm	D mm	g	
150.4330	280.0	50.0	920	

LEDMAX SUPER BRIGHT LED Cordless work lamp

- Ideal for very long network independent working
- 3 + 1 W SUPER BRIGHT LED's
- Housing body covered with high quality rubber
- Weatherproof protection IP54
- Shock and impact resistant
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- 4-5 hours charging time
- 4-5 hours lamp duration
- Impact resistant Polycarbonate housing

Technical data:

Capacity:	illumination time 4-5 hours
Light source:	3 + 1 W SUPER BRIGHT LEDs
Luminosity:	2500 Lux
Rechargeable battery:	3,7 V / 3500 mAh
Battery type:	Lithium-ion
Capacity:	2,5 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz
	DC 12-24 V
Working temperature:	-5° / +45°

	L mm	D mm	g	
150.4340	280.0	50.0	930	

LEDMAX STRIPE LED-Cordless work lamp

- Ideal for very long network independent working
- 2,5 W Stripe LED
- Housing body covered with high quality rubber
- Weatherproof protection IP54
- Shock and impact resistant
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- 4-5 hours charging time
- 4-5 hours lamp duration
- Impact resistant Polycarbonate housing

Technical data:

Capacity:	illumination time 4-5 hours
Light source:	2,5 W Stripe LED
Luminosity:	180 lumen
Rechargeable battery:	3,7 V / 3500 mAh
Battery type:	Lithium-ion
Capacity:	2,5 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz
	DC 12-24 V
Working temperature:	-5° / +45°

	L mm	D mm	g	
150.4350	280.0	50.0	950	

LEDMAX POWER STRIPE LED Cordless working lamp, foldable

- Ideal for very long network independent working
- 6 Watt Citizen Power LED
- Housing 180° foldable
- Housing body covered with high quality rubber
- Weatherproof protection IP64
- Shock and impact resistant
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- 3 hours charging time
- 3 hours lamp duration
- Impact resistant Polycarbonate housing

Technical data:

Capacity:	illumination time 3 hours
Light source:	6 W CITIZEN POWER LED
Luminosity:	420 lumen
Rechargeable battery:	3,6 V / 3600 mAh
Battery type:	Li-polymer
Capacity:	6 Watt
Charging voltage:	AC 100-240 V ~ 50 / 60 Hz
	DC 12-24 V
Working temperature:	-5° / +45°

	L mm	D mm	g	
150.4310	290.0	56.0	500	

FLASHLIGHTS

Basic workshop inspection hand lamp 8 watts

- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Integrated connector
- Includes lamp

Technical data:

Luminosity:	8 W
Lamp length:	500.0 mm
Connection cable length:	5 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II

	L mm	Ø mm	g	
550.1371	500.0	30,0	470	

Pro workshop inspection hand lamp 8 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP20
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp

Technical data:

Luminosity:	8 W
Lamp length:	500.0 mm
Connection cable length:	5 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II
Weatherproof protection:	IP20

	L mm	Ø mm	g	
550.1376	500.0	30,0	660	

Pro XL workshop inspection hand lamp 11 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP20
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp

Technical data:

Luminosity:	11 W
Lamp length:	630.0 mm
Connection cable length:	5 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II
Weatherproof protection:	IP20

	L mm	Ø mm	g	
550.1381	630.0	35,0	710	

Pro XXL workshop inspection hand lamp 13 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP20
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp

Technical data:

Luminosity:	13 W
Lamp length:	720.0 mm
Connection cable length:	5 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II
Weatherproof protection:	IP20

	L mm	Ø mm	g	
550.1386	720.0	35,0	750	

Professional XXL workshop inspection hand lamp with expander holder

- Optimum lighting
- Self-clamping and securable
- Span length = 1,335 - 1,800 mm
- Expanding bracket with large, adjustable and rubber coated hooks
- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP54
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp

Technical data:

Luminosity:	30 W
Adjusatbel length:	1.335-1.800 mm
Connection cable length:	5 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240V
Protection class:	II
Weatherproof protection:	IP54

	L mm	Ø mm	kg	
150.4305	1335-1800	74,0	2.60	

ACCESSORIES FOR FLASH LIGHTS

Magnet holder for workshop lamps

- Universal mouting clip for workshop lamps
- Extra large pivoting range
- Magnet completely rubberised
- Stop peg out of spring steel

	max Ø pipe mm	Ø magnetic base mm	g	
150.4219	43,0	31,0	79	

Workshop cable reel

- Practical and space-saving
- Extra strong, automatic return mechanism
- With endstopper
- 180° freely revolving
- Cable working length 20 m
- Connection cable 1.5 m
- Metal wall reinforcement rail 270 mm

Technical data:

Work cable length m:	20 m
Connection cable length:	1,5 m
Operational voltage:	230 V

		kg	
150.4320	Workshop cable reel	6.50	

FLASH LIGHTS WITH CABLE REELS

Cable reel with Basic workshop inspection hand lamp 8 watts

- Protection pipe out of polycarbonate
- Impact resistant impact strength IK09
- High quality rubber hand grip casing
- 360° revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP44
- Integrated connector
- Includes lamp
- Includes workshop cable reel

Technical data:

Luminosity:	8 W
Lamp length:	500.0 mm
Connection cable length:	5 m
Work cable length m:	20 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II
Weatherproof protection:	IP44

	L mm	Ø mm	kg
550.1370	500.0	30,0	8.08

Cable reel with pro workshop inspection hand lamp 8 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- 360° revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP44
- With integrated connector
- Includes lamp
- Includes cable reel 20 m

Technical data:

Luminosity:	8 W
Lamp length:	500.0 mm
Connection cable length:	5 m
Work cable length m:	20 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II
Weatherproof protection:	IP44

	L mm	Ø mm	kg
550.1375	500.0	30,0	8.10

Cable reel with pro XL workshop inspection hand lamp 11 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- 360° revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP54
- With integrated connector
- Includes lamp
- Includes cable reel 20 m

Technical data:

Luminosity:	11 W
Lamp length:	630.0 mm
Connection cable length:	5 m
Work cable length m:	20 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II
Weatherproof protection:	IP44

	L mm	Ø mm	kg
550.1380	630.0	35,0	8.12

Cable reel with pro XXL workshop inspection hand lamp 13 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- 360° revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP54
- With integrated connector
- Includes lamp
- Includes cable reel 20 m

Technical data:

Luminosity:	13 W
Lamp length:	720.0 mm
Connection cable length:	5 m
Work cable length m:	20 m
Cable:	H05RN-F 2x1,0 mm²
Operational voltage:	AC 220-240 V
Protection class:	II
Weatherproof protection:	IP44

	L mm	Ø mm	kg
550.1385	720.0	35,0	8.14

WORK LAMPS

Pro workshop inspection hand lamp 36 watt

- Industrial quality
- 2.900 lumens luminous fl x
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and with contour connector according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing

Technical data:

Luminosity:	36 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	-
Protection class:	II
Weatherproof protection:	IP54

	H mm	B mm	T mm	Spare bulb	kg
150.4255	230.0	340.0	110.0	150.4256	2.36

Pro workshop inspection hand lamp 72 watt

- Industrial quality
- 5.800 lumens luminous fl x
- With 2 x 230 V isolated outlet on the back
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing

Technical data:

Luminosity:	72 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	2 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP54

	H mm	B mm	T mm	Spare bulb	kg
150.4260	285.0	495.0	110.0	150.4261	5.02

Pro workshop inspection hand lamp 108 watt

- Industrial quality
- 8.700 lumens luminous fl x
- With 1 x 230 V isolated outlet on the back
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- Ingress protection according to IP54
- Integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing

Technical data:

Luminosity:	108 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	1 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP54

	H mm	B mm	T mm	Spare bulb	kg
150.4265	290.0	500.0	110.0	150.4261	5.82

Pro Bridgelux LED inspection hand lamp 50 watts

- Industrial quality
- 1x Bridgelux LED lamp
- 6500 Kelvin
- Extremely impact resistant
- With contour connector according to CEE 7/17
- Waterproof according to IP65
- With integrated connector
- Corresponding to 500W halogen
- Floodlight with modern LED technology
- With mounting bracket
- Safety glass, transparent
- 100% luminosity without power-on delay
- Mercury-free
- Energy efficien y class: A
- Includes lamp

Technical data:

Luminosity:	50 W
Connection cable length:	1,5 m
Cable:	H05RN-F 3x0,75 mm²
Operational voltage:	AC 100-240 V
Protection class:	II
Weatherproof protection:	IP65

	H mm	B mm	T mm	kg
150.4385	238.0	288.0	150.0	3.10

Pro Bridgelux LED inspection hand lamp 100 watts

- Industrial quality
- 1x Bridgelux LED lamp
- 6500 Kelvin
- Extremely impact resistant
- With contour connector according to CEE 7/17
- Waterproof according to IP65
- With integrated connector
- Corresponding to 1000W halogen
- Floodlight with modern LED technology
- With mounting bracket
- Safety glass, transparent
- 100% luminosity without power-on delay
- Mercury-free
- Energy efficien y class: A
- Includes lamp

Technical data:

Luminosity:	100 W
Connection cable length:	1,5 m
Cable:	H05RN-F 3x0,75 mm²
Operational voltage:	AC 100-240 V
Protection class:	II
Weatherproof protection:	IP65

	H mm	B mm	T mm	kg
150.4390	367.0	285.0	101.0	5.60

Pro Bridgelux LED inspection hand lamp 150 watts

- Industrial quality
- 3x Bridgelux LED lamps
- 6500 Kelvin
- Extremely impact resistant
- With contour connector according to CEE 7/17
- Waterproof according to IP65
- With integrated connector
- Corresponding to 1,500W halogen
- Floodlight with modern LED technology
- With mounting bracket
- Safety glass, transparent
- 100% luminosity without power-on delay
- Mercury-free
- Energy efficien y class: A
- Includes lamp

Technical data:

Luminosity:	150 W
Connection cable length:	1,5 m
Cable:	H05RN-F 3x0,75 mm²
Operational voltage:	AC 100-240 V
Protection class:	II
Weatherproof protection:	IP65

	H mm	B mm	T mm	kg
150.4395	327.0	427.0	185.0	10.00

WORK LAMPS WITH TRIPODS

Pro-workshop-inspection hand lamp 36 watt

- Industrial quality
- 2.900 lumens luminous fl x
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant - impact strength IK10
- With contour connector according to CEE 7/17
- Ingress protection according to IP54
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing
- Fully adjustable through 2 wing screws
- Work height 1.0 to 2.7 m
- With cable holder device
- Galvanised steel pipe
- 3 castor wheels with special rubber tyre

Technical data:

Luminosity:	36 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	-
Protection class:	II
Weatherproof protection:	IP54

	H mm	B mm	T mm	Spare bulb	kg
150.4257	230.0	340.0	110.0	150.4256	9.28

consists of:

		kg
150.4255	Pro workshop inspection hand lamp 36 watt	2.36
150.4267	Extending tripod for work lamps	5.92
150.4268	Castor wheel sets for 150.4267	1.00

Professional cold light work lamp 72 watt

- Industrial quality
- 5.800 lumens luminous fl x
- With 2 x 230 V isolated outlet on the back
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant - impact strength IK10
- With contour connector according to CEE 7/17
- Ingress protection according to IP54
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing
- Fully adjustable through 2 wing screws
- Work height 1.0 to 2.7 m
- With cable holder device
- Galvanised steel pipe
- 3 castor wheels with special rubber tyre

Technical data:

Luminosity:	72 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	2 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP54

	H mm	B mm	T mm	Spare bulb	kg
150.4263	285.0	495.0	110.0	150.4261	11.94

consists of:

		kg
150.4260	Pro workshop inspection hand lamp 72 watt	5.02
150.4267	Extending tripod for work lamps	5.92
150.4268	Castor wheel sets for 150.4267	1.00

Professional cold light work lamp 108 watt with tripod

- Industrial quality
- 8.700 lumens luminous fl x
- With 1 x 230 V isolated outlet on the back
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant - impact strength IK10
- With contour connector according to CEE 7/17
- Ingress protection according to IP54
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing
- Fully adjustable through 2 wing screws
- Work height 1.0 to 2.7 m
- With cable holder device
- Galvanised steel pipe
- 3 castor wheels with special rubber tyre

Technical data:

Luminosity:	108 W
Connection cable length:	5 m
Operational voltage:	230 V
Accessory outlet:	1 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP54

	H mm	B mm	T mm	Spare bulb	kg
150.4271	290.0	500.0	110.0	150.4261	12.74

consists of:

		kg
150.4265	Pro workshop inspection hand lamp 108 watt	5.82
150.4267	Extending tripod for work lamps	5.92
150.4268	Castor wheel sets for 150.4267	1.00

Professional Bridgelux LED work lamp 50Watt with tripod

- Industrial quality
- 1x Bridgelux LED lamp
- 6500 Kelvin
- Extremely impact resistant
- With contour connector according to CEE 7/17
- Waterproof according to IP65
- With integrated connector
- Corresponding to 500W halogen
- Floodlight with modern LED technology
- With mounting bracket
- Safety glass, transparent
- 100% luminosity without power-on delay
- Mercury-free
- Energy efficien y class: A
- Includes lamp
- Fully adjustable through 2 wing screws
- Work height 1.0 to 2.7 m
- With cable holder device
- Galvanised steel pipe
- 3 castor wheels with special rubber tyre

Technical data:

Luminosity:	50 W
Connection cable length:	1,5 m
Operational voltage:	AC 100 - 240V / DC24V
Protection class:	II
Weatherproof protection:	IP65

	H mm	B mm	T mm	kg
150.4386	238.0	288.0	150.0	9.93

consists of:

		kg
150.4385	Pro Bridgelux LED inspection hand lamp 50 watts	3.10
150.4267	Extending tripod for work lamps	5.92
150.4268	Castor wheel sets for 150.4267	1.00

Professional Bridgelux LED-work lamp 100Watt with tripod

- Industrial quality
- 1x Bridgelux LED lamp
- 6500 Kelvin
- Extremely impact resistant
- With contour connector according to CEE 7/17
- Waterproof according to IP65
- With integrated connector
- Corresponding to 1000W halogen
- Floodlight with modern LED technology
- With mounting bracket
- Safety glass, transparent
- 100% luminosity without power-on delay
- Mercury-free
- Energy efficien y class: A
- Includes lamp
- Fully adjustable through 2 wing screws
- Work height 1.0 to 2.7 m
- With cable holder device
- Galvanised steel pipe
- 3 castor wheels with special rubber tyre

Technical data:

Luminosity:	100 W
Connection cable length:	1,5 m
Operational voltage:	AC 100 - 240V / DC24V
Protection class:	II
Weatherproof protection:	IP65

	H mm	B mm	T mm	kg	
150.4391	367.0	285.0	101.0	12.52	

consists of:

		kg	
150.4390	Pro Bridgelux LED inspection hand lamp 100 watts	5.60	
150.4267	Extending tripod for work lamps	5.92	
150.4268	Castor wheel sets for 150.4267	1.00	

Professional Bridgelux LED-work lamp 150Watt with tripod

- Industrial quality
- 3x Bridgelux LED lamps
- 6500 Kelvin
- Extremely impact resistant
- With contour connector according to CEE 7/17
- Waterproof according to IP65
- With integrated connector
- Corresponding to 1500W halogen
- Floodlight with modern LED technology
- With mounting bracket
- Safety glass, transparent
- 100% luminosity without power-on delay
- Mercury-free
- Energy efficien y class: A
- Includes lamp
- Fully adjustable through 2 wing screws
- Work height 1.0 to 2.7 m
- With cable holder device
- Galvanised steel pipe
- 3 castor wheels with special rubber tyre

Technical data:

Luminosity:	150 W
Connection cable length:	1,5 m
Operational voltage:	AC 100 - 240V / DC24V
Protection class:	II
Weatherproof protection:	IP65

	H mm	B mm	T mm	kg	
150.4396	327.0	427.0	185.0	16.92	

consists of:

		kg	
150.4395	Pro Bridgelux LED inspection hand lamp 150 watts	10.00	
150.4267	Extending tripod for work lamps	5.92	
150.4268	Castor wheel sets for 150.4267	1.00	

ACCESSORIES FOR WORK LAMPS

Scaffolding clamp for work lamps

- Universal scaffolding clamp for cold light work lamps
- For all current scaffoldings and pipes up to 50 mm
- Heavy and robust execution
- Galvanised steel

	max Ø pipe mm	kg	
150.4269	50,0	1.06	

Extending tripod for work lamps

- Universal tripod for work lamps
- Expandable through optional extensions
- Optimal illuminating guaranteed
- Secure stand
- Extremely compact transportation size
- On fold away tripod foot part
- Fully adjustable through 2 wing screws
- Work height 1,0 to 2,7 m
- With cable holder device
- Galvanised steel pipe

	H mm	Castor wheel set	kg	
150.4267	1000 - 2700	150.4268	5.92	

Castor wheel sets for 150.4267

- 3 castor wheels with special rubber tyre
- Includes reinforcement screw
- With backing plate on every castor

			kg	
150.4268	3 pcs	Castor wheel sets for 150.4267	1.00	

WORKSHOP EQUIPMENT

KSTOOLS®

Innovation is our mission!

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WORKSHOP EQUIPMENT

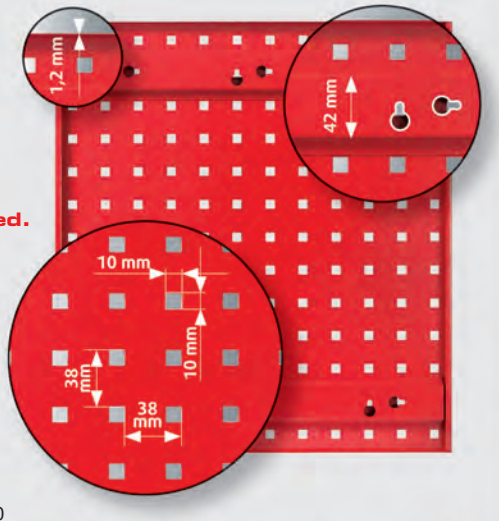
- Workbenches suitable for any requirement.
- Diverse program for an intelligent system and good overview.
- Many different combinations of drawers and doors.
- Different lengths from 600 mm to 2,000 mm. Fixed workbenches or workbenches with fi able rollers.
- All workbenches are made of sturdy folded sheet steel.
- Surfaces are treated with an environmentally friendly powder coating.
- Individual workplace design with many different combination possibilities.

Perforated plates

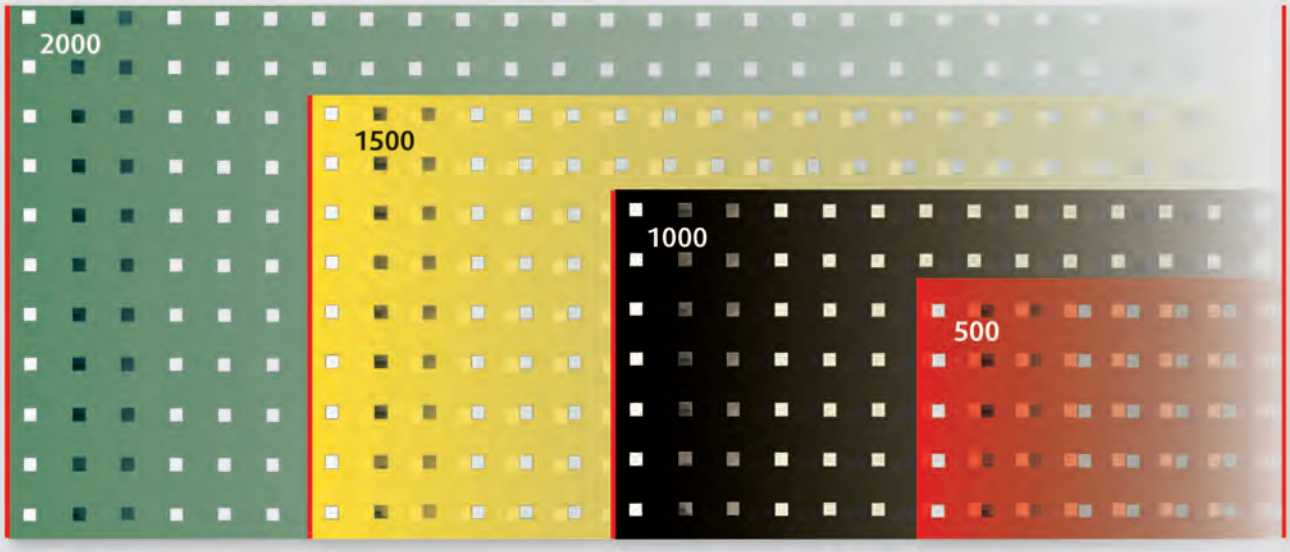
10 standard colours,
4 different sizes

= 40 variations

Available in
other colours as desired.



RAL5010 RAL5015 RAL5012 RAL7035 RAL9010 RAL6011 RAL7015 RAL9005 RAL1023 RAL3020



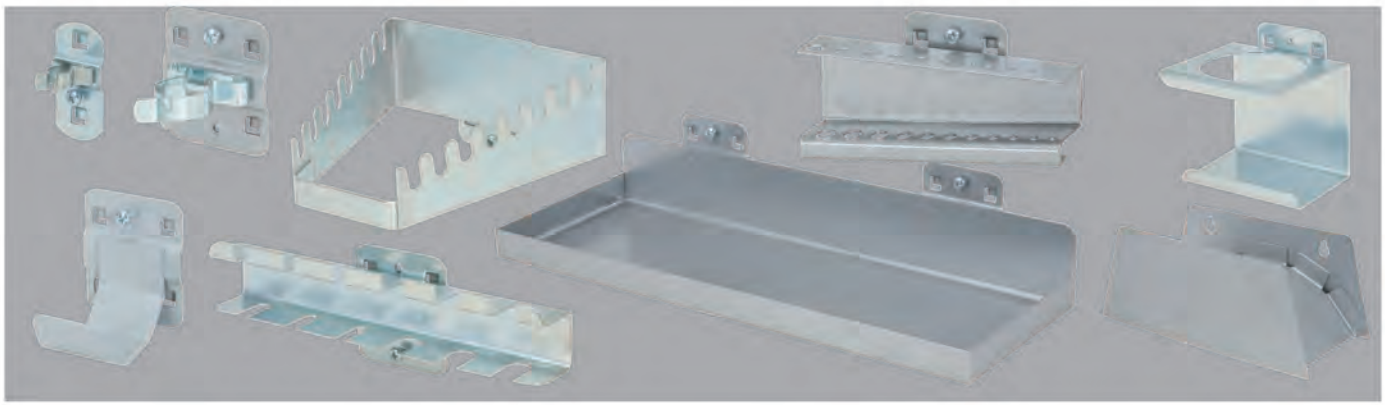
Range of hooks with other 80 different possibilities

Single hook

Double hook

Round holder

And much more...



WORKBENCHES

Mechanics workbench

- Mobile workbench ideally for vice work
- Foldable for transporting
- Laminated wooden work surface
- Waterproof and resistant to chemicals
- Metal protective edge
- High level of stability due to splayed table legs

	Total depth mm	Width mm	Depth mm	kg
914.1300	850.0	1070.0	620.0	40.00

Mechanics workbench

- Mobile workbench ideally for vice work
- Foldable for transporting
- Laminated wooden work surface
- Waterproof and resistant to chemicals
- Metal protective edge
- High level of stability due to splayed table legs

	Total depth mm	Width mm	Depth mm	kg
914.2000	850.0	1220.0	620.0	34.00

WORKBENCHES

Workbench

- Robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- High level of stability
- General construction from robust steel - square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- With metal protective edge
- High stability due to all metal parts being welded
- Electrostatic powder coating

	Total depth mm	Width mm	Depth mm	kg
865.0013	840.0	1200.0	500.0	27.00

Workbench with 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Electrostatic powder coating

	Total depth mm	Width mm	Depth mm	kg
865.0012	840.0	600.0	600.0	42.00

Workbench with 3 drawers

- Robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- High level of stability
- General construction from robust steel - square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- With metal protective edge
- High stability due to all metal parts being welded
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Side mounted handle
- Electrostatic powder coating

	Total depth mm	Width mm	Depth mm	kg
865.0010	840.0	600.0	600.0	51.00

Workbench with 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Electrostatic powder coating

Technical data:

Door dimensions:	H 425 x B 430 mm
Total load capacity:	400,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0001	840.0	1200.0	600.0	71.00

PROFI workbench with 2 doors

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Electrostatic powder coating

Technical data:

Door dimensions:	H 425 x B 430 mm
Total load capacity:	400,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0002	840.0	1200.0	600.0	85.00

Workbench with 3 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Side mounted handle
- Electrostatic powder coating

Technical data:

Drawer dimensions:	2 x H 85 x B 430 x T 520 mm
	1 x H 165 x B 430 x T 520 mm
Door dimensions:	H 425 x B 430 mm
Total load capacity:	400,0 kg
Load capacity of each drawer:	35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0003	840.0	1200.0	600.0	86.00

Workbench with 6 drawers

- Robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- High level of stability
- General construction from robust steel - square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- With metal protective edge
- High stability due to all metal parts being welded
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Side mounted handle
- Electrostatic powder coating

Technical data:

Drawer dimensions:	4 x H 85 x B 430 x T520 mm
	2 x H 165 x B 430 x T 520 mm
Total load capacity:	400,0 kg
Load capacity of each drawer:	35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0004	840.0	1200.0	600.0	86.00

Mobile workbench with 3 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- With two castor wheels 125 mm with rolling and turning brake
- Drawers with non slip rubber mat
- Side mounted handle
- Electrostatic powder coating

Technical data:

Drawer dimensions:	2 x H 85 x B 430 x T 520 mm
	1 x H 165 x B 430 x T 520 mm
Door dimensions:	H 425 x B 430 mm
Total load capacity:	400,0 kg
Load capacity of each drawer:	35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0101	840.0	1200.0	600.0	71.00

Workbench with 4 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Side mounted handle
- Electrostatic powder coating

	Total depth mm	Width mm	Depth mm	kg
865.0006	840.0	1200.0	500.0	95.00

Workbench with 8 drawers

- Robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- High level of stability
- General construction from robust steel - square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- With metal protective edge
- High stability due to all metal parts being welded
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Side mounted handle
- Electrostatic powder coating

	Total depth mm	Width mm	Depth mm	kg
865.0007	840.0	1200.0	500.0	112.00

Mobile workbench with 6 drawers

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- With two castor wheels 200 mm with rolling and turning brake
- Drawers with non slip rubber mat
- Side mounted handle
- Electrostatic powder coating

	Total depth mm	Width mm	Depth mm	kg
865.0011	840.0	1200.0	600.0	108.00

XXL workbench with 3 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Laminated wooden board
- Waterproof and resistant to chemicals
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Electrostatic powder coating

Technical data:

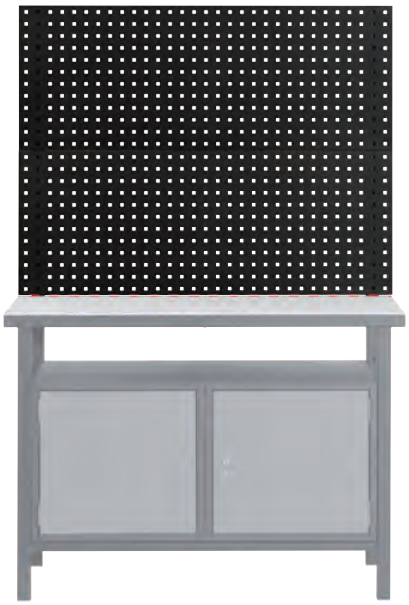
Drawer dimensions:	2 x H 85 x B 430 x T 520 mm
	1 x H 165 x B 430 x T 520 mm
Door dimensions:	H 425 x B 430 mm
Total load capacity:	400,0 kg
Load capacity of each drawer:	35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0201	840.0	2000.0	680.0	86.00

BACK WALL SYSTEMS

Extension back wall system for workbenches

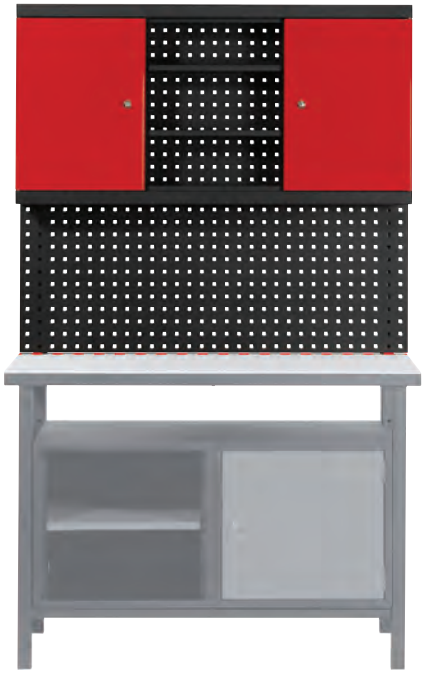
- 2 x posts
- 2 x hole wall
- For the accommodation of additional tools
- For organising and fastening tools
- Steel sheet construction



	Total depth mm	Width mm	kg
865.0008	710.0	1200.0	8.00

Extension back wall system for workbenches with cupboard

- 2 x posts
- 1 x hole wall
- 1 x high level cupboard system, lockable
- For the accommodation of additional tools
- For organising and fastening tools
- Steel sheet construction



	Total depth mm	Width mm	Depth mm	kg
865.0009	710.0	1200.0	200.0	38.00

WALL CUPBOARDS

Tool cabinet with 2 doors

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Central locking system on all doors through the cylinder lock
- Cupboard back wall with hole system
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- 2 mounting rails with 4 connection holes
- Continuous opening without stop
- Electrostatic powder coating

Technical data:

Door dimensions:	H 425 x B 430 mm
Usable depth:	164.0 mm

	Total depth mm	Width mm	Depth mm	kg
865.0205	470.0	970.0	200.0	22.00

CLOAKROOM CUPBOARD

Cloakroom stand

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Base and reinforced doors
- All parts have electrostatic powder coating
- Compartment with hat base, clothes rail and 3 adjustable coat hooks
- Lockable by cylinder lock

	Compartment	Total depth mm	Width mm	Depth mm	kg
850.0502	2	1800.0	600.0	500.0	26.00
850.0503	3	1800.0	890.0	500.0	35.00

HINGED DOOR CABINET

Lockable cupboard

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Front side edges are rounded
- Inside recumbent hinges and locking bar
- 4 shelves have universal height adjustment
- Internal storage wall with square punching, approx. 340 mm high
- Side mounted handle
- Electrostatic powder coating

Technical data:

Drawer dimensions:	H 70 x B 680 x T 310 mm
Total load capacity:	400,0 kg
Load capacity of each drawer:	35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0000	1920.0	780.0	380.0	84.00

Lockable cupboard

- High quality welded sheet metal
- High level of stability
- Reinforced doors with 3-point safety lock
- Inside-recumbent hinges and locking bar
- Galvanised shelves can be adjusted in 25 mm intervals
- Load capacity per shelf max. 60 kg with even load distribution
- Powder coated

	Total depth mm	Width mm	Depth mm	kg
865.0005	1950.0	950.0	500.0	80.00

BENCH VICES

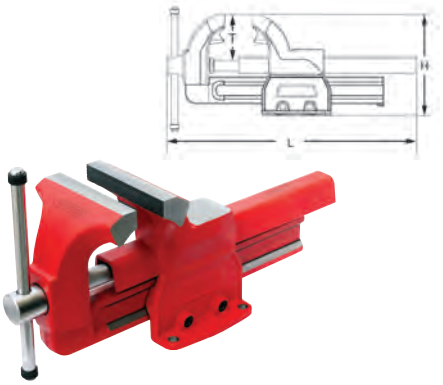
Bench vice

- Swivel base
- Interchangeable jaws
- Includes pipe vice attachment
- Absolutely parallel with adjustable centric drive
- Extra high possible clamping jaws shaped by large embossed casting
- Large anvil for straightening and compression work
- Induction hardened jaws and anvil
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel

	Jaw length	Jaw length mm	Clamping range mm	kg
914.0003	3“	75.0	100,0	7.50
914.0004	4“	100.0	120,0	8.70
914.0005	5“	130.0	140,0	11.00
914.0006	6“	150.0	170,0	14.50
914.0008	8“	200.0	200,0	20.50

Bench vice

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel



	Jaw length mm	Clamping range mm	T mm	H mm	L mm	Cudgel ø mm	kg	
914.0026	100.0	125,0	70,0	140.0	320.0	12.0	5.00	
914.0031	125.0	155,0	80,0	180.0	395.0	14.0	11.00	
914.0036	150.0	180,0	98,0	220.0	485.0	16.0	20.00	
914.0041	175.0	205,0	110,0	240.0	550.0	18.0	29.00	

Turntable for bench vice

- Ideal supplement for KS-vices 914.0027 - 914.0041
- Enables accurate positioning of the workpiece
- 360° freely rotatable
- Safe and quick locking via handle
- Flat and stable construction
- Inclusive fastening screws for vice

		Ø mm	kg	
914.0027	914.0026	100,0	1.40	
914.0032	914.0031	125,0	2.80	
914.0037	914.0036	150,0	3.75	
914.0042	914.0041	175,0	4.85	

Bench vice with turntable

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel

		Jaw length mm	kg	
914.0025	2 pcs	100.0	6.40	
914.0030	2 pcs	125.0	13.80	
914.0035	2 pcs	150.0	23.75	
914.0040	2 pcs	175.0	33.85	

Aluminium bench vice protective jaws with textured surface

- Suitable for all bench vices
- The profile is ight angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For coarse to medium fine ork pieces
- Fine textured
- Aluminium

	Protective jaws mm	g	
914.0080	100.0	170	
914.0081	120.0	210	
914.0082	140.0	240	
914.0083	160.0	270	
914.0084	175.0	290	

Aluminium bench vice protective jaws with trapezoid notches

- Suitable for all bench vices
- The profile is ight angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For different shaped materials
- For trapezoid use
- Aluminium

	Protective jaws mm	g	
914.0085	100.0	140	
914.0086	120.0	190	
914.0087	140.0	210	
914.0088	160.0	240	
914.0089	175.0	260	

Aluminium bench vice protective jaws with rubber insert

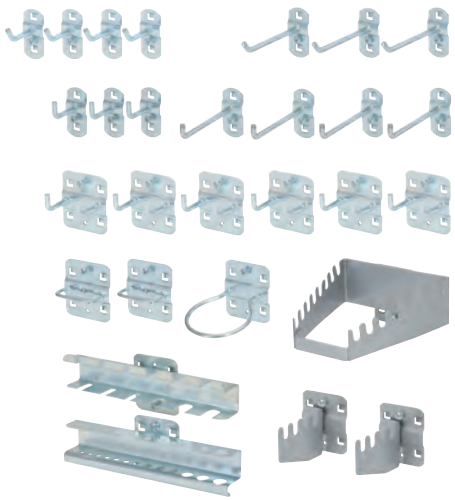
- Suitable for all bench vices
- The profile is ight angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For thin walled wood and plastic parts
- Smooth
- Aluminium / rubber

	Protective jaws mm	g	
914.0090	100.0	160	
914.0091	120.0	200	
914.0092	140.0	240	
914.0093	140.0	260	
914.0094	175.0	290	

HOOK ASSORTMENT

Hook assortment for hole wall system

- Peg range for work areas
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



			kg
860.0888	28 pcs	Hook assortment for hole wall system	1.78

1 x		150 x 55 mm
1 x		65 x 25 mm
2 x		55 mm
2 x		150 mm
1 x		150 x 55 mm
1 x		150 x 55 mm
14 x		3 x 35 mm - 4 x 50 mm - 4 x 75 mm 3 x 100 mm
6 x		35 mm

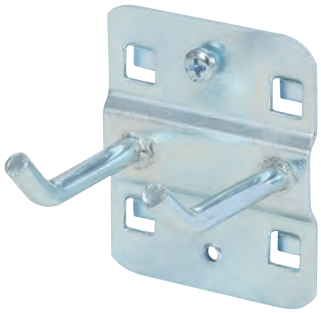
Tool holder with straight end Ø 6 mm

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	L mm	g	
860.0801	6,0	50.0	30	
860.0802	6,0	100.0	40	
860.0803	6,0	150.0	40	

Double tool holder with angled hook end Ø 6 mm

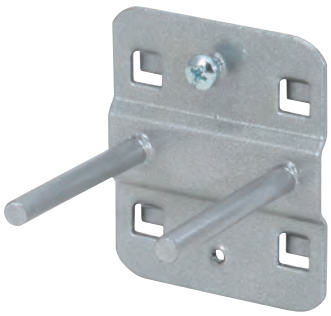
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	g	
860.0812	6,0	35.0	60	
860.0813	6,0	50.0	60	
860.0814	6,0	75.0	80	
860.0815	6,0	150.0	110	

Double tool holder with straight end Ø 6 mm

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	g	
860.0820	6,0	35.0	60	
860.0821	6,0	50.0	80	
860.0822	6,0	75.0	110	

Tool holder with vertical hook end Ø 6 mm

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	L mm	g	
860.0809	6,0	35.0	30	
860.0810	6,0	75.0	40	
860.0811	6,0	125.0	90	

Tool holder with angled hook end Ø 6 mm

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	L mm	g	
860.0804	6,0	50.0	30	
860.0805	6,0	100.0	40	
860.0806	6,0	150.0	50	
860.0807	6,0	200.0	60	

Double tool holder with vertical hook end Ø 6 mm

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	L mm	g	
860.0816	6,0	35.0	60	
860.0817	6,0	50.0	70	
860.0818	6,0	75.0	90	
860.0819	6,0	150.0	100	

Tool clip, single small

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	g	
860.0824	6,0	20	
860.0825	10,0	20	
860.0826	13,0	20	
860.0827	16,0	20	
860.0828	19,0	20	

Angled hook for nuts and sockets Ø 6 mm

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	L mm	g	
860.0823	6,0	40.0	30	

Power tool holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	g	
860.0841	40,0	50	
860.0842	60,0	70	
860.0843	80,0	80	

Tool clip, double small

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	g	
860.0829	6,0	40	
860.0830	10,0	40	
860.0831	13,0	40	
860.0832	16,0	40	
860.0833	19,0	50	

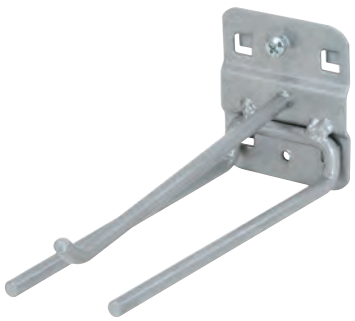
Plier holder depth 20 mm

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	g	
860.0837	35,0	60	
860.0838	55,0	50	
860.0839	75,0	60	

Tool holder 3 way

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	g	
860.0844	6,0	150.0	150	

Tool clip, single large

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	g	
860.0834	25,0	50	
860.0835	28,0	50	
860.0836	32,0	50	

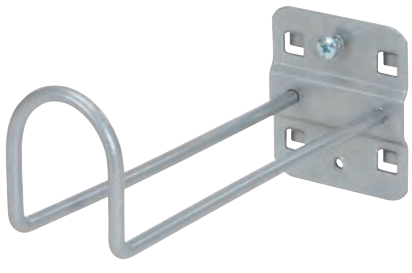
Round holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	g	
860.0840	65.0	25.0	70	

Cable holder

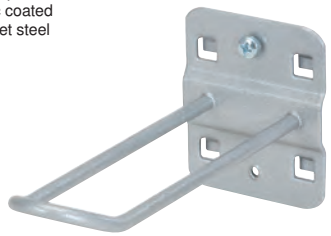
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	H mm	g	
860.0874	150.0	37.0	50.0	110	
860.0875	200.0	37.0	50.0	120	

Tool holder for euro blister packaging

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	g	
860.0876	125.0	40.0	80	
860.0877	150.0	40.0	90	

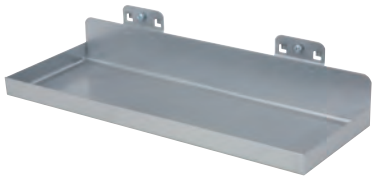
Screwdriver holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	No. holes	L mm	B mm	g	
860.0850	6	150.0	55.0	170	
860.0851	12	150.0	55.0	320	

Storage shelf without partition

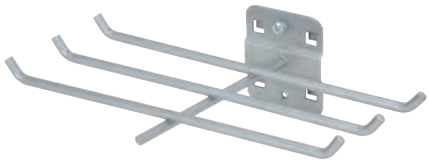
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	kg	
860.0857	350.0	125.0	1.10	
860.0858	450.0	150.0	1.50	

Six way tool holder hook ends 45° angled

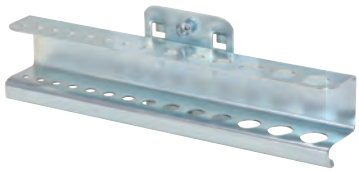
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	B mm	g	
860.0845	6,0	240.0	140.0	240	

Drill- and hexagon socket holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	L mm	B mm	g	
860.0852	14	150.0	55.0	200	
860.0853	28	150.0	55.0	550	

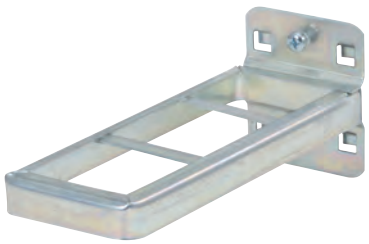
Lin bin holder single

- For size 7 and 8
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

		g	
860.0859	Lin bin holder single	60	

Combination holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	g	
860.0846	150.0	55.0	110	

Saw holder

- To be used in pairs
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	No. holes	L mm	g	
860.0854	4	150.0	70	

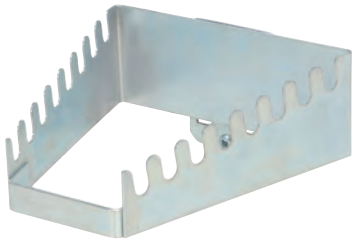
Base plate

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

		g	
860.0860	Base plate	20	
860.0861	Base plate	40	

Spanner holder horizontal

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	L mm	B mm	g	
860.0849	8	150.0	55.0	200	

Pipe holder

- To be used in pairs
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	Ø mm	B mm	g	
860.0855	60,0	35.0	100	
860.0856	100,0	35.0	150	

Lin bin holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	B mm	H mm	g	
860.0862	550.0	40.0	520	
860.0863	550.0	60.0	660	

Spanner holder tapered for 10 spanners

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	No. holes	L mm	B mm	H mm	g
860.0864	5	145/75,0	50.0	220.0	310
860.0865	5	225/125,0	50.0	255.0	480

Can holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	No. holes	Ø mm	L mm	g
860.0866	1	70,0	100.0	170
860.0867	3	70,0	300.0	580

Pipe holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	g
860.0868	230.0	70.0	700

Small component tray with partition

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	g
860.0847	150.0	55.0	240

Small component tray without partition

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	g
860.0848	150.0	55.0	210

Universal tool holder self drill

- With plastic pad for DIY drilling
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	g
860.0869	70.0	120.0	340
860.0870	45.0	390.0	1030

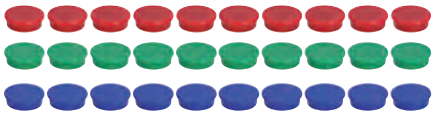
Universal tool storage box

- With wooden insert for DIY drilling
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	H mm	kg
860.0871	155.0	120.0	55.0	1.25

Magnet set

- Different colours
- Ideally suited for metal surfaces
- Plastic coated magnet



	Colour code	Ø mm	g
860.0882		25,0	90
860.0883		25,0	90
860.0884		25,0	100

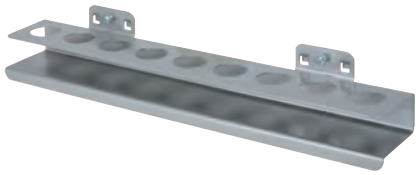
Sheet steel tray

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	g
860.0878	250.0	435.0	1390

Socket holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	B mm	H mm	g
860.0873	9	390.0	30.0	150

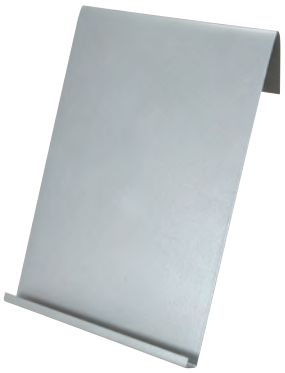
Paper roll holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

	L mm	B mm	H mm	g
860.0879	100.0	355.0	120.0	710

Document holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	B mm	H mm	g	
860.0880	220.0	310.0	750	

Works order holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1.5 mm
- Zinc coated
- Sheet steel

	B mm	H mm	g	
860.0881	220.0	310.0	690	

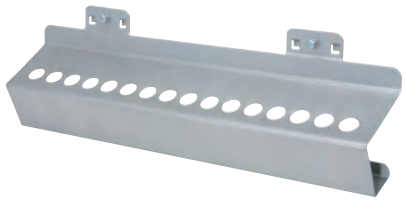
Magnetic holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1.5 mm
- Zinc coated
- Sheet steel

	Ø mm	g	
860.0885	40,0	150	

Drill holder for MK 2 and MK 3 shafts

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	B mm	H mm	g	
860.0886	16	395.0	85.0	570	

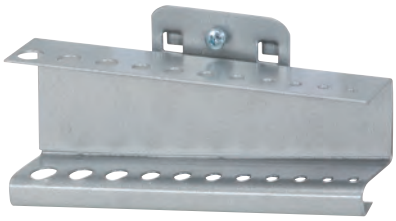
Bit holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1.5 mm
- Zinc coated
- Sheet steel

	No. holes	L mm	B mm	g	
860.0887	7	35.0	150.0	150	

Hexagon socket holder

- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- For Ø 1 - 11 mm
- Baseplate thickness 1.5 mm
- Zinc coated
- Sheet steel



	No. holes	B mm	H mm	g	
860.0872	11	145.0	70.0	190	

Socket holder for 1/2“ sockets

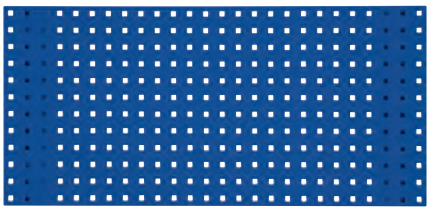
- Suitable for hole measurements 10 x 10 mm hole distance 38 mm
- Includes fixi g screws
- Baseplate thickness 1.5 mm
- Zinc coated
- Sheet steel

	No. holes	g	
860.0894	6	200	
860.0895	13	360	

HOLE WALL

Hole wall gentian blue

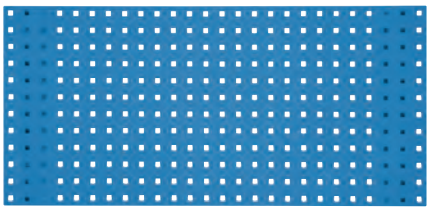
- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg	
860.0889EB	5010	500.0	450.0	2.00	
860.0890EB	5010	1000.0	450.0	5.00	
860.0891EB	5010	1500.0	450.0	7.00	
860.0892EB	5010	2000.0	450.0	9.00	

Hole wall sky blue

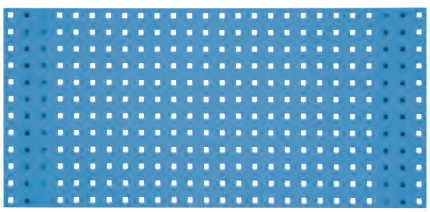
- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg	
860.0889HB	5015	500.0	450.0	2.00	
860.0890HB	5015	1000.0	450.0	5.00	
860.0891HB	5015	1500.0	450.0	7.00	
860.0892HB	5015	2000.0	450.0	9.00	

Hole wall light blue

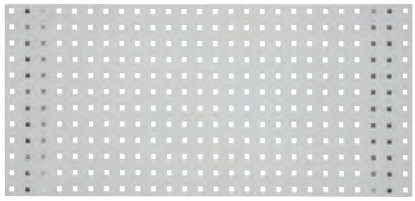
- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg	
860.0889LB	5012	500.0	450.0	2.00	
860.0890LB	5012	1000.0	450.0	5.00	
860.0891LB	5012	1500.0	450.0	7.00	
860.0892LB	5012	2000.0	450.0	9.00	

Hole wall light grey

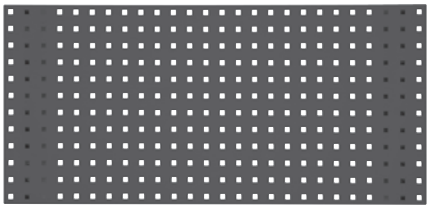
- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889LG	7035	500.0	450.0	2.00
860.0890LG	7035	1000.0	450.0	5.00
860.0891LG	7035	1500.0	450.0	7.00
860.0892LG	7035	2000.0	450.0	9.00

Hole wall slate grey

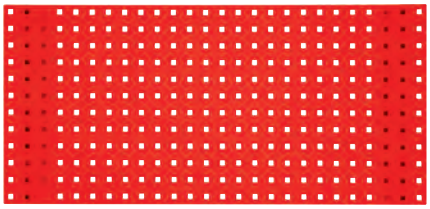
- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889SG	7015	500.0	450.0	2.00
860.0890SG	7015	1000.0	450.0	5.00
860.0891SG	7015	1500.0	450.0	7.00
860.0892SG	7015	2000.0	450.0	9.00

Hole wall bright red

- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889VR	3020	500.0	450.0	2.00
860.0890VR	3020	1000.0	450.0	5.00
860.0891VR	3020	1500.0	450.0	7.00
860.0892VR	3020	2000.0	450.0	9.00

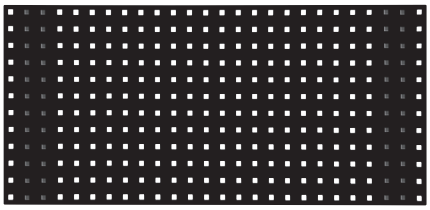
Hole wall pure white

- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating

	RAL	L mm	B mm	kg
860.0889RW	9010	500.0	450.0	2.00
860.0890RW	9010	1000.0	450.0	5.00
860.0891RW	9010	1500.0	450.0	7.00
860.0892RW	9010	2000.0	450.0	9.00

Hole wall jet black

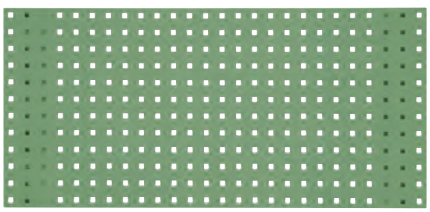
- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889TS	9005	500.0	450.0	2.00
860.0890TS	9005	1000.0	450.0	5.00
860.0891TS	9005	1500.0	450.0	7.00
860.0892TS	9005	2000.0	450.0	9.00

Hole wall reseda green

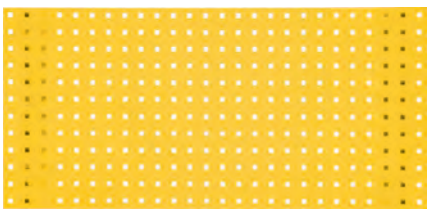
- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889RG	6011	500.0	450.0	2.00
860.0890RG	6011	1000.0	450.0	5.00
860.0891RG	6011	1500.0	450.0	7.00
860.0892RG	6011	2000.0	450.0	9.00

Hole wall bright gold

- Versitile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889VG	1023	500.0	450.0	2.00
860.0890VG	1023	1000.0	450.0	5.00
860.0891VG	1023	1500.0	450.0	7.00
860.0892VG	1023	2000.0	450.0	9.00

SERVICE TROLLEYS

Workshop service trolley

- Made from robust sheet steel construction
- Non slip foam insert on the upper working surface
- Lower shelf with high retaining border
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability

Technical data:

Total load capacity: 200 kg

	L mm	B mm	H mm	kg
890.0002	697.0	489.0	836.0	19.10

Workshop service trolley

- Extremely substaintial plastic construction
- Without screws easily costructed
- Distance between the ground 30 cm
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile eight
- Columns made out of anodised aluminum

Technical data:

Total load capacity: 200 kg

	L mm	B mm	H mm	kg
800.0020	860.0	480.0	1010.0	12.10

Workshop service trolley with lining

- Extremely substaintial plastic construction
- Equipment lining
- Without screws easily costructed
- Distance between the ground 30 cm
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile eight
- Columns made out of anodised aluminum

Technical data:

Total load capacity: 200 kg

	L mm	B mm	H mm	kg
800.0021	860.0	480.0	1010.0	12.10

Workshop service trolley with 2 drawers

- Extremely robust plastic construction
- Easily constructed without screws
- Two ball bearing drawer runner guides
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile eight
- Columns made out of anodised aluminum

Technical data:

Drawer dimensions:	H 85 x B 430 x T 520 mm
Total load capacity:	200 kg
Load capacity of each drawer:	35 kg

	L mm	B mm	H mm	kg
800.0030	860.0	480.0	1010.0	14.20

Workshop service trolley with 2 drawers and lining

- Extremely substaintial plastic construction
- Without screws easily costructed
- Two ball bearing drawer runner guides
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile eight
- Columns made out of anodised aluminum

Technical data:

Drawer dimensions:	H 85 x B 430 x T 520 mm
Total load capacity:	200 kg
Load capacity of each drawer:	35 kg

	L mm	B mm	H mm	kg
800.0031	860.0	480.0	1010.0	15.00

PLATFORM TROLLEY

Tyres platform trolley

- Solid construction of steel sheet
- Firmly fi ed grasping handle made from steel tube
- Grasping handle is hinged and locked with safety security catches without any tools
- In minimal time
- Rubbber surrounding edges protect the trolley and surrounds ings from damage
- With 4 ball baering rubber wheels, 2 with steering
- Load area has a plastic covering

Technical data:

Wheel diameter:	100 mm
Total load capacity:	150 kg

	L mm	B mm	H mm	kg
800.0015	740.0	480.0	810.0	9.20

PLATFORM

Aluminium work platform

- Skid proof profile on he platform stage
- Chequer plate profile on he steps
- Double sided usage
- Large platform for safe standing
- Safety clips for added security
- Beams and step made from aluminium
- Easy to store as the unit is fully collapsible
- The gripped plastic feet protect the surface and add stability
- Substaitial aluminium construction

Technical data:

Platform dimensions:	1000 x 300 mm
Total load capacity:	150 kg

	L mm	B mm	H mm	kg
800.0960	1345.0	405.0	480.0	7.30

Safety assembly step

- No tipping over through obliquely placed standing feet
- Anti slip, hot dip galvanised, with the frame riveted lattice rustproof
- Step to DIN 50976
- Massive and distortion stiff steel tube construction
- Base frame plastic coated
- The gripped plastic feet protect the surface and add stability
- Applicable e.g. panel assembly, engine compartment works, roof works truck pit working
- Universal suitable in very high vehicles e.g. motor homes, small vehicles, truck and buses, terrain vehicles

Technical data:

Height 2nd step:	450.0 mm
Surface area:	690 x 620
Steel grating:	590 x 290
Total load capacity:	300 kg

		kg
450.0960	Safety assembly step	14.00

SUPPORTS

Windscreen table with rubber protective pads

- Fully adjustably
- The four large rubber pads hold the windscreen safely in position
- For nearly all windscreen sizes
- Capacity up to 80 kg
- Made from zinc coated steel tube

	L mm	H mm	Suction cup Ø mm	kg
140.2225	1030.0	1040.0	125.0	8.40

Windscreen holder

- Fully adjustably
- For nearly all windscreen sizes
- Robust construction
- Capacity up to 80 kg
- Slip proof holding bar offer optimal hold
- Made from zinc coated steel tube

	L mm	H mm	kg
140.2226	1030.0	940.0	6.60

Universal telescopic multi purpose trolley

- Ideally for the car body restoration, panel spraying area or for windshields
- Universal application the all rounder both height and width adjustable
- After use space saving folding away
- Rubber underside to prevent damage to the paintwork and other panels
- 4 substaintial wheels, 2 with locking brakes
- Simple handling
- Capacity up to 100 kg
- Robust construction made from square tube

	B mm	H mm	kg
500.8100	257,0-1380,0	845,0-1320,0	23.50

TRANSPORT TROLLEY

Telescopic sack trolley with pneumatic wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- High quality telescopic pole
- Equiped with 2 fi ed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business

Technical data:

Tyre size:	Ø 260 x 80 mm
Shovel/base dimensions:	B 300 x T 350 mm
Min. dimensions:	810.0 mm
Max. dimensions:	1140.0 mm

	Max load kg	L mm	B mm	H mm	kg
160.0224	120.0 kg	630.0	480.0	1140.0	10.00

Transport sack trolley with pneumatic wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Very wide shovel base
- Equiped with 2 fi ed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business

Technical data:

Tyre size:	Ø 260 x 85 mm
Shovel/base dimensions:	W 400 x D 170 mm

	Max load kg	L mm	B mm	H mm	kg
160.0225	250.0 kg	430.0	550.0	1100.0	10.00

Transport sack trolley with full rubber tyres

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Equiped with 2 fi ed full rubber wheels
- Safety handles and slip protection
- Perfectly suitable in industry and business

Technical data:

Tyre size:	Ø 255 x 46 mm
Shovel/base dimensions:	W 400 x D 170 mm

	Max load kg	L mm	B mm	H mm	kg
160.0228	250.0 kg	430.0	560.0	1100.0	17.00

Transport sack trolley with pneumatic wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- Equiped with 2 fi ed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business

Technical data:

Tyre size: Ø 260 x 85 mm

Shovel/base dimensions: B 340 x T 520 mm

	Max load kg	L mm	B mm	H mm	kg	
160.0226	250.0 kg	620.0	400.0	1100.0	10.00	

Transport trolley with full rubber tyres

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, carton and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- Equiped with 2 fi ed full rubber wheels
- Safety handles and slip protection
- Perfectly suitable in industry and business

Technical data:

Tyre size: Ø 255 x 46 mm

Shovel/base dimensions: B 340 x T 520 mm

	Max load kg	L mm	B mm	H mm	kg	
160.0229	250.0 kg	620.0	400.0	1100.0	19.00	

Sack trolley with full rubber three staged wheels

- Steel tubular structure with deep welded joints
- Light and agile transportation for use in smallest space
- Effortless receiving and transporting of packages, cartons and all other objects
- From round tubes welded together manufactured and solid
- Fold away shovel base
- Problem free overcoming of stairs
- Full rubber three staged wheels
- Perfectly suitable in industry and business

Technical data:

Tyre size: Ø 160 x 30 mm

Shovel/base dimensions: B 340 x T 520 mm

	Max load kg	L mm	B mm	H mm	kg	
160.0227	250.0 kg	850.0	715.0	1610.0	15.00	

PROTECTIVE KNEELING MATS

Mechanics protection mat

- Helps the mechanic to work easier and safer whilst working in the lower area of vehicles on uneven surfaces
- Moisture and dirt resistant
- Work garments and knees stay dry, clean and protected
- 3 layered padded construction from soft material
- Integrated hand grip
- Petrol and oil resistant
- Universal use in workshops, service and breakdown service vehicles

	L mm	B mm	H mm	g	
500.8040	480.0	320.0	36.0	200	
500.8045	1220.0	550.0	36.0	760	

STOOLS

Mobile workshop stool

- Robust and mobile stool
- Storage area for the protection of tools and small parts
- Washable cushion
- Four ball bearing solid rubber wheels
- Maximum capacity up to 90 kg
- Construction from robust steel square tube

	L mm	B mm	H mm	kg	
500.8020	440.0	360.0	360.0	4.00	

Mobile and height adjustable workshop stool

- Robust and mobile stool
- Storage area for the protection of tools and small parts
- Washable cushion
- Hydraulic height adjustment
- Five ball bearing solid rubber wheels
- Maximum capacity up to 90 kg
- Durable metal construction

	B mm	H mm	kg	
500.8030	370.0	540.0	4.00	

AXLE STANDS

Aluminium axle stand set

- Especially light and stabile
- High level of stability due to the diameter of the base plate
- Safety locking bolt with chain
- Suits itself especially well in combination with jack for the safe bracing of a load
- Aluminium

	Max load t	Stroke way mm	Min total height mm	Max total height mm	kg	
160.0315	3,0	140.0	260.0	400.0	2.20	

Steel axle stands with quick adjustment

- 4 feet on each stand
- Solid construction
- For heavy vehicles weights
- High level of stability
- Lifting bar made from cast steel
- Quick adjustment
- Supplied in pairs
- Height adjustment has 13 stages
- Suits itself especially well in combination with jack for the safe bracing of a load
- Made from solid steel

	Max load t	Stroke way mm	Min total height mm	Max total height mm	kg	
160.0370	3,0	130.0	295.0	425.0	8.00	
160.0371	6,0	205.0	400.0	605.0	15.00	
160.0372	12,0	250.0	480.0	730.0	26.00	

LIFTING TOOLS

Hydraulic bottle jack 2 - 50 t

- Security valve against overload
- Telescopic piston pole
- Additional spindle for extension (not in 30 and 50 t executions)
- Two piece lever arms
- For heavy vehicles weights
- Especially suitable for narrow hard to access areas
- High level of stability
- Ideally suited in combination with jack for the neutralizing and bracing of a load
- Heavy steel construction

	Max load t	Min total height mm	Max total height mm	Hydraulic lift mm	Screw extension mm	Dimension of base plate mm	kg	
160.0350	2,0	181.0	345.0	116.0	48,0	88 x 92	2.90	
160.0351	3,0	194.0	372.0	118.0	60,0	92 x 100	3.80	
160.0352	5,0	216.0	413.0	127.0	70,0	96 x 112	5.10	
160.0354	10,0	230.0	460.0	150.0	80,0	110 x 127	7.10	
160.0356	15,0	230.0	460.0	150.0	80,0	113 x 136	9.30	
160.0358	20,0	242.0	452.0	150.0	60,0	144 x 155	11.90	
160.0359	30,0	285.0	465.0	180.0	-	190 x 155	21.70	
160.0360	50,0	300.0	480.0	180.0	-	218 x 176	30.70	

Jack for forklifts, hydraulic 4 - 5 t

- Specially developed for forklifts, agricultural and industrial vehicles
- Combination lifting jack with scissor action
- Scissor capacity of 4 tons and cylinder capacity of 5 tons
- Steal wheels

	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	kg	
160.0716	5,0	365.0	75.0	440.0	700.0	44.00	

WORKSHOP EQUIPMENT

Mobile cleaning station for small parts

- Mounted metal reservoir with 60 lt tank capacity
- Includes compressed air operated drying pistol
- Cleaning brush with strong bristles
- Emptying of the collecting container by means of pneumatic air
- Includes level indicator display
- Safety valve for the vacuum production and pressure emptying
- High quality 2 m tube and compressed air pistol
- Good maneuverability due to the two solid rubber direct castors
- Storage compartment for small parts
- Includes stop handles
- Especially suitable for use in the car industry
- Ideally suited for removing of stubborn soiling
- Base unit made out of cast iron

Technical data:

Operating pressure:	6,3 bar (90 psi)
Collecting tank:	500 x 810 x 130 mm

	L mm	B mm	H mm	kg	
160.0040	490.0	580.0	1040.0	54.00	

TOOL CABINET / INSERT MODULE SYSTEM

KSTOOLS®

Innovation is our mission!

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TOOL CABINETS

4 colours, 4 drawer configurations, 3 tool cabinet ranges
= 48 tool cabinet variants!

Tool cabinets BASIC*Line*

BASIC Line

- Robust and stable steel construction with 0.8 mm sheet steel - distortion resistant
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- With full width metal handle
- 2 fi ed wheels Ø 100 mm
- 2 castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating

1 stage locking mechanism:

- Central locking system on all drawers through the cylinder lock

Tool cabinets MASTER*Line*

MASTER Line

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Recessed rear and side walls with metal peg board for mounting different accessories
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- With full width polyurethane coated metal handle
- 2 fi ed wheels Ø 125 mm
- 2 castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating

2 stage locking mechanism:

- Central locking system on all drawers through the cylinder lock
- Handle locking system prevents unintentional opening

Tool cabinets ULTIMATE*Line*

ULTIMATE *Line*

- Extremly robust and stable steel construction with 1.0 mm sheet steel - distortion resistant
- Due to resilient heavy secure steel plate construction
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Recessed rear and side walls with metal peg board for mounting different accessories
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Robust ABS work surface with tool holders and storage recesses
- With side mounted handle
- 2 fi ed wheels Ø 125 mm
- 2 castor wheels Ø 125 mm with rolling and turning brake
- Full width aluminium drawer handle
- Electrostatic powder coating

3 stage locking mechanism:

- Central locking system on all drawers through the cylinder lock
- Handle lockind system prevents unintentional opening
- Central locking system with individual drawer locking system independent locking mechanism if required where needed

	BASIC *Line*	MASTER *Line*	ULTIMATE *Line*
Optimal accessories	-	**	*****
Safety chamfered	-	-	✓
Aluminium edge structure	-	-	✓
Square punching in side drawers and back wall	-	✓	✓
Drawers with automatic entry	-	-	✓
Plate thickness	0,8 mm	0,9 mm	1,0 mm
Load capacity of each drawer	30 kg	40 kg	45 kg
Total load capacity	350 kg	450 kg	600 kg
Wheel diameter	100 mm	125 mm	125 mm

TOOL BAGS AND BOXES

Textile hammer holder with belt loop

- Ideal for claw hammer
- Unrestricted movement enables total freedom
- Made out of tear resistant polyester webbing
- With rust proof loop

		g
850.0304	Textile hammer holder with belt loop	130

Universal work waistcoat

- Multi functional with many storage possibilities
- Universal size with 2 adjustable belts
- Includes case for a mobile phone
- Made out of tear resistant polyester webbing

		g
850.0303	Universal work waistcoat	470

Professional tool belt

- Multi functional with many pockets and holders
- Universal size - stepless adjustable up to 120 cm size
- Includes case for a mobile phone
- 2 Hammer holders with rust free metal hooks
- Hook for a tape measure
- Strong belt upholstery for a high level of comfort
- Made out of tear resistant polyester webbing

		g
850.0302	Professional tool belt	920

SMARTBAG universal tool case

- Practical arrangement of compartments in the internal and external areas
- Ideal for accommodating of tools and accessories
- Padded carry handle
- Shoulder strap with strengthening in the shoulder area
- Through fl xible hood locking with hook and loop fastener
- Includes 2 small part component trays
- Numerous pockets
- Strong design due to the plastic reinforcement
- Made out of tear resistant polyester webbing

	L mm	B mm	H mm	kg
850.0300	420.0	230.0	260.0	2.25

SMARTBAG universal tool case XL

- Practical arrangement of compartments in the internal and external areas
- Ideal for accommodating of tools and accessories
- Padded carry handle
- Shoulder strap with strengthening in the shoulder area
- Through fl xible hood locking with hook and loop fastener
- Numerous pockets
- Strong design due to the plastic reinforcement
- Made out of tear resistant polyester webbing

	L mm	B mm	H mm	kg
850.0325	520.0	250.0	340.0	2.40

Toolcase with telescopic trolley, empty

- 8 practically arranged storage pockets on the outside area
- 15 practically arranged storage pockets in the internal area
- Ideal for accommodating of tools, accessories and documents
- Padded carry handle
- Robust zipper
- Strong design due to the plastic reinforcement
- With wide rollers and standing feet for firm tanding
- Telescopic carrying handle
- Made out of tear resistant polyester webbing

	L mm	B mm	H mm	kg
850.0305	500.0	280.0	400.0	3.25

ABS hard protective tool case

- Strong hard protective case made from impact resistant plastic
- 1 tool board for indvidual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locks
- Capacity up to 30 kg

	L mm	B mm	H mm	kg
850.0520	465.0	335.0	150.0	6.00

ABS hard protective case with removable telescopic trolly

- Strong hard protective case made from impact resistant plastic
- Document compartment in upper lid
- 2 tool boards for indvidual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locks
- Carrying handle with telescopic removable frame
- Capacity up to 30 kg

	L mm	B mm	H mm	kg
850.0530	435.0	310.0	160.0	6.00

ABS gard protective tool case with aluminium frame

- Strong hard protective case made from impact resistant plastic with aluminium frame
- Document compartment in upper lid
- 2 removable tool boards for indvidual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locks
- Capacity up to 30 kg

	L mm	B mm	H mm	kg
850.0540	471.0	338.0	154.0	3.40

ABS hard protective tool case with hardened aluminium frame

- Strong hard protective case made from impact resistant plastic with hardened aluminium frame
- Document compartment in upper lid
- 2 removable tool boards for indvidual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locking fastening catches
- Capacity up to 30 kg

	L mm	B mm	H mm	kg
850.0560	460.0	310.0	180.0	4.50

Leather tool case

- Strong tool case made from environment friendly quality leather
- Includes removable shoulder strap with shoulder protection
- Edges reinforced with aluminum capping
- Folding front wall enables easy access to the tools
- 18 practically arranged storage pockets in the internal area
- 2 Loops on the side walls
- Inner area completely reinforced
- Lockable through two fastening catches
- Standing feet for sensitive surfaces
- Capacity up to 30 kg

	L mm	B mm	H mm	kg	
850.0310	420.0	150.0	250.0	2.60	

TOOL BOXES

Sheet steel toolbox, 5 compartments

- with riveted hinges
- Compartments can be pulled all the way out
- Highly stable
- Double-seamed edges
- Lockable with padlock
- Red powder coating
- Made of electrolytically galvanised sheet steel

	L mm	B mm	H mm	kg	
999.0120	420.0	200.0	190.0	3.45	
999.0125	550.0	200.0	190.0	5.60	

Universal plastic tool box

- Multi functional for various storage possibilities
- Includes 2 removable trays for small parts
- Capacity up to 10 kg
- Made from robust plastic

	L mm	B mm	H mm	kg	
850.0505	475.0	240.0	240.0	1.70	

Mobile plastic sheet steel tool box

- Strong hard protective case made from impact resistant plastic and sheet steel
- Multi-functional for various storage possibilities
- Made of 3 interchangeable stackable parts
- Lockable with two fastening catches
- Telescopic carrying handle
- With wide rollers and standing feet for firm tanding
- Load capacity up to 75 kg

	L mm	B mm	H mm	kg	
850.0340	520.0	320.0	720.0	15.00	

Plastic sheet steel toolboxes

- Strong hard protective case made from impact resistant plastic and sheet steel
- Multi-functional for various storage possibilities
- Includes a removable tray for small parts
- Lockable with two fastening catches
- With retractable two component handle
- Lockable with padlock
- Load capacity up to 30 kg

	L mm	B mm	H mm	kg	
850.0345	582.0	298.0	255.0	3.25	
850.0350	470.0	238.0	203.0	2.00	
850.0355	395.0	180.0	170.0	1.40	

Plastic sheet steel toolbox set

- Sturdy hard protective case made from impact resistant plastic and sheet steel
- Multi-functional for various storage possibilities
- Includes a removable tray for small parts
- Lockable with two fastening catches
- With retractable two component handle
- Lockable with padlock
- Load capacity up to 30 kg

			kg	
850.0360	3 pcs	Plastic sheet steel toolbox set	6.70	

consists of:

		kg	
850.0345	Plastic sheet steel tool box, L582 x W298 x H255 mm	3.25	
850.0350	Plastic sheet steel tool box, L470 x W238 x H203 mm	2.00	
850.0355	Plastic sheet steel tool box, L395 x W180 x H170 mm	1.40	

Tool chest with 3 drawers - red

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- With integrated storage compartment in the lid
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Continuous handle with 2,5 mm contrasting chrome plated steel
- Good comprehensive view due to possibility of marking the individual drawers
- Includes interchangeable paper strip in the handle strip

Drawer internal dimensions: 489 x 222 mm
Total load capacity: 50 kg
Load capacity of each drawer: 10 kg

	L mm	B mm	H mm	kg	
891.0003	508.0	303.0	255.0	11.68	

Tool chest with 3 drawers - black

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- With integrated storage compartment in the lid
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Continuous handle with 2,5 mm contrasting chrome plated steel
- Good comprehensive view due to possibilty of marking the individual drawers
- Includes interchangeable paper strip in the handle strip

Drawer internal dimensions: 489 x 222 mm
Total load capacity: 50 kg
Load capacity of each drawer: 10 kg

	L mm	B mm	H mm	kg	
801.0003	508.0	303.0	255.0	12.27	

BASIC*line* TOOL CABINETS

BASIC*line* GRAY/SILVER tool cabinet with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10mm durable foam insert mat
- Full width metal handle
- Two fi ed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 678 x H 990 x T 459 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
835.0004		4	4	-	56.50	
835.0005		5	1	4	59.00	
835.0007		7	5	2	51.29	
835.0009		9	9	-	69.00	

BASIC*line* BLACK/RED tool cabinet with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10mm durable foam insert mat
- Full width metal handle
- Two fi ed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 678 x H 990 x T 459 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
836.0004		4	4	-	56.50	
836.0005		5	1	4	59.00	
836.0007		7	5	2	51.29	
836.0009		9	9	-	69.00	

BASIC*line* BLUE/SILVER tool cabinet with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10mm durable foam insert mat
- Full width metal handle
- Two fi ed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 678 x H 990 x T 459 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
837.0004		4	4	-	56.50	
837.0005		5	1	4	59.00	
837.0007		7	5	2	51.29	
837.0009		9	9	-	69.00	

BASIC*line* GRAY/SILVER tool cabinet top chest with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10mm durable foam insert mat
- Side mounted carry handles
- Side mounted handle
- Combination with tool cabinet

Total capacity:	B 678 x H 451 x T 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	175,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
835.0014		4	4	-	36.00	

BASIC*line* BLACK/RED tool cabinet top chest with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted carry handles
- Side mounted handle
- Combination with tool cabinet

Total capacity:	B 678 x H 451 x T 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	175,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
836.0014		4	4	-	36.00	

BASIC*line* BLUE/SILVER tool cabinet top chest with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10mm durable foam insert mat
- Side mounted carry handles
- Side mounted handle
- Combination with tool cabinet

Total capacity:	B 678 x H 451 x T 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	175,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
837.0014		4	4	-	36.00	

BASIC*line* BLACK/SILVER tool cabinet with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10mm durable foam insert mat
- Full width metal handle
- Two fi ed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inlays

Total capacity:	B 678 x H 990 x T 459 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
838.0004		4	4	-	56.50	
838.0005		5	1	4	59.00	
838.0007		7	5	2	51.29	
838.0009		9	9	-	69.00	

BASIC*line* BLACK/SILVER tool cabinet top chest with 1-stage locking concept

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted carry handles
- Side mounted handle
- Combination with tool cabinet

Total capacity:	B 678 x H 451 x T 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	175,0 kg
Load capacity of each drawer:	30,0 kg

		no	75 mm	150 mm	kg	
838.0014		4	4	-	36.00	

BASICline ACCESSORIES

Drawer divider set

- For use only in drawers with inside dimensions 565 x 395 mm
- Partitioning possibilities for various utensils
- Individually adjustable
- Sheet steel

			kg	
875.9940	23 pcs	Drawer divider set	3.00	

consists of:

		kg
875.9941	Mounting for part system, slotted, 565x50x1.5 mm	0.53
875.9942	Coarse divider, slotted, 393x50x1.5 mm	1.20
875.9943	Fine divider, non slotted, 188x50x1.5 mm	0.45
875.9944	Fine divider, non slotted, 150x50x1.5 mm	0.35
875.9945	Fine divider, non slotted, 112x50x1.5 mm	0.27
875.9946	Fine divider, non slotted, 74x50x1.5 mm	0.18

MASTER*line* TOOL CABINETS

MASTER*line* GRAY/SILVER tool cabinet with 2-stage locking concept

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 727 x H 1005 x T 460 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	450 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg	
875.0004		4	4	-	57.00	
875.0005		5	1	4	61.00	
875.0007		7	5	2	68.00	
875.0009		9	9	-	68.00	

MASTER*line* GRAY/SILVER tool cabinet top chest with 2-stage locking concept

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	250 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg	
875.0014		4	4	-	38.00	

MASTER*line* BLACK/RED tool cabinet with 2-stage locking concept

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 727 x H 1005 x T 460 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	450 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
876.0004		4	4	-	57.00
876.0005		5	1	4	61.00
876.0007		7	5	2	68.00
876.0009		9	9	-	68.00

MASTER*line* BLUE/SILVER tool cabinet with 2-stage locking concept

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 727 x H 1005 x T 460 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	450 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
877.0004		4	4	-	57.00
877.0005		5	1	4	61.00
877.0007		7	5	2	68.00
877.0009		9	9	-	68.00

MASTER*line* BLACK/SILVER tool cabinet with 2-stage locking concept

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 727 x H 1005 x T 460 mm
Drawer internal dimensions	565 x 395 mm
Total load capacity:	450 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
878.0004		4	4	-	57.00
878.0005		5	1	4	68.00
878.0007		7	5	2	68.00
878.0009		9	9	-	68.00

MASTER*line* BLACK/RED tool cabinet top chest with 2-stage locking concept

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	250 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
876.0014		4	4	-	38.00

MASTER*line* BLUE/SILVER tool cabinet top chest with 2-stage locking concept

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	250 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
877.0014		4	4	-	38.00

MASTER*line* BLACK/SILVER tool cabinet top chest with 2-stage locking concept

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	250 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
878.0014		4	4	-	38.00

MASTER*line* Tool cabinet with 2 shelf parts

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle lockind system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- With full width polyurethane coated metal handle
- With two fi ed wheels Ø 125 mm
- With two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating

Total capacity:	B 993 x H 1000 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	800 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
878.0006		6	3	3	88.00

MASTER*line* Tool cabinet XL

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle lockind system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- With full width polyurethane coated metal handle
- With two fi ed wheels Ø 125 mm
- With two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	W 910 x H 995 x D 460 mm
Drawer internal dimensions:	752 x 395 mm
Total load capacity:	800 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
878.0008		8	7	1	80.00

MASTER*line* BLACK/SILVER tool cabinet top chest XL with 2-stage locking concept

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	W 910 x H 455 x D 460 mm
Drawer internal dimensions	752 x 395 mm
Total load capacity:	250 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
878.1014		4	4	-	41.10

MASTER*line* Mobile worktop XXXL

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle lockind system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Wooden cabinet top 38 mm
- With full width polyurethane coated metal handle
- With two fi ed wheels Ø 125 mm
- With two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coatin
- Combination with inserts

Total capacity:	B 1158 x H 1005 x T 720 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	1000 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
878.0012		11	8	3	173.00

MASTER*line* large tool cabinet with 2 stage locking concept

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- With full width polyurethane coated metal handle
- With two fi ed wheels Ø 132 mm
- With two castor wheels Ø 132 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Combination with inserts
- 2 stage locking mechanism
- Handle lockind system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock

Total capacity:	W 1157.5 x H 1000 x D 481 mm
Drawer internal dimensions	7 x 375 x 398 x 75 mm
	7 x 569 x 398 x 75 mm
	1 x 375 x 398 x 154 mm
	1 x 569 x 398 x 154 mm
Total load capacity:	800 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
875.0016		16	14	2	124.00
876.0016		16	14	2	124.00
877.0016		16	14	2	124.00
878.0016		16	14	2	124.00

MASTER*line* large tool cabinet with 2 stage locking concept

- Very stable steel construction with 0.9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with tool cabinet
- two folding carrying handles each
- 2 stage locking mechanism
- Handle lockind system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock

Total capacity:	W 1157.5 x H 454.5 x D 481 mm
Drawer internal dimensions	4 x 375 x 398 x 75 mm
	4 x 569 x 398 x 75 mm
Total load capacity:	400 kg
Load capacity of each drawer:	40 kg

		no	75 mm	150 mm	kg
875.0018		8	8	-	61.00
876.0018		8	8	-	61.00
877.0018		8	8	-	61.00
878.0018		8	8	-	61.00

MASTER*line* ACCESSORIES

Rear wall system for tool cabinets

- For the accommodation of additional tools
- For organising and fastening tools
- Different system colour
- Consisting of 2 square peg board 70 x 45 cm
- Steel sheet construction

	Colour code	B mm	H mm	kg
885.9901		727.0	90.0	8.00
888.9902		727.0	90.0	8.00

MASTER*line* wooden worktop

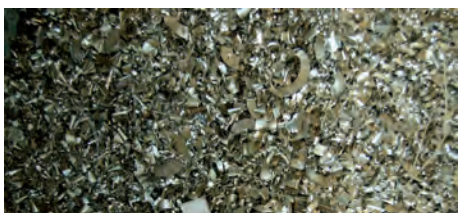
- Can be used instead of the rubber mat
- Multiplex Beech Plywood
- Joint free
- Resistant to warping
- Glued plywood
- Protective coating
- Smooth work surface

	L mm	B mm	H mm	kg
875.9915	450.0	710.0	18.0	5.00

MASTER*line* alu grooved top

- Can be used instead of the rubber mat
- Easy to maintain
- Surface is lightly corrugated
- Ideal for use as a work surface

	L mm	B mm	H mm	kg
875.9920	460.0	727.0	2.0	2.50



MASTER*line* storage tray insert

- Storage tray for small parts
- Suitable for use in the tool cabinet drawer
- Smooth surface

	Colour code	L mm	B mm	H mm	kg
875.9925		570.0	153.0	10.0	0.95
875.9926		570.0	153.0	10.0	0.95

220 V Cable reel

- Clamping device
- Ideal for heavy use on construction sites, in the workshop and industrial areas
- 10 Meter cable length
- Drum body out of special plastic
- 4 Protected socket outlets
- Overheating protection
- Control lamp for overheating and overload
- 4 x Safety plugs

	B mm	H mm	kg
875.9930	238.0	290.0	1.20

Drawer divider set

- For use only in drawers with inside dimensions 565 x 395 mm
- Partitioning possibilities for various utensils
- Individually adjustable
- Sheet steel

			kg
875.9940	23 pcs	Drawer divider set	3.00

consists of:

		kg
875.9941	Mounting for part system, slotted, 565x50x1.5 mm	0.53
875.9942	Coarse divider, slotted, 393x50x1.5 mm	1.20
875.9943	Fine divider, non slotted, 188x50x1.5 mm	0.45
875.9944	Fine divider, non slotted, 150x50x1.5 mm	0.35
875.9945	Fine divider, non slotted, 112x50x1.5 mm	0.27
875.9946	Fine divider, non slotted, 74x50x1.5 mm	0.18

ULTIMATE*line* TOOL CABINETS

ULTIMATE*line* GRAY/SILVER tool cabinet with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Robust ABS work surface with tool holders and storage recesses
- Side mounted handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 739 x H 1013 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	600 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
885.0004		4	4	-	54.00
885.0005		5	1	4	65.00
885.0007		7	5	2	70.70
885.0009		9	9	-	77.50

ULTIMATE*line* GRAY/SILVER tool cabinet top chest with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	300 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
885.0014		4	4	-	38.20

ULTIMATE*line* RED/SILVER tool cabinet with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Robust ABS work surface with tool holders and storage recesses
- Side mounted handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 739 x H 1013 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	600 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
886.0004		4	4	-	54.00
886.0005		5	1	4	65.00
886.0007		7	5	2	70.70
886.0009		9	9	-	77.50

ULTIMATE*line* BLUE/SILVER tool cabinet with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Robust ABS work surface with tool holders and storage recesses
- Side mounted handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 739 x H 1013 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	600 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
887.0004		4	4	-	54.00
887.0005		5	1	4	65.00
887.0007		7	5	2	70.70
887.0009		9	9	-	77.50

ULTIMATE*line* BLACK/SILVER tool cabinet with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Robust ABS work surface with tool holders and storage recesses
- Side mounted handle
- Two fi ed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with inserts

Total capacity:	B 739 x H 1013 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	600 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
888.0004		4	4	-	54.00
888.0005		5	1	4	65.00
888.0007		7	5	2	70.70
888.0009		9	9	-	77.50

ULTIMATE*line* RED/SILVER tool cabinet top chest with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	300 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
886.0014		4	4	-	38.20

ULTIMATE*line* BLUE/SILVER tool cabinet top chest with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	300 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
887.0014		4	4	-	38.20

ULTIMATE*line* BLACK/SILVER tool cabinet top chest with 3-stage locking concept

- Extremly robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stabilbilty and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with tool cabinet

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	300 kg
Load capacity of each drawer:	45 kg

		no	75 mm	150 mm	kg
888.0014		4	4	-	38.20

ULTIMATE*line* ACCESSORIES

Rear wall system for tool cabinets

- For the accommodation of additional tools
- For organising and fastening tools
- Different system colour
- Consisting of 2 square peg board 70 x 45 cm
- Steel sheet construction

	Colour code	B mm	H mm	kg
885.9901	●	727.0	90.0	8.00
888.9902	●	727.0	90.0	8.00

ULTIMATE*line* wooden worktop

- Multiplex Beech Plywood
- Joint free
- Resistant to warping
- Glued plywood
- Protective coating
- Smooth work surface

	L mm	B mm	H mm	kg
885.9915	335.0	625.0	18.0	5.00

ULTIMATE*line* alu grooved top

- Can be used instead of the ABS plate
- Easy to maintain
- Surface is lightly corrugated
- Ideal for use as a work surface

	L mm	B mm	H mm	kg
885.9920	625.0	335.0	1.6	1.31

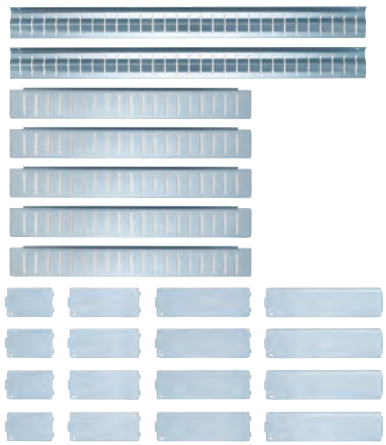
220 V Cable reel

- Clamping device
- Ideal for heavy use on construction sites, in the workshop and industrial areas
- 10 Meter cable length
- Drum body out of special plastic
- 4 Protected socket outlets
- Overheating protection
- Control lamp for overheating and overload
- 4 x Safety plugs

	B mm	H mm	kg
875.9930	238.0	290.0	1.20

Drawer divider set

- For use only in drawers with inside dimensions 565 x 395 mm
- Partitioning possibilities for various utensils
- Individually adjustable
- Sheet steel



			kg
875.9940	23 pcs	Drawer divider set	3.00

consists of:

		kg
875.9941	Mounting for part system, slotted, 565x50x1.5 mm	0.53
875.9942	Coarse divider, slotted, 393x50x1.5 mm	1.20
875.9943	Fine divider, non slotted, 188x50x1.5 mm	0.45
875.9944	Fine divider, non slotted, 150x50x1.5 mm	0.35
875.9945	Fine divider, non slotted, 112x50x1.5 mm	0.27
875.9946	Fine divider, non slotted, 74x50x1.5 mm	0.18

ULTIMATE*line* storage tray

- Suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- Enlarges the surface working area
- Working surface: 375 x 308 mm
- When not in use can fold away
- Ideal for documents, laptop, small parts, etc.

	Colour code	L mm	B mm	H mm	kg
885.9935	●	420.0	360.0	27.0	3.20
885.9936	●	420.0	360.0	27.0	3.20

ULTIMATE*line* paper roll holder

- Suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- For paper rolls to a max. Ø 350 mm and max. 320 mm width

	Colour code	L mm	B mm	H mm	kg	
885.9940	○	368.0	75.0	52.0	0.60	
885.9941	●	368.0	75.0	52.0	0.60	

ULTIMATE*line* universal tray

- Suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- Internal measurements: 338 x 180 mm
- Ideal for documents

	Colour code	L mm	B mm	H mm	kg	
885.9945	○	340.0	75.0	180.9	0.84	
885.9946	●	340.0	75.0	180.9	0.84	

ULTIMATE*line* small part storage tray

- Suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- With fi ed dividers
- When not in use can fold away
- Ideal for small parts, screws, etc.

	Colour code	L mm	B mm	H mm	kg	
885.9950	○	368.0	50.0	52.0	0.40	
885.9951	●	368.0	50.0	52.0	0.40	

ULTIMATE*line* universal can holder

- Suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- Without separating strip
- When not in use can fold away
- Ideal for cans, bottles, etc.

	Colour code	L mm	B mm	H mm	kg	
885.9955	○	368.0	80.8	52.0	0.50	
885.9956	●	368.0	80.8	52.0	0.50	

ULTIMATE*line* carrier truck

- Mobilizes tool cabinet sets
- Handle foam coated
- Extendable handle
- Two fi ed wheels Ø 75 mm
- Two castor wheels Ø 75 mm with brake
- Steel sheet construction

	Colour code	L mm	B mm	H mm	kg	
885.9930	○	780.0	480.0	170.0	7.60	
885.9931	●	780.0	480.0	170.0	7.60	

ULTIMATE*line* storage tray insert

- Storage tray for small parts
- Suitable for use in the tool cabinet drawer
- Smooth surface

	Colour code	L mm	B mm	H mm	kg	
885.9925	○	570.0	153.0	10.0	0.95	
885.9926	●	570.0	153.0	10.0	0.95	

ULTIMATE*line* suction pads

- Slide on
- With revolving suction cup with 80 kg of lifting force
- 2 dead centre heads
- With quick release lever
- With intake mechanics and fast change device
- Suitable for all smooth materials with gas density surfaces

	Colour code	Ø mm	L mm	kg	
885.9960	○	120,0	330.0	1.75	
885.9961	●	120,0	330.0	1.75	

ULTIMATE*line* work tray

- Slide on
- Pivoting
- Ideal for documents, laptop, etc.

	Colour code	L mm	B mm	H mm	kg	
885.9910	○	190.0	188.0	35.0	1.20	
885.9911	●	190.0	188.0	35.0	1.20	

SCS - SAFETY CONTROL SYSTEM

The benefits

- 3-coloured inserts create a clear structure and protect the quality tools from damage or loss.
- Safety foam inserts with high precision, 3D CNC parts.
- the red signal colour is for completeness checks - a visible red colour means a tool is missing.
- Completely fl xible thanks to individual combinations
- no tools confused with each other
- perfect tool organisation
- Tailored inserts in each workshop tool cabinet
- oil resistant
- easy to clean

MODULAR BUILDING BLOCK SYSTEM

Best flexibility and organisatio

create "your own" tool cabinet....

With our unique system inlay configu ation you can design your tool cabinet to your exact requirements.
Due to our user friendly foam inlays, you can simply configu e each drawer by category (tool type) with a neat and tidy presentation.
It is ideal when you want to work away from your tool cabinet as you can take each inlay individually, meaning you have the right tool for the job.

COMPLETLY FLEXIBLE

For each individual tool, the 3D CNC computer technology mills a tailored part.

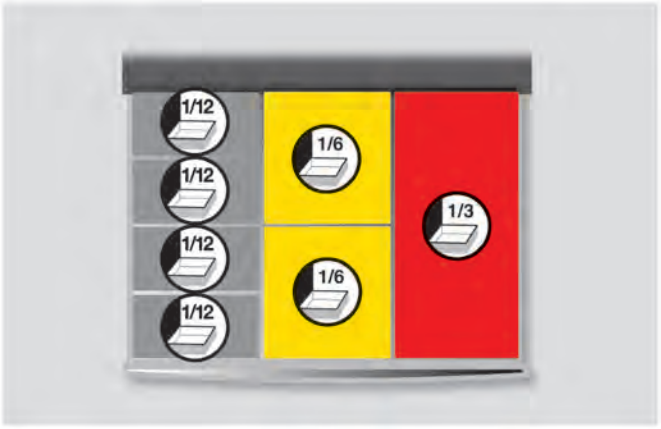
The tailored parts mean a quick glance is all that's needed to know where the corresponding tool belongs. **This saves a lot of time.**

Three-layer three-colour system:
the top layer is black, the middle layer is white and the bottom layer is red.

Thanks to the fin ly detailed characters, the size of the tool can be seen before removing it.

The foam inserts are oil-resistant, extremely fl xible and easy to wash.

The right combination:

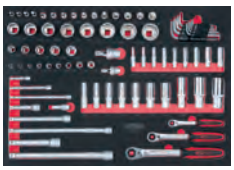
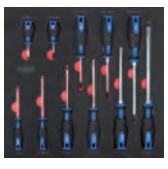


SCS SYSTEM INSERT SETS

SCS system insert set, construction machinery

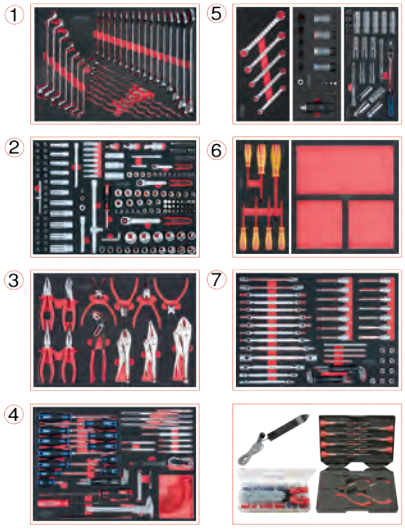
- Ideal set for construction machinery
- Fits 5 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

			kg
715.0171	171 pcs	SCS system insert set, construction machinery	37.02

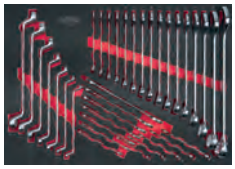
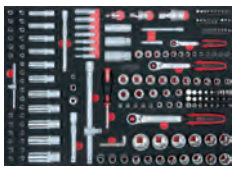
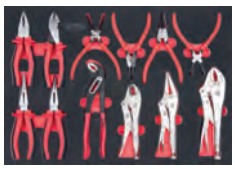
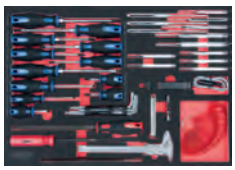
781.4031		Spanner and hammer set, 31 pcs, 1/1 system insert
711.1031		3/4" socket set, 31 pcs, 1/1 system insert
711.0080		1/4"+3/8"+1/2" socket set, 80 pcs, 1/1 system inset
711.6017		Pliers, hammer and file set, 17 pcs, 1/1 system insert
712.0011		ERGO+ screwdriver set, 11 pcs, 2/3 system insert
713.0000		Uni inlay, empty, 1/3 system insert

SCS system insert set, mechatronics technicians

- Ideal set for mechatronics technicians
- Fits 7 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



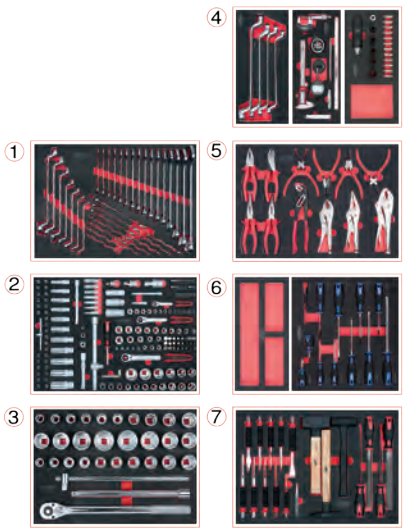
			kg
715.0665	665 pcs	SCS system insert set, mechatronics technicians	34.44

711.0035		Socket set, 35 pcs, 1/1 system insert
711.0180		1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system inset
711.1012		Pliers set, 12 pcs, 1/1 system insert
711.1041		Screwdriver and measuring instrument set, 41 pcs, 1/1 system insert
713.0005		Open double ring spanner set, offset, 5 pcs, 1/3 system insert
713.2023		1/2"+5/16" impact socket and bit set, 23 pcs, 1/3 system insert
783.0027		CHROME+ spark plug service set, 27 pcs, 1/3 system insert

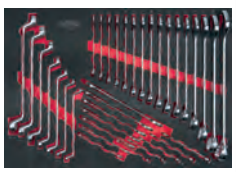
713.2007		VDE screwdriver set, 7 pcs, 1/3 system insert
712.0001		Uni inlay, empty, 2/3 system insert
711.0053		1/2" socket set, 53 pcs, 1/1 system insert
500.7180		Precision tool set, 10 pcs
115.1230		Crimping tool set, 271 pcs
550.1503		Voltage tester, 3-48V

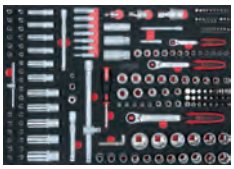
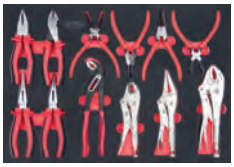
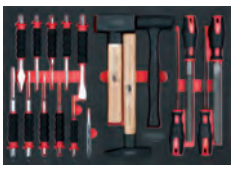
SCS system insert set, commercial vehicles

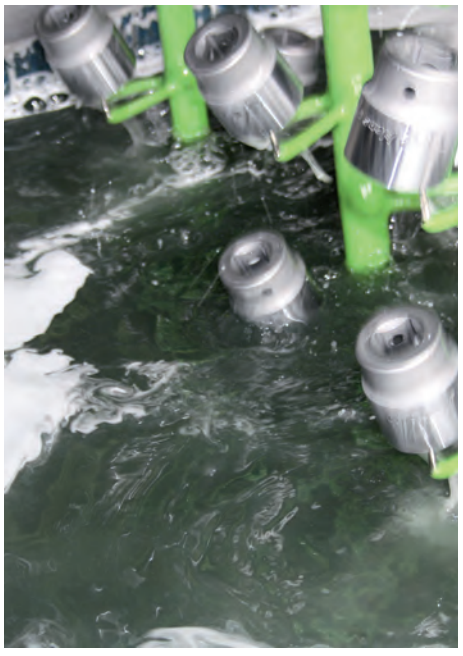
- Ideal set for commercial vehicles
- Fits 7 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



			kg
715.0316	316 pcs	SCS system insert set, commercial vehicles	42.15

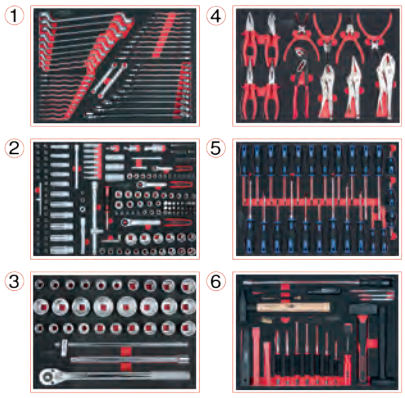
711.0035		Socket set, 35 pcs, 1/1 system insert

711.0180		1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system inset
711.1031		3/4" socket set, 31 pcs, 1/1 system insert
713.2004		ULTIMATE+ ring spanner set, offset, 4 pcs, 1/3 system insert
713.2008		Measuring tool insert, 8 pcs, 1/3 system insert
713.0019		5/16"+1/2" impact socket wrench and bit set, 19 pcs, 1/3 system insert
711.1012		Pliers set, 12 pcs, 1/1 system insert
712.0012		ERGO+ screwdriver set, 12 pcs, 2/3 system insert
713.0000		Uni inlay, empty, 1/3 system insert
711.0018		File, chisel and hammer set, 18 pcs, 1/1 system insert

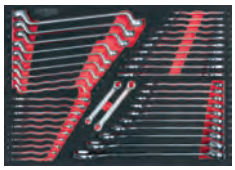
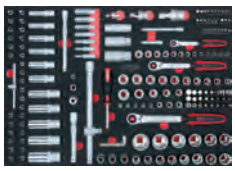
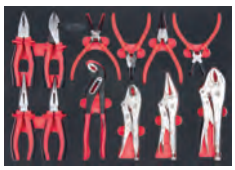
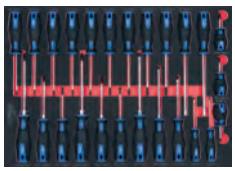


SCS system insert set, agricultural machinery

- Ideal set for agricultural machinery
- Fits 6 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

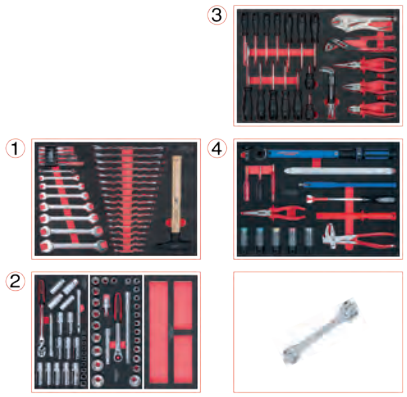


			kg
715.0310	310 pcs	SCS system insert set, agricultural machinery	39.00

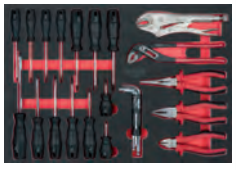
711.0041		Socket set, 41 pcs, 1/1 system insert
711.0180		1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system inset
711.1031		3/4" socket set, 31 pcs, 1/1 system insert
711.1012		Pliers set, 12 pcs, 1/1 system insert
711.0025		ERGO+ screwdriver set, 25 pcs, 1/1 system insert
711.1021		Chisel and hammer set, 21 pcs, 1/1 system insert

SCS system insert set, service stations

- Ideal set for service stations
- Fits 4 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



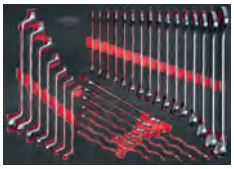
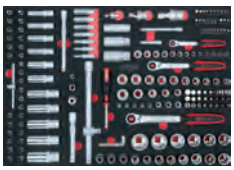
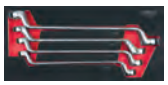
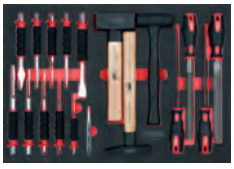
			kg
715.0131	131 pcs	SCS system insert set, service stations	18.71

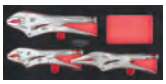
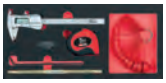
711.3031		Spanner and hammer set, 31 pcs, 1/1 system insert
713.0027		CHROME+ spark plug service set, 27pcs, 1/3 system insert
713.0028		1/2" socket set, 28 pcs, 1/3 system insert
713.0000		Uni inlay, empty, 1/3 system insert
711.6027		Screwdriver and plier set, 27 pcs, 1/1 system insert
711.0016		Wheel service inlay, 16pcs , 1/1 system insert
150.9302		Oil service wrench 8 in 1, 270 mm

SCS system insert set, mechanics

- Ideal set for mechanics
- Fits 6 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

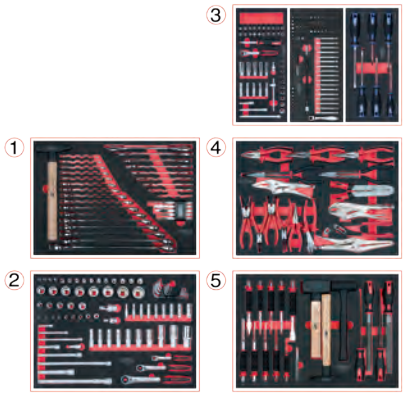
			kg
715.0404	404 pcs	SCS system insert set, mechanics	28.31

711.0035		Socket set, 35 pcs, 1/1 system insert
711.0180		1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system inset
713.2004		ULTIMATE+ ring spanner set, offset, 4 pcs, 1/3 system insert
713.0101		1/4" bit set, 101 pcs, 1/3 system insert
713.0019		5/16"+1/2" impact socket wrench and bit set, 19 pcs, 1/3 system insert
711.1033		General purpose tool kit, 33 pcs, 1/1 system insert
711.0018		File, chisel and hammer set, 18 pcs, 1/1 system insert
713.5006		Circlip plier set, 6 pcs, 1/3 system insert

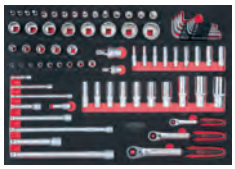
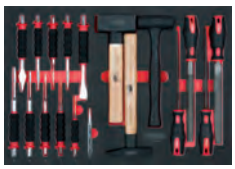
713.1003		Grip pliers set, 3 pcs, 1/3 system insert
713.3005		Measuring tool insert, 5 pcs, 1/3 system insert

SCS system insert set, inch and SAE

- Ideal set for inch and SAE
- Fits 5 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

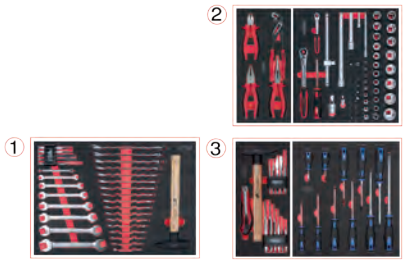


			kg
715.0299	299 pcs	SCS system insert set, inch and SAE	26.89

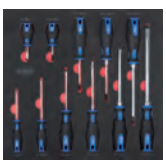
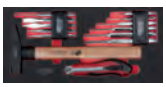
781.4031		Spanner and hammer set, 31 pcs, 1/1 system insert
711.0080		1/4"+3/8"+1/2" socket set, 80 pcs, 1/1 system inset
713.2047		1/4" socket set, 47 pcs, 1/3 system insert
713.0101		1/4" bit set, 101 pcs, 1/3 system insert
713.0006		ERGOTORQUEplus® screwdriver set, 6 pcs, 1/3 system insert
711.1016		Pliers set, 16 pcs, 1/1 system insert
711.0018		File, chisel and hammer set, 18 pcs, 1/1 system insert

SCS system insert set, universal

- Ideal set for universal use
- Fits 3 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

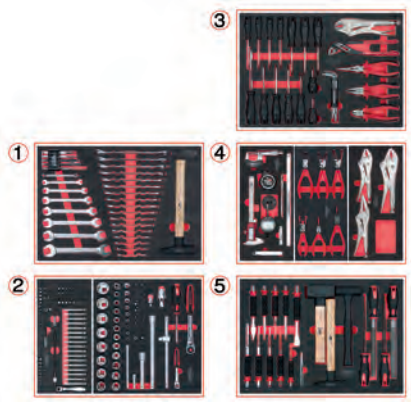


			kg
715.0116	116 pcs	SCS system insert set, universal	11.95

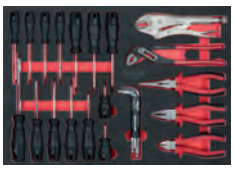
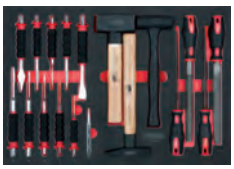
711.3031		Spanner and hammer set, 31 pcs, 1/1 system insert
712.0057		1/4"+1/2" socket set, 57 pcs, 2/3 system inset
713.6004		Plier set, 4 pcs, 1/3 system insert
712.0011		ERGO+ screwdriver set, 11 pcs, 2/3 system insert
713.8013		Pin driving tools and hammer set, 13 pcs

SCS system insert set, universal

- Ideal set for universal use
- Fits 5 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

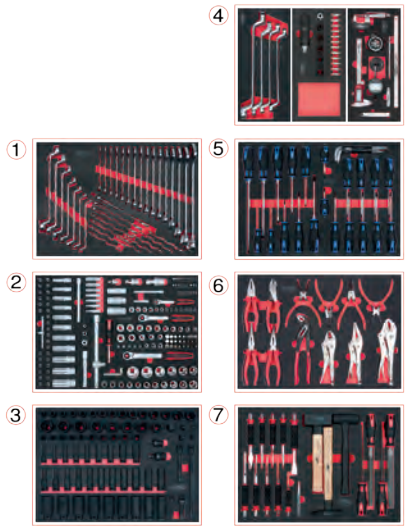


			kg
715.0251	251 pcs	SCS system insert set, universal	20.61

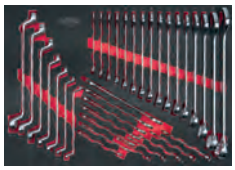
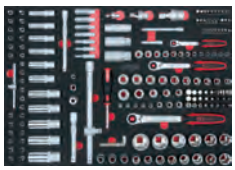
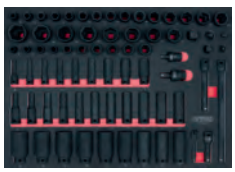
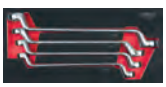
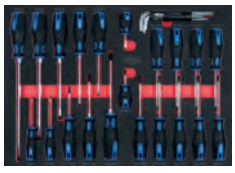
711.3031		Spanner and hammer set, 31 pcs, 1/1 system insert
712.0057		1/4"+1/2" socket set, 57 pcs, 2/3 system inset
713.0101		1/4" bit set, 101 pcs, 1/3 system insert
711.6027		Screwdriver and plier set, 27 pcs, 1/1 system insert
713.2008		Measuring tool insert, 8 pcs, 1/3 system insert
713.5006		Circlip plier set, 6 pcs, 1/3 system insert
713.1003		Grip pliers set, 3 pcs, 1/3 system insert
711.0018		File, chisel and hammer set, 18 pcs, 1/1 system insert

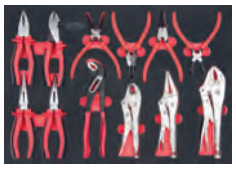
SCS system insert set, universal

- Ideal set for universal use
- Fits 7 tool cabinet drawers
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



			kg
715.0378	378 pcs	SCS system insert set, universal	42.65

711.0035		Socket set, 35 pcs, 1/1 system insert
711.0180		1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system inset
711.0073		3/8"+1/2" impact socket wrench set, 73 pcs, 1/1 system inset
713.2004		ULTIMATE+ ring spanner set, offset, 4 pcs, 1/3 system insert
713.0019		5/16"+1/2" impact socket wrench and bit set, 19 pcs, 1/3 system insert
713.2008		Measuring tool insert, 8 pcs, 1/3 system insert
711.1029		Screwdriver set, 29 pcs, 1/1 system insert

711.1012		Pliers set, 12 pcs, 1/1 system insert
711.0018		File, chisel and hammer set, 18 pcs, 1/1 system insert

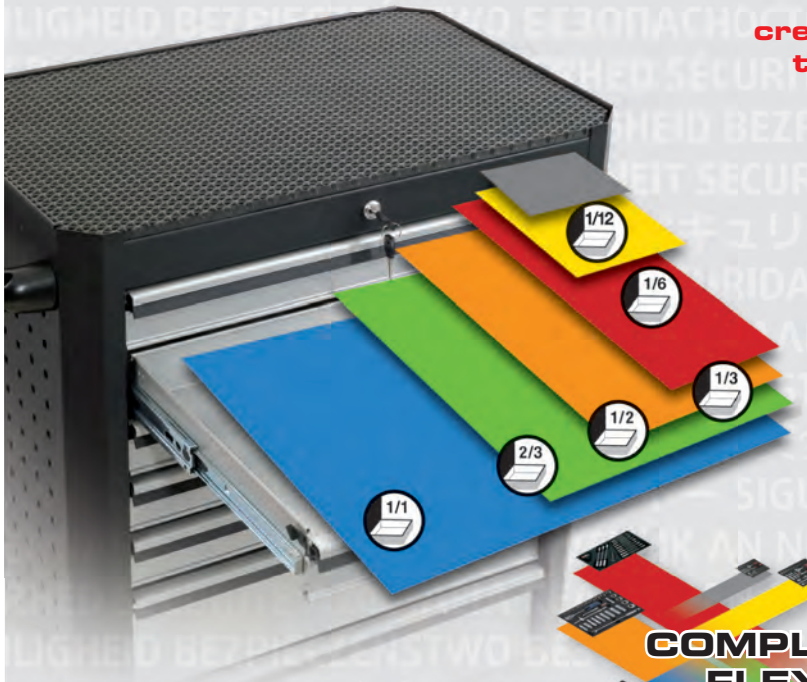
SCS - SAFETY CONTROL SYSTEM

The benefits

- 3-coloured inserts create a clear structure and protect the quality tools from damage or loss.
- Safety foam inserts with high precision, 3D CNC parts.
- the red signal colour is for completeness checks - a visible red colour means a tool is missing.
- Completely fl xible thanks to individual combinations
- no tools confused with each other
- perfect tool organisation
- Tailored inserts in each workshop tool cabinet
- oil resistant
- easy to clean

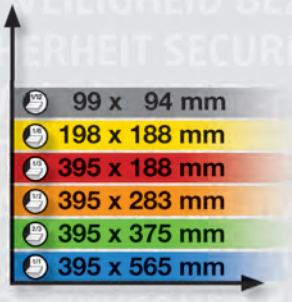
MODULAR BUILDING BLOCK SYSTEM

Best flexibility and organisatio



create "your own" tool cabinet....

With our unique system inlay configu ation you can design your tool cabinet to your exact requirements. Due to our user friendly foam inlays, you can simply configu e each drawer by category (tool type) with a neat and tidy presentation.
It is ideal when you want to work away from your tool cabinet as you can take each inlay individually, meaning you have the right tool for the job.

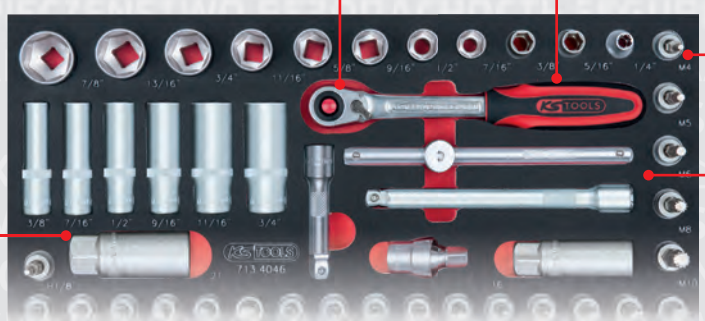


For each individual tool, the 3D CNC computer technologymills a tailored part.

The tailored parts mean a quick glance is all that's needed to know where the corresponding tool belongs. **This saves a lot of time.**

Three-layer three-colour system: the top layer is black, the middle layer is white and the bottom layer is red.

Thanks to the fin ly detailed characters, the size of the tool can be seen before removing it.

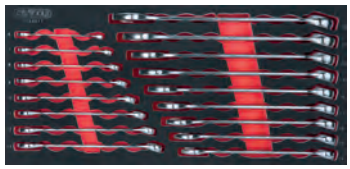


The foam inserts are oil-resistant, extremely fl xible and easy to wash.

1/3 SCS - SPANNER

SCS Combination spanner set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

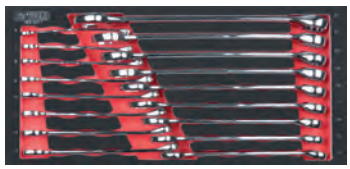


		L mm	B mm	H mm	kg
713.0017	17 pcs	390.0	188.0	35.0	1.72

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm

SCS CHROME*plus*® combination spanner set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
783.0017	17 pcs	390.0	188.0	35.0	1.68

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm

SCS Combination spanner set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0004	4 pcs	390.0	188.0	35.0	1.65

4 x		24 - 27 - 30 - 32 mm

SCS CHROME*plus*® combination spanner set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
783.0004	4 pcs	390.0	188.0	35.0	1.78

4 x		24 - 27 - 30 - 32 mm

SCS GEAR*plus*® ratchet combination spanner set, including adaptors

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0014	14 pcs	390.0	188.0	35.0	1.50

10 x		8 - 10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
1 x		1/4"
3 x		1/4" - 3/8" - 1/2"

SCS GEAR*plus*® reversing ratchet combination spanner set, including adaptors

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.1014	14 pcs	390.0	188.0	35.0	1.56

10 x		8 - 10 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19
1 x		1/4"
3 x		1/4" - 3/8" - 1/2"

SCS Double open ended spanner set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0011	11 pcs	390.0	188.0	35.0	1.75

11 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm

SCS CHROME*plus*® double open ended spanner set

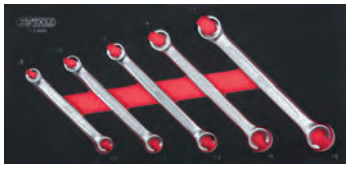
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
783.0011	11 pcs	390.0	188.0	35.0	1.75

11 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 - 20x22 - 21x23 - 24x27 - 30x32

SCS Open double ring spanner set, offset

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

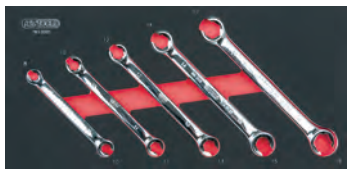


		L mm	B mm	H mm	kg
713.0005	5 pcs	390.0	188.0	35.0	0.56

5 x		8x10 - 10x11 - 12x13 - 14x15 - 17x19 mm

SCS CHROME*plus*® Open double ring spanner set, offset

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
783.0005	5 pcs	390.0	188.0	35.0	0.56

5 x 8x10 - 10x11 - 12x13 - 14x15 - 17x19 mm

SCS double ring spanner set, 75° offset

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0007	7 pcs	390.0	188.0	35.0	1.00

7 x 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 18x19 mm

CHROME*plus*® double ring spanner set, 75° offset

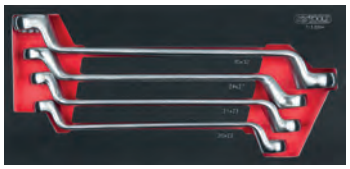
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
783.0007	7 pcs	390.0	188.0	35.0	1.00

7 x 6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 18x19 mm

SCS Double ring spanner set, 75° offset

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2004	4 pcs	390.0	188.0	35.0	1.74

4 x 20 x 22 - 21 x 23 - 24 x 27 - 30 x 32 mm

SCS CHROME*plus*® double ring spanner set, 75° offset

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
783.2004	4 pcs	390.0	188.0	35.0	1.74

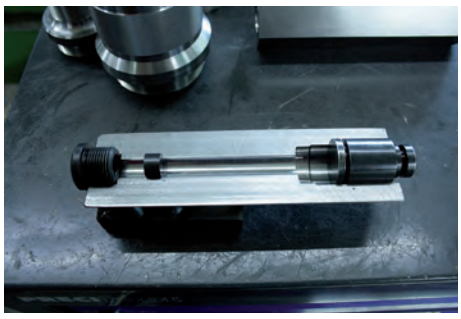
4 x 20 x 22 - 21 x 23 - 24 x 27 - 30 x 32 mm

SCS Double swivel wrench set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

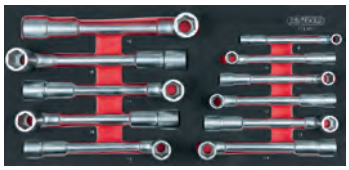
		L mm	B mm	H mm	g
713.1005	5 pcs	390.0	188.0	35.0	920

5 x 8 x 9 - 10 x 11 - 12 x 13 - 14 x 15 16 x 17 mm



SCS Pipe head box wrench set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

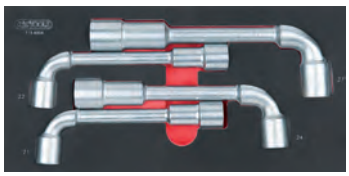


		L mm	B mm	H mm	kg
713.2011	11 pcs	390.0	188.0	35.0	2.70

11 x 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 mm

SCS pipe head box wrench set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.4004	4 pcs	390.0	188.0	35.0	2.55

4 x 21 - 22 - 24 - 27 mm

SCS CHROME*plus*® half moon- and manibld spanner set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
783.2005	5 pcs	390.0	188.0	35.0	0.90

5 x 10 x 12 - 11 x 13 - 14 x 17 - 16 x 18 19 x 22 mm

1/3 SCS - SOCKET WRENCH 1/4“

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

			L mm	B mm	H mm	kg
713.4030	30 pcs		390.0	188.0	35.0	0.91
12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm				
3 x		4 - 5,5 - 8 mm				
2 x		PH1 - PH2				
2 x		PZ1 - PZ2				
5 x		3 - 4 - 5 - 6 - 8 mm				
2 x		50 - 150 mm				
1 x		150 mm				
1 x		1/4“				
1 x		110 mm				
1 x		140 mm				

SCS CHROME*plus*® socket set

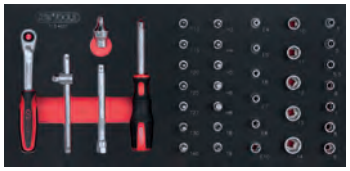
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

			L mm	B mm	H mm	kg
783.4030	30 pcs		390.0	188.0	35.0	0.95
12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm				
3 x		4 - 5,5 - 8 mm				
2 x		PH1 - PH2				
2 x		PZ1 - PZ2				
5 x		3 - 4 - 5 - 6 - 8 mm				
2 x		50 - 150 mm				
1 x		150 mm				
1 x		1/4“				
1 x		110 mm				
1 x		140 mm				

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

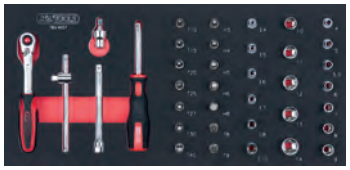


1/4"

			L mm	B mm	H mm	kg
713.4037	37 pcs		390.0	188.0	35.0	0.95
12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm				
6 x		E4 - E5 - E6 - E7 - E8 - E10				
5 x		3 - 4 - 5 - 6 - 8 mm				
9 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				
1 x		100 mm				
1 x		150 mm				
1 x		1/4“				
1 x		110 mm				
1 x		140 mm				

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

			L mm	B mm	H mm	kg
783.4037	37 pcs		390.0	188.0	35.0	1.05
12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm				
6 x		E4 - E5 - E6 - E7 - E8 - E10				
5 x		3 - 4 - 5 - 6 - 8 mm				
9 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				
1 x		100 mm				
1 x		150 mm				
1 x		1/4“				
1 x		110 mm				
1 x		140 mm				

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

			L mm	B mm	H mm	kg
713.0040	40 pcs		390.0	188.0	35.0	0.94
10 x		1/4“: 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm				
3 x		1/4“: 8 - 10 - 13 mm				
3 x		1/4“: 4,5 - 6,5 - 8 mm				
3 x		1/4“: PH1 - PH2 - PH3				
3 x		1/4“: PZ1 - PZ2 - PZ3				
5 x		1/4“: 3 - 4 - 5 - 6 - 7 mm				
7 x		1/4“: TB10 - TB15 - TB20 TB25 TB27 - TB30 - TB40				
2 x		1/4“: 50 - 150 mm				
1 x		1/4“				
1 x		1/4“				
1 x		1/4“				
1 x		1/4“				

SCS CHROME*plus*® socket set

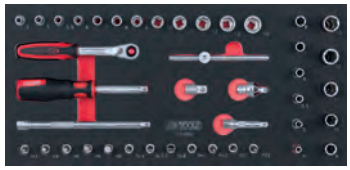
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

			L mm	B mm	H mm	kg
783.0040	40 pcs		390.0	188.0	35.0	0.98
10 x		1/4“: 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm				
3 x		1/4“: 8 - 10 - 13 mm				
3 x		1/4“: 4,5 - 6,5 - 8 mm				
3 x		1/4“: PH1 - PH2 - PH3				
3 x		1/4“: PZ1 - PZ2 - PZ3				
5 x		1/4“: 3 - 4 - 5 - 6 - 7 mm				
7 x		1/4“: TB10 - TB15 - TB20 TB25 TB27 - TB30 - TB40				
2 x		1/4“: 50 - 150 mm				
1 x		1/4“				
1 x		1/4“				
1 x		1/4“				
1 x		1/4“				

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

		L mm	B mm	H mm	kg
713.0042	42 pcs	390.0	188.0	35.0	1.30

12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm
11 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm
3 x		4 - 4,5 - 8 mm
5 x		3 - 4 - 5 - 6 - 8 mm
2 x		PH1 - PH2
2 x		PZ1 - PZ2
1 x		1/4"Fx3/8"M
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4"
1 x		110 mm
1 x		140 mm

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

		L mm	B mm	H mm	kg
713.0045	45 pcs	390.0	188.0	35.0	1.01

12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
7 x		1/4": E4 - E5 - E6 - E7 - E8 - E10 E11
3 x		1/4": 4 - 5,5 - 8 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30 - T40
2 x		1/4": 50 - 150 mm
1 x		1/4"
1 x		1/4"
1 x		1/4"

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

		L mm	B mm	H mm	kg
713.2046	46 pcs	390.0	188.0	35.0	1.10

13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
3 x		4 - 5,5 - 7 mm
3 x		PH1 - PH2 - PH3
2 x		PZ1 - PZ2
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4"
1 x		1/4"
1 x		1/4"
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4" x 1/4"
1 x		1/4"

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

		L mm	B mm	H mm	kg
783.0042	42 pcs	390.0	188.0	35.0	1.27

12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm
11 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm
3 x		4 - 5 - 8 mm
5 x		3 - 4 - 5 - 6 - 8 mm
1 x		PH2
3 x		PZ1 - PZ2 - PZ4
1 x		1/4"Fx3/8"M
2 x		50 - 150 mm
1 x		150 mm
1 x		1/4"
1 x		110 mm
1 x		140 mm

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

		L mm	B mm	H mm	kg
783.0045	45 pcs	390.0	188.0	35.0	1.18

12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
7 x		1/4": E4 - E5 - E6 - E7 - E8 - E10 E11
3 x		1/4": 4 - 5,5 - 8 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30 - T40
2 x		1/4": 50 - 150 mm
1 x		1/4"
1 x		1/4"
1 x		1/4"

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

		L mm	B mm	H mm	kg
783.2046	46 pcs	390.0	188.0	35.0	1.13

13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
3 x		4 - 5,5 - 7 mm
3 x		PH1 - PH2 - PH3
2 x		PZ1 - PZ2
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40
2 x		50 - 100 mm

1 x		150 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4“ x 1/4“
1 x		1/4“

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cabinets
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4"

			L mm	B mm	H mm	kg
713.2047	47 pcs		390.0	188.0	35.0	1.26
10 x		5/32“ - 3/16“ - 7/32“ - 1/4“ - 9/32“ 5/16“ - 11/32“ - 3/8“ - 7/16“ - 1/2“				
10 x		5/32“ - 3/16“ - 7/32“ - 1/4“ - 9/32“ 5/16“ - 11/32“ - 3/8“ - 7/16“ - 1/2“				
3 x		4 - 5 - 7 mm				
2 x		PH1 - PH2				
5 x		1/8“ - 5/32“ - 3/16“ - 7/32“ - 1/4“				
6 x		T10 - T15 - T20 - T25 - T30 - T40				
4 x		M4 - M5 - M6 - M8				
2 x		50 - 100 mm				
1 x		150 mm				
1 x		1/4“				
1 x		1/4“				
1 x		110 mm				
1 x		1/4“				

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cabinets
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

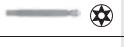
1/4"

			L mm	B mm	H mm	kg
783.2047	47 pcs		390.0	188.0	35.0	1.26
10 x		5/32“ - 3/16“ - 7/32“ - 1/4“ - 9/32“ 5/16“ - 11/32“ - 3/8“ - 7/16“ - 1/2“				
10 x		5/32“ - 3/16“ - 7/32“ - 1/4“ - 9/32“ 5/16“ - 11/32“ - 3/8“ - 7/16“ - 1/2“				
3 x		4 - 5 - 7 mm				
2 x		PH1 - PH2				
5 x		1/8“ - 5/32“ - 3/16“ - 7/32“ - 1/4“				
6 x		T10 - T15 - T20 - T25 - T30 - T40				
4 x		M4 - M5 - M6 - M8				
2 x		50 - 100 mm				
1 x		150 mm				
1 x		1/4“				
1 x		1/4“				
1 x		110 mm				
1 x		1/4“				

SCS Universal bit set

- 1/3 System insert
- Suitable for tool cabinets and tool cabinets
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

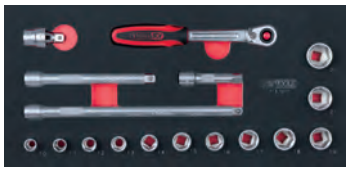
1/4"

			L mm	B mm	H mm	kg
713.0101	101 pcs		390.0	188.0	35.0	1.30
1 x		1/4“				
1 x		100 mm				
1 x		60 mm				
1 x		190 mm				
1 x		30 mm				
1 x		1/4“				
3 x		75 mm x (4 - 5 - 6 mm)				
3 x		75 mm x (TB15 - TB20 - TB30)				
4 x		75 mm x (#1 - #2 - #3 - #4)				
3 x		75 mm x (6 - 8 - 10 mm)				
4 x		75 mm x (4 - 6 - 8 - 10 mm)				
9 x		25 mm x (3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm)				
9 x		25 mm x (1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm)				
12 x		25 mm x (2 - 2,5 - 3 - 4 - 5 - 6 mm - 5/32“ - 9/64“ - 1/8“ - 7/64“ - 3/32“ 5/64“)				
4 x		25 mm x (#1 - #2 - #3 - #4)				
4 x		25 mm x (#0 - #1 - #2 - #3)				
4 x		25 mm x (4 - 6 - 8 - 10 mm)				
9 x		25 mm x (T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45)				
3 x		25 mm x (T8 - T10 - T15 - T20 - T25 - T27 - T30 - T35 - T40)				
9 x		25 mm x (6 - 8 - 10 mm)				
3 x		25 mm x (M5 - M6 - M8)				
3 x		25 mm x (#1 - #2 - #3)				
5 x		25 mm x (PH0 - PH1 - 2 x PH2 - PH3)				
5 x		25 mm x (PZ0 - PZ1 - 2 x PZ2 - PZ3)				

1/3 SCS - SOCKET WRENCH 3/8“

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cabinets
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

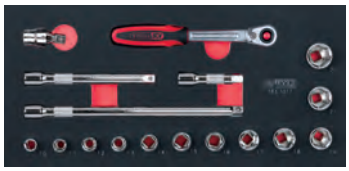


3/8"

			L mm	B mm	H mm	kg
713.1017	17 pcs		390.0	188.0	35.0	1.38
12 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm				
3 x		75 - 150 - 250 mm				
1 x		3/8“				
1 x		190 mm				

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cabinets
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

			L mm	B mm	H mm	kg
783.1017	17 pcs		390.0	188.0	35.0	1.57
12 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm				
3 x		75 - 150 - 250 mm				
1 x		3/8“				
1 x		190 mm				

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

		L mm	B mm	H mm	kg
713.2024	24 pcs	390.0	188.0	35.0	1.54
14 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
5 x		4 - 5 - 6 - 8 - 10 mm			
1 x		3/8“			
1 x		160 mm			
2 x		150 - 250 mm			
1 x		3/8“			

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

		L mm	B mm	H mm	kg
783.2024	24 pcs	390.0	188.0	35.0	1.62
14 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
5 x		4 - 5 - 6 - 8 - 10 mm			
1 x		3/8“			
1 x		160 mm			
2 x		150 - 250 mm			
1 x		3/8“			

SCS Socket set

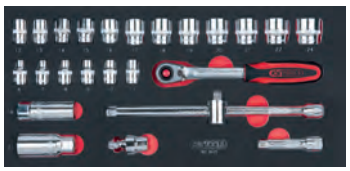
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

		L mm	B mm	H mm	kg
713.3025	25 pcs	390.0	188.0	35.0	2.06
1 x		1/2“ x 3/8“			
2 x		16 - 21 mm			
2 x		75 - 250 mm			
1 x		3/8“			
1 x		3/8“			
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm			

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
783.3025	25 pcs	390.0	188.0	35.0	2.06
1 x		1/2“ x 3/8“			
2 x		16 - 21 mm			
2 x		75 - 250 mm			
1 x		3/8“			
1 x		3/8“			
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm			

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

		L mm	B mm	H mm	kg
713.0036	36 pcs	390.0	188.0	35.0	1.67
13 x		3/8“: 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 mm			
6 x		3/8“: E6 - E7 - E8 - E10 - E12 - E14			
2 x		1/4“: PH1 - PH2			
4 x		1/4“: 5 - 6 - 7 - 8 mm			
6 x		1/4“: T10 - T15 - T20 - T25 - T30 - T40			
2 x		3/8“: 150 - 250 mm			
1 x		3/8“			
1 x		3/8“			
1 x		3/8“			

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

		L mm	B mm	H mm	kg
783.0036	36 pcs	390.0	188.0	35.0	1.84
13 x		3/8“: 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 mm			
6 x		3/8“: E6 - E7 - E8 - E10 - E12 - E14			
2 x		1/4“: PH1 - PH2			
4 x		1/4“: 5 - 6 - 7 - 8 mm			
6 x		1/4“: T10 - T15 - T20 - T25 - T30 - T40			
2 x		3/8“: 150 - 250 mm			
1 x		3/8“			
1 x		3/8“			
1 x		3/8“			

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

		L mm	B mm	H mm	kg
713.4046	46 pcs	390.0	188.0	35.0	2.74
11 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" 5/8" - 11/16" - 3/4" - 13/16" - 7/8"			
6 x		3/8" - 7/16" - 1/2" - 9/16" - 11/16" - 3/4"			
2 x		5/8" - 13/16"			
7 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"			
10 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55			
5 x		M4 - M5 - M6 - M8 - M10			
2 x		75 - 150 mm			
1 x		3/8"			
1 x		160 mm			
1 x		3/8"			

SCS CHROME*plus*® socket set

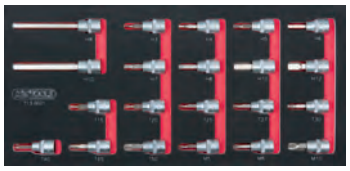
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Made from high quality foam
- Chrome plated and mirror polished

3/8"

		L mm	B mm	H mm	kg
783.4046	46 pcs	390.0	188.0	35.0	2.74
11 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" 5/8" - 11/16" - 3/4" - 13/16" - 7/8"			
6 x		3/8" - 7/16" - 1/2" - 9/16" - 11/16" - 3/4"			
2 x		5/8" - 13/16"			
7 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"			
10 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55			
5 x		M4 - M5 - M6 - M8 - M10			
2 x		75 - 150 mm			
1 x		3/8"			
1 x		160 mm			
1 x		3/8"			

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

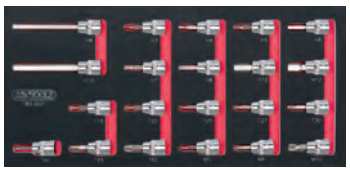


3/8"

		L mm	B mm	H mm	kg
713.0021	21 pcs	390.0	188.0	35.0	1.06
8 x		3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
2 x		8 - 10 mm			
8 x		T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50			
3 x		M5 - M6 - M10			

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

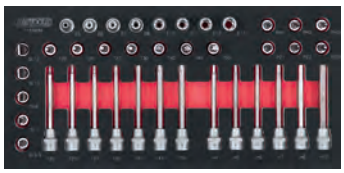


3/8"

		L mm	B mm	H mm	kg
783.0021	21 pcs	390.0	188.0	35.0	1.03
8 x		3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
2 x		8 - 10 mm			
8 x		T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50			
3 x		M5 - M6 - M10			

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
713.0039	39 pcs	390.0	188.0	35.0	1.83
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14			
5 x		3/8": 5,5 - 7 - 8 - 10 - 12 mm			
3 x		3/8": PH1 - PH2 - PH3			
3 x		3/8": PZ1 - PZ2 - PZ3			
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50			
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm			
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50			

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

		L mm	B mm	H mm	kg
783.0039	39 pcs	390.0	188.0	35.0	1.84
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14			
5 x		3/8": 5,5 - 7 - 8 - 10 - 12 mm			
3 x		3/8": PH1 - PH2 - PH3			
3 x		3/8": PZ1 - PZ2 - PZ3			
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50			
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm			
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50			

1/3 SCS - SOCKET WRENCH 1/2"

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.5005	5 pcs	390.0	188.0	35.0	1.85
1 x		1/2"			
2 x		125 - 250 mm			
1 x		250 mm			
1 x		250 mm			

SCS CHROME*plus*® socket set

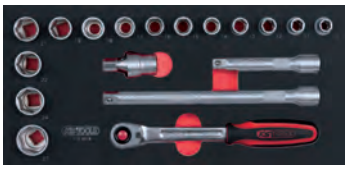
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.5005	5 pcs	390.0	188.0	35.0	1.52
2 x		125 - 250 mm			
1 x		1/2“			
1 x		250 mm			
1 x		245 mm			

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

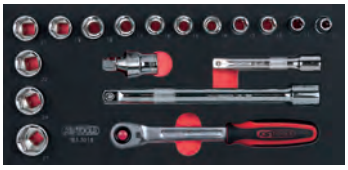


1/2"

		L mm	B mm	H mm	kg
713.3018	18 pcs	390.0	188.0	35.0	2.14
14 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm			
1 x		1/2“			
2 x		125 - 250 mm			
1 x		1/2“			

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
783.3018	18 pcs	390.0	188.0	35.0	2.25
14 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm			
1 x		1/2“			
2 x		125 - 250 mm			
1 x		1/2“			

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.4024	24 pcs	390.0	188.0	35.0	3.60
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
2 x		16 - 21 mm			
2 x		125 - 250 mm			
1 x		1/2“			
1 x		3/8“ x 1/2“			
1 x		1/2“			

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.4024	24 pcs	390.0	188.0	35.0	3.16
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
2 x		16 - 21 mm			
2 x		125 - 250 mm			
1 x		1/2“			
1 x		3/8“ x 1/2“			
1 x		1/2“			

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.4025	25 pcs	390.0	375.0	35.0	2.87
16 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm			
5 x		E10 - E12 - E14 - E16 - E18			
2 x		125 - 250 mm			
1 x		1/2“			
1 x		245 mm			

SCS CHROME*plus*® socket set

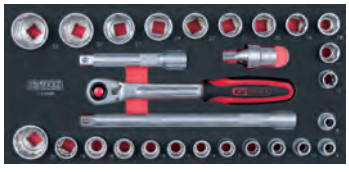
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.4025	25 pcs	390.0	375.0	35.0	2.95
16 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm			
5 x		E10 - E12 - E14 - E16 - E18			
2 x		125 - 250 mm			
1 x		1/2“			
1 x		245 mm			

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
713.0028	28 pcs	390.0	188.0	35.0	3.24
11 x		12 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
13 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 30 mm			
2 x		125 - 250 mm			
1 x		1/2“			
1 x		245 mm			

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

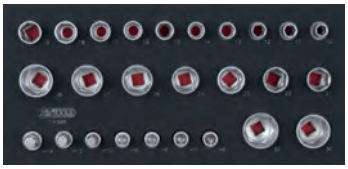
1/2"

		L mm	B mm	H mm	kg
783.0028	28 pcs	390.0	188.0	35.0	3.31

11 x		12 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm
13 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 30 mm
2 x		125 - 250 mm
1 x		1/2“
1 x		245 mm

SCS Hexagonal socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
713.0026	26 pcs	390.0	188.0	35.0	2.59

19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.0026	26 pcs	390.0	188.0	35.0	2.51

19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm

SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.4026	26 pcs	390.0	375.0	35.0	2.61

19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm

SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

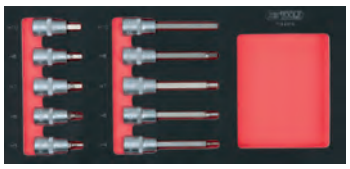
1/2"

		L mm	B mm	H mm	kg
783.4026	26 pcs	390.0	375.0	35.0	2.57

19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



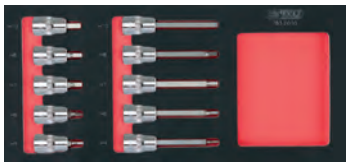
1/2"

		L mm	B mm	H mm	kg
713.2010	10 pcs	390.0	188.0	35.0	1.09

5 x		5 - 6 - 7 - 8 - 10 mm
5 x		4 - 6 - 7 - 8 - 10 mm

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
783.2010	10 pcs	390.0	188.0	35.0	1.01

5 x		5 - 6 - 7 - 8 - 10 mm
5 x		4 - 6 - 7 - 8 - 10 mm

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.0013	13 pcs	390.0	188.0	35.0	1.54

9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm
4 x		6 - 7 - 8 - 10 mm

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

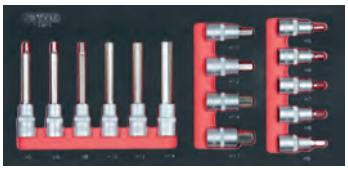
1/2"

		L mm	B mm	H mm	kg
783.0013	13 pcs	390.0	188.0	35.0	1.50

9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm
4 x		6 - 7 - 8 - 10 mm

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

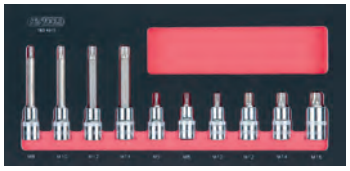


1/2"

		L mm	B mm	H mm	kg
713.0015	15 pcs	390.0	188.0	35.0	1.75
9 x		5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 mm			
6 x		5 - 6 - 8 - 10 - 12 - 14 mm			

SCS CHROME*plus*® Bit socket set for spline (XZN®) screws

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
783.4010	10 pcs	390.0	188.0	35.0	1.18
6 x		M5 - M8 - M10 - M12 - M14 - M16			
4 x		M8 - M10 - M12 - M14			

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.9011	11 pcs	390.0	188.0	35.0	1.40
5 x		5 - 6 - 7 - 8 - 10 mm			
1 x		T70 x 110 mm			
2 x		T45 - T55 x 140 mm			
3 x		M8 - M10 - M12			

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.0015	15 pcs	390.0	188.0	35.0	1.61
9 x		5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 mm			
6 x		5 - 6 - 8 - 10 - 12 - 14 mm			

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.4019	19 pcs	390.0	188.0	35.0	1.88
9 x		T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
9 x		T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
1 x		E1 x T5 - E30 x T70			

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.9011	11 pcs	390.0	188.0	35.0	1.40
5 x		5 - 6 - 7 - 8 - 10 mm			
1 x		T70 x 110 mm			
2 x		T45 - T55 x 140 mm			
3 x		M8 - M10 - M14			

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.4010	10 pcs	390.0	188.0	35.0	1.24
6 x		M5 - M8 - M10 - M12 - M14 - M16			
4 x		M8 - M9 - M12 - M14			

SCS CHROME*plus*® Bit socket set for TX screws

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.4019	19 pcs	390.0	188.0	35.0	1.88
9 x		T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
9 x		T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
1 x		E1 x T5 - E30 x T70			

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.2013	13 pcs	390.0	188.0	35.0	1.36
4 x		5 - 6 - 7 - 8 mm			
1 x		10 mm			
5 x		M5 - M6 - M8 - M10 - M12			
3 x		M8 - M10 - M12			

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.2013	13 pcs	390.0	188.0	35.0	1.23
4 x		5 - 6 - 7 - 8 mm			
1 x		10 mm			
5 x		M5 - M6 - M8 - M10 - M12			
3 x		M8 - M10 - M12			

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.4013	13 pcs	390.0	188.0	35.0	2.69
5 x		T30 - T40 - T45 - T50 - T55			
4 x		M6 - M8 - M9 - M12			
4 x		M6 - M8 - M10 - M12			

SCS CHROME*plus*® bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
783.4013	13 pcs	390.0	188.0	35.0	2.75
5 x		T30 - T40 - T45 - T50 - T55			
4 x		M6 - M8 - M9 - M12			
4 x		M6 - M8 - M10 - M12			

SCS Bit socket set

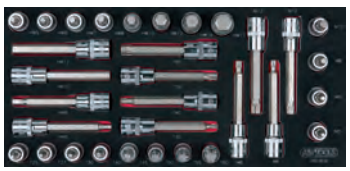
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.0032	32 pcs	390.0	188.0	35.0	3.50
8 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm			
4 x		6 - 8 - 10 - 12 mm			
8 x		T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			
4 x		T30 - T40 - T50 - T60			
4 x		M5 - M6 - M8 - M10			
4 x		M6 - M8 - M10 - M12			

SCS CHROME*plus*® Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



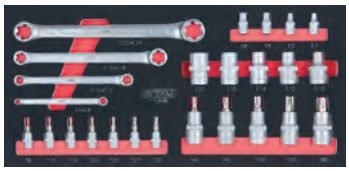
1/2"

		L mm	B mm	H mm	kg
783.0032	32 pcs	390.0	188.0	35.0	6.30
8 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm			
4 x		6 - 8 - 10 - 12 mm			
8 x		T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			
4 x		T30 - T40 - T50 - T60			
4 x		M5 - M6 - M8 - M10			
4 x		M6 - M8 - M10 - M12			

1/3 SCS - SOCKET WRENCH 1/4“ + 1/2“

SCS TX E-Profile ool set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

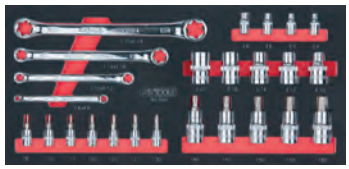


1/4" 1/2"

		L mm	B mm	H mm	kg
713.2025	25 pcs	390.0	188.0	35.0	1.20
9 x		1/4“: E4 - E5 - E6 - E8, 1/2“: E10 - E12 - E14 - E18 - E20			
5 x		1/2“: T40 - T45 - T50 - T55 - T60			
7 x		1/4“: TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30			
4 x		E6 x E8 - E10 x E12 - E14 x E18 E20 x E24			

SCS CHROME*plus*® TX-E-profile ool set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

		L mm	B mm	H mm	kg
783.2025	25 pcs	390.0	188.0	35.0	1.20
9 x		1/4“: E4 - E5 - E6 - E8, 1/2“: E10 - E12 - E14 - E18 - E20			
5 x		1/2“: T40 - T45 - T50 - T55 - T60			
7 x		1/4“: TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30			
4 x		E6 x E8 - E10 x E12 - E14 x E18 E20 x E24			

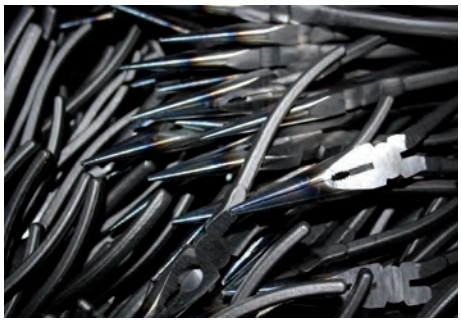
SCS Socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 1/2"

		L mm	B mm	H mm	kg
713.3047	47 pcs	390.0	188.0	35.0	2.14
8 x		1/4“: 5 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
3 x		1/4“: 4 - 4,5 - 5,5 mm			
5 x		1/4“: 2 - 3 - 4 - 5 - 6 mm			

2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
5 x		1/4“: T10 - T15 - T20 - T25 - T30
1 x		1/4“
1 x		1/4“
1 x		1/4“: 100 mm
1 x		1/4“
1 x		1/4“
14 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“



SCS CHROME*plus*® socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 1/2"

		L mm	B mm	H mm	kg
783.3047	47 pcs	390.0	188.0	35.0	2.79

8 x		1/4“: 5 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
3 x		1/4“: 4 - 4,5 - 5,5 mm
5 x		1/4“: 2 - 3 - 4 - 5 - 6 mm
2 x		1/4“: PH1 - PH2
2 x		1/4“: PZ1 - PZ2
5 x		1/4“: T10 - T15 - T20 - T25 - T30
1 x		1/4“
1 x		1/4“
1 x		1/4“: 100 mm
1 x		1/4“
1 x		1/4“
14 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“

SCS Bit socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 1/2"

		L mm	B mm	H mm	kg
713.0031	31 pcs	390.0	188.0	35.0	1.20

7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 - T40
5 x		1/2“: T30 - T40 - T45 - T50 - T55
5 x		1/4“: E5 - E6 - E7 - E8 - E10
6 x		1/2“: E10 - E12 - E14 - E16 - E18 - E20
1 x		TB10 - TB15 - TB20 - TB25 - TB30 TB40 - TB45 - TB50

SCS CHROME*plus*® Bit socket set for TX screws

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 1/2"

		L mm	B mm	H mm	kg
783.0031	31 pcs	390.0	188.0	35.0	1.15

7 x		1/4“: T10 - T15 - T20 - T25 - T27 T30 - T40
5 x		1/2“: T30 - T40 - T45 - T50 - T55
5 x		1/4“: E5 - E6 - E7 - E8 - E10
6 x		1/2“: E10 - E12 - E14 - E16 - E18 - E20
1 x		TB10 - TB15 - TB20 - TB25 - TB30 TB40 - TB45 - TB50

1/3 SCS - SOCKET WRENCH 1/4“ + 3/8“ + 1/2“

SCS Spark plug service set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
713.0027	27 pcs	390.0	188.0	35.0	3.35

20 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm 1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
1 x		3/8“
1 x		3/8“ - 150 mm
1 x		3/8“ - 150 mm
4 x		14 - 16 - 18 - 21 mm

SCS CHROME*plus*® spark plug service set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
783.0027	27 pcs	390.0	188.0	35.0	3.35

20 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm 1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
1 x		3/8“
1 x		3/8“ - 150 mm
1 x		3/8“ - 150 mm
4 x		14 - 16 - 18 - 21 mm

1/3 SCS - IMPACT SOCKET WRENCH

SCS Impact socket set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
713.0012	12 pcs	390.0	188.0	35.0	3.05
12 x		10 - 13 - 14 - 16 - 17 - 18 - 19 - 21 22 - 23 - 24 - 27 mm			

SCS impact socket wrench and bit set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

5/16" 1/2"

		L mm	B mm	H mm	kg
713.0019	19 pcs	390.0	188.0	35.0	2.11
5 x		1/2": 10 - 13 - 14 - 17 - 19 mm			
4 x		5/16": 4 - 5 - 6 - 7 mm			
4 x		5/16": PH1 - PH2 - PH3 - PH4			
4 x		5/16": 5 - 8 - 10 - 14 m			
1 x		1/2" x 5/16"			
1 x		1/2": 135 mm			

SCS impact socket and bit set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

5/16" 1/2"

		L mm	B mm	H mm	kg
713.2023	23 pcs	390.0	188.0	35.0	3.10
5 x		1/2": 10 - 13 - 14 - 17 - 19 mm			
4 x		1/2": 17 - 19 - 21 - 22 mm			
1 x		1/2": 38 mm			

1 x		1/2": 135 mm			
4 x		5/16": 5 - 8 - 10 - 14 mm			
4 x		5/16": PH1 - PH2 - PH3 - PH4			
4 x		5/16": 5 - 6 - 7 - 10 mm			

1/3 SCS - SCREWDRIVER

SCS ERGOTORQUE*plus*® screwdriver set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0006	6 pcs	390.0	188.0	35.0	0.43
4 x		4 - 5,5 - 6,5 - 8 mm			
2 x		PH1 - PH2			

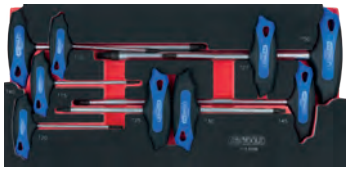
SCS ERGOTORQUE*plus*® screwdriver set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.1006	6 pcs	390.0	188.0	35.0	0.38
4 x		4,0 - 5,5 - 6,5 - 8,0 mm			
2 x		PZ1 - PZ2			

SCS T-handle TX-key wrench set

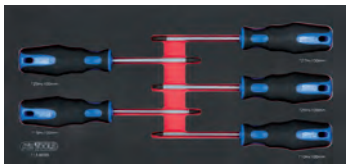
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2009	9 pcs	390.0	188.0	35.0	1.35
9 x		(T10 - T15 - T20 - T25 - T27 - T30) x 100, T40 x 200 (T45 - T50) x 250 mm			

SCS ERGOTORQUE*plus*® screwdriver set

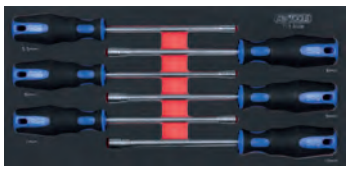
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.9005	5 pcs	390.0	188.0	35.0	0.25
5 x		TB10 - TB15 - TB20 - TB25 - TB27			

SCS ERGOTORQUE*plus*® socket screwdriver set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.3006	6 pcs	390.0	188.0	35.0	0.65
6 x		5,5 - 6 - 7 - 8 - 9 - 10 mm			

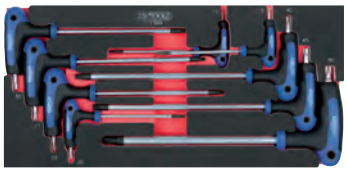
SCS CHROME*plus*® T-handle hex key wrench set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0008	8 pcs	390.0	188.0	35.0	1.10
8 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			

SCS TX T-handle key wrench-set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.3009	9 pcs	390.0	188.0	35.0	1.39

9 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50

SCS T-handle hex key wrench set

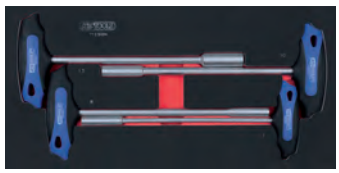
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.4006	6 pcs	390.0	188.0	35.0	0.41

6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm

SCS ERGOTORQUE*plus*® T-handle key wrench set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.5004	4 pcs	390.0	188.0	35.0	0.64

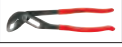
4 x		7 - 8 - 10 - 13 mm

1/3 SCS - PLIERS

SCS Plier set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.6004	4 pcs	390.0	188.0	35.0	1.18

1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm

SCS Circlip plier set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.5006	6 pcs	390.0	188.0	35.0	0.80

2 x		10 - 25 mm, 19 - 60 mm
1 x		19 - 60 mm
2 x		12 - 25 mm, 19 - 60 mm
1 x		19 - 60 mm

SCS automatic grip pliers set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.1003	3 pcs	390.0	188.0	35.0	1.08

2 x		175 - 250 mm
1 x		150 mm

SCS grip pliers set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.8004	4 pcs	390.0	188.0	35.0	1.86

2 x		175 - 250 mm
1 x		150 mm
1 x		285 mm

SCS Plier set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.9004	4 pcs	390.0	188.0	35.0	1.25

1 x		180 mm
1 x		160 mm
1 x		160 mm
1 x		250 mm

SCS pliers and scraper set

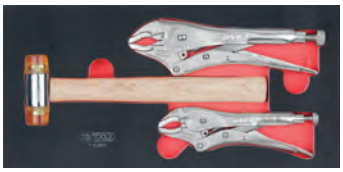
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.1004	4 pcs	390.0	188.0	35.0	0.66

1 x		160 mm
1 x		160 mm
2 x		25x200 - 12,5x300 mm

SCS hammer and grip pliers set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2003	3 pcs	390.0	188.0	35.0	1.11

2 x		175 - 250 mm
1 x		200 g

1/3 SCS - VDE

SCS VDE socket wrench set

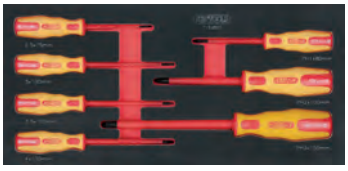
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.2018	18 pcs	390.0	188.0	35.0	1.47

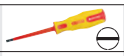
15 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 17 - 18 - 19 - 20 - 22 mm
2 x		125 - 250 mm
1 x		205 mm

SCS VDE screwdriver set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

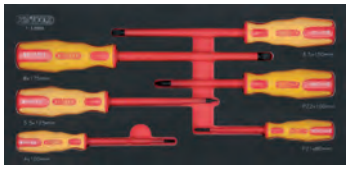


		L mm	B mm	H mm	kg
713.2007	7 pcs	390.0	188.0	35.0	0.17

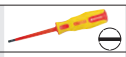
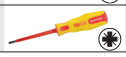
4 x		2,5 - 3,0 - 3,5 - 4,0 mm
3 x		PH1 - PH2 - PH3

SCS VDE screwdriver set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2006	6 pcs	390.0	188.0	35.0	0.58

4 x		4,0 - 5,5 - 6,5 - 8,0 mm
2 x		PZ1 - PZ2

SCS Insulated plier set

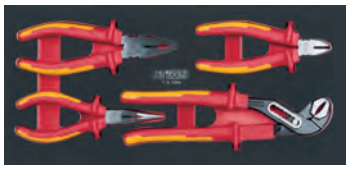
- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0003	3 pcs	390.0	188.0	35.0	1.00

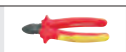
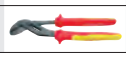
1 x		160 mm
1 x		200 mm
1 x		208 mm

SCS VDE plier set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.7004	4 pcs	390.0	188.0	35.0	1.11

1 x		156 mm
1 x		175 mm
1 x		165 mm
1 x		240 mm

1/3 SCS - MEASURING AND CHECKING TOOL

SCS Measuring tool set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.3005	5 pcs	390.0	188.0	35.0	0.58

1 x		230 mm
1 x		190 mm
1 x		E1 x T5 - E30 x T70
1 x		0 - 150 mm
1 x		5 m x 19 mm

SCS Measuring tool set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.2008	8 pcs	390.0	188.0	35.0	1.19

1 x		0 - 10 mm
1 x		0 - 150 mm
1 x		300 x 13 x 0,5 mm
1 x		3 m x 16 mm
1 x		
1 x		
1 x		100 mm
1 x		

1/3 SCS - PULLER

SCS Puller set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.2005	5 pcs	390.0	188.0	35.0	1.63
3 x					
1 x					
1 x					

1/3 SCS - WORKSHOP SUPPLIES

SCS Workshop file s t

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.3004	4 pcs	390.0	188.0	35.0	0.86
1 x		200 mm			
1 x		200 mm			
1 x		200 mm			
1 x		200 mm			

SCS chisel and hammer set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.0009	9 pcs	390.0	188.0	35.0	1.04
1 x		130 mm			
1 x		130 mm			
1 x		2 - 3 - 4 - 5 - 6 - 8 mm			
1 x		300 g			

SCS Universal tool set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.2014	14 pcs	390.0	188.0	35.0	0.75
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
1 x		200 g			
1 x		12,5 x 300 mm			
1 x		0,1 - 1,0 mm			
1 x		3 m x 16 mm			

SCS Drive punch and hammer set

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
713.8013	13 pcs	390.0	188.0	35.0	1.75
1 x					
1 x		2 - 3 - 4 - 5 - 6 - 8			
1 x		500 g			
1 x		160 mm			

1/3 SCS - EMPTY INSERTS

SCS Universal system insert for tools or small parts (empty)

- 1/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

	L mm	B mm	H mm	kg
713.0000	390.0	188.0	35.0	0.10

Anti slip mat

- Thickness 10 mm
- Uncut for self modelling

	L mm	B mm	kg
800.0920	10000.0	600.0	2.50

2/3 SCS - SPANNER

SCS Combination spanners set, offset

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.2017	17 pcs	390.0	375.0	35.0	1.90

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 21 - 22 - 24 mm

SCS Combination spanners set, offset

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
782.2017	17 pcs	390.0	375.0	35.0	2.40

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 21 - 22 - 24 mm

SCS Combination spanners set, offset

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.3005	5 pcs	390.0	375.0	35.0	2.19

5 x		23 - 24 - 27 - 30 - 32 mm

SCS CHROME*plus* Combination spanners set, offset

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
782.3005	5 pcs	390.0	375.0	35.0	2.95

5 x		23 - 24 - 27 - 30 - 32 mm

SCS Combination spanners set, offset

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.0027	27 pcs	390.0	375.0	35.0	2.37

1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm

SCS CHROME*plus* Combination spanners set, offset

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
782.0027	27 pcs	390.0	375.0	35.0	2.85

1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm

SCS GEAR*plus*® ratchet combination spanner set, including adaptors

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.1016	16 pcs	390.0	188.0	35.0	1.68

1 x		1/4“ x 10 mm
3 x		1/4“ x 10 mm - 3/8“ x 13 mm 1/2“ x 19 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm

SCS GEAR*plus*® reversing ratchet combination spanner set, including adaptors

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.0016	16 pcs	390.0	188.0	35.0	1.68

1 x		1/4“ x 10 mm
3 x		1/4“ x 10 mm - 3/8“ x 13 mm 1/2“ x 19 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm

SCS Double open ended spanner set

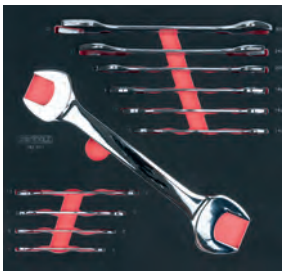
- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.3011	11 pcs	390.0	375.0	35.0	2.81

11 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 - 36x41 mm

SCS CHROME*plus*® double open ended spanner set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
782.3011	11 pcs	390.0	375.0	35.0	4.40
11 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 - 36x41 mm			

SCS Double ring spanner set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.5011	11 pcs	390.0	375.0	35.0	1.30
11 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 22x24 - 24x27 - 30x32 mm			

SCS double ring spanner set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.0009	9 pcs	390.0	375.0	35.0	1.73
9 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 mm			

SCS CHROME*plus* double ring spanner set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
782.0009	9 pcs	390.0	375.0	35.0	1.95
9 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 mm			

SCS Double revolving head spanner set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.0014	14 pcs	390.0	375.0	35.0	2.45
2 x		10 x 11 - 12 x 13 mm			
5 x		T15 x T20 - T25 x T27 - T30 x T40 T45 x T50 - T55 x T60			
4 x		E6 x E8 - E10 x E12 - E14 x E16 E22 x E24			
3 x		3 x 4 - 5 x 6 - 8 x 10 mm			

SCS Pipe head box wrench set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.7011	11 pcs	390.0	375.0	35.0	5.26
11 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			

2/3 SCS - SOCKET WRENCH 1/4“

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4“

		L mm	B mm	H mm	kg
712.0061	61 pcs	390.0	375.0	35.0	1.76
12 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
12 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm			
10 x		1/4“: 3/16“-7/32“-1/4“-9/32“-5/16“ 11/32“-3/8“-7/16“-1/2“-9/16“			
3 x		1/4“: 4,5 - 5,5 - 6,5 mm			
3 x		1/4“: PH1 - PH2 - PH3			
3 x		1/4“: PZ1 - PZ2 - PZ3			
3 x		1/4“: 4 - 5 - 6 mm			
7 x		1/4“: T10 - T15 - T20 - T25 - T27 - T30 - T40			
3 x		1/4“: 50 - 100 - 150 mm			
1 x		1/4“: 250			
1 x		1/4“			
1 x		1/4“			
1 x		1/4“			
1 x		1/4“			

SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

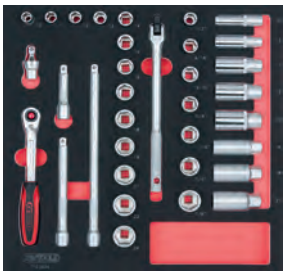
1/4"

			L mm	B mm	H mm	kg
782.0061	61 pcs		390.0	375.0	35.0	1.91
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm				
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm				
10 x		1/4": 3/16"-7/32"-1/4"-9/32"-5/16" 11/32"-3/8"-7/16"-1/2"-9/16"				
3 x		1/4": 4,5 - 5,5 - 6,5 mm				
3 x		1/4": PH1 - PH2 - PH3				
3 x		1/4": PZ1 - PZ2 - PZ3				
3 x		1/4": 4 - 5 - 6 mm				
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40				
3 x		1/4": 50 - 100 - 150 mm				
1 x		1/4": 250				
1 x		1/4"				
1 x		1/4"				
1 x		1/4"				
1 x		1/4"				

2/3 SCS - SOCKET WRENCH 3/8"

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

			L mm	B mm	H mm	kg
712.0034	34 pcs		390.0	375.0	35.0	3.00
13 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm				
7 x		1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" - 7/8"				
5 x		10 - 13 - 17 - 19 - 22 mm				
3 x		16 - 18 - 21 mm				
3 x		75 - 150 - 250 mm				
1 x		3/8"				
1 x		260 mm				
1 x		3/8"				

SCS CHROMEplus® socket set

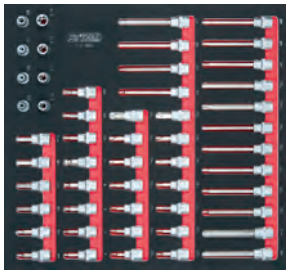
- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/8"

			L mm	B mm	H mm	kg
782.0034	34 pcs		390.0	375.0	35.0	3.00
13 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm				
7 x		1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" - 7/8"				
5 x		10 - 13 - 17 - 19 - 22 mm				
3 x		16 - 18 - 21 mm				
3 x		75 - 150 - 250 mm				
1 x		3/8"				
1 x		260 mm				
1 x		3/8"				

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

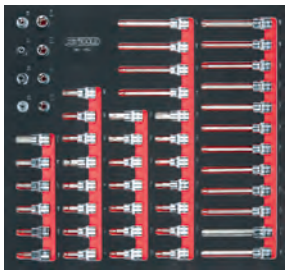


3/8"

			L mm	B mm	H mm	kg
712.1052	52 pcs		390.0	375.0	35.0	2.30
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14				
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm				
5 x		3/8": 4 - 5 - 6 - 8 - 10 mm				
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50				
7 x		3/8": TB20 - TB25 - TB27 - TB30 TB40 TB45 - TB50				
3 x		3/8": M5 - M6 - M8				
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm				
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50				
3 x		3/8": M5 - M6 - M8				

SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

			L mm	B mm	H mm	kg
782.1052	52 pcs		390.0	375.0	35.0	2.45
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14				
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm				
5 x		3/8": 4 - 5 - 6 - 8 - 10 mm				
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50				
7 x		3/8": TB20 - TB25 - TB27 - TB30 TB40 TB45 - TB50				
4 x		3/8": M5 - M6 - M8 - M10				
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm				
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50				

2/3 SCS - SOCKET WRENCH 1/2“

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
712.0026	26 pcs	390.0	375.0	35.0	3.93
21 x		1/2“: 10-11-12-13-14-15-16-17-18-19-20-21 22-23-24-26-27-28-30-32-34 mm			
2 x		1/2“: 125 - 250 mm			
1 x		1/2“: 250 mm			
1 x		1/2“			
1 x		1/2“			

SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
782.0026	26 pcs	390.0	375.0	35.0	3.92
21 x		1/2“: 10-11-12-13-14-15-16-17-18-19-20-21 22-23-24-26-27-28-30-32-34 mm			
2 x		1/2“: 125 - 250 mm			
1 x		1/2“: 250 mm			
1 x		1/2“			
1 x		1/2“			

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
712.1029	29 pcs	390.0	375.0	35.0	6.18
24 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 - 34 - 36 mm			
1 x		1/2“			
2 x		150 - 250 mm			
1 x		380 mm			
1 x		1/2“			

CHROMEplus® socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
782.1029	29 pcs	390.0	375.0	35.0	5.14
24 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 - 34 - 36 mm			
1 x		1/2“			
2 x		150 - 250 mm			
1 x		380 mm			
1 x		1/2“			

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
712.6030	30 pcs	390.0	375.0	35.0	5.30
15 x		3/8“ - 7/16“ - 1/2“ - 9/16“ - 19/32“ - 5/8“ - 11/16“ - 3/4“ 13/16“ - 7/8“ - 15/16“ - 1“ - 1.1/16“ - 1.1/8“ - 1.1/4			
7 x		1/2“ - 9/16“ - 11/16“ - 3/4“ - 7/8“ 15/16“ - 1“			
2 x		5/8“ - 13/16“			
2 x		125 - 250 mm			
1 x		1/2“			
1 x		3/8“F x 1/2“M			
1 x		380 mm			
1 x		1/2“			

SCS CHROMEplus® Socket set

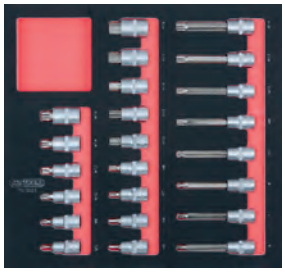
- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
782.6030	30 pcs	390.0	375.0	35.0	5.30
15 x		3/8“ - 7/16“ - 1/2“ - 9/16“ - 19/32“ - 5/8“ - 11/16“ - 3/4“ 13/16“ - 7/8“ - 15/16“ - 1“ - 1.1/16“ - 1.1/8“ - 1.1/4			
7 x		1/2“ - 9/16“ - 11/16“ - 3/4“ - 7/8“ 15/16“ - 1“			
2 x		5/8“ - 13/16“			
2 x		125 - 250 mm			
1 x		1/2“			
1 x		3/8“F x 1/2“M			
1 x		380 mm			
1 x		1/2“			

SCS Bit socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

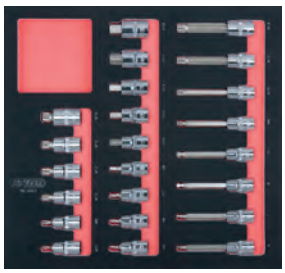


1/2"

		L mm	B mm	H mm	kg
712.0023	23 pcs	390.0	375.0	35.0	2.90
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
6 x		M5 - M8 - M10 - M12 - M14 - M16			
4 x		M8 - M10 - M12 - M14			
4 x		6 - 7 - 8 - 9 mm			

SCS CHROMEplus® Bit socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

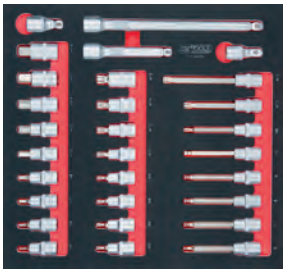


1/2"

		L mm	B mm	H mm	kg
782.0023	23 pcs	390.0	375.0	35.0	2.70
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
6 x		M5 - M8 - M10 - M12 - M14 - M16			
4 x		M8 - M10 - M12 - M14			
4 x		6 - 7 - 8 - 9 mm			

SCS Bit socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
712.0029	29 pcs	390.0	375.0	35.0	3.50
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
8 x		M5 - M6 - M8 - M9 - M10 - M12 - M14 M16			
2 x		M8 - M12 x 110 mm			
1 x		M12 x 140 mm			
5 x		6 - 7 - 8 - 9 - 10 mm			
1 x		50 mm			
3 x		50 - 125 - 250 mm			

SCS CHROMEplus® socket set

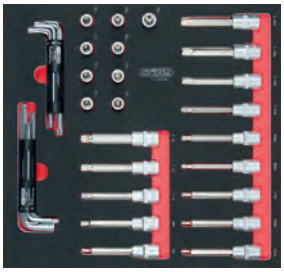
- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
782.0029	29 pcs	390.0	375.0	35.0	3.53
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
8 x		M5 - M6 - M8 - M9 - M10 - M12 - M14 M16			
2 x		M8 - M12 x 110 mm			
1 x		M12 x 140 mm			
5 x		6 - 7 - 8 - 9 - 10 mm			
1 x		50 mm			
3 x		50 - 125 - 250 mm			

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

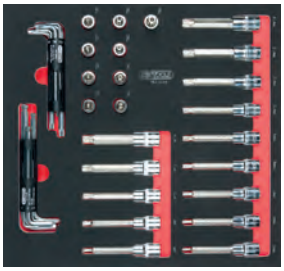


1/2"

		L mm	B mm	H mm	kg
712.0039	39 pcs	390.0	375.0	35.0	3.60
9 x		TB20 - TB25 - TB27 - TB30 - TB40 TB45 - TB50 - TB55 - TB60			
5 x		M6 - M8 - M9 - M12 - M14			
9 x		M5 - M6 - M7 - M8 - M9 - M10 - M12 M13 - M14			
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10			
1 x		T10 - T15 - T20 - T25 - T30 - T40 T45 - T50			

SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
782.0039	39 pcs	390.0	375.0	35.0	3.50
9 x		TB20 - TB25 - TB27 - TB30 - TB40 TB45 - TB50 - TB55 - TB60			
5 x		M6 - M8 - M9 - M12 - M14			
9 x		M5 - M6 - M7 - M8 - M9 - M10 - M12 M13 - M14			
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10			
1 x		T10 - T15 - T20 - T25 - T30 - T40 T45 - T50			

SCS Socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
712.4040	40 pcs	390.0	375.0	35.0	6.18

4 x		E16 - E18 - E20 - E24
16 x		10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 21 - 22 - 24 - 27 - 30 - 32 - 34 mm
5 x		10 - 12 - 14 - 17 - 19 mm
2 x		12 - 14 mm
2 x		10 - 12 mm
2 x		T55 - T60
2 x		T55 - T60
3 x		TB50 - TB55 - TB60
2 x		M12 - M14
2 x		M12 - M14

SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

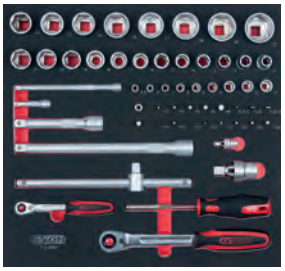
		L mm	B mm	H mm	kg
782.4040	40 pcs	390.0	375.0	35.0	1.55

4 x		E16 - E18 - E20 - E24
16 x		10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 21 - 22 - 24 - 27 - 30 - 32 - 34 mm
5 x		10 - 12 - 14 - 17 - 19 mm
2 x		12 - 14 mm
2 x		10 - 12 mm
2 x		T55 - T60
2 x		T55 - T60
3 x		TB50 - TB55 - TB60
2 x		M12 - M14
2 x		M12 - M14

2/3 SCS - SOCKET WRENCH 1/4“ + 1/2“

SCS Socket set

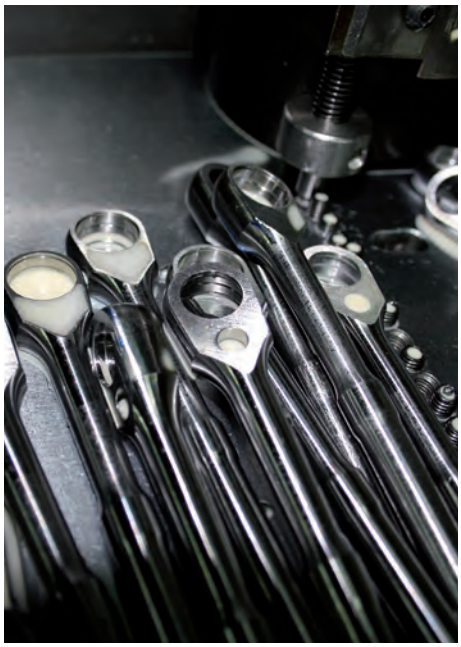
- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

		L mm	B mm	H mm	kg
712.0057	57 pcs	390.0	375.0	35.0	4.31

9 x		1/4“: 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
20 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm
3 x		1/4“: 4,5 - 6 - 6,5 mm
2 x		1/4“: PH1 - PH3
2 x		1/4“: PZ1 - PZ2
5 x		1/4“: 3 - 4 - 5 - 6 - 8 mm
4 x		1/4“: T15 - T20 - T25 - T30
2 x		1/4“: 50 - 150 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“
1 x		1/4“
1 x		1/4“
1 x		1/4“
2 x		1/4“ - 1/2“
2 x		1/4“ - 1/2“



SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 1/2"

		L mm	B mm	H mm	kg
782.0057	57 pcs	390.0	375.0	35.0	4.30

9 x		1/4“: 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
20 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm
3 x		1/4“: 4,5 - 6 - 6,5 mm
2 x		1/4“: PH1 - PH3
2 x		1/4“: PZ1 - PZ2
5 x		1/4“: 3 - 4 - 5 - 6 - 8 mm
4 x		1/4“: T15 - T20 - T25 - T30
2 x		1/4“: 50 - 150 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“
1 x		1/4“
1 x		1/4“
1 x		1/4“
2 x		1/4“ - 1/2“
2 x		1/4“ - 1/2“

2/3 SCS - SOCKET WRENCH 1/4“ + 3/8“ + 1/2“

SCS TX socket wrench set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4“ 3/8“ 1/2“

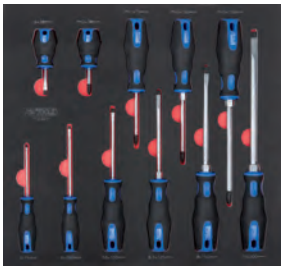
		L mm	B mm	H mm	kg
712.1057	57 pcs	390.0	375.0	35.0	2.31

7 x		1/4“: E4 - E5 - E6 - E7 - E8 - E10 - E11
2 x		3/8“: E12 - E14
4 x		1/2“: E16 - E18 - E20 - E24
2 x		3/8“: T40 - T45
3 x		1/2“: T50 - T55 - T60
1 x		1/4“: T20
10 x		1/4“: TB7 - TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
1 x		1/4“ x 1/4“
1 x		3/8“ x 10 mm
1 x		1/4“
8 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
2 x		T6 - T7
11 x		T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40
4 x		E6xE8 - E10xE12 - E14xE18 - E20xE24

2/3 SCS - SCREWDRIVER

SCS ERGOTORQUE*plus*® screwdriver set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
712.0011	11 pcs	390.0	375.0	35.0	1.00

1 x		6 mm
6 x		3 - 4 - 5,5 - 6,5 - 8 - 10 mm
1 x		PH2
3 x		PH1 - PH2 - PH3

SCS ERGOTORQUE*plus*® screwdriver set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.0012	12 pcs	390.0	375.0	35.0	1.02

5 x		3 - 4 - 6,5 - 8 - 10 mm
3 x		PH1 - PH2 - PH3
1 x		PZ1
1 x		6 mm
1 x		PH2
1 x		2,4 mm

SCS ERGOTORQUE*plus*® screwdriver set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.0020	20 pcs	390.0	375.0	35.0	1.30

1 x		6 mm
3 x		3 - 5,5 - 8 mm
1 x		PH2
3 x		PH1 - PH2 - PH3
1 x		PZ2
3 x		PZ1 - PZ2 - PZ3
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm

SCS ERGOTORQUE*plus*® T-handle TX tamperproof key wrench set

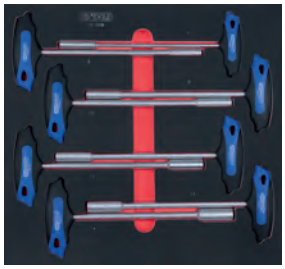
- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.3007	7 pcs	390.0	375.0	35.0	0.84

7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40

SCS ERGOTORQUE*plus*® Thandle socket srewdriver set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
712.1008	8 pcs	390.0	375.0	35.0	1.50

8 x	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm

SCS ERGOTORQUE*plus*® Thandle hexagon socket key wrench set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.4009	9 pcs	390.0	375.0	35.0	1.55

9 x	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm

2/3 SCS - WORKSHOP SUPPLIES

SCS chisel and measuring instrument set

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
712.0021	21 pcs	390.0	375.0	35.0	1.91

5 x	Ø 3 - 4 - 5 - 6 - 8 mm
3 x	Ø 4 - 5 - 6 mm
4 x	Ø 3 - 4 - 5 - 6 mm
1 x	Ø 5 mm
1 x	250 mm
1 x	150 mm
1 x	320 mm
1 x	0 - 150 mm
1 x	0,05 - 1,00 mm
1 x	E1xT5 - E30xT70
1 x	0,4 - 6,0 mm
1 x	3 - 48 V

2/3 SCS - EMPTY INSERTS

SCS Universal system insert for tool or small parts (empty)

- 2/3 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

	L mm	B mm	H mm	kg
712.0001	390.0	375.0	35.0	0.10

Anti slip mat

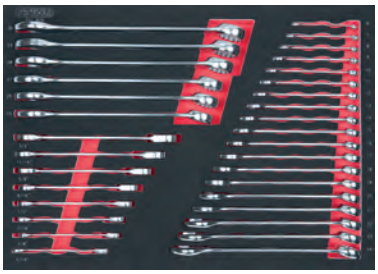
- Thickness 10 mm
- Uncut for self modelling

	L mm	B mm	kg
800.0920	10000.0	600.0	2.50

1/1 SCS - SPANNER

SCS combination wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

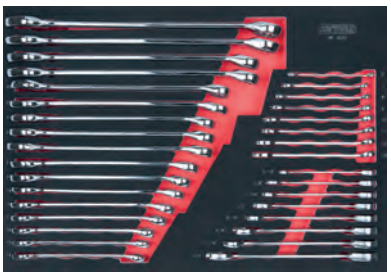


		L mm	B mm	H mm	kg
711.3033	33 pcs	390.0	564.0	35.0	5.77

8 x	5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" 11/16" - 3/4"
25 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 mm

SCS CHROME*plus*® combination spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
781.3033	33 pcs	390.0	564.0	35.0	7.24

8 x	5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" 11/16" - 3/4"
25 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 mm

SCS Spanner set

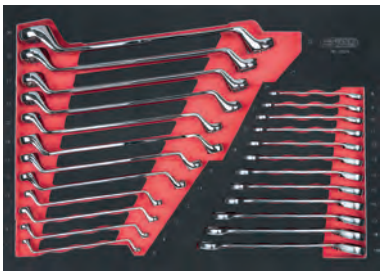
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0024	24 pcs	390.0	564.0	35.0	4.70

12 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 27x30 - 30x32 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm

SCS CHROME*plus*® spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
781.0024	24 pcs	390.0	564.0	35.0	4.67

12 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 17x19 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm

SCS combination wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0026	26 pcs	390.0	564.0	35.0	5.50

26 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm

SCS CHROME*plus*® combination spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
781.0026	26 pcs	390.0	564.0	35.0	5.50

26 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm

SCS spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.2030	30 pcs	390.0	564.0	35.0	4.82

12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19
4 x		E6xE8 - E10xE12 - E14xE16 - E22xE24
7 x		8x10 - 12x13 - 13x14 - 14x15 - 17x19 - 19x22 - 24x27

SCS CHROMEplus® spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
781.2030	30 pcs	390.0	564.0	35.0	4.82

12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19
4 x		E6xE8 - E10xE12 - E14xE16 - E22xE24
7 x		8x10 - 12x13 - 13x14 - 14x15 - 17x19 - 19x22 - 24x27

SCS CHROME*plus*® wrench set inch

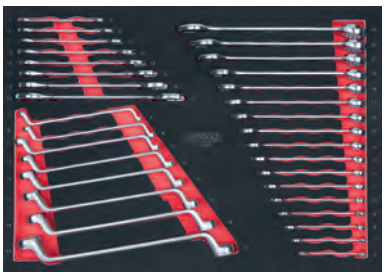
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
781.0031	31 pcs	390.0	564.0	35.0	5.56

4 x		1/4“ x 5/16“ - 3/8“ x 7/16“ - 1/2“ x 9/16“ - 5/8“ x 11/16“
12 x		1/4“ - 5/16“ - 3/8“ - 7/16“ - 1/2“ - 9/16“ 5/8“ - 11/16“ - 3/4“ - 13/16“ - 7/8“ - 15/16“
7 x		1/4“x5/16“ - 3/8“x7/16“ - 1/2“x9/16“ - 9/16“x5/8“ 11/16“x3/4“ - 13/16“x7/8“ - 15/16“x1“
8 x		1/4“x5/16“ - 3/8“x7/16“ - 1/2“x9/16“ - 9/16“x5/8“ - 5/8“x11/16“ - 11/16“x3/4“ - 15/16“x1“ - 1.1/8“x1.1/4“

SCS spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

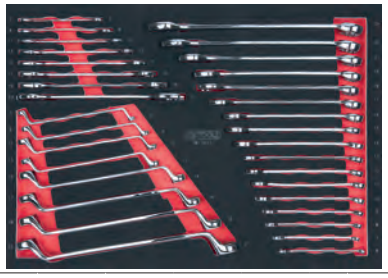


		L mm	B mm	H mm	kg
711.0033	33 pcs	390.0	564.0	35.0	4.05

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 21 - 22 - 24 mm
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18x19 - 21x23 mm
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18 x19 - 21x23 mm

SCS CHROME*plus*® spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

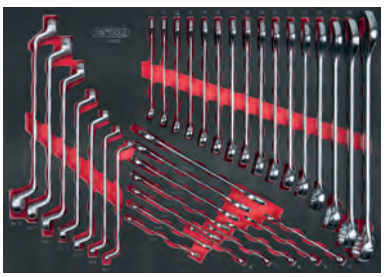


		L mm	B mm	H mm	kg
781.0033	33 pcs	390.0	564.0	35.0	4.72

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 21 - 22 - 24 mm
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18x19 - 21x23 mm
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18 x19 - 21x23 mm

SCS spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

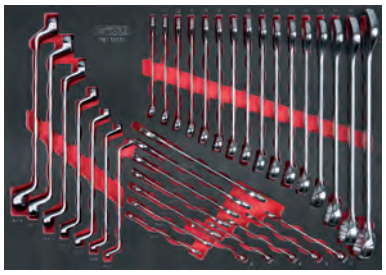


		L mm	B mm	H mm	kg
711.0035	35 pcs	390.0	564.0	35.0	4.05

21 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18x19 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18 x19 mm

SCS CHROMEplus® spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
781.0035	35 pcs	390.0	564.0	35.0	6.34

21 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18x19 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18 x19 mm

SCS Wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0036	36 pcs	390.0	564.0	35.0	4.86

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm
10 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 18x19 - 20x22 - 24x27 - 30x32 mm
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18 x19 - 21x23 mm
1x		11 mm

SCS CHROMEplus® wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
781.0036	36 pcs	390.0	564.0	35.0	5.80

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm
10 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 18x19 - 20x22 - 24x27 - 30x32 mm
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 -18 x19 - 21x23 mm
1x		11 mm

SCS Wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0041	41 pcs	390.0	564.0	35.0	6.80

20 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm
10 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 18x19 - 20x22 - 21x23 - 24x27 mm
2 x		8x10 - 10x11 mm
9x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 - 18x19 - 20x22 - 21x23 mm

SCS CHROMEplus® wrench set

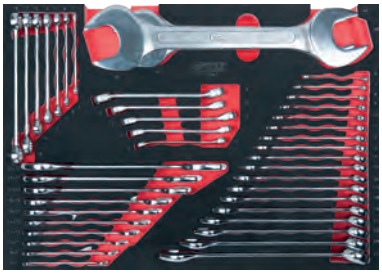
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
781.0041	41 pcs	390.0	564.0	35.0	7.81

20 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm
10 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 18x19 - 20x22 - 21x23 - 24x27 mm
2 x		8x10 - 10x11 mm
9x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 - 18x19 - 20x22 - 21x23 mm

SCS spanner set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.0042	42 pcs	390.0	564.0	35.0	8.50

18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm
12 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 21x23 - 24x27 - 30x32 - 36x41 - 46x50 mm
5 x		8x10 - 10x11 - 12x13 - 14x15 - 17x19 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 - 18x19 mm

SCS spanner set

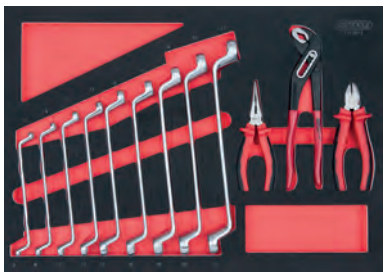
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0047	47 pcs	390.0	564.0	35.0	8.53

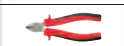
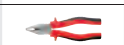
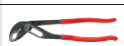
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 - 18x19 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 mm
8 x		8x10 - 10x11 - 12x13 - 14x15 - 17x19 - 19x21 - 24x27 - 30x32 mm
7 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 - 18x19 mm
3 x		10x12 - 11x13 - 14x17 mm

SCS Spanner and pliers set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

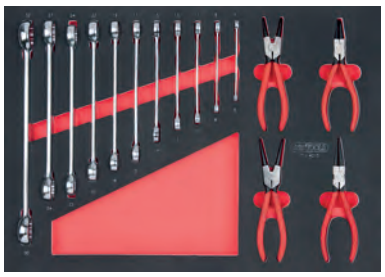


		L mm	B mm	H mm	kg
711.2012	12 pcs	390.0	564.0	35.0	2.33

9 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 16x17 - 18x19 - 20x22 - 21x23
1 x		160 mm
1 x		160 mm
1 x		240 mm

SCS double ring spanner and pliers set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.4015	15 pcs	390.0	564.0	35.0	2.22

11 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm

SCS double spanner and file s t

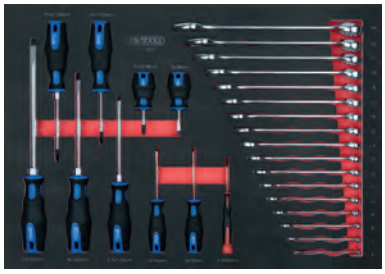
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.3015	15 pcs	390.0	564.0	35.0	3.73

11 x		6 x 7 - 8 x 9 - 10 x 11 - 12 x 13 - 14 x 15 - 16 x 17 18 x 19 - 20 x 22 - 24 x 27 - 30 x 32 - 36 x 41
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm

SCS combination wrench and screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.5027	27 pcs	390.0	564.0	35.0	2.66

17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm
5 x		3 - 4 - 6,5 - 8 - 10 mm
2 x		PH1 - PH2
1 x		6 mm
1 x		PH2
1 x		2,4 mm

SCS CHROME*plus*® combination wrench and screwdriver set

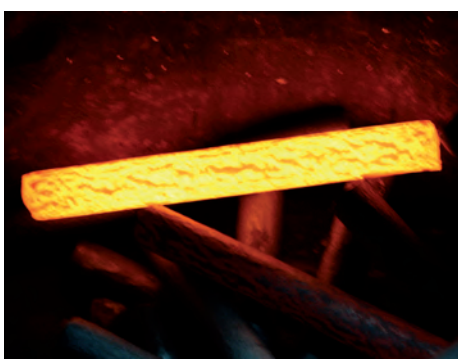
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
781.2029	29 pcs	390.0	564.0	35.0	4.11
21 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
6 x		3x155 - 4x155 - 4x180 - 5,5x230 6,5x230 - 8x265 mm			
2 x		PH1 - PH2			

SCS Spanner and hammer set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.3031	31 pcs	390.0	564.0	35.0	3.71
17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm			
1 x					
1 x		500 g			



SCS spanner and hammer set, imperial

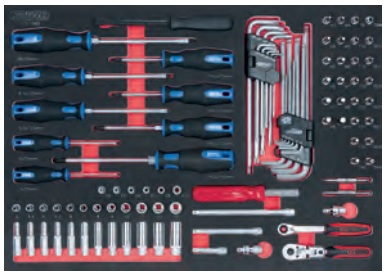
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
781.4031	31 pcs	390.0	564.0	35.0	7.40
16 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" 3/4" - 13/16" - 7/8" - 5/16" - 1" - 1.1/16" - 1.1/8" - 1.1/4"			
9 x		1/4"x5/16"-3/8"x7/16"-1/2"x9/16"-9/16"x5/8"-5/8"x 11/16"-11/16"x3/4"-3/4"x7/8"-15/16"x1"-1.1/8"x1.1/4"			
1 x					
1 x		500 g			

1/1 SCS - SOCKET WRENCH 1/4"

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

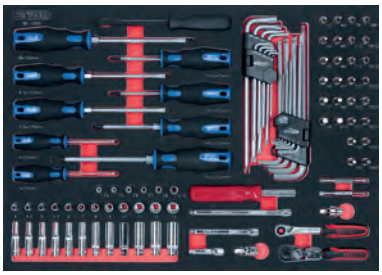


1/4"

		L mm	B mm	H mm	kg
711.1095	95 pcs	390.0	564.0	35.0	3.72
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40			
8 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40			
6 x		1/4": M4 - M5 - M6 - M7 - M8 - M10			
3 x		1/4": 50 - 100 - 150 mm			
1 x		3,0 - 5,5 - PH1 - PH2			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
5 x		3 - 4 - 5,5 - 6,5 - 8 mm			
4 x		PH0 - PH1 - PH2 - PH3			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
1 x		11 x 115 mm			

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

		L mm	B mm	H mm	kg
781.1095	95 pcs	390.0	564.0	35.0	3.90
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40			
8 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40			
6 x		1/4": M4 - M5 - M6 - M7 - M8 - M10			
3 x		1/4": 50 - 100 - 150 mm			
1 x		3,0 - 5,5 - PH1 - PH2			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
5 x		3 - 4 - 5,5 - 6,5 - 8 mm			
4 x		PH0 - PH1 - PH2 - PH3			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
1 x		11 x 115 mm			

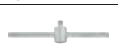
1/1 SCS - SOCKET WRENCH 1/2“

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

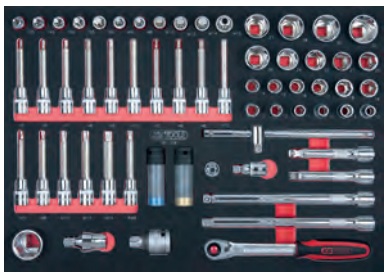
1/2"

		L mm	B mm	H mm	kg
711.0061	61 pcs	390.0	564.0	35.0	8.52

19 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-24-26-27-28-30-32 mm
1 x		3/4“: 32 mm
2 x		1/2“: 10 - 13 mm
2 x		1/2“: 17 - 19 mm
4 x		1/2“: 5 - 6 - 8 - 10 mm
6 x		1/2“: 5 - 6 - 7 - 8 - 9 - 10 mm
5 x		1/2“: T25 - T45 - T50 - T55 - T60
1 x		1/2“: T45
5 x		1/2“: M6 - M8 - M10 - M12 - M14
4 x		1/2“: M8 - M10 - M12 - M14
1 x		1/2“: M16
1 x		1/2“: M9
1 x		3/4“: M18
2 x		1/2“: 125 - 250 mm
3 x		1/2“: 50 - 125 - 250 mm
1 x		1/2“: 250 mm
1 x		3/8“F x 1/2“M
1 x		1/2“
1 x		1/2“

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	kg
781.0061	61 pcs	390.0	564.0	35.0	8.40

19 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-24-26-27-28-30-32 mm
1 x		3/4“: 32 mm
2 x		1/2“: 10 - 13 mm
2 x		1/2“: 17 - 19 mm
4 x		1/2“: 5 - 6 - 8 - 10 mm
6 x		1/2“: 5 - 6 - 7 - 8 - 9 - 10 mm
5 x		1/2“: T25 - T45 - T50 - T55 - T60
1 x		1/2“: T45
5 x		1/2“: M6 - M8 - M10 - M12 - M14
4 x		1/2“: M8 - M10 - M12 - M14
1 x		1/2“: M16
1 x		1/2“: M9
1 x		3/4“: M18
2 x		1/2“: 125 - 250 mm
3 x		1/2“: 50 - 125 - 250 mm
1 x		1/2“: 250 mm
1 x		3/8“F x 1/2“M
1 x		1/2“
1 x		1/2“

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
711.0066	66 pcs	390.0	564.0	35.0	8.73

19 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-23-26-27-28-30-32 mm
9 x		1/2“: E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24
2 x		1/2“: 17 - 19 mm
9 x		1/2“: 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm
9 x		1/2“: T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60
4 x		1/2“: TB30 - TB40 - TB45 - TB50
2 x		1/2“: 125 - 250 mm
2 x		1/2“: 50 - 250 mm
1 x		1/2“: 250 mm
2 x		3/8“F x 1/2“M - 1/2“F x 3/8“M
1 x		1/2“
1 x		1/2“
1 x		1/2“: 380 mm
4 x		E6xE8 - E10xE12 - E14xE16 E22xE24

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2"

		L mm	B mm	H mm	kg
781.0066	66 pcs	390.0	564.0	35.0	8.70

19 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-23-26-27-28-30-32 mm
9 x		1/2“: E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24
2 x		1/2“: 17 - 19 mm

9 x		1/2“: 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm
9 x		1/2“: T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60
4 x		1/2“: TB30 - TB40 - TB45 - TB50
2 x		1/2“: 125 - 250 mm
2 x		1/2“: 50 - 250 mm
1 x		1/2“: 250 mm
2 x		3/8“F x 1/2“M - 1/2“F x 3/8“M
1 x		1/2“
1 x		1/2“
1 x		1/2“: 380 mm
4 x		E6xE8 - E10xE12 - E14xE16 E22xE24

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/2“

		L mm	B mm	H mm	kg
711.0053	53 pcs	390.0	564.0	35.0	6.75

1 x		2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0 mm
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50
2 x		10 x 11 - 12 x 13 mm
5 x		T15 x T20 - T25 x T27 - T30 x T40 - T45 x T50 - T55 x T60
4 x		E6 x E8 - E10 x E12 - E14 x E16 - E22 x E24
3 x		3 x 4 - 5 x 6 - 8 x 10 mm
5 x		M6 - M8 - M9 - M12 - M14
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60
9 x		M5 - M6 - M7 - M8 - M9 - M10 - M12 M13 - M14

1/1 SCS - SOCKET WRENCH 3/4“

SCS socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/4“

		L mm	B mm	H mm	kg
711.1031	31 pcs	390.0	564.0	35.0	15.93

14 x		3/4“: 19 - 21 - 22 - 23 - 24 - 26 - 27 - 30 - 32 - 36 - 38 - 41 - 46 - 50 mm
14 x		3/4“: 3/4“ - 7/8“ - 15/16“ - 1“ - 1.1/16“ - 1.1/8“ - 1.3/16“ 1.1/4“ - 1.3/8“ - 1.7/16“ - 1.1/2“ - 1.5/8“ - 1.3/4“ - 2“
1 x		3/4“: 400 mm
1 x		3/4“: 450 mm
1 x		3/4“: 500 mm

SCS impact socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

3/4“

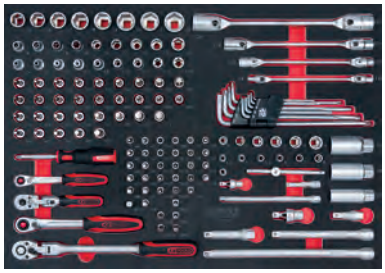
		L mm	B mm	H mm	kg
711.2033	33 pcs	390.0	564.0	35.0	0.02

15 x		19 - 21 - 22 - 23 - 24 - 27 - 28 - 30 - 32 33 - 34 - 36 - 38 - 41 - 46 mm
14 x		19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 33 34 - 36 - 38 - 41 - 46 mm
2 x		3/4“F x 1/2“M - 3/4“F x 1“M
1 x		1/2“
1 x		150 mm

1/1 SCS - SOCKET WRENCH 1/4“ + 3/8“

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



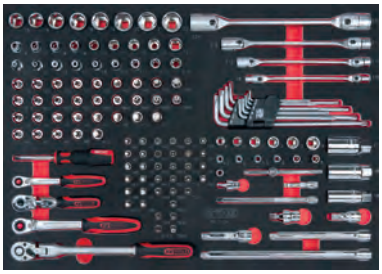
1/4“ 3/8“

		L mm	B mm	H mm	kg
711.0136	136 pcs	390.0	564.0	35.0	6.50

12 x		1/4“: 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
17 x		3/8“: 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm
9 x		3/8“: E4 - E5 - E6 - E7 - E8 - E10 E11 - E12 - E14
3 x		3/8“: 16 - 18 - 21 mm
2 x		1/4“: 4 - 5,5 mm
5 x		1/4“: PH0 - PH1 - PH2 - PH3 - PH4
6 x		1/4“: 3 - 4 - 5 - 6 - 7 - 8 mm
9 x		1/4“: T7 - T8 - T10 - T15 - T20 - T25 T27 - T30 - T40
8 x		1/4“: TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
6 x		1/4“: M4 - M5 - M6 - M7 - M8 - M10
8 x		3/8“: 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm
9 x		3/8“: T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55
9 x		3/8“: TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55
5 x		3/8“: M4 - M5 - M6 - M8 - M10
2 x		1/4“: 50 - 150 mm
4 x		3/8“: 50 - 75 - 150 - 250 mm
1 x		1/4“
1 x		1/4“
1 x		1/4“
2 x		1/4“ - 3/8“
2 x		1/4“ - 3/8“
2 x		1/4“ - 3/8“
4 x		E6xE8 - E10xE12 - E14xE16 E22xE24
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



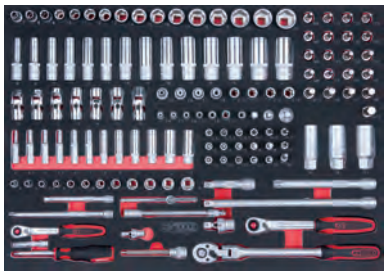
1/4" 3/8"

		L mm	B mm	H mm	kg
781.0136	136 pcs	390.0	564.0	35.0	6.58

12 x		1/4": 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
17 x		3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm
9 x		3/8": E4 - E5 - E6 - E7 - E8 - E10 E11 - E12 - E14
3 x		3/8": 16 - 18 - 21 mm
2 x		1/4": 4 - 5,5 mm
5 x		1/4": PH0 - PH1 - PH2 - PH3 - PH4
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
9 x		1/4": T7 - T8 - T10 - T15 - T20 - T25 T27 - T30 - T40
8 x		1/4": TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
6 x		1/4": M4 - M5 - M6 - M7 - M8 - M10
8 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55
9 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55
5 x		3/8": M4 - M5 - M6 - M8 - M10
2 x		1/4": 50 - 150 mm
4 x		3/8": 50 - 75 - 150 - 250 mm
1 x		1/4"
1 x		1/4"
1 x		1/4"
2 x		1/4" - 3/8"
2 x		1/4" - 3/8"
2 x		1/4" - 3/8"
4 x		E6xE8 - E10xE12 - E14xE16 E22xE24
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



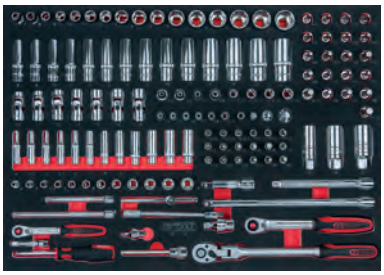
1/4" 3/8"

		L mm	B mm	H mm	kg
711.1136	136 pcs	390.0	564.0	35.0	7.60

12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
16 x		3/8": 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm
14 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 mm
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14
3 x		3/8": 16 - 18 - 21 mm
7 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 mm
3 x		1/4": 4 - 5,5 - 6,5 mm
3 x		1/4": PH1 - PH2 - PH3
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40
7 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55
1 x		3/8": T25
5 x		3/8": M4 - M5 - M6 - M8 - M10
3 x		1/4": 50 - 100 - 150 mm
3 x		3/8": 75 - 150 - 250 mm
1 x		1/4": 150 mm
1 x		1/4"
1 x		1/4"
1 x		1/4"
3 x		1/4"Fx3/8"M - 3/8"Fx1/4"M 1/2"Fx3/8"M
2 x		1/4" - 3/8"
2 x		1/4" - 3/8"
1 x		3/8"

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8"

		L mm	B mm	H mm	kg
781.1136	136 pcs	390.0	564.0	35.0	7.63

12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
16 x		3/8": 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm
14 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 mm
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14
3 x		3/8": 16 - 18 - 21 mm
7 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 mm
3 x		1/4": 4 - 5,5 - 6,5 mm
3 x		1/4": PH1 - PH2 - PH3
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40
7 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55
1 x		3/8": T25
5 x		3/8": M4 - M5 - M6 - M8 - M10
3 x		1/4": 50 - 100 - 150 mm
3 x		3/8": 75 - 150 - 250 mm
1 x		1/4": 150 mm
1 x		1/4"
1 x		1/4"
1 x		1/4"
3 x		1/4"Fx3/8"M - 3/8"Fx1/4"M 1/2"Fx3/8"M
2 x		1/4" - 3/8"
2 x		1/4" - 3/8"
1 x		3/8"

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SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 3/8"

			L mm	B mm	H mm	kg
711.0144	144 pcs		390.0	564.0	35.0	5.82
12 x			1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
17 x			3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
12 x			1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
6 x			1/4": E4 - E5 - E6 - E7 - E8 - E10			
9 x			3/8": E4 - E5 - E6 - E7 - E8 - E10 E11 - E12 - E14			
3 x			3/8": 16 - 18 - 21 mm			
6 x			1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
7 x			1/4": T7 - T8 - T9 - T10 - T15 - T20 - T25			
8 x			1/4": TB8 - TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40			
6 x			1/4": M4 - M5 - M6 - M7 - M8 - M10			
8 x			3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
9 x			3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55			
9 x			3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55			
3 x			1/4": 50 - 100 - 150 mm			
3 x			3/8": 75 - 150 - 250 mm			
1 x			1/4"			
1 x			1/2"Fx3/8"M			
2 x			1/4" - 3/8"			
2 x			1/4" - 3/8"			
1 x			1/4"			
1 x			TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x			1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

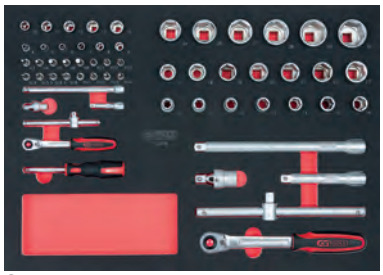
1/4" 3/8"

			L mm	B mm	H mm	kg
781.0144	144 pcs		390.0	564.0	35.0	6.50
12 x			1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
17 x			3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
12 x			1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
6 x			1/4": E4 - E5 - E6 - E7 - E8 - E10			
9 x			3/8": E4 - E5 - E6 - E7 - E8 - E10 E11 - E12 - E14			
3 x			3/8": 16 - 18 - 21 mm			
6 x			1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
7 x			1/4": T7 - T8 - T9 - T10 - T15 - T20 - T25			
8 x			1/4": TB8 - TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40			
6 x			1/4": M4 - M5 - M6 - M7 - M8 - M10			
8 x			3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
9 x			3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55			
9 x			3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55			
3 x			1/4": 50 - 100 - 150 mm			
3 x			3/8": 75 - 150 - 250 mm			
1 x			1/4"			
1 x			1/2"Fx3/8"M			
2 x			1/4" - 3/8"			
2 x			1/4" - 3/8"			
1 x			1/4"			
1 x			TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x			1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			

1/1 SCS - SOCKET WRENCH 1/4" + 1/2"

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

			L mm	B mm	H mm	kg
711.0058	58 pcs		390.0	564.0	35.0	4.45
11 x			1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
20 x			1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17- 18 - 19 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
5 x			1/4": 3 - 4 - 5 - 6 - 8 mm			
4 x			1/4": 4 - 5,5 - 6,5 - 8 mm			
4 x			1/4": PH1 - PH2 - PH3 - PH4			
3 x			1/4": PZ1 - PZ2 - PZ3			
2 x			1/4" - 1/2"			
2 x			1/4": 50 - 150 mm			
2 x			1/2": 125 - 250 mm			
2 x			1/4" x 110 mm - 1/2" x 250 mm			
1 x			1/4" x 150 mm			
2 x			1/4" - 1/2"			

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

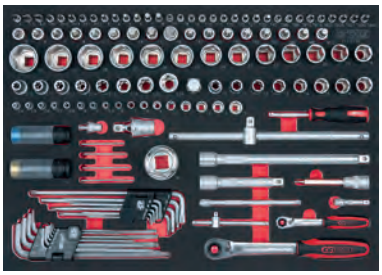
1/4" 1/2"

			L mm	B mm	H mm	kg
781.0058	58 pcs		390.0	564.0	35.0	4.41
11 x			1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
20 x			1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17- 18 - 19 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
5 x			1/4": 3 - 4 - 5 - 6 - 8 mm			
4 x			1/4": 4 - 5,5 - 6,5 - 8 mm			
4 x			1/4": PH1 - PH2 - PH3 - PH4			
3 x			1/4": PZ1 - PZ2 - PZ3			

2 x		1/4“ - 1/2“
2 x		1/4“: 50 - 150 mm
2 x		1/2“: 125 - 250 mm
2 x		1/4“ x 110 mm - 1/2“ x 250 mm
1 x		1/4“ x 150 mm
2 x		1/4“ - 1/2“

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

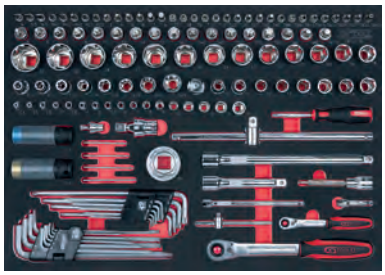
	L mm	B mm	H mm	kg
711.0135 135 pcs	390.0	564.0	35.0	9.27

12 x		1/4“: 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
21 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-25-26-27-28-30-32 mm
5 x		1/4“: E4 - E5 - E6 - E7 - E8
8 x		1/2“: E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24
2 x		1/2“: 17 - 19 mm
1 x		3/4“: 36 mm
3 x		1/4“: 4 - 5,5 - 6,5 mm
3 x		1/4“: PH1 - PH2 - PH3
2 x		1/4“: PZ1 - PZ2
6 x		1/4“: 3 - 4 - 5 - 6 - 7 - 8 mm
10 x		1/4“: T7 - T8 - T9 - T10 - T15 - T20 T25 - T27 - T30 - T40
9 x		1/4“: TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
9 x		1/2“: 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 19 mm
5 x		1/2“: T40 - T45 - T50 - T55 - T60
3 x		1/2“: M6 - M8 - M10
1 x		1/2“: T25
2 x		1/4“: 50 - 150 mm
2 x		1/2“: 125 - 250 mm
2 x		1/4“ - 1/2“
1 x		1/4“
1 x		1/2“F x 3/4“M
2 x		1/4“ - 1/2“

2 x		1/4“ - 1/2“
4 x		T6 - T7 - T8 - T9
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm

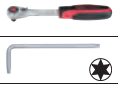
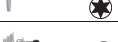
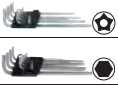
SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg
781.0135 135 pcs	390.0	564.0	35.0	9.50

12 x		1/4“: 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm
21 x		1/2“: 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-25-26-27-28-30-32 mm
5 x		1/4“: E4 - E5 - E6 - E7 - E8
8 x		1/2“: E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24
2 x		1/2“: 17 - 19 mm
1 x		3/4“: 36 mm
3 x		1/4“: 4 - 5,5 - 6,5 mm
3 x		1/4“: PH1 - PH2 - PH3
2 x		1/4“: PZ1 - PZ2
6 x		1/4“: 3 - 4 - 5 - 6 - 7 - 8 mm
10 x		1/4“: T7 - T8 - T9 - T10 - T15 - T20 T25 - T27 - T30 - T40
9 x		1/4“: TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
9 x		1/2“: 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 19 mm
5 x		1/2“: T40 - T45 - T50 - T55 - T60
3 x		1/2“: M6 - M8 - M10
1 x		1/2“: T25
2 x		1/4“: 50 - 150 mm
2 x		1/2“: 125 - 250 mm
2 x		1/4“ - 1/2“
1 x		1/4“
1 x		1/2“F x 3/4“M
2 x		1/4“ - 1/2“
2 x		1/4“ - 1/2“
4 x		T6 - T7 - T8 - T9
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm

1/1 SCS - SOCKET WRENCH 3/8“ + 1/2“

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

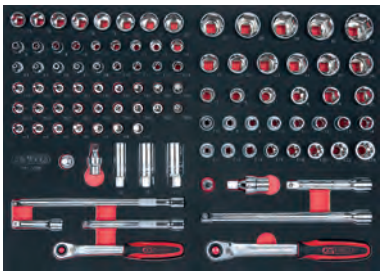
3/8" 1/2"

	L mm	B mm	H mm	kg
711.0098 98 pcs	390.0	564.0	35.0	7.50

17 x		3/8“: 6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22mm
24 x		1/2“: 8-9-10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-25-26-27-28-29-30-32mm
9 x		3/8“: E4 - E5 - E6 - E7 - E8 - E10 - E11 E12 - E14
9 x		1/2“: E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24
3 x		3/8“: 16 - 18 - 21 mm
7 x		3/8“: 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
9 x		3/8“: T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55
9 x		3/8“: TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55
3 x		3/8“: 75 - 150 - 250 mm
2 x		1/2“: 125 - 250 mm
2 x		1/2“Fx3/8“M - 3/8“Fx1/2“M
2 x		3/8“ - 1/2“
2 x		3/8“ - 1/2“

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



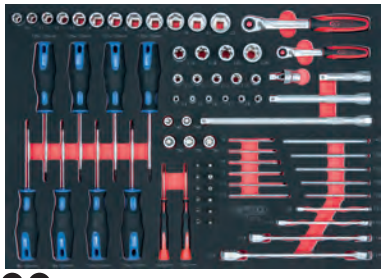
3/8" 1/2"

		L mm	B mm	H mm	kg
781.0098	98 pcs	390.0	564.0	35.0	7.25
17 x		3/8": 6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22mm			
24 x		1/2": 8-9-10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-25-26-27-28-29-30-32mm			
9 x		3/8": E4 - E5 - E6 - E7 - E8 - E10 - E11 E12 - E14			
9 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
3 x		3/8": 16 - 18 - 21 mm			
7 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55			
9 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55			
3 x		3/8": 75 - 150 - 250 mm			
2 x		1/2": 125 - 250 mm			
2 x		1/2"Fx3/8"M - 3/8"Fx1/2"M			
2 x		3/8" - 1/2"			
2 x		3/8" - 1/2"			

1/1 SCS - SOCKET WRENCH 1/4" + 3/8" + 1/2"

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

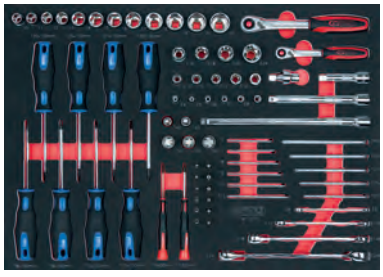


1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0075	75 pcs	390.0	564.0	35.0	1.15
12 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 21 - 22 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
4 x		3/8": E10 - E11- E12 - E14			
4 x		1/2": E16 - E18 - E20 - E24			
2 x		3/8": T40 - T45			
3 x		1/2": T50 - T55 - T60			
2 x		1/4": T6 - T25			
10 x		1/4": TB7 - TB8 - TB9 - TB10 - TB15 TB20 - TB25 - TB27 - TB30 - TB40			
3 x		3/8": 75 - 150 - 250 mm			
2 x		3/8"x10mm - 1/4"x1/4"			
1 x		3/8"			
1 x		1/4"			
1 x		3/8"			
11 x		T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40			
8 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
2 x		T6 - T7			
4 x		E6xE8 - E10xE12 - E14xE18 E20xE24			

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

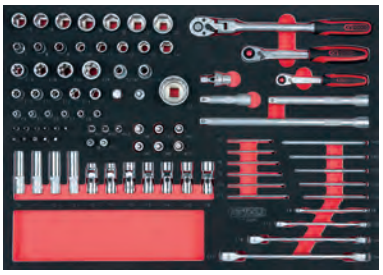


1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
781.0075	75 pcs	390.0	564.0	35.0	3.80
12 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 21 - 22 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
4 x		3/8": E10 - E11- E12 - E14			
4 x		1/2": E16 - E18 - E20 - E24			
2 x		3/8": T40 - T45			
3 x		1/2": T50 - T55 - T60			
2 x		1/4": T6 - T25			
10 x		1/4": TB7 - TB8 - TB9 - TB10 - TB15 TB20 - TB25 - TB27 - TB30 - TB40			
3 x		3/8": 75 - 150 - 250 mm			
2 x		3/8"x10mm - 1/4"x1/4"			
1 x		3/8"			
1 x		1/4"			
1 x		3/8"			
11 x		T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40			
8 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
2 x		T6 - T7			
4 x		E6xE8 - E10xE12 - E14xE18 E20xE24			

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



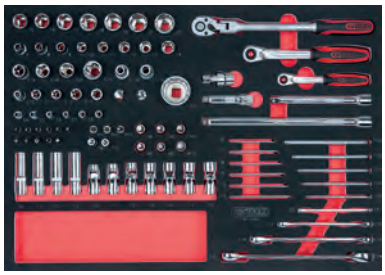
1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0090	90 pcs	390.0	564.0	35.0	5.26
15 x		3/8": 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 21 - 22 mm			
4 x		3/8": 10 - 11 - 12 - 13 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
4 x		3/8": E10 - E11 - E12 - E14			
4 x		1/2": E16 - E18 - E20 - E24			
7 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 mm			
3 x		1/2": 33 mm - 5/16" - 11/32"			
3 x		1/4": PH1 - PH2 - PH3			
2 x		1/4": T8 - T10			
1 x		3/8": 8 mm			
2 x		3/8": T40 - T45			
3 x		3/8": M6 - M8 - M10			
2 x		1/4": T6 - T25			
9 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40			
3 x		3/8": 75 - 150 - 250 mm			

2 x		3/8“ - 1/4“
2 x		3/8“Fx1/4“M - 3/8“Fx1/2“M
1 x		3/8“
1 x		3/8“
2 x		1/4“ - 3/8“
11 x		T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 T27 - T30 - T40
4 x		E6xE8 - E10xE12 - E14xE18 E20xE24

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



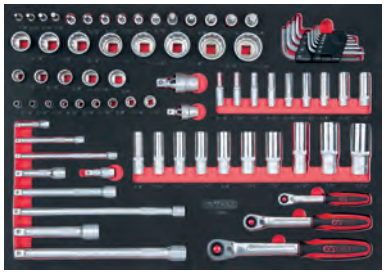
1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
781.0090	90 pcs	390.0	564.0	35.0	5.07

15 x		3/8“: 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 21 - 22 mm
4 x		3/8“: 10 - 11 - 12 - 13 mm
5 x		1/4“: E4 - E5 - E6 - E7 - E8
4 x		3/8“: E10 - E11 - E12 - E14
4 x		1/2“: E16 - E18 - E20 - E24
7 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 - 16 mm
3 x		1/2“: 33 mm - 5/16“ - 11/32“
3 x		1/4“: PH1 - PH2 - PH3
2 x		1/4“: T8 - T10
1 x		3/8“: 8 mm
2 x		3/8“: T40 - T45
3 x		3/8“: M6 - M8 - M10
2 x		1/4“: T6 - T25
9 x		1/4“: TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - T27 - TB30 - TB40
3 x		3/8“: 75 - 150 - 250 mm
2 x		3/8“ - 1/4“
2 x		3/8“Fx1/4“M - 3/8“Fx1/2“M
1 x		3/8“
1 x		3/8“
2 x		1/4“ - 3/8“
11 x		T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 T27 - T30 - T40
4 x		E6xE8 - E10xE12 - E14xE18 E20xE24

SCS Socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



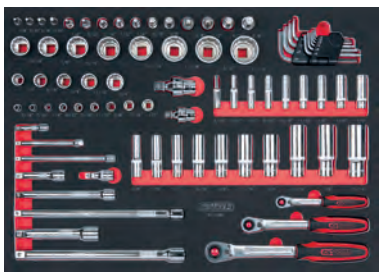
1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0080	80 pcs	390.0	564.0	35.0	7.35

9 x		1/4“: 3/16“-7/32“-1/4“-9/32“-5/16“ 11/32“-3/8“-7/16“-1/2“
5 x		3/8“: 1/2“-9/16“-5/8“-11/16“-3/4“
8 x		1/2“: 13/16“-7/8“-15/16“-1“-1.1/16“ 1.1/8“-1.3/16“-1.1/4“
9 x		1/4“: 3/16“-7/32“-1/4“-9/32“-5/16“ 11/32“-3/8“-7/16“-1/2“
7 x		3/8“: 3/8“-7/16“-1/2“-9/16“-5/8“-11/16“ 3/4“
3 x		1/2“: 13/16“- 7/8“-15/16“
4 x		1/4“: 1/8“-5/32“-3/16“-7/32“
7 x		3/8“: 1/8“-5/32“-3/16“-7/32“-1/4“ 5/16“-3/8“
4 x		1/2“: 3/8“-1/2“ 9/16“-5/8“
3 x		1/4“: 50 - 100 - 150 mm
4 x		3/8“: 50 - 75 - 150 - 250 mm
2 x		1/2“: 125 - 250 mm
2 x		3/8“ - 1/2“
3 x		1/4“ - 3/8“ - 1/2“
1 x		5/64“ - 3/32“ - 1/8“ - 5/32“ - 3/16“ - 1/4“ - 5/16“ - 7/16“ - 1/2“ - 9/16“

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
781.0080	80 pcs	390.0	564.0	35.0	6.25

9 x		1/4“: 3/16“-7/32“-1/4“-9/32“-5/16“ 11/32“-3/8“-7/16“-1/2“
5 x		3/8“: 1/2“-9/16“-5/8“-11/16“-3/4“
8 x		1/2“: 13/16“-7/8“-15/16“-1“-1.1/16“ 1.1/8“-1.3/16“-1.1/4“

9 x		1/4“: 3/16“-7/32“-1/4“-9/32“-5/16“ 11/32“-3/8“-7/16“-1/2“
7 x		3/8“: 3/8“-7/16“-1/2“-9/16“-5/8“-11/16“ 3/4“
3 x		1/2“: 13/16“- 7/8“-15/16“
4 x		1/4“: 1/8“-5/32“-3/16“-7/32“
7 x		3/8“: 1/8“-5/32“-3/16“-7/32“-1/4“ 5/16“-3/8“
4 x		1/2“: 3/8“-1/2“ 9/16“-5/8“
3 x		1/4“: 50 - 100 - 150 mm
4 x		3/8“: 50 - 75 - 150 - 250 mm
2 x		1/2“: 125 - 250 mm
2 x		3/8“ - 1/2“
3 x		1/4“ - 3/8“ - 1/2“
1 x		5/64“ - 3/32“ - 1/8“ - 5/32“ - 3/16“ - 1/4“ - 5/16“ - 7/16“ - 1/2“ - 9/16“

SCS Socket set

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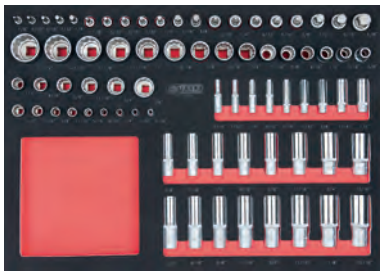


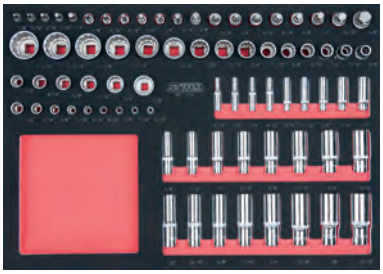
1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.1075	75 pcs	390.0	564.0	35.0	5.85

9 x		1/4“: 3/16“-7/32“-1/4“-9/32“-5/16“ 11/32“-3/8“-7/16“-1/2“
6 x		3/8“: 1/2“-9/16“-5/8“-11/16“-3/4“-7/8“
15 x		1/2“: 3/8“-7/16“-1/2“-9/16“-5/8“-11/16“-3/4“ 13/16“-7/8“-15/16“-1“-1.1/16“-1.1/8“-1.3/16“-1.1/4“
9 x		1/4“: 3/16“-7/32“-1/4“-9/32“-5/16“ 11/32“-3/8“-7/16“-1/2“
8 x		3/8“: 3/8“-7/16“-1/2“-9/16“-5/8“-11/16“ 3/4“-13/16“
8 x		1/2“: 1/2“-9/16“-5/8“-11/16“-3/4“-13/16“ 7/8“-15/16“
5 x		1/4“: 1/8“-5/32“-3/16“-7/32“-1/4“
7 x		3/8“: 1/8“-5/32“-3/16“-7/32“-1/4“ 5/16“-3/8“
8 x		1/2“: 3/16“-1/4“-9/32“-5/16“-3/8“-1/2“ 9/16“-5/8“

SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
781.1075	75 pcs	390.0	564.0	35.0	5.55
9 x		1/4": 3/16"-7/32"-1/4"-9/32"-5/16" 11/32"-3/8"-7/16"-1/2"			
6 x		3/8": 1/2"-9/16"-5/8"-11/16"-3/4"-7/8"			
15 x		1/2": 3/8"-7/16"-1/2"-9/16"-5/8"-11/16"-3/4" 13/16"-7/8"-15/16"-1"-1.1/16"-1.1/8"-1.3/16"-1.1/4"			
9 x		1/4": 3/16"-7/32"-1/4"-9/32"-5/16" 11/32"-3/8"-7/16"-1/2"			
8 x		3/8": 3/8"-7/16"-1/2"-9/16"-5/8"-11/16" 3/4"-13/16"			
8 x		1/2": 1/2"-9/16"-5/8"-11/16"-3/4"-13/16" 7/8"-15/16"			
5 x		1/4": 1/8"-5/32"-3/16"-7/32"-1/4"			
7 x		3/8": 1/8"-5/32"-3/16"-7/32"-1/4" 5/16"-3/8"			
8 x		1/2": 3/16"-1/4"-9/32"-5/16"-3/8"-1/2" 9/16"-5/8"			

SCS socket set

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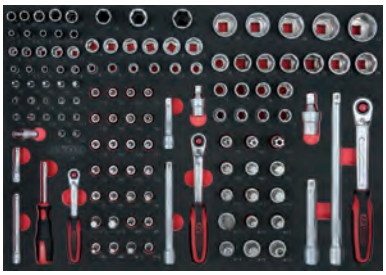

1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0128	128 pcs	390.0	564.0	35.0	8.51
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
12 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
20 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm			
3 x		3/8": 16 - 18 - 21 mm			
5 x		1/4": 3 - 4 - 5 - 6 - 7 mm			
5 x		1/4": T7 - T8 - T9 - T10 - T15			
7 x		1/4": TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40			
1 x		3/8": PH2			
6 x		3/8": 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50			
8 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50			
5 x		3/8": M4 - M5 - M6 - M8 - M10			
4 x		1/2": 10 - 12 - 14 - 17 mm			
3 x		1/2": T55 - T60 - T70			
3 x		1/2": TB55 - TB60 - TB70			
4 x		1/2": M10 - M12 - M14 - M16			
1 x		1/2": M16			
2 x		1/4": 50 - 150 mm			
2 x		3/8": 75 - 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/4"			
3 x		1/4" - 3/8" - 1/2"			
3 x		1/4" - 3/8" - 1/2"			

SCS CHROMEplus® socket set

- 1/1 System insert
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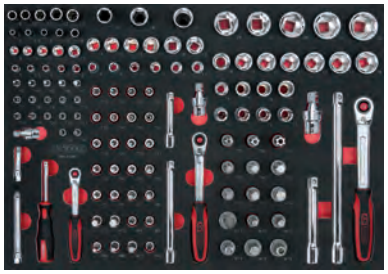

1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
781.0128	128 pcs	390.0	564.0	35.0	8.58
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
12 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
20 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm			
3 x		3/8": 16 - 18 - 21 mm			
5 x		1/4": 3 - 4 - 5 - 6 - 7 mm			
5 x		1/4": T7 - T8 - T9 - T10 - T15			
7 x		1/4": TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40			
1 x		3/8": PH2			
6 x		3/8": 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50			
8 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50			
5 x		3/8": M4 - M5 - M6 - M8 - M10			
4 x		1/2": 10 - 12 - 14 - 17 mm			
3 x		1/2": T55 - T60 - T70			
3 x		1/2": TB55 - TB60 - TB70			
4 x		1/2": M10 - M12 - M14 - M16			
1 x		1/2": M16			
2 x		1/4": 50 - 150 mm			
2 x		3/8": 75 - 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/4"			
3 x		1/4" - 3/8" - 1/2"			
3 x		1/4" - 3/8" - 1/2"			

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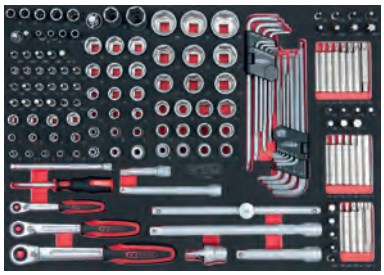

1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0160	160 pcs	390.0	564.0	35.0	9.37
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
9 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
16 x		3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 mm			
21 x		1/2": 8-10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm			
2 x		3/8": 16 - 21 mm			
2 x		1/4": PH1 - PH2			
8 x		1/4": 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm			
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40			
5 x		1/4": M4 - M5 - M6 - M8 - M10			
7 x		10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x		10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60			
5 x		10 mm: M5 - M6 - M8 - M10 - M12			
7 x		10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x		10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60			
5 x		10 mm: M5 - M6 - M8 - M10 - M12			
2 x		1/4": 50 - 150 mm			
2 x		3/8": 75 - 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/2"			
1 x		1/4"			

2 x		3/8“x10mm - 1/2“x10mm
3 x		1/4“ - 3/8“ - 1/2“
3 x		1/4“ - 3/8“ - 1/2“
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm

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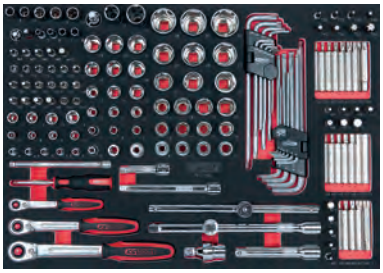
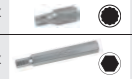
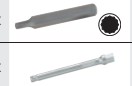
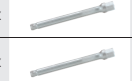
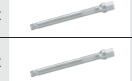


1/4“ 3/8“ 1/2“

		L mm	B mm	H mm	kg
781.0160	160 pcs	390.0	564.0	35.0	8.95

13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
9 x		1/4“: 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
16 x		3/8“: 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 mm
21 x		1/2“: 8-10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm
2 x		3/8“: 16 - 21 mm
2 x		1/4“: PH1 - PH2
8 x		1/4“: 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm
8 x		1/4“: T8 - T10 - T15 - T20 - T25 - T27 T30 - T40
5 x		1/4“: M4 - M5 - M6 - M8 - M10
7 x		10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm
8 x		10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60
5 x		10 mm: M5 - M6 - M8 - M10 - M12
7 x		10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm
8 x		10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60
5 x		10 mm: M5 - M6 - M8 - M10 - M12
2 x		1/4“: 50 - 150 mm
2 x		3/8“: 75 - 150 mm
2 x		1/2“: 125 - 250 mm
1 x		1/2“
1 x		1/4“
2 x		3/8“x10mm - 1/2“x10mm
3 x		1/4“ - 3/8“ - 1/2“
3 x		1/4“ - 3/8“ - 1/2“
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm

SCS Socket set

- 1/1 System insert
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- Fixed arrangement thanks to precise placement
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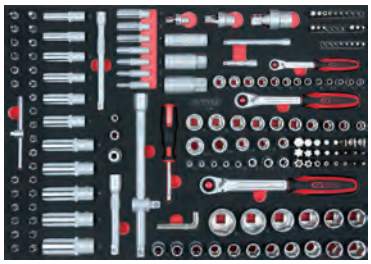
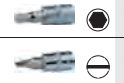
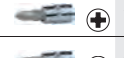


1/4“ 3/8“ 1/2“

		L mm	B mm	H mm	kg
711.0180	180 pcs	390.0	564.0	35.0	8.24

13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
7 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 10 mm
5 x		1/4“: E4 - E5 - E6 - E7 - E8
10 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
6 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 mm
6 x		3/8“: E10 - E11 - E12 - E14 - E16 - E18
1 x		3/8“: 18 mm
17 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm
5 x		1/2“: 16 - 17 - 18 - 19 - 22 mm
2 x		1/2“: E20 - E24
2 x		1/2“: 16 - 21 mm
4 x		1/4“: 3 - 4 - 5 - 6 mm
3 x		1/4“: 4 - 5 - 6,5 mm
3 x		1/4“: PH0 - PH1 - PH2
3 x		1/4“: PZ0 - PZ1 - PZ2
8 x		1/4: T8 - T9 - T10 - T15 - T20 - T25 T27 - T30
8 x		1/4: TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30
11 x		1/4“: T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
1 x		1/4“: TB7
3 x		1/4“: M5 - M6 - M8
8 x		1/4“: TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4“: M5 - M6 - M7 - M8 - M9
3 x		5/16“: 8 - 10 - 12 mm
5 x		5/16“: 7 - 8 - 10 - 12 - 14 mm
2 x		5/16“: PH3 - PH4
2 x		5/16“: PZ3 - PZ4
6 x		5/16“: T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16“: TB40 - TB45 - TB50 - TB55 - TB60 - TB70
1 x		1/4“: T8
3 x		1/4“ - 3/8“ - 1/2“
2 x		1/2“: 125 - 250 mm
2 x		1/4“: 50 - 100 mm

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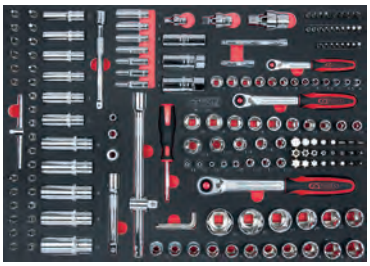
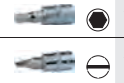
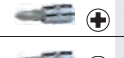
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4“ 3/8“ 1/2“

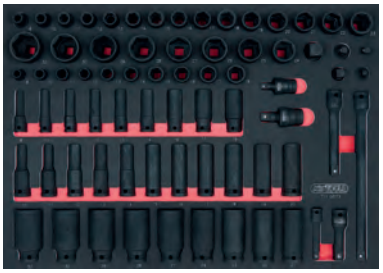
		L mm	B mm	H mm	kg
781.0180	180 pcs	390.0	564.0	35.0	8.24

13 x		1/4“: 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
7 x		1/4“: 4 - 5 - 6 - 7 - 8 - 9 - 10 mm
5 x		1/4“: E4 - E5 - E6 - E7 - E8
10 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
6 x		3/8“: 10 - 11 - 12 - 13 - 14 - 15 mm
6 x		3/8“: E10 - E11 - E12 - E14 - E16 - E18
1 x		3/8“: 18 mm
17 x		1/2“: 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm
5 x		1/2“: 16 - 17 - 18 - 19 - 22 mm
2 x		1/2“: E20 - E24
2 x		1/2“: 16 - 21 mm
4 x		1/4“: 3 - 4 - 5 - 6 mm
3 x		1/4“: 4 - 5 - 6,5 mm
3 x		1/4“: PH0 - PH1 - PH2
3 x		1/4“: PZ0 - PZ1 - PZ2
8 x		1/4: T8 - T9 - T10 - T15 - T20 - T25 T27 - T30
8 x		1/4: TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30
11 x		1/4“: T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
1 x		1/4“: TB7
3 x		1/4“: M5 - M6 - M8
8 x		1/4“: TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4“: M5 - M6 - M7 - M8 - M9
3 x		5/16“: 8 - 10 - 12 mm
5 x		5/16“: 7 - 8 - 10 - 12 - 14 mm
2 x		5/16“: PH3 - PH4
2 x		5/16“: PZ3 - PZ4
6 x		5/16“: T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16“: TB40 - TB45 - TB50 - TB55 - TB60 - TB70
1 x		1/4“: T8
3 x		1/4“ - 3/8“ - 1/2“
2 x		1/2“: 125 - 250 mm
2 x		1/4“: 50 - 100 mm

1/1 SCS - IMPACT SOCKET WRENCH

SCS impact socket wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8" 1/2"

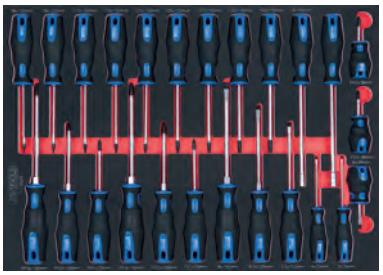
		L mm	B mm	H mm	kg
711.0073	73 pcs	390.0	564.0	35.0	14.74

10 x		3/8": 8 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 19 mm
9 x		3/8": 8 - 10 - 11 - 12 - 13 - 14 - 16 17 - 19 mm
1 x		1/4"F x 3/8"M
1 x		3/8"F x 1/4"M
1 x		3/8"F x 1/2"M
1 x		3/8"
1 x		3/8": 75 mm
23 x		1/2": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm
20 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 27 - 28 - 29 - 30 - 32 mm
1 x		1/2"
3 x		1/2": 75 - 125 - 250 mm
1 x		1/2"F x 3/8"M
1 x		1/2"F x 3/4"M

1/1 SCS - SCREWDRIVER

SCS ERGOTORQUE*plus*® screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

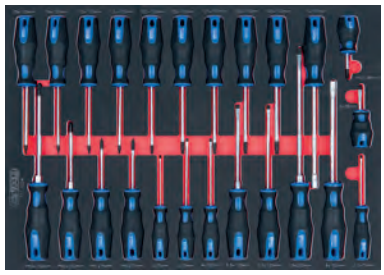


		L mm	B mm	H mm	kg
711.0025	25 pcs	390.0	375.0	35.0	1.85

1 x		PH2
3 x		PH1 - PH2 - PH3
1 x		PZ2
3 x		PZ1 - PZ2 - PZ3
1 x		6 mm
5 x		3 - 4 - 5,5 - 6,5 - 8 mm
9 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40
2 x		6 - 7 mm

SCS ERGOTORQUE*plus*® screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

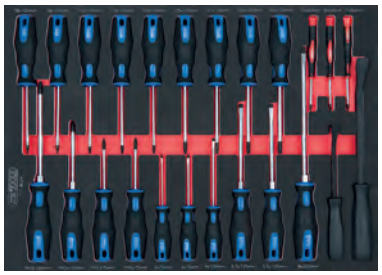


		L mm	B mm	H mm	kg
711.1024	24 pcs	390.0	375.0	35.0	1.75

1 x		6 mm
7 x		(2,5 - 3 - 4) x 155 mm, 4 x 180 mm, (5,5 - 6,5) x 230 mm, 8 x 265 mm
1 x		PH2
4 x		PH0 - PH1 - PH2 - PH3
9 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40
2 x		7 - 8 mm

SCS Screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.8024	24 pcs	390.0	564.0	35.0	1.83

6 x		3x155 - 4x155 - 4x180 - 5,5x230 - 6,5x230 - 8x315 mm
4 x		PH0 - PH1 - PH2 - PH3
9 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40
3 x		T5 - T6 - T7
2 x		11x115 - 15x185 mm

SCS ERGOTORQUE*plus*® screwdriver and T-handle set

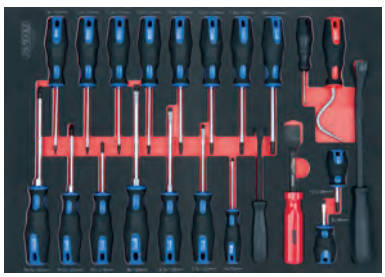
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0021	21 pcs	390.0	564.0	35.0	3.30

10 x		2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm
11 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm

SCS screwdriver and hook set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

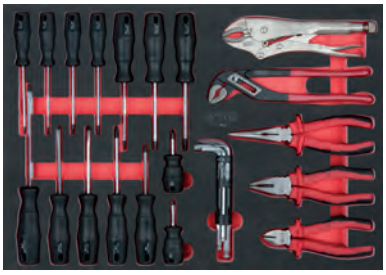


		L mm	B mm	H mm	kg
711.0022	22 pcs	390.0	564.0	35.0	1.65

1 x		6 mm
4 x		4 x 155 mm, 5,5 x 205 mm - 6,5 x 230 mm, 8 x 265 mm
1 x		PH2
3 x		PH1 - PH2 - PH3
8 x		T9 - T10 - T15 - T20 - T25 - T27 T30 - T40
1 x		90°
1 x		185 mm
2 x		11 x 115 - 15 x 185 mm
1 x		25 x 200 mm

SCS Screwdriver and pliers set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

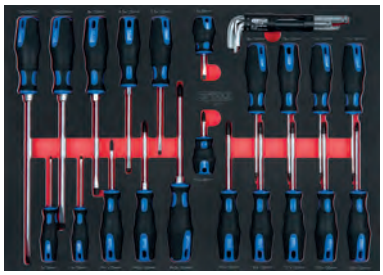


		L mm	B mm	H mm	kg
711.6027	27 pcs	390.0	564.0	35.0	3.85

1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		250 mm
1 x		240 mm
4 x		5,5 - 6,5 x 100 - 6 x 38 - 8 x 150 mm
3 x		PH1 x 75 - PH2 x 38 - PH2 x 100 mm
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm

SCS screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.1029	29 pcs	390.0	564.0	35.0	2.81

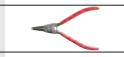
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		6 mm
7 x		3 - 4 - 5,5 - 6,5 - 8 - 10 - 10
1 x		PH2
3 x		PH1 - PH2 - PH3
9 x		TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - T30 - T40

1/1 SCS - PLIERS

SCS Pliers set

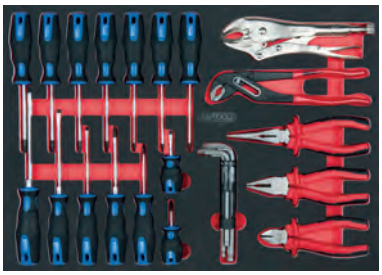
- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.5009	9 pcs	390.0	564.0	35.0	2.49

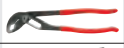
1 x		250 mm
1 x		240 mm
1 x		160 mm
1 x		180 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm

SCS Screwdriver and pliers set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

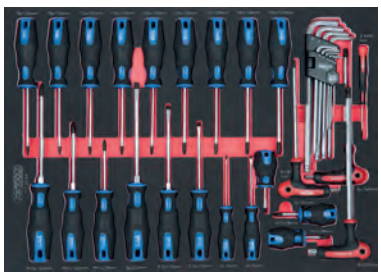


		L mm	B mm	H mm	kg
711.1027	27 pcs	390.0	564.0	35.0	3.85

1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		250 mm
1 x		240 mm
4 x		5,5 x 100 - 6 x 38 - 6,5 x 125 - 8 x 150 mm
3 x		PH1 x 75 - PH2 x 38 - PH2 x 100 mm
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
8 x		5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 3/8"

SCS ERGOTORQUE*plus*® screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



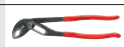
		L mm	B mm	H mm	kg
711.0034	34 pcs	390.0	375.0	35.0	2.20

1 x		1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0 - 10,0 mm
3 x		5 - 6 - 8 mm
1 x		6 mm
5 x		(3 - 4) x 155 mm, 5,5 x 205 mm, 6,5 x 230 mm, 8 x 265 mm
1 x		PH2
3 x		PH1 - PH2 - PH3
9 x		PZ2
2 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40
1 x		2 mm

SCS Pliers set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.1012	12 pcs	390.0	564.0	35.0	3.39

1 x		180 mm
1 x		210 mm
1 x		180 mm
1 x		200 mm
2 x		125 - 250 mm
1 x		225 mm
1 x		240 mm

1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm

SCS pliers and hammer set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

	L mm	B mm	H mm	kg
711.9013 13 pcs	390.0	564.0	35.0	3.83

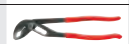
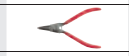
1 x		180 mm
1 x		165 mm
1 x		180 mm
1 x		240 mm
2 x		10 - 28 mm, 19 - 60 mm
1 x		19 - 60 mm
2 x		12 - 25 mm, 19 - 60 mm
1 x		19 - 60 mm
1 x		850 g
2 x		300 - 500 g

SCS Pliers and file set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

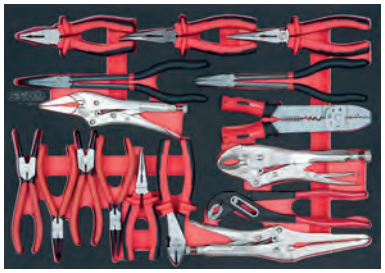
	L mm	B mm	H mm	kg
711.5018 18 pcs	390.0	564.0	35.0	4.04

1 x		125 mm
1 x		165 mm
1 x		180 mm
1 x		200 mm

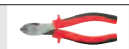
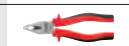
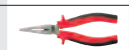
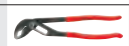
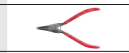
1 x		250 mm
1 x		240 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		0 - 150mm
1 x		0,01 - 1,0 mm
1 x		5 m
1 x		145 mm

SCS Pliers set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
711.1016 16 pcs	390.0	564.0	35.0	4.78

1 x		180 mm
1 x		210 mm
1 x		180 mm
2 x		160 - 200 mm
1 x		250 mm
1 x		150 mm
1 x		220 mm
1 x		240 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		270 mm
1 x		270 mm
1 x		280 mm

SCS pliers and wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

	L mm	B mm	H mm	kg
711.2036 36 pcs	390.0	564.0	35.0	3.56

1 x		250 mm
1 x		240 mm
1 x		125 mm
1 x		180 mm
1 x		200 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		160 mm
4 x		T6 - T7 - T8 - T9
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
1 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50
1 x		130 - 630 mm
1 x		510 mm
1 x		140 mm
1 x		145 mm

1/1 SCS - HAMMER & CHISEL

SCS chisel and hammer set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0014	14 pcs	390.0	564.0	35.0	3.56

1 x	5 mm
6 x	Ø 3 - (2 x 4) - 5 - 6 - 8 mm
1 x	5 mm
1 x	10 mm
1 x	20 mm
1 x	7 mm
1 x	300 g
1 x	1000 g
1 x	350 g

SCS fil , chisel and hammer set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0018	18 pcs	390.0	564.0	35.0	4.38

1 x	350 g
1 x	300 g
1 x	1000 g
1 x	Ø 5 mm
6 x	Ø 3 - (2 x 4) - 5 - 6 - 8 mm
1 x	20 x 210 mm
1 x	7 x 190 mm
1 x	10 x 185 mm
1 x	5 x 185 mm
1 x	200 mm
1 x	200 mm
1 x	200 mm

SCS chisel and hammer set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.1021	21 pcs	390.0	564.0	35.0	2.79

3 x	2 - 3 - 4 mm
5 x	3 - 4 - 5 - 6 - 8 mm
1 x	7 mm
1 x	10 mm
2 x	150 - 200 mm
1 x	25 x 200 mm
1 x	15 x 185 mm
1 x	300 g
1 x	1000 g
1 x	350 g
1 x	30 x 195 mm
1 x	170 mm
1 x	130 - 630 mm
1 x	510 mm

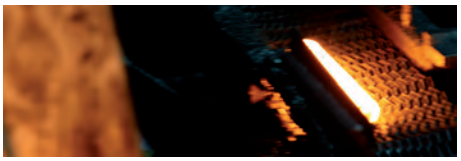
1/1 SCS - WORKSHOP SUPPLIES

SCS Wheel service tool set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0016	16 pcs	390.0	564.0	35.0	3.84

1 x	20 - 200 Nm
1 x	1/2“
1 x	370 mm
1 x	310 mm
1 x	0,30 Nm
1 x	0,45 Nm
1 x	130 mm
1 x	200 mm
1 x	300 mm
1 x	22 mm
1 x	250 mm
5 x	15 - 17 - 19 - 21 - 22 mm



SCS pliers, hammer and file s t

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.6017	17 pcs	390.0	564.0	35.0	5.24

1 x	180 mm
1 x	180 mm
1 x	200 mm
1 x	210 mm
1 x	240 mm
1 x	250 mm
2 x	150 - 200 mm
1 x	300 g
1 x	1000 g
1 x	200 mm
1 x	200 mm
1 x	200 mm
1 x	200 mm
1 x	170 mm
1 x	130 - 630 mm
1 x	5 m x 19 mm

SCS Chisel and hammer set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.7017	17 pcs	390.0	564.0	35.0	3.81

5 x		3 x 4 x 5 x 6 x 8 mm
1 x		5 mm
1 x		10 mm
1 x		20 mm
1 x		7 mm
1 x		300 g
1 x		500 g
1 x		25 x 200 mm
1 x		15 x 185 mm
1 x		30 mm
1 x		170 mm
1 x		5 m
1 x		5 m x 19 mm

SCS hammer and pin punch set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0017	17 pcs	390.0	564.0	35.0	2.24

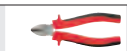
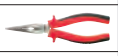
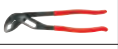
1 x		10 x 11 mm
2 x		6 - 7 mm
5 x		3 - 4 - 5 - 6 - 8 mm
1 x		8 mm
2 x		125 - 175 mm

1 x		300 g
1 x		200 g
1 x		12,5 x 300 mm
1 x		225 mm
1 x		140 mm
1 x		5 m x 19 mm

SCS pliers, file and d ift punch set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

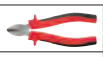
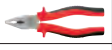
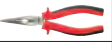
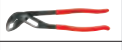
		L mm	B mm	H mm	kg
711.2022	22 pcs	390.0	564.0	35.0	6.07

1 x		180 mm
1 x		180 mm
1 x		200 mm
1 x		210 mm
1 x		240 mm
1 x		250 mm
4 x		4 x 5 x 6 x 8 mm
1 x		5 mm
1 x		10 mm
1 x		20 mm
1 x		7 mm
1 x		300 g
1 x		1000 g
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		18 mm
1 x		5 m x 19 mm

SCS pliers and chisel set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.1022	22 pcs	390.0	564.0	35.0	5.12

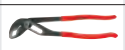
1 x		125 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm
1 x		250 mm
1 x		180 mm
1 x		AWG 20 - 18, 16 - 14, 12 - 10
5 x		3 - 4 - 5 - 6 - 8 mm
1 x		5 mm
1 x		10 mm
1 x		20 mm
1 x		7 mm
1 x		300 g
1 x		350 g
1 x		25 x 200 mm
1 x		30 mm
1 x		170 mm

SCS ERGOTORQUE® VDE pliers and screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.8027	27 pcs	390.0	564.0	35.0	3.65

1 x		180 mm
4 x		3 - 4 - 5 - 6 mm

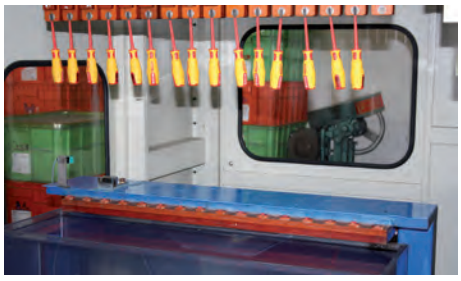
1 x		Ø 8 mm
2 x		125 - 175 mm
1 x		6 mm
5 x		3 - 4 - 6,5 - 8 - 10 mm
1 x		PH2 mm
2 x		PH1 - PH2
5 x		T10 - T15 - T20 - T25 - T30
1 x		2,4 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm

SCS hammer and wrench set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.0023	23 pcs	390.0	564.0	35.0	3.71

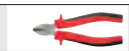
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 10 - 18 mm
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
4 x		3 - 4 - 5 - 6 mm
1 x		8 mm
2 x		125 - 175 mm
1 x		240 mm
1 x		300g
1 x		200g
1 x		0,05 - 1 mm
1 x		510 mm
1 x		3 m



SCS ERGOTORQUE® VDE pliers and screwdriver set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.1033	33 pcs	390.0	564.0	35.0	6.00

1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm
1 x		6 mm
5 x		3 - 4 - 6,5 - 8 - 10 mm
1 x		2,4 mm
1 x		PH2
3 x		PH1 - PH2 - PH3
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
4 x		3 - 4 - 5 - 6 mm
1 x		8 mm
2 x		125 - 175 mm
1 x		300 g

SCS screwdriver and measuring instrument set

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

		L mm	B mm	H mm	kg
711.1041	41 pcs	390.0	564.0	35.0	3.70

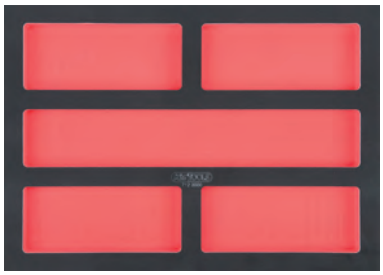
1 x		6 mm
3 x		4 - 5,5 - 8 mm
1 x		PH2
3 x		PH1 - PH2 - PH3
1 x		PZ2
3 x		PZ1 - PZ2 - PZ3
1 x		230 mm

1 x		200 mm
1 x		12,5 x 300 mm
4 x		3 - 4 - 5 - 6 mm
5 x		3 - 4 - 5 - 6 - 8 mm
3 x		4 - 5 - 6 mm
1 x		5 mm
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		
1 x		100 mm
1 x		E1xT5 - E30xT70
1 x		0 - 150 mm
1 x		3 - 48 V

1/1 SCS - EMPTY INSERTS

SCS Universal system insert for tool or small parts (empty)

- 1/1 System insert
- Suitable for tool cabinets and tool cases
- Fixed arrangement thanks to precise placement
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
712.0000	390.0	564.0	35.0	0.40

PU-foam sheets for self cutting

- Thickness 10 mm
- Uncut for self modelling

	L mm	B mm	H mm	kg
711.0000	390.0	564.0	35.0	0.95

Anti slip mat

- Thickness 10 mm
- Uncut for self modelling

	L mm	B mm	kg
800.0920	10000.0	600.0	2.50

CUTTING TOOLS / BRUSHES AND FILES

Innovation is our mission!

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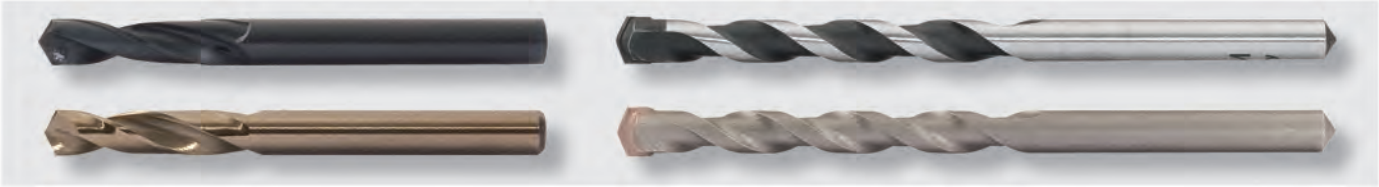
MACHINING TOOLS / BRUSHES AND FILES

Drills



Drilling: Technical information: Guidelines for drilling speeds feed rate and cooling

The table provides approximate values. According to drilling depth and thickness of the material, an increase or reduction in the cutting speed feed rate or cutting fluid ould be reccomended. The values for -v- and -s- indicated value apply to drilling depths until 5 x d (d = drilling diameter) In drilling depths over 5 x d until 8 x d then -v- and -s- should be reduced around 20% to 30%. In general in drilling depths over 5 x d the hole should be cleaned!

Material grade	Cooling	Drilling speed v0m/min	s= feed rate n= speed			Twist drill diameter D [mm]					
				1*	2	5	8	16	25	40	63
				Feed rate s		[mm/U] and medium speed n [U/mi]					
Non alloyed steel up to 500 N/m²	Oil and water emulsion	30-40	s n	Hand 11100	0,05 5600	0,12 2200	0,2 1400	0,3 700	0,4 450	0,4 280	0,5 180
Non alloyed steel 500-700 N/m²		25-30	s n	Hand 8800	0,05 4400	0,12 1750	0,2 1100	0,3 550	0,4 350	0,4 220	0,5 140
Non alloyed steel above 700 N/m²		20-25	s n	Hand 7200	0,04 3600	0,1 1400	0,15 900	0,25 445	0,3 285	0,3 180	0,4 114
Alloyed steel 700-900 N/m²		12-15	s n	Hand 4300	0,03 2150	0,08 860	0,12 540	0,2 270	0,25 170	0,32 110	0,36 68
Alloyed steel 900-1100 N/m²		8-15	s n	Hand 3650	Hand 1840	0,06 735	0,001 455	0,2 230	0,3 145	0,3 90	0,3 60
Alloyed steel above 1100 N/m²	Cutting oil	5-8	s n	Hand 2100	Hand 1050	0,04 415	0,06 260	0,1 130	0,12 83	0,16 52	0,18 33
Rust steady, acid steady steels (highly Cr, Ni-alloy)		5-10	s n	Hand 2400	Hand 1200	0,05 480	0,1 300	0,15 150	0,2 95	0,2 60	0,3 38
High tensile steel (high Co, Cr, Mo, Ni, W alloys)		4-8	s n	Hand 1900	0,02 950	0,06 380	0,09 240	0,15 120	0,2 76	0,24 48	0,27 30
Sprung steel band (high Si alloy)	Cutting oil	3-6	s n	Hand 1430	Hand 720	0,04 285	0,06 180	0,1 90	0,12 57	0,16 36	0,18 23
Manganese steel (Mn-10%, C- 05%)	without cooling the material must be heated to 300	2-5	s n	Hand 1300	Hand 650	0,05 255	0,08 160	0,1 80	0,15 50	0,2 32	0,2 20
Cast steel up to GS-52	Oil and water emulsion	20-25	s n	Hand 7200	0,03 3600	0,9 1400	0,14 900	0,24 445	0,3 285	0,38 180	0,43 114
Cast steel above GS-52		12-20	s n	Hand 5100	0,03 2550	0,08 1020	0,12 640	0,02 320	0,25 200	0,32 130	0,36 80
Cast iron up to GG-26	Compressed air	18-25	s n	Hand 6800	0,06 3400	0,16 1350	0,24 860	0,4 430	0,5 275	0,6 170	0,7 110
Cast iron above GG 26		5-15	s n	Hand 3200	0,05 1600	0,14 635	0,2 400	0,35 200	0,45 130	0,5 80	0,6 50
Cast iron (GTW/GTS)	Compressed air (Oil and water emulsion)	18-25	s n	Hand 6800	0,07 3400	0,12 1400	0,2 850	0,4 430	0,5 275	0,6 170	0,6 110
Refined opper	Oil and water emulsion (compressed air)	50-80	s n	Hand 2100	0,005 10500	0,15 4100	0,25 2600	0,4 1300	0,5 830	0,5 520	0,5 330
Brass, tough (MS 63)	Oil and water emulsion (Cutting oil)	40-30	s n	Hand 16000	0,05 8000	0,15 3200	0,25 2000	0,4 1000	0,5 640	0,6 400	0,7 250
Brass, alloy (MS 58) Bronze, soft (gun metal, Rg)	Cutting oil	20-30	s n	Hand 8000	0,04 4000	0,1 1600	0,15 1000	0,25 500	0,32 320	0,42 200	0,46 125
Bronze, hard (Bz; Äternabronze)		10-20	s n	Hand 4800	0,04 2400	0,1 960	0,15 600	0,25 300	0,32 190	0,42 120	0,46 75
Copper nickel alloy (e.g. nickel bronze approx. 67% Ni)	Cutting oil	5-15	s n	Hand 3200	0,02 1600	0,06 635	0,09 400	0,15 200	0,2 130	0,24 80	0,27 50
Aluminium	Oil and water emulsion	50-120	n	Hand 3200	0,02 1600	0,06 635	0,09 400	0,15 200	0,2 130	0,24 80	0,27 50
Nickel alloy aluminium (e.g. piston alloy)		20-44	s n	Hand 9600	0,04 4800	0,1 1900	0,15 1200	0,25 600	0,32 380	0,4 240	0,45 150

* When the diameter is below 1 mm the cutting speed should be reduced.

Stepped drills

Cutting recommendations for stepped drills

Material:		Non alloyed steel up to 700 N/mm²	Alloyed steel up to 700 N/mm²	Alloy steel 1000 N/mm²	Cast iron up to 250 N/mm²	Cast iron above 250 N/mm²	CuZn refractory alloy	CuZn-refractory tough	Al refaactory up to 11% Si
Metal gauge in mm		up to 4,0	up to 4,0	up to 4,0	up to 4,0	up to 4,0	up to 4,0	up to 4,0	up to 4,0
Vc = m/min		30	20	20	15	10	60	35	30
Cooling lubricant		Cutting edge spray	Cutting edge spray	Cutting edge spray	Pneumatic	Pneumatic	Pneumatic	Pneumatic	Cutting edge spray
Ø mm	Dim.	U/min	U/min	U/min	U/min	U/min	U/min	U/min	U/min
3,0-14,0	Nr. 1	3185-682	2123-455	2123-455	1592-341	1062-227	6369-1365	3715-796	3185-682
5,0-20,0	Nr. 2	1911-478	1274-318	1274-318	955-239	637-159	3822-955	2229-557	1911-478
16,0-30,5	Nr. 3	597-313	398-209	398-209	299-157	199-104	1194- 627	697-365	597-313
24,0-40,0	Nr. 4	398-239	265-159	265-159	199-119	133-80	796-478	464-279	398-239
36,0-50,0	Nr. 5	265-191	177-127	177-127	133-96	88-64	531-382	310-223	265-191
40,0-61,0	Nr. 6	239-157	159-104	159-104	119-78	80-52	478-313	279-183	239-157
5,0-25,4	Nr. 7	1911-376	1274-251	1274-251	955-188	637-125	3822-752	2229-439	1911-376
5,0-31,0	Nr. 8	1911-308	1274-205	1274-205	955-154	637-103	3822-616	2229-360	1911-308
5,0-22,5	Nr. 9	1911-425	1274-283	1274-283	955-212	637-142	3822-849	2229-495	1911-425

Carbide milling cutters

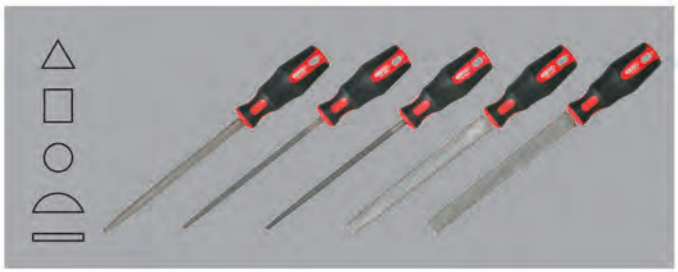
Milling cutters up to and including head Ø 6 mm manufactured out of solid carbide steel beyond that the carbide is soldered on the head cutting edges.
The special dovetailed cutting edge design C (after DIN toothing MX) has following advantages:

- Smooth running
- High material removal
- No clogging
- Comfortable working
- Short swarf
- Obtains even and smooth surfaces

Applications: Universal applications, for iron metals and non ferrous metals, for plastics, for plaster working areas, and hard material working, cast iron and titanium.
Recommended cutting speed for hard metal milling machine burrs Vc 450 - 600 ms/min

Manual and machine wire brushes

Files



Handsaws

Saw blades

COOLANT

Cooling lubricant stick

- Suitable for working with centre bits, countersinks and stepped drills
- Contents 18g
- To prolong the service life

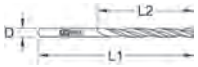
	Volume g	g
390.0190	18	44

HSS-R TWIST DRILLS

HSS-R Twist drill short

- DIN 1897 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Ideally suited for thin walled working
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

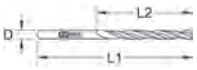


	D mm	L1 mm	L2 mm	Content	g
330.5020	2.0	38.0	12.0	10	7
330.5021	2.1	38.0	12.0	10	10
330.5022	2.2	40.0	13.0	10	12
330.5023	2.3	40.0	13.0	10	12
330.5024	2.4	43.0	14.0	10	15
330.5025	2.5	43.0	14.0	10	15
330.5026	2.6	43.0	14.0	10	16
330.5027	2.7	46.0	16.0	10	25
330.5028	2.8	46.0	16.0	10	26
330.5029	2.9	46.0	16.0	10	28
330.5030	3.0	46.0	16.0	10	30
330.5031	3.1	49.0	18.0	10	31
330.5032	3.2	49.0	18.0	10	32
330.5033	3.3	49.0	18.0	10	33
330.5034	3.4	52.0	20.0	10	34
330.5035	3.5	52.0	20.0	10	35
330.5036	3.6	52.0	20.0	10	37
330.5037	3.7	52.0	20.0	10	40
330.5038	3.8	55.0	22.0	10	42
330.5039	3.9	55.0	22.0	10	44
330.5040	4.0	55.0	22.0	10	45
330.5041	4.1	55.0	22.0	10	47
330.5042	4.2	55.0	22.0	10	49
330.5043	4.3	58.0	24.0	10	55
330.5044	4.4	58.0	24.0	10	57
330.5045	4.5	58.0	24.0	10	60
330.5046	4.6	58.0	24.0	10	62
330.5047	4.7	58.0	24.0	10	63
330.5048	4.8	62.0	26.0	10	72
330.5049	4.9	62.0	26.0	10	73
330.5050	5.0	62.0	26.0	10	75
330.5051	5.1	62.0	26.0	10	77
330.5052	5.2	62.0	26.0	10	78
330.5053	5.3	62.0	26.0	10	80
330.5054	5.4	66.0	28.0	10	95
330.5055	5.5	66.0	28.0	10	97
330.5056	5.6	66.0	28.0	10	99
330.5057	5.7	66.0	28.0	10	103
330.5058	5.8	66.0	28.0	10	105
330.5059	5.9	66.0	28.0	10	107
330.5060	6.0	66.0	28.0	10	110
330.5061	6.1	70.0	31.0	10	125
330.5062	6.2	70.0	31.0	10	128
330.5063	6.3	70.0	31.0	10	130
330.5064	6.4	70.0	31.0	10	133
330.5065	6.5	70.0	31.0	10	135
330.5066	6.6	70.0	31.0	10	138
330.5067	6.7	70.0	31.0	10	140
330.5068	6.8	74.0	34.0	10	170
330.5069	6.9	74.0	34.0	10	175
330.5070	7.0	74.0	34.0	10	180
330.5071	7.1	74.0	34.0	10	183
330.5072	7.2	74.0	34.0	10	185
330.5073	7.3	74.0	34.0	10	187
330.5074	7.4	74.0	34.0	10	188
330.5075	7.5	74.0	34.0	10	190
330.5076	7.6	79.0	36.0	10	220
330.5077	7.7	79.0	36.0	10	225
330.5078	7.8	79.0	36.0	10	230
330.5079	7.9	79.0	36.0	10	235
330.5080	8.0	79.0	36.0	10	240
330.5085	8.5	79.0	36.0	10	270
330.5090	9.0	84.0	40.0	10	310
330.5095	9.5	84.0	40.0	10	360
330.5100	10.0	89.0	43.0	10	420

HSS-R Twist drill

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



	D mm	L1 mm	L2 mm	Content	g
330.1003	0.3	19.0	3.0	10	1
330.1004	0.4	20.0	5.0	10	1
330.1005	0.5	22.0	6.0	10	1
330.1006	0.6	24.0	7.0	10	1
330.1007	0.7	28.0	9.0	10	1
330.1008	0.8	30.0	10.0	10	1
330.1009	0.9	32.0	11.0	10	1
330.1010	1.0	34.0	12.0	10	5
330.1011	1.1	36.0	14.0	10	5
330.1012	1.2	38.0	16.0	10	5
330.1013	1.3	38.0	16.0	10	5
330.1014	1.4	40.0	18.0	10	5
330.1015	1.5	40.0	18.0	10	5
330.1016	1.6	43.0	20.0	10	10
330.1017	1.7	43.0	20.0	10	10
330.1018	1.8	46.0	22.0	10	10
330.1019	1.9	46.0	22.0	10	10
330.1020	2.0	49.0	24.0	10	10
330.1021	2.1	49.0	24.0	10	20
330.1022	2.2	53.0	27.0	10	20
330.1023	2.3	53.0	27.0	10	20

	D mm	L1 mm	L2 mm	Content	g
330.1024	2.4	57.0	30.0	10	20
330.1025	2.5	57.0	30.0	10	20
330.1026	2.6	57.0	30.0	10	40
330.1027	2.7	61.0	33.0	10	40
330.1028	2.8	61.0	33.0	10	40
330.1029	2.9	61.0	33.0	10	40
330.1030	3.0	65.0	33.0	10	40
330.1031	3.1	65.0	36.0	10	40
330.1032	3.2	65.0	36.0	10	40
330.1033	3.3	70.0	36.0	10	40
330.1034	3.4	70.0	39.0	10	40
330.1035	3.5	70.0	39.0	10	40
330.1036	3.6	70.0	39.0	10	50
330.1037	3.7	70.0	39.0	10	50
330.1038	3.8	75.0	43.0	10	50
330.1039	3.9	75.0	43.0	10	50
330.1040	4.0	75.0	43.0	10	50
330.1041	4.1	75.0	43.0	10	80
330.1042	4.2	75.0	43.0	10	80
330.1043	4.3	80.0	47.0	10	80
330.1044	4.4	80.0	47.0	10	80
330.1045	4.5	80.0	47.0	10	80
330.1046	4.6	80.0	47.0	10	100
330.1047	4.7	80.0	47.0	10	100
330.1048	4.8	86.0	52.0	10	100
330.1049	4.9	86.0	52.0	10	100
330.1050	5.0	86.0	52.0	10	100
330.1051	5.1	86.0	52.0	10	130
330.1052	5.2	86.0	52.0	10	130
330.1053	5.3	86.0	52.0	10	130
330.1054	5.4	93.0	57.0	10	130
330.1055	5.5	93.0	57.0	10	130
330.1056	5.6	93.0	57.0	10	150
330.1057	5.7	93.0	57.0	10	150
330.1058	5.8	93.0	57.0	10	150
330.1059	5.9	93.0	57.0	10	150
330.1060	6.0	93.0	57.0	10	150
330.1061	6.1	101.0	63.0	10	180
330.1062	6.2	101.0	63.0	10	180
330.1063	6.3	101.0	63.0	10	180
330.1064	6.4	101.0	63.0	10	180
330.1065	6.5	101.0	63.0	10	180
330.1066	6.6	101.0	63.0	10	250
330.1067	6.7	101.0	63.0	10	250
330.1068	6.8	109.0	69.0	10	250
330.1069	6.9	109.0	69.0	10	250
330.1070	7.0	109.0	69.0	10	250
330.1071	7.1	109.0	69.0	10	260
330.1072	7.2	109.0	69.0	10	260
330.1073	7.3	109.0	69.0	10	260
330.1074	7.4	109.0	69.0	10	260
330.1075	7.5	109.0	69.0	10	260
330.1076	7.6	117.0	75.0	10	330
330.1077	7.7	117.0	75.0	10	330
330.1078	7.8	117.0	75.0	10	330
330.1079	7.9	117.0	75.0	10	330
330.1080	8.0	117.0	75.0	10	330
330.1081	8.1	117.0	75.0	10	350
330.1082	8.2	117.0	75.0	10	350
330.1083	8.3	117.0	75.0	10	350
330.1084	8.4	117.0	75.0	10	350
330.1085	8.5	117.0	75.0	10	350
330.1086	8.6	125.0	81.0	10	430
330.1087	8.7	125.0	81.0	10	430
330.1088	8.8	125.0	81.0	10	430
330.1089	8.9	125.0	81.0	10	430
330.1090	9.0	125.0	81.0	10	430
330.1091	9.1	125.0	81.0	10	480
330.1092	9.2	125.0	81.0	10	480
330.1093	9.3	125.0	81.0	10	480
330.1094	9.4	125.0	81.0	10	480
330.1095	9.5	125.0	81.0	10	480
330.1096	9.6	133.0	87.0	10	275
330.1097	9.7	133.0	87.0	10	275
330.1098	9.8	133.0	87.0	10	275
330.1099	9.9	133.0	87.0	10	275
330.1100	10.0	133.0	87.0	5	275
330.1101	10.1	133.0	87.0	5	300
330.1102	10.2	133.0	87.0	5	300
330.1103	10.3	133.0	87.0	5	300
330.1104	10.4	133.0	87.0	5	300
330.1105	10.5	133.0	87.0	5	300
330.1106	10.6	142.0	94.0	5	350
330.1107	10.7	142.0	94.0	5	350
330.1108	10.8	142.0	94.0	5	350
330.1109	10.9	142.0	94.0	5	350
330.1110	11.0	142.0	94.0	5	350

	D mm	L1 mm	L2 mm	Content	g	
330.1111	11.1	142.0	94.0	5	385	
330.1112	11.2	142.0	94.0	5	385	
330.1113	11.3	142.0	94.0	5	385	
330.1114	11.4	142.0	94.0	5	385	
330.1115	11.5	142.0	94.0	5	385	
330.1116	11.6	142.0	94.0	5	440	
330.1117	11.7	142.0	94.0	5	440	
330.1118	11.8	142.0	94.0	5	440	
330.1119	11.9	151.0	101.0	5	440	
330.1120	12.0	151.0	101.0	5	440	
330.1121	12.1	151.0	101.0	5	490	
330.1122	12.2	151.0	101.0	5	490	
330.1123	12.3	151.0	101.0	5	490	
330.1124	12.4	151.0	101.0	5	490	
330.1125	12.5	151.0	101.0	5	490	
330.1126	12.6	151.0	101.0	5	515	
330.1127	12.7	151.0	101.0	5	515	
330.1128	12.8	151.0	101.0	5	515	
330.1129	12.9	151.0	101.0	5	515	
330.1130	13.0	151.0	101.0	5	515	
330.1135	13.5	160.0	108.0	1	110	
330.1140	14.0	160.0	108.0	1	115	
330.1145	14.5	169.0	114.0	1	120	
330.1150	15.0	169.0	114.0	1	125	
330.1155	15.5	178.0	120.0	1	130	
330.1160	16.0	178.0	120.0	1	135	
330.1165	16.5	184.0	125.0	1	140	
330.1170	17.0	184.0	125.0	1	145	
330.1175	17.5	191.0	130.0	1	150	
330.1180	18.0	191.0	130.0	1	155	
330.1185	18.5	198.0	135.0	1	160	
330.1190	19.0	198.0	135.0	1	165	
330.1195	19.5	205.0	140.0	1	170	
330.1200	20.0	205.0	140.0	1	175	

HSS-R Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.1610	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.60	

HSS-R Twist drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.1620	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.60	

HSS-R Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.1613	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1.30	

HSS-R Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.1623	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	3.35	

HSS-R Twist drill set in metal case

- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.1640	170 pcs	per 10 x: 1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 -4,5 5,0 - 5,5 -6,0 - 6,5 - 7,0 - 7,5 - 8,0 per 5 x: 8,5 - 9,0 - 9,5 - 10,0 mm	4.15	

HSS-R Twist drill set in metal case

- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

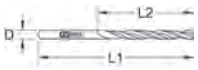
			kg	
330.1650	230 pcs	per 10 x: 1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,3 - 3,5 - 4,0 - 4,2 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 6,8 - 7,0 - 7,5 - 8,0 per 5 x: 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	7.40	

HSS-G TWIST DRILLS

HSS-G Twist drill

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



	D mm	L1 mm	L2 mm	Content	g	
330.2003	0.3	19.0	3.0	10	1	
330.2004	0.4	20.0	5.0	10	1	
330.2005	0.5	22.0	6.0	10	1	
330.2006	0.6	24.0	7.0	10	1	
330.2007	0.7	28.0	9.0	10	1	
330.2008	0.8	30.0	10.0	10	1	
330.2009	0.9	32.0	11.0	10	1	
330.2010	1.0	34.0	12.0	10	1	
330.2011	1.1	36.0	14.0	10	1	

	D mm	L1 mm	L2 mm	Content	g	
330.2012	1.2	38.0	16.0	10	1	
330.2013	1.3	38.0	16.0	10	1	
330.2014	1.4	40.0	18.0	10	1	
330.2015	1.5	40.0	18.0	10	20	
330.2016	1.6	43.0	20.0	10	10	
330.2017	1.7	43.0	20.0	10	10	
330.2018	1.8	46.0	22.0	10	10	
330.2019	1.9	46.0	22.0	10	10	
330.2020	2.0	49.0	24.0	10	10	
330.2021	2.1	49.0	24.0	10	20	
330.2022	2.2	53.0	27.0	10	20	
330.2023	2.3	53.0	27.0	10	20	
330.2024	2.4	57.0	30.0	10	20	
330.2025	2.5	57.0	30.0	10	20	
330.2026	2.6	61.0	30.0	10	40	
330.2027	2.7	61.0	33.0	10	40	
330.2028	2.8	61.0	33.0	10	40	
330.2029	2.9	61.0	33.0	10	40	
330.2030	3.0	61.0	33.0	10	40	
330.2031	3.1	65.0	36.0	10	40	
330.2032	3.2	65.0	36.0	10	40	
330.2033	3.3	65.0	36.0	10	40	
330.2034	3.4	70.0	39.0	10	40	
330.2035	3.5	70.0	39.0	10	40	
330.2036	3.6	70.0	39.0	10	50	
330.2037	3.7	70.0	39.0	10	50	
330.2038	3.8	75.0	43.0	10	50	
330.2039	3.9	75.0	43.0	10	50	
330.2040	4.0	75.0	43.0	10	50	
330.2041	4.1	75.0	43.0	10	80	
330.2042	4.2	75.0	43.0	10	80	
330.2043	4.3	80.0	47.0	10	80	
330.2044	4.4	80.0	47.0	10	80	
330.2045	4.5	80.0	47.0	10	80	
330.2046	4.6	80.0	47.0	10	100	
330.2047	4.7	80.0	47.0	10	100	
330.2048	4.8	86.0	52.0	10	100	
330.2049	4.9	86.0	52.0	10	100	
330.2050	5.0	86.0	52.0	10	100	
330.2051	5.1	86.0	52.0	10	130	
330.2052	5.2	86.0	52.0	10	130	
330.2053	5.3	86.0	52.0	10	130	
330.2054	5.4	93.0	57.0	10	130	
330.2055	5.5	93.0	57.0	10	130	
330.2056	5.6	93.0	57.0	10	150	
330.2057	5.7	93.0	57.0	10	150	
330.2058	5.8	93.0	57.0	10	150	
330.2059	5.9	93.0	57.0	10	150	
330.2060	6.0	93.0	57.0	10	150	
330.2061	6.1	101.0	63.0	10	180	
330.2062	6.2	101.0	63.0	10	180	
330.2063	6.3	101.0	63.0	10	180	
330.2064	6.4	101.0	63.0	10	180	
330.2065	6.5	101.0	63.0	10	180	
330.2066	6.6	101.0	63.0	10	250	
330.2067	6.7	101.0	63.0	10	250	
330.2068	6.8	109.0	69.0	10	250	
330.2069	6.9	109.0	69.0	10	250	
330.2070	7.0	109.0	69.0	10	250	
330.2071	7.1	109.0	69.0	10	260	
330.2072	7.2	109.0	69.0	10	260	
330.2073	7.3	109.0	69.0	10	260	
330.2074	7.4	109.0	69.0	10	260	
330.2075	7.5	109.0	69.0	10	260	
330.2076	7.6	117.0	75.0	10	330	
330.2077	7.7	117.0	75.0	10	330	
330.2078	7.8	117.0	75.0	10	330	
330.2079	7.9	117.0	75.0	10	330	
330.2080	8.0	117.0	75.0	10	330	
330.2081	8.1	117.0	75.0	10	350	
330.2082	8.2	117.0	75.0	10	350	
330.2083	8.3	117.0	75.0	10	350	
330.2084	8.4	117.0	75.0	10	350	
330.2085	8.5	117.0	75.0	10	350	
330.2086	8.6	125.0	81.0	10	430	
330.2087	8.7	125.0	81.0	10	403	
330.2088	8.8	125.0	81.0	10	430	
330.2089	8.9	125.0	81.0	10	430	
330.2090	9.0	125.0	81.0	10	430	
330.2091	9.1	125.0	81.0	10	480	
330.2092	9.2	125.0	81.0	10	480	
330.2093	9.3	125.0	81.0	10	480	
330.2094	9.4	125.0	81.0	10	480	
330.2095	9.5	125.0	81.0	10	480	
330.2096	9.6	133.0	87.0	10	275	
330.2097	9.7	133.0	87.0	10	275	
330.2098	9.8	133.0	87.0	10	275	

	D mm	L1 mm	L2 mm	Content	g	
330.2099	9.9	133.0	87.0	10	275	
330.2100	10.0	133.0	87.0	5	275	
330.2101	10.1	133.0	87.0	5	300	
330.2102	10.2	133.0	87.0	5	300	
330.2103	10.3	133.0	87.0	5	300	
330.2104	10.4	133.0	87.0	5	300	
330.2105	10.5	133.0	87.0	5	300	
330.2106	10.6	133.0	87.0	5	350	
330.2107	10.7	142.0	94.0	5	350	
330.2108	10.8	142.0	94.0	5	350	
330.2109	10.9	142.0	94.0	5	350	
330.2110	11.0	142.0	94.0	5	350	
330.2111	11.1	142.0	94.0	5	385	
330.2112	11.2	142.0	94.0	5	385	
330.2113	11.3	142.0	94.0	5	385	
330.2114	11.4	142.0	94.0	5	385	
330.2115	11.5	142.0	94.0	5	385	
330.2116	11.6	142.0	94.0	5	440	
330.2117	11.7	142.0	94.0	5	440	
330.2118	11.8	142.0	94.0	5	440	
330.2119	11.9	151.0	101.0	5	440	
330.2120	12.0	151.0	101.0	5	440	
330.2121	12.1	151.0	101.0	5	490	
330.2122	12.2	151.0	101.0	5	490	
330.2123	12.3	151.0	101.0	5	490	
330.2124	12.4	151.0	101.0	5	490	
330.2125	12.5	151.0	101.0	5	490	
330.2126	12.6	151.0	101.0	5	515	
330.2127	12.7	151.0	101.0	5	515	
330.2128	12.8	151.0	101.0	5	515	
330.2129	12.9	151.0	101.0	5	515	
330.2130	13.0	151.0	101.0	5	515	
330.2135	13.5	160.0	108.0	1	110	
330.2140	14.0	160.0	108.0	1	115	
330.2145	14.5	169.0	114.0	1	120	
330.2150	15.0	169.0	114.0	1	125	
330.2155	15.5	178.0	120.0	1	130	
330.2160	16.0	178.0	120.0	1	135	

HSS-G Twist drill, long

- DIN 340 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered tempered and cast iron.

	D mm	L1 mm	L2 mm	Content	g	
330.7025	2.5	95.0	62.0	10	40	
330.7030	3.0	100.0	66.0	10	50	
330.7031	3.1	106.0	69.0	10	50	
330.7032	3.2	106.0	69.0	10	60	
330.7033	3.3	106.0	69.0	10	65	
330.7034	3.4	112.0	73.0	10	65	
330.7035	3.5	112.0	73.0	10	70	
330.7036	3.6	112.0	73.0	10	75	
330.7037	3.7	112.0	73.0	10	75	
330.7038	3.8	119.0	78.0	10	80	
330.7039	3.9	119.0	78.0	10	80	
330.7040	4.0	119.0	78.0	10	85	
330.7041	4.1	119.0	78.0	10	90	
330.7042	4.2	119.0	78.0	10	95	
330.7043	4.3	126.0	82.0	10	110	
330.7044	4.4	126.0	82.0	10	115	
330.7045	4.5	126.0	82.0	10	120	
330.7046	4.6	126.0	82.0	10	130	
330.7047	4.7	126.0	82.0	10	135	
330.7048	4.8	132.0	87.0	10	140	
330.7049	4.9	132.0	87.0	10	145	

	D mm	L1 mm	L2 mm	Content	g	
330.7050	5.0	132.0	87.0	10	150	
330.7051	5.1	132.0	87.0	10	150	
330.7052	5.2	132.0	87.0	10	160	
330.7053	5.3	132.0	87.0	10	170	
330.7054	5.4	139.0	91.0	10	190	
330.7055	5.5	139.0	91.0	10	195	
330.7056	5.6	139.0	91.0	10	200	
330.7057	5.7	139.0	91.0	10	205	
330.7058	5.8	139.0	91.0	10	210	
330.7059	5.9	139.0	91.0	10	220	
330.7060	6.0	139.0	91.0	10	225	
330.7061	6.1	148.0	97.0	10	255	
330.7062	6.2	148.0	97.0	10	260	
330.7063	6.3	148.0	97.0	10	265	
330.7064	6.4	148.0	97.0	10	270	
330.7065	6.5	148.0	97.0	10	270	
330.7066	6.6	148.0	97.0	10	275	
330.7067	6.7	148.0	97.0	10	275	
330.7068	6.8	156.0	102.0	10	360	
330.7069	6.9	156.0	102.0	10	370	
330.7070	7.0	156.0	102.0	10	375	
330.7071	7.1	156.0	102.0	10	380	
330.7072	7.2	156.0	102.0	10	380	
330.7073	7.3	156.0	102.0	10	385	
330.7074	7.4	156.0	102.0	10	390	
330.7075	7.5	156.0	102.0	10	390	
330.7076	7.6	165.0	109.0	10	480	
330.7077	7.7	165.0	109.0	10	485	
330.7078	7.8	165.0	109.0	10	485	
330.7079	7.9	165.0	109.0	10	490	
330.7080	8.0	165.0	109.0	10	495	
330.7081	8.1	165.0	109.0	10	500	
330.7082	8.2	165.0	109.0	10	505	
330.7083	8.3	165.0	109.0	10	510	
330.7084	8.4	165.0	109.0	10	520	
330.7085	8.5	165.0	109.0	10	525	
330.7086	8.6	175.0	115.0	10	620	
330.7087	8.7	175.0	115.0	10	630	
330.7088	8.8	175.0	115.0	10	635	
330.7089	8.9	175.0	115.0	10	640	
330.7090	9.0	175.0	115.0	10	645	
330.7091	9.1	175.0	115.0	10	660	
330.7092	9.2	175.0	115.0	10	670	
330.7093	9.3	175.0	115.0	10	680	
330.7094	9.4	175.0	115.0	10	690	
330.7095	9.5	175.0	115.0	10	720	
330.7096	9.6	184.0	121.0	10	800	
330.7097	9.7	184.0	121.0	10	810	
330.7098	9.8	184.0	121.0	10	815	
330.7099	9.9	184.0	121.0	10	820	
330.7100	10.0	184.0	121.0	10	825	
330.7105	10.5	184.0	121.0	5	450	
330.7110	11.0	195.0	128.0	5	525	
330.7115	11.5	195.0	128.0	5	575	
330.7120	12.0	205.0	134.0	5	660	
330.7125	12.5	205.0	134.0	5	735	
330.7130	13.0	205.0	134.0	5	765	

HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.2610	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.60	

HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Type N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° Spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel cast steel and high and low alloyed steel up to 900 N/mm² tensile Bronze, brass, brushed aluminium alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.2613	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1.30	

HSS-G Twist drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.2620	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.60	

HSS-G Twist drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.2623	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1.30	

HSS-G Twist drill set in metal case

- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.2640	170 pcs	per 10 x: 1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 per 5 x: 8,5 - 9,0 - 9,5 - 10,0 mm	4.15	

HSS-G Twist drill set in metal case

- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

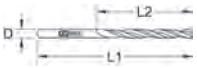
			kg	
330.2650	230 pcs	per 10 x: 1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,2 - 3,5 - 4,0 - 4,2 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 6,8 - 7,0 - 7,5 - 8,0 per 5 x: 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	7.40	

HSS-G CO TWIST DRILLS

HSS-G Co 5 Twist drill short

- DIN 1897 Typ N
- Right hand cutting
- Relieved cone has a ground point
- From 3 mm split point according to DIN 1412 C
- 135 ° pointed angle
- 20 - 30° spiral angle
- Gold coated surface
- High performance steel

Ideally suitable in steel, cast steel l up to 1,100 N/mm² tensile, rust and acid steady steels, V2a, V4a, cast and tempered iron.



	D mm	L1 mm	L2 mm	Content	g	
330.6020	2.0	38.0	12.0	10	7	
330.6025	2.5	43.0	14.0	10	15	
330.6030	3.0	46.0	16.0	10	30	
330.6031	3.1	49.0	18.0	10	31	
330.6032	3.2	49.0	18.0	10	32	
330.6033	3.3	49.0	18.0	10	33	
330.6034	3.4	52.0	20.0	10	34	
330.6035	3.5	52.0	20.0	10	35	
330.6036	3.6	52.0	20.0	10	37	
330.6037	3.7	52.0	20.0	10	40	
330.6038	3.8	55.0	22.0	10	42	
330.6039	3.9	55.0	22.0	10	44	
330.6040	4.0	55.0	22.0	10	45	
330.6041	4.1	55.0	22.0	10	47	
330.6042	4.2	55.0	22.0	10	49	
330.6043	4.3	58.0	24.0	10	55	
330.6044	4.4	58.0	24.0	10	57	
330.6045	4.5	58.0	24.0	10	60	
330.6046	4.6	58.0	24.0	10	62	
330.6047	4.7	58.0	24.0	10	63	
330.6048	4.8	62.0	26.0	10	72	
330.6049	4.9	62.0	26.0	10	73	
330.6050	5.0	62.0	26.0	10	75	
330.6051	5.1	62.0	26.0	10	77	
330.6052	5.2	62.0	26.0	10	78	
330.6053	5.3	62.0	26.0	10	80	
330.6054	5.4	66.0	28.0	10	95	
330.6055	5.5	66.0	28.0	10	97	
330.6056	5.6	66.0	28.0	10	99	
330.6057	5.7	66.0	28.0	10	103	
330.6058	5.8	66.0	28.0	10	105	
330.6059	5.9	66.0	28.0	10	107	
330.6060	6.0	66.0	28.0	10	110	
330.6061	6.1	70.0	31.0	10	125	
330.6062	6.2	70.0	31.0	10	128	
330.6063	6.3	70.0	31.0	10	130	
330.6064	6.4	70.0	31.0	10	133	
330.6065	6.5	70.0	31.0	10	135	
330.6066	6.6	70.0	31.0	10	138	
330.6067	6.7	70.0	31.0	10	140	
330.6068	6.8	74.0	34.0	10	170	
330.6069	6.9	74.0	34.0	10	175	
330.6070	7.0	74.0	34.0	10	180	
330.6071	7.1	74.0	34.0	10	183	
330.6072	7.2	74.0	34.0	10	185	
330.6073	7.3	74.0	34.0	10	187	
330.6074	7.4	74.0	34.0	10	188	
330.6075	7.5	74.0	34.0	10	190	
330.6076	7.6	79.0	36.0	10	220	
330.6077	7.7	79.0	36.0	10	225	
330.6078	7.8	79.0	36.0	10	230	
330.6079	7.9	79.0	36.0	10	235	
330.6080	8.0	79.0	36.0	10	240	
330.6085	8.5	79.0	36.0	10	270	
330.6090	9.0	84.0	40.0	10	310	
330.6095	9.5	84.0	40.0	10	360	
330.6100	10.0	89.0	43.0	10	420	
330.6102	10.2	89.0	43.0	10	435	
330.6105	10.5	89.0	43.0	5	210	
330.6110	11.0	95.0	47.0	5	255	
330.6115	11.5	95.0	47.0	5	260	
330.6120	12.0	102.0	51.0	5	285	
330.6125	12.5	102.0	51.0	5	290	
330.6130	13.0	102.0	51.0	5	295	

HSS-G Co 5 Twist drill

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usably in high and low alloyed steel up to 1,100 N/mm² tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel.

	D mm	L1 mm	L2 mm	Content	g	
330.3003	0.3	19.0	3.0	10	1	
330.3004	0.4	20.0	5.0	10	1	
330.3005	0.5	22.0	6.0	10	1	
330.3006	0.6	24.0	7.0	10	1	
330.3007	0.7	28.0	9.0	10	1	
330.3008	0.8	30.0	10.0	10	1	
330.3009	0.9	32.0	11.0	10	1	
330.3010	1.0	34.0	12.0	10	1	
330.3011	1.1	36.0	14.0	10	1	
330.3012	1.2	38.0	16.0	10	1	
330.3013	1.3	38.0	16.0	10	1	
330.3014	1.4	40.0	18.0	10	1	
330.3015	1.5	40.0	18.0	10	1	
330.3016	1.6	43.0	20.0	10	1	
330.3017	1.7	43.0	20.0	10	10	
330.3018	1.8	46.0	22.0	10	10	
330.3019	1.9	46.0	22.0	10	10	
330.3020	2.0	49.0	24.0	10	10	
330.3021	2.1	49.0	24.0	10	10	
330.3022	2.2	53.0	27.0	10	10	
330.3023	2.3	53.0	27.0	10	20	
330.3024	2.4	57.0	30.0	10	20	
330.3025	2.5	57.0	30.0	10	20	
330.3026	2.6	57.0	30.0	10	40	
330.3027	2.7	61.0	33.0	10	40	
330.3028	2.8	61.0	33.0	10	40	
330.3029	2.9	61.0	33.0	10	40	
330.3030	3.0	61.0	33.0	10	40	
330.3031	3.1	65.0	36.0	10	40	
330.3032	3.2	65.0	36.0	10	40	
330.3033	3.3	65.0	36.0	10	40	
330.3034	3.4	70.0	39.0	10	40	
330.3035	3.5	70.0	39.0	10	40	
330.3036	3.6	70.0	39.0	10	50	
330.3037	3.7	70.0	39.0	10	50	
330.3038	3.8	75.0	43.0	10	50	
330.3039	3.9	75.0	43.0	10	50	
330.3040	4.0	75.0	43.0	10	50	
330.3041	4.1	75.0	43.0	10	80	
330.3042	4.2	75.0	43.0	10	80	
330.3043	4.3	80.0	47.0	10	80	
330.3044	4.4	80.0	47.0	10	80	
330.3045	4.5	80.0	47.0	10	80	
330.3046	4.6	80.0	47.0	10	100	
330.3047	4.7	80.0	47.0	10	100	
330.3048	4.8	86.0	52.0	10	100	
330.3049	4.9	86.0	52.0	10	100	

	D mm	L1 mm	L2 mm	Content	g	
330.3050	5.0	86.0	52.0	10	100	
330.3051	5.1	86.0	52.0	10	130	
330.3052	5.2	86.0	52.0	10	130	
330.3053	5.3	86.0	52.0	10	130	
330.3054	5.4	93.0	57.0	10	130	
330.3055	5.5	93.0	57.0	10	130	
330.3056	5.6	93.0	57.0	10	150	
330.3057	5.7	93.0	57.0	10	150	
330.3058	5.8	93.0	57.0	10	150	
330.3059	5.9	93.0	57.0	10	105	
330.3060	6.0	93.0	57.0	10	150	
330.3061	6.1	101.0	63.0	10	180	
330.3062	6.2	101.0	63.0	10	180	
330.3063	6.3	101.0	63.0	10	180	
330.3064	6.4	101.0	63.0	10	180	
330.3065	6.5	101.0	63.0	10	180	
330.3066	6.6	101.0	63.0	10	250	
330.3067	6.7	101.0	63.0	10	250	
330.3068	6.8	109.0	69.0	10	250	
330.3069	6.9	109.0	69.0	10	250	
330.3070	7.0	109.0	69.0	10	250	
330.3071	7.1	109.0	69.0	10	260	
330.3072	7.2	109.0	69.0	10	260	
330.3073	7.3	109.0	69.0	10	260	
330.3074	7.4	109.0	69.0	10	260	
330.3075	7.5	109.0	69.0	10	260	
330.3076	7.6	117.0	75.0	10	330	
330.3077	7.7	117.0	75.0	10	330	
330.3078	7.8	117.0	75.0	10	330	
330.3079	7.9	117.0	75.0	10	330	
330.3080	8.0	117.0	75.0	10	330	
330.3081	8.1	117.0	75.0	10	350	
330.3082	8.2	117.0	75.0	10	350	
330.3083	8.3	117.0	75.0	10	350	
330.3084	8.4	117.0	75.0	10	350	
330.3085	8.5	117.0	75.0	10	350	
330.3086	8.6	125.0	81.0	10	430	
330.3087	8.7	125.0	81.0	10	430	
330.3088	8.8	125.0	81.0	10	430	
330.3089	8.9	125.0	81.0	10	430	
330.3090	9.0	125.0	81.0	10	430	
330.3091	9.1	125.0	81.0	10	480	
330.3092	9.2	125.0	81.0	10	480	
330.3093	9.3	125.0	81.0	10	480	
330.3094	9.4	125.0	81.0	10	480	
330.3095	9.5	125.0	81.0	10	480	
330.3096	9.6	133.0	87.0	10	275	
330.3097	9.7	133.0	87.0	10	275	
330.3098	9.8	133.0	87.0	10	275	
330.3099	9.9	133.0	87.0	10	275	
330.3100	10.0	133.0	87.0	5	275	
330.3101	10.1	133.0	87.0	5	300	
330.3102	10.2	133.0	87.0	5	300	
330.3103	10.3	133.0	87.0	5	300	
330.3104	10.4	133.0	87.0	5	300	
330.3105	10.5	133.0	87.0	5	300	
330.3106	10.6	133.0	87.0	5	350	
330.3107	10.7	142.0	94.0	5	350	
330.3108	10.8	142.0	94.0	5	350	
330.3109	10.9	142.0	94.0	5	350	
330.3110	11.0	142.0	94.0	5	350	
330.3111	11.1	142.0	94.0	5	385	
330.3112	11.2	142.0	94.0	5	385	
330.3113	11.3	142.0	94.0	5	385	
330.3114	11.4	142.0	94.0	5	385	
330.3115	11.5	142.0	94.0	5	385	
330.3116	11.6	142.0	94.0	5	440	
330.3117	11.7	142.0	94.0	5	440	
330.3118	11.8	142.0	94.0	5	440	
330.3119	11.9	151.0	101.0	5	440	
330.3120	12.0	151.0	101.0	5	440	
330.3121	12.1	151.0	101.0	5	490	
330.3122	12.2	151.0	101.0	5	490	
330.3123	12.3	151.0	101.0	5	490	
330.3124	12.4	151.0	101.0	5	490	
330.3125	12.5	151.0	101.0	5	490	
330.3126	12.6	151.0	101.0	5	515	
330.3127	12.7	151.0	101.0	5	515	
330.3128	12.8	151.0	101.0	5	515	
330.3129	12.9	151.0	101.0	5	515	
330.3130	13.0	151.0	101.0	5	515	
330.3135	13.5	160.0	108.0	1	110	
330.3140	14.0	160.0	108.0	1	115	
330.3145	14.5	169.0	114.0	1	120	
330.3150	15.0	169.0	114.0	1	125	
330.3155	15.5	178.0	120.0	1	130	
330.3160	16.0	178.0	120.0	1	135	

HSS-G Co 5 Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usably in high and low alloyed steel up to 1,100 N/mm² tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel

			kg	
330.3610	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.60	

HSS-G Co 5 Twist drill set in metal case

- High strength hinge
- DIN 338 Type N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° Spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

ideally usable in high and low alloyed steel up to 1,100 N/mm² tensile Compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel

			kg	
330.3613	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1.30	

HSS-G Co 5 Twist drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usably in high and low alloyed steel up to 1,100 N/mm² tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel

			kg	
330.3620	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.60	

HSS-G Co 5 Twist Drill Set in steel storage case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usably in high and low alloyed steel up to 1,100 N/mm² tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel

			kg	
330.3623	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1.30	

HSS-G Co 5 Twist drill set in metal case

- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usably in high and low alloyed steel up to 1,100 N/mm² tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel.

			kg	
330.3640	170 pcs	per 10 x: 1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 per 5 x: 8,5 - 9,0 - 9,5 - 10,0 mm	4.15	

HSS-G Co 5 Twist drill set in metal case

- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usably in high and low alloyed steel up to 1,100 N/mm² tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel.

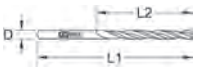
			kg	
330.3650	230 pcs	per 10 x: 1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,2 - 3,5 - 4,0 - 4,2 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 6,8 - 7,0 - 7,5 - 8,0 per 5 x: 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	7.40	

HSS TIN TWIST DRILLS

HSS-TiN Twist drill

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- With TiN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 1,100 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



	D mm	L1 mm	L2 mm	Content	g	
330.4003	0.3	19.0	3.0	10	1	
330.4004	0.4	20.0	5.0	10	1	
330.4005	0.5	22.0	6.0	10	1	
330.4006	0.6	24.0	7.0	10	1	
330.4007	0.7	28.0	9.0	10	1	
330.4008	0.8	30.0	10.0	10	1	
330.4009	0.9	32.0	11.0	10	1	
330.4010	1.0	34.0	12.0	10	1	
330.4011	1.1	36.0	14.0	10	1	
330.4012	1.2	38.0	16.0	10	1	
330.4013	1.3	38.0	16.0	10	1	
330.4014	1.4	40.0	18.0	10	1	
330.4015	1.5	40.0	18.0	10	1	
330.4016	1.6	43.0	20.0	10	10	
330.4017	1.7	43.0	20.0	10	10	
330.4018	1.8	46.0	22.0	10	10	
330.4019	1.9	46.0	22.0	10	10	
330.4020	2.0	49.0	24.0	10	10	
330.4021	2.1	49.0	24.0	10	20	
330.4022	2.2	53.0	27.0	10	20	
330.4023	2.3	53.0	27.0	10	20	
330.4024	2.4	57.0	30.0	10	20	
330.4025	2.5	57.0	30.0	10	20	
330.4026	2.6	57.0	30.0	10	40	
330.4027	2.7	61.0	33.0	10	40	
330.4028	2.8	61.0	33.0	10	40	
330.4029	2.9	61.0	33.0	10	40	
330.4030	3.0	61.0	33.0	10	40	
330.4031	3.1	65.0	36.0	10	40	
330.4032	3.2	65.0	36.0	10	40	
330.4033	3.3	65.0	36.0	10	40	
330.4034	3.4	70.0	39.0	10	40	
330.4035	3.5	70.0	39.0	10	40	
330.4036	3.6	70.0	39.0	10	50	
330.4037	3.7	70.0	39.0	10	50	
330.4038	3.8	75.0	43.0	10	50	
330.4039	3.9	75.0	43.0	10	50	
330.4040	4.0	75.0	43.0	10	50	
330.4041	4.1	75.0	43.0	10	80	
330.4042	4.2	75.0	43.0	10	80	
330.4043	4.3	80.0	47.0	10	80	
330.4044	4.4	80.0	47.0	10	80	
330.4045	4.5	80.0	47.0	10	80	
330.4046	4.6	80.0	47.0	10	100	
330.4047	4.7	80.0	47.0	10	100	
330.4048	4.8	86.0	52.0	10	100	
330.4049	4.9	86.0	52.0	10	100	
330.4050	5.0	86.0	52.0	10	100	
330.4051	5.1	86.0	52.0	10	130	
330.4052	5.2	86.0	52.0	10	130	
330.4053	5.3	86.0	52.0	10	130	
330.4054	5.4	93.0	57.0	10	130	
330.4055	5.5	93.0	57.0	10	130	
330.4056	5.6	93.0	57.0	10	150	
330.4057	5.7	93.0	57.0	10	150	
330.4058	5.8	93.0	57.0	10	150	
330.4059	5.9	93.0	57.0	10	150	
330.4060	6.0	93.0	57.0	10	150	
330.4061	6.1	101.0	63.0	10	180	
330.4062	6.2	101.0	63.0	10	180	
330.4063	6.3	101.0	63.0	10	180	
330.4064	6.4	101.0	63.0	10	180	
330.4065	6.5	101.0	63.0	10	180	
330.4066	6.6	101.0	63.0	10	250	
330.4067	6.7	101.0	63.0	10	250	
330.4068	6.8	109.0	69.0	10	250	
330.4069	6.9	109.0	69.0	10	250	
330.4070	7.0	109.0	69.0	10	250	
330.4071	7.1	109.0	69.0	10	260	
330.4072	7.2	109.0	69.0	10	260	
330.4073	7.3	109.0	69.0	10	260	
330.4074	7.4	109.0	69.0	10	260	
330.4075	7.5	109.0	69.0	10	260	
330.4076	7.6	117.0	75.0	10	330	
330.4077	7.7	117.0	75.0	10	330	
330.4078	7.8	117.0	75.0	10	330	
330.4079	7.9	117.0	75.0	10	330	
330.4080	8.0	117.0	75.0	10	330	
330.4081	8.1	117.0	75.0	10	350	
330.4082	8.2	117.0	75.0	10	350	
330.4083	8.3	117.0	75.0	10	350	
330.4084	8.4	117.0	75.0	10	350	
330.4085	8.5	117.0	75.0	10	350	
330.4086	8.6	125.0	81.0	10	430	
330.4087	8.7	125.0	81.0	10	430	
330.4088	8.8	125.0	81.0	10	430	
330.4089	8.9	125.0	81.0	10	430	
330.4090	9.0	125.0	81.0	10	430	
330.4091	9.1	125.0	81.0	10	480	
330.4092	9.2	125.0	81.0	10	480	
330.4093	9.3	125.0	81.0	10	480	
330.4094	9.4	125.0	81.0	10	480	
330.4095	9.5	125.0	81.0	10	480	
330.4096	9.6	133.0	87.0	10	275	
330.4097	9.7	133.0	87.0	10	275	
330.4098	9.8	133.0	87.0	10	275	
330.4099	9.9	133.0	87.0	10	275	
330.4100	10.0	133.0	87.0	5	275	
330.4101	10.1	133.0	87.0	5	300	
330.4102	10.2	133.0	87.0	5	300	
330.4103	10.3	133.0	87.0	5	300	
330.4104	10.4	133.0	87.0	5	300	
330.4105	10.5	133.0	87.0	5	300	
330.4106	10.6	133.0	87.0	5	350	
330.4107	10.7	142.0	94.0	5	350	
330.4108	10.8	142.0	94.0	5	350	
330.4109	10.9	142.0	94.0	5	350	
330.4110	11.0	142.0	94.0	5	350	
330.4111	11.1	142.0	94.0	5	385	
330.4112	11.2	142.0	94.0	5	385	
330.4113	11.3	142.0	94.0	5	385	
330.4114	11.4	142.0	94.0	5	385	
330.4115	11.5	142.0	94.0	5	385	
330.4116	11.6	142.0	94.0	5	440	
330.4117	11.7	142.0	94.0	5	440	
330.4118	11.8	142.0	94.0	5	440	
330.4119	11.9	151.0	101.0	5	440	
330.4120	12.0	151.0	101.0	5	440	
330.4121	12.1	151.0	101.0	5	490	
330.4122	12.2	151.0	101.0	5	490	
330.4123	12.3	151.0	101.0	5	490	
330.4124	12.4	151.0	101.0	5	490	
330.4125	12.5	151.0	101.0	5	490	
330.4126	12.6	151.0	101.0	5	515	
330.4127	12.7	151.0	101.0	5	515	
330.4128	12.8	151.0	101.0	5	515	
330.4129	12.9	151.0	101.0	5	515	
330.4130	13.0	151.0	101.0	5	515	
330.4135	13.5	160.0	108.0	1	110	
330.4140	14.0	160.0	108.0	1	115	
330.4145	14.5	169.0	114.0	1	120	
330.4150	15.0	169.0	114.0	1	125	
330.4155	15.5	178.0	120.0	1	130	
330.4160	16.0	178.0	120.0	1	135	

HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 1,100 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.4610	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.66	

HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 1,100 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.4613	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1.36	

HSS-TiN Twist drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 1,100 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

			kg	
330.4620	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0.66	

HSS-TiN Twist drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 1,100 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.

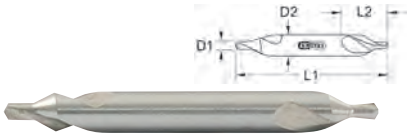
			kg	
330.4623	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1.36	

CENTRE DRILLS

HSS Centre drill

- DIN 333 form A
- Right hand cutting
- 60° centre angle
- 120° pointed angle
- For production of center borings
- Surface without discolouration
- High performance steel

Ideally suited for production of center borings according to DIN 332 form A.

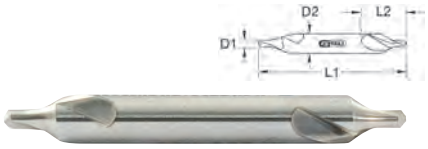


	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
330.1201	1.00	3.15	32.0	7.3	1	10
330.1202	1.50	4.00	36.0	9.3	1	10
330.1203	2.00	5.00	40.0	11.5	1	10
330.1204	2.50	6.30	46.0	15.4	1	20
330.1205	3.15	8.00	51.0	18.0	1	20
330.1206	4.00	10.00	56.0	20.0	1	22
330.1207	5.00	12.50	64.0	22.0	1	30
330.1208	6.30	15.00	72.0	30.0	1	30

HSS Centre drill

- DIN 333 form R
- Right hand cutting
- 60° centre angle
- 120° pointed angle
- For production of center borings
- Surface without discolouration
- High performance steel

Ideally suited for production of center borings according to DIN 332 form R.



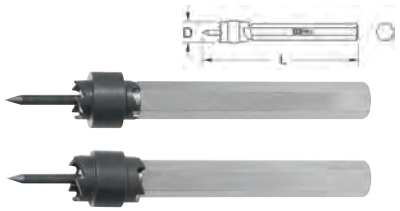
	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
330.1211	1.00	3.15	32.0	7.3	1	10
330.1212	1.50	4.00	36.0	9.3	1	10
330.1213	2.00	5.00	40.0	11.5	1	10
330.1214	2.50	6.30	46.0	15.4	1	20
330.1215	3.15	8.00	51.0	18.0	1	20
330.1216	4.00	10.00	56.0	20.0	1	22
330.1217	5.00	12.50	64.0	22.0	1	30
330.1218	6.30	15.00	72.0	30.0	1	30

SPOT WELD DRILLS

HSS Spot weld cutter

- Right hand cutting
- Interchangeable crowns
- Milling machine depth adjustable
- For efficient and ast working
- For loosening of spot welds
- No deformation of the sheet metal
- Special high performance steel

Ideally suitable with pneumatic drill, electric drill and rechargeable battery drill.

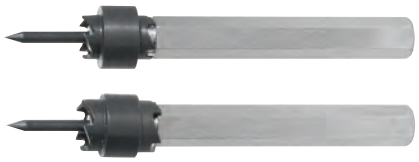


	D mm	D	L mm	Replacement crowns	Center point	Content	g
332.0951	8.0	5/16	72.0	332.0952	332.0955	1	30
332.0953	10.0	3/8	72.0	332.0954	332.0955	1	30

HSS Spot weld cutter set

- Right hand cutting
- Interchangeable crowns
- Milling machine depth adjustable
- For efficient and ast working
- For loosening of spot welds
- No deformation of the sheet metal
- Special high performance steel

Ideally suitable with pneumatic drill, electric drill and rechargeable battery drill.

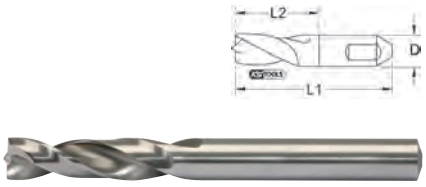


332.0950	2 pcs	8 - 10 mm	100

HSSE Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- Surface without discolouration
- High performance steel

Ideally suited in a hand drilling machine.
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.



	D mm	L1 mm	L2 mm	Content	
332.0106	6.0	70.0	25.0	1	10
332.0108	8.0	80.0	30.0	1	20
332.0110	10.0	90.0	35.0	1	40

HSSE TIN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TIN coated surface
- High performance steel

Ideally suited in a hand drilling machine.
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.

	D mm	L1 mm	L2 mm	Content	
332.0206	6.0	70.0	25.0	1	10
332.0208	8.0	80.0	30.0	1	20
332.0210	10.0	90.0	35.0	1	40

HSSE TICN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TICN coated surface
- High performance steel

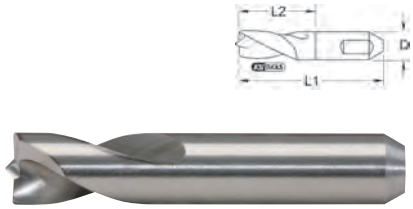
Ideally suited in a hand drilling machine.
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.

	D mm	L1 mm	L2 mm	Content	
332.0308	8.0	80.0	30.0	1	20
332.0310	10.0	90.0	35.0	1	40

HSS Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TICN coated surface
- High performance steel

Ideally suited in a pneumatic drill and vario milling machine.

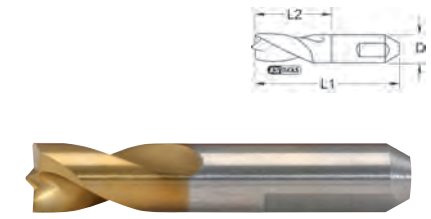


	D mm	L1 mm	L2 mm	Content	
332.0408	6.5	44.0	15.0	1	10
332.0708	8.0	44.0	15.0	1	10

HSSE TiN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TIN coated surface
- High performance steel

Ideally suited in a pneumatic drill and vario milling machine.

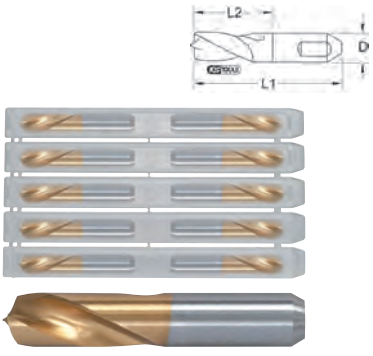


	D mm	L1 mm	L2 mm	Content	
332.0508	6.5	44.0	15.0	1	10
332.0808	8.0	44.0	15.0	1	10

HSSE TiN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TIN coated surface
- High strength steel

Ideally suited in a pneumatic drill and vario milling machine

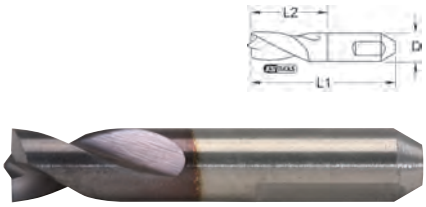


	D mm	L1 mm	L2 mm	Content	
332.0809	8.0	44.0	23.0	10	134

HSSE TiCN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TICN coated surface
- High performance steel

Ideally suited in a pneumatic drill and vario milling machine.

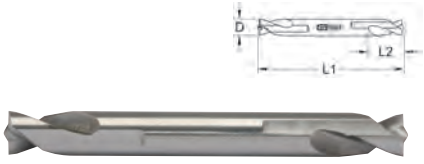


	D mm	L1 mm	L2 mm	Content	
332.0608	8.0	44.0	15.0	1	10

HSSE Double ended spot weld drill

- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 135° pointed angle
- Double ended usage
- Extra short and durable
- For thin walled materials
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, pressure-, malleable- and cast iron



	D mm	L1 mm	L2 mm	Content	
332.0908	8.0	70.0	16.3	1	20

HSS Double ended spot weld drill set

- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 135° pointed angle
- Double ended usage
- Extra short and durable
- For thin walled materials
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm² tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, pressure-, malleable- and cast iron

			g
332.0938	3 pcs	3 x 332.0908	70

Carbide spot weld drill

- Right hand cutting
- Highest stability under load
- Double edged
- Welded carbide head
- Especially temperature resistance up to max. 1100°C
- High performance carbide
- Suitable for high strength car body panels

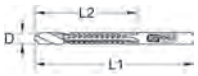
	D mm	L1 mm	L2 mm	Content	g
515.1305	8.0	44.0	11.0	1	22
515.1308	10.0	44.0	11.0	1	25

MILLING DRILLS

HSS Milling drill

- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- Suitable for thin walled material
- Surface without discolouration
- Special high performance steel

Ideally suitable for boring and milling machines thin walled materials, plastic, wood and sheet metal.

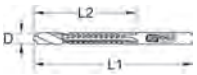


	D mm	L1 mm	L2 mm	Content	g
332.0330	6.0	90.0	35.0	1	25
332.0331	8.0	90.0	35.0	1	30

HSS TiN Milling drill

- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- Suitable for thin walled material
- With TiN coated surface
- Special high performance steel

Ideally suitable for boring and milling machines thin walled materials, plastic, wood and sheet metal.

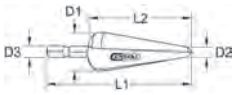


	D mm	L1 mm	L2 mm	Content	g
332.0332	6.0	90.0	35.0	1	25
332.0333	8.0	90.0	35.0	1	30

HSS CONE CUTTERS

HSS Cone cutter bit

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- With 1/4" external hexagon drive adaptor to DIN 3126 - C6,3
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

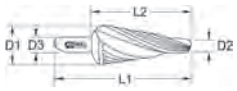


	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0031	5,0 - 22,0	20.0	5.0	6.4	78.0	51.0	1	65

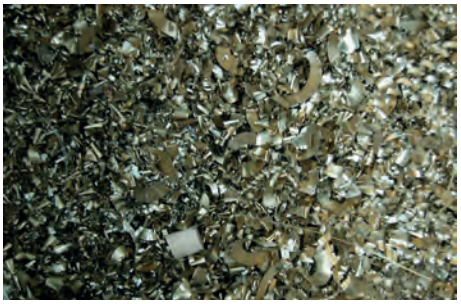
HSS Cone cutter spiral grooved

- Point thinning according to DIN 1412 C
- Right hand cutting
- 118° pointed angle
- 20° cone angle
- Spiral form flu e
- Three sided clamping surface on the shaft
- Absolute smooth operation
- Surface without discolouration
- High performance steel

Is suitable for use in all current industrial metals. Such as alloyed and non alloyed sheet metals up to 4.0 mm, NE metal and plastic. The spiral chip groove formed means that drilling is absolutly quiet, whilst the forming ensures the best cut achievement.

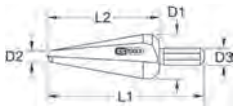


	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0024	4,0 - 14,0	14.0	4.0	6.0	58.0	33.0	1	20
336.0025	5,0 - 20,0	20.0	5.0	8.0	71.0	47.0	1	56
336.0026	5,0 - 31,0	31.0	5.0	10.0	103.0	78.0	1	170



HSS Cone cutter

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0001	3,0 - 14,0	14.0	3.0	6.0	58.0	38.0	1	20
336.0002	5,0 - 20,0	20.0	5.0	8.0	71.0	51.0	1	50
336.0003	16,0 - 30,5	30.5	16.0	9.0	76.0	54.0	1	120
336.0004	24,0 - 40,0	40.0	24.0	10.0	89.0	65.0	1	270
336.0005	36,0 - 50,0	50.0	36.0	12.0	97.0	71.0	1	490
336.0006	40,0 - 61,0	61.0	40.0	13.0	103.0	73.0	1	510
336.0007	5,0 - 25,4	25.4	5.0	10.0	87.0	67.0	1	100
336.0008	4,0 - 30,0	30.0	4.0	9.0	103.0	83.0	1	150
336.0009	5,0 - 22,5	22.5	5.0	8.0	79.0	59.0	1	90

HSS Cone cutter set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

336.0503	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590	

HSS Cone cutter set in plastic case

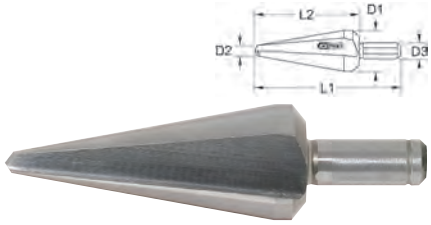
- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

336.0533	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590	

HSS CO CONE CUTTERS

HSS Co Cone cutter

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0011	3,0 - 20,0	14.0	3.0	6.0	58.0	38.0	1	20
336.0012	5,0 - 20,0	20.0	5.0	8.0	71.0	51.0	1	56
336.0013	16,0 - 30,5	30.5	16.0	9.0	76.0	54.0	1	120
336.0014	4,0 - 30,0	30.0	4.0	9.0	103.0	65.0	1	170

HSS Co Cone cutter set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

336.0513	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590

HSS Co Cone cutter set in plastic case

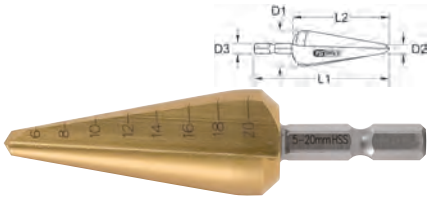
- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

336.0543	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590

HSS TIN CONE CUTTERS

HSS TiN Cone cutter bit

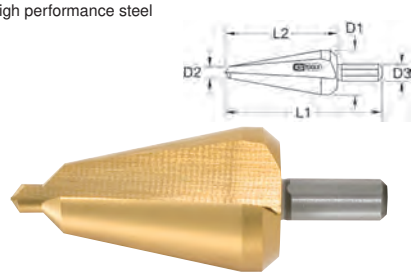
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- With 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0033	5,0 - 20,0	20.0	5.0	6.4	78.0	51.0	1	65

HSS TiN Cone cutter

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0015	3,0 - 14,0	14.0	3.0	6.0	58.0	38.0	1	20
336.0016	5,0 - 20,0	20.0	5.0	8.0	71.0	51.0	1	56
336.0017	16,0 - 30,5	30.5	16.0	9.0	76.0	54.0	1	120
336.0018	24,0 - 40,0	40.0	24.0	10.0	89.0	65.0	1	259
336.0019	36,0 - 50,0	50.0	36.0	12.0	97.0	71.0	1	480
336.0020	40,0 - 61,0	61.0	40.0	13.0	103.0	73.0	1	605
336.0021	5,0 - 25,4	25.4	5.0	10.0	87.0	67.0	1	150
336.0022	4,0 - 30,0	30.0	4.0	9.0	103.0	83.0	1	170
336.0023	5,0 - 22,5	22.5	5.0	8.0	79.0	59.0	1	180

HSS TiN Cone cutter set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

336.0523	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590

HSS TiN Cone cutter set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

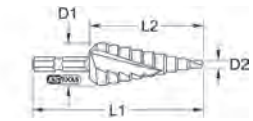
336.0553	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590

HSS STEPPED DRILLS

HSS Stepped drill bit

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- With 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Breaking chips and swarf are taken away.
The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented.



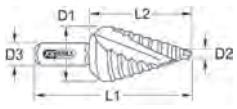
1/4"

	Ø mm	D1 mm	D2 mm	L1 mm	L2 mm	No. stages	Content	
330.2381	4,0-12,0	12.0	4.0	72.0	45.0	9	1	25
330.2382	4,0-20,0	20.0	4.0	81.0	54.0	9	1	85
330.2383	4,0-30,0	30.0	4.0	105.0	78.0	14	1	165

HSS Stepped drill, extra short

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Breaking chips and swarf are taken away.
The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented. Ideally suited for construction strength grade sheet metal up to 2.0 mm.

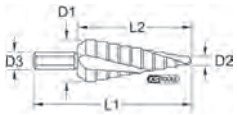


	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	
330.2371	4 - 12	12.0	4.0	6.0	48.0	28.0	9	1	16
330.2372	4 - 20	20.0	4.0	8.0	58.0	38.0	9	1	42
330.2373	4 - 30	30.0	4.0	10.0	72.0	49.0	14	1	130

HSS Stepped drill

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	
330.2301	4 - 12	12.0	4.0	6.0	65.0	45.0	9	1	22
330.2302	4 - 20	20.0	4.0	8.0	75.0	55.0	9	1	60
330.2303	4 - 30	30.0	4.0	10.0	100.0	78.0	14	1	185
330.2304	6 - 30	30.0	6.0	10.0	95.0	73.0	13	1	205
330.2305	6 - 37	37.0	6.0	10.0	100.0	76.0	12	1	245
330.2306	6 - 38	38.0	6.0	10.0	100.0	76.0	12	1	260
330.2307	4 - 39	39.0	4.0	10.0	107.0	83.0	13	1	312
330.2308	6 - 40	40.0	6.0	13.0	105.0	81.0	19	1	455
330.2309	6 - 20	20.0	6.0	9.0	71.0	51.0	8	1	100
330.2310	4 - 22	22.0	4.0	10.0	76.0	56.0	10	1	85
330.2311	6 - 27,8	26.8	6.0	10.0	75.0	53.0	8	1	110
330.2312	6 - 32	32.0	6.0	10.0	75.0	53.0	8	1	102
330.2313	6 - 32	32.0	6.0	10.0	76.0	53.0	9	1	108
330.2314	5 - 28	28.0	5.0	9.0	69.0	53.0	7	1	86
330.2315	6 - 25	25.0	6.0	10.0	65.0	47.0	7	1	135
330.2316	6 - 30,5	30.5	6.0	10.0	80.0	57.0	9	1	150
330.2317	6,5 - 40,5	40.5	6.5	10.0	96.0	72.0	11	1	265
330.2318	6 - 36	36.0	6.0	10.0	82.0	57.0	11	1	255
330.2319	7 - 40,5	40.5	7.0	12.0	95.0	70.0	13	1	275
330.2320	4,8 - 10,7	10.7	4.8	6.0	54.0	34.0	5	1	27
330.2321	7 - 32,5	32.5	7.0	12.0	96.0	71.0	11	1	220

HSS Stepped drill set in metal case

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.

330.2403	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610

HSS Stepped drill set in plastic case

- Stackable for storage
- With integral clasp
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.

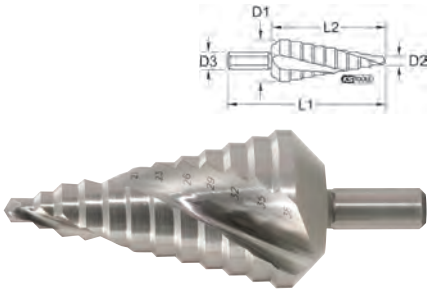
330.2404	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610

HSS CO STEPPED DRILLS

HSS Co 5 Stepped drill

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steell

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	g
330.2322	4 - 12	12.0	4.0	6.0	65.0	45.0	9	1	22
330.2323	4 - 20	20.0	4.0	8.0	75.0	55.0	9	1	60
330.2324	4 - 30	30.0	4.0	10.0	100.0	78.0	14	1	185
330.2325	6 - 30	30.0	6.0	10.0	95.0	73.0	13	1	205
330.2326	6 - 37	37.0	6.0	10.0	100.0	76.0	12	1	245
330.2327	6 - 38	38.0	6.0	10.0	100.0	76.0	12	1	260
330.2328	4 - 39	39.0	4.0	10.0	107.0	83.0	13	1	312
330.2329	6 - 40	40.0	6.0	13.0	105.0	81.0	16	1	455
330.2330	6 - 20	20.0	6.0	9.0	71.0	51.0	8	1	100
330.2331	4 - 22	22.0	4.0	10.0	76.0	56.0	10	1	85
330.2332	6 - 26,8	26.8	6.0	10.0	75.0	53.0	8	1	110
330.2333	6 - 32	32.0	6.0	10.0	75.0	53.0	8	1	102
330.2334	6 - 32	32.0	6.0	10.0	76.0	53.0	9	1	108
330.2335	5 - 28	28.0	5.0	9.0	69.0	47.0	7	1	86
330.2336	6 - 25	25.0	6.0	10.0	65.0	42.0	7	1	135
330.2337	6 - 30,5	30.5	6.0	10.0	80.0	57.0	9	1	150
330.2338	6,5 - 40,5	40.5	6.5	10.0	96.0	72.0	11	1	265
330.2339	6 - 36	36.0	6.0	10.0	82.0	57.0	11	1	255
330.2340	7 - 40,5	40.5	7.0	12.0	95.0	70.0	13	1	275
330.2341	4,8 - 10,7	10.7	4.8	6.0	54.0	34.0	5	1	27
330.2342	7 - 32,5	32.5	7.0	12.0	96.0	71.0	11	1	220

HSS Co 5 Stepped drill set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.

			g
330.2413	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	600

HSS Co 5 Stepped drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.

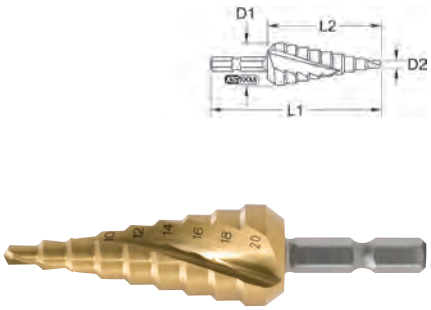
			g
330.2414	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	600

HSS TIN STEPPED DRILLS

HSS TiN Stepped drill bit

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- With 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Breaking chips and swarf are taken away.
The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented.



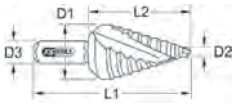
1/4"

	Ø mm	D1 mm	D2 mm	L1 mm	L2 mm	No. stages	Content	g
330.2384	4,0-12,0	12.0	4.0	72.0	45.0	9	1	25
330.2385	4,0-20,0	20.0	4.0	81.0	54.0	9	1	85
330.2386	4,0-30,0	30.0	4.0	105.0	78.0	14	1	165

HSS TiN Stepped drill, extra short

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Breaking chips and swarf are taken away.
The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented. Ideally suited for construction strength grade sheet metal up to 2.0 mm.

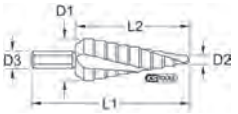


	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	g
330.2374	4 - 12	12.0	4.0	6.0	48.0	28.0	9	1	16
330.2375	4 - 20	20.0	4.0	8.0	58.0	38.0	9	1	42
330.2376	4 - 30	30.0	4.0	10.0	72.0	49.0	14	1	130

HSS TiN Stepped drill

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	g
330.2343	4 - 12	12.0	4.0	6.0	65.0	45.0	9	1	22
330.2344	4 - 20	20.0	4.0	8.0	75.0	55.0	9	1	60
330.2345	4 - 30	30.0	4.0	10.0	100.0	78.0	14	1	185
330.2346	6 - 30	30.0	6.0	10.0	95.0	73.0	13	1	205
330.2347	6 - 37	37.0	6.0	10.0	100.0	76.0	12	1	245
330.2348	6 - 38	38.0	6.0	10.0	100.0	76.0	12	1	260
330.2349	4 - 39	39.0	4.0	10.0	107.0	83.0	13	1	312
330.2350	6 - 40	40.0	6.0	13.0	105.0	81.0	16	1	455
330.2351	6 - 20	20.0	6.0	9.0	71.0	51.0	8	1	100
330.2352	4 - 22	22.0	4.0	10.0	76.0	56.0	10	1	85
330.2353	6 - 26,8	26.8	6.0	10.0	75.0	53.0	8	1	110
330.2354	6 - 32	32.0	6.0	10.0	75.0	53.0	8	1	102
330.2355	6 - 32	32.0	6.0	10.0	76.0	53.0	9	1	108
330.2356	5 - 28	28.0	5.0	9.0	69.0	47.0	7	1	86
330.2357	6 - 25	25.0	6.0	10.0	65.0	42.0	7	1	135
330.2358	6 - 30,5	30.5	6.0	10.0	80.0	57.0	9	1	150
330.2359	6,5 - 40,5	40.5	6.5	10.0	96.0	72.0	11	1	265
330.2360	6 - 36	36.0	6.0	10.0	82.0	57.0	11	1	255
330.2361	7 - 40,5	40.5	7.0	12.0	95.0	70.0	13	1	275
330.2362	4,8 - 10,7	10.7	4.8	6.0	54.0	34.0	5	1	27
330.2363	7 - 32,5	32.5	7.0	12.0	96.0	71.0	11	1	220

HSS TiN Stepped drill set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning pointRight hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.

330.2423	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610	

HSS TiN Stepped drill set in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifi s the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.

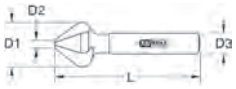
330.2424	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610	

CONE - AND DEBURRING 60°

HSS Cone and deburrer 60°

- DIN 334 form C
- Right hand cutting
- 60° Countersink angle
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

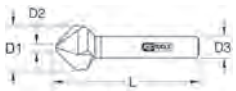


	D1 mm	D2 mm	D3 mm	L mm	Content	g
336.0034	6.3	1.6	5.0	45.0	1	10
336.0035	8.0	2.0	6.0	50.0	1	12
336.0036	10.0	2.5	6.0	53.0	1	12
336.0037	12.5	3.2	8.0	56.0	1	24
336.0038	16.0	4.0	10.0	63.0	1	42
336.0039	20.0	5.0	10.0	67.0	1	50
336.0040	25.0	6.3	10.0	71.0	1	66
336.0041	31.5	10.0	12.0	76.0	1	78

HSS Co Cone and deburrer 60°

- DIN 334 form C
- Right hand cutting
- 60° Countersink angle
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	g
336.0102	6.3	1.6	5.0	45.0	1	10
336.0103	8.0	2.0	6.0	50.0	1	12
336.0104	10.0	2.5	6.0	53.0	1	14
336.0105	12.5	3.2	8.0	56.0	1	24
336.0106	16.0	4.0	10.0	63.0	1	44
336.0107	20.0	5.0	10.0	67.0	1	50
336.0108	25.0	6.3	10.0	71.0	1	64
336.0109	31.5	10.0	12.0	76.0	1	78

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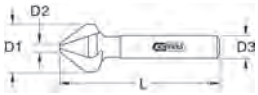
CONE - AND DEBURRING 75°

HSS Cone and deburrer 75°

- Form C
- Right hand cutting
- 75° Countersink angle
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

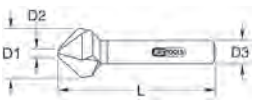


	D1 mm	D2 mm	D3 mm	L mm	Content	g
336.0042	6.3	1.6	5.0	45.0	1	10
336.0043	8.0	2.0	6.0	50.0	1	12
336.0044	10.0	2.5	6.0	53.0	1	14
336.0045	12.5	3.2	8.0	56.0	1	24
336.0046	16.0	4.0	10.0	63.0	1	44
336.0047	20.0	5.0	10.0	67.0	1	50
336.0048	25.0	6.3	10.0	71.0	1	64
336.0049	31.5	10.0	12.0	76.0	1	78

HSS Co Cone and deburrer 75°

- Form C
- Right hand cutting
- 75° Countersink angle
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



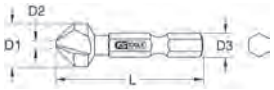
	D1 mm	D2 mm	D3 mm	L mm	Content	g
336.0110	6.3	1.6	5.0	45.0	1	10
336.0111	8.0	2.0	6.0	50.0	1	12
336.0112	10.0	2.5	6.0	53.0	1	14
336.0113	12.5	3.2	8.0	56.0	1	24
336.0114	16.0	4.0	10.0	63.0	1	44
336.0115	20.0	5.0	10.0	67.0	1	50
336.0116	25.0	6.3	10.0	71.0	1	64
336.0117	31.5	10.0	12.0	76.0	1	78

CONE - AND DEBURRING 90°

HSS Cone and deburrer bit 90°

- Right hand cutting
- 90° Countersink angle
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Three cutting edges
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



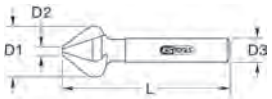
1/4"

	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0274	6.3	1.0	6.4	45.0	1	10
336.0275	8.3	1.5	6.4	50.0	1	14
336.0276	10.4	2.0	6.4	50.0	1	15
336.0277	12.4	2.0	6.4	56.0	1	26
336.0278	16.5	2.5	6.4	60.0	1	36
336.0279	20.5	3.0	6.4	63.0	1	52

HSS Cone and deburrer 90°

- DIN 335 Form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Countersink DIN 74 AF	Countersink DIN 74 BF	Content	
336.0050	4.3	1.3	4.0	40.0			1	9
336.0051	5.0	1.5	4.0	40.0	M2,5		1	9
336.0052	5.3	1.5	4.0	40.0			1	9
336.0053	5.8	1.5	5.0	45.0			1	10
336.0054	6.0	1.5	5.0	45.0	M3		1	10
336.0055	6.3	1.5	5.0	45.0		M3	1	10
336.0056	7.0	1.8	6.0	50.0	M3,5		1	13
336.0057	7.3	1.8	6.0	50.0			1	13
336.0058	8.0	2.0	6.0	50.0	M4		1	15
336.0059	8.3	2.0	6.0	50.0		M4	1	15
336.0060	9.4	2.2	6.0	50.0			1	18
336.0061	10.0	2.5	6.0	50.0	M5		1	20
336.0062	10.4	2.5	6.0	50.0		M5	1	20
336.0063	11.5	2.8	8.0	56.0	M6		1	26
336.0064	12.4	2.8	8.0	56.0		M6	1	26
336.0065	13.4	2.9	8.0	56.0			1	26
336.0066	15.0	3.2	10.0	60.0	M8		1	36
336.0067	16.5	3.2	10.0	60.0		M8	1	36
336.0068	19.0	3.5	10.0	63.0	M10		1	52
336.0069	20.5	3.5	10.0	63.0		M10	1	52
336.0070	23.0	3.8	10.0	67.0	M12		1	62
336.0071	25.0	3.8	10.0	67.0		M12	1	62
336.0072	26.0	3.9	12.0	71.0	M14		1	65
336.0073	28.0	4.0	12.0	71.0		M14	1	70
336.0074	30.0	4.1	12.0	71.0	M16		1	70
336.0075	31.0	4.2	12.0	71.0		M16	1	70

HSS Cone and deburrer set 90° in metal case

- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

336.0406	6 pcs	6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm	530

HSS Cone and deburrer set 90° in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

336.0446	6 pcs	6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm	530

HSS Co Cone and deburrer bit 90°

- Right hand cutting
- 90° Countersink angle
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Three cutting edges
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

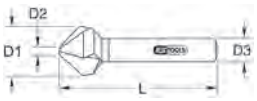
1/4"

	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0300	6.3	1.0	6.4	45.0	1	10
336.0301	8.3	1.5	6.4	50.0	1	14
336.0302	10.4	2.0	6.4	50.0	1	15
336.0303	12.4	2.0	6.4	56.0	1	26
336.0304	16.5	2.5	6.4	60.0	1	36
336.0305	20.5	3.0	6.4	63.0	1	52

HSS Co 5 Cone and deburrer 90°

- DIN 335 Form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Countersink DIN 74 AF	Countersink DIN 74 BF	Content	
336.0118	4.3	1.3	4.0	40.0			1	9
336.0119	5.0	1.5	4.0	40.0	M2,5		1	9
336.0120	5.3	1.5	4.0	40.0			1	9
336.0121	5.8	1.5	5.0	45.0			1	10
336.0122	6.0	1.5	5.0	45.0	M3		1	10
336.0123	6.3	1.5	5.0	45.0		M3	1	10
336.0124	7.0	1.8	6.0	50.0	M3,5		1	13
336.0125	7.3	1.8	6.0	50.0			1	13
336.0126	8.0	2.0	6.0	50.0	M4		1	15
336.0127	8.3	2.0	6.0	50.0		M4	1	15
336.0128	9.4	2.2	6.0	50.0			1	18
336.0129	10.0	2.5	6.0	50.0	M5		1	20
336.0130	10.4	2.5	6.0	50.0		M5	1	20
336.0131	11.5	2.8	8.0	56.0	M6		1	26
336.0132	12.4	2.8	8.0	56.0		M6	1	26
336.0133	13.4	2.9	8.0	56.0			1	26
336.0134	15.0	3.2	10.0	60.0	M8		1	36
336.0135	16.5	3.2	10.0	60.0		M8	1	36
336.0136	19.0	3.5	10.0	63.0	M10		1	52
336.0137	20.5	3.5	10.0	63.0		M10	1	52
336.0138	23.0	3.8	10.0	67.0	M12		1	62
336.0139	25.0	3.8	10.0	67.0		M12	1	62
336.0140	26.0	3.9	12.0	71.0	M14		1	65
336.0141	28.0	4.0	12.0	71.0		M14	1	70
336.0142	30.0	4.1	12.0	71.0	M16		1	70
336.0143	31.0	4.2	12.0	71.0		M16	1	70

HSS Co 5 Cone and deburrer set 90° in metal case

- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance cobalt steel

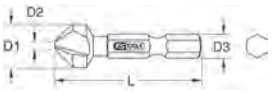
Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

336.0416	6 pcs	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5 mm	530	

HSS TiN Cone and deburrer bit 90°

- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



1/4"

	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0326	6.3	1.0	6.4	45.0	1	10
336.0327	8.3	1.5	6.4	50.0	1	14
336.0328	10.4	2.0	6.4	50.0	1	15
336.0329	12.4	2.0	6.4	56.0	1	26
336.0330	16.5	2.5	6.4	60.0	1	36
336.0331	20.5	3.0	6.4	63.0	1	52

HSS TiN Cone and deburrer set 90° in metal case

- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- TiN coated surface
- High performance steel

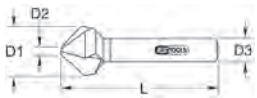
Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

336.0426	6 pcs	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5 mm	530	

HSS TiN Cone and deburrer 90°

- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Countersink DIN 74 AF	Countersink DIN 74 BF	Content	
336.0170	4.3	1.3	4.0	40.0			1	9
336.0171	5.0	1.5	4.0	40.0	M2,5		1	9
336.0172	5.3	1.5	4.0	40.0			1	9
336.0173	5.8	1.5	5.0	45.0			1	10
336.0174	6.0	1.5	5.0	45.0	M3		1	10
336.0175	6.3	1.5	5.0	45.0		M3	1	10
336.0176	7.0	1.8	6.0	50.0	M3,5		1	13
336.0177	7.3	1.8	6.0	50.0			1	13
336.0178	8.0	2.0	6.0	50.0	M4		1	15
336.0179	8.3	2.0	6.0	50.0		M4	1	15
336.0180	9.4	2.0	6.0	50.0			1	18
336.0181	1.0	2.5	6.0	50.0	M5		1	20
336.0182	10.4	2.5	6.0	50.0		M5	1	20
336.0183	11.5	2.8	8.0	56.0	M6		1	26
336.0184	12.4	2.8	8.0	56.0		M6	1	26
336.0185	13.4	2.9	8.0	56.0			1	26
336.0186	15.0	3.2	10.0	60.0	M8		1	36
336.0187	16.5	3.2	10.0	60.0		M8	1	36
336.0188	19.0	3.5	10.0	63.0	M10		1	52
336.0189	20.5	3.5	10.0	63.0		M10	1	52
336.0190	23.0	3.8	10.0	67.0	M12		1	62
336.0191	25.0	3.8	10.0	67.0		M12	1	62
336.0192	26.0	3.9	12.0	71.0	M14		1	65
336.0193	28.0	4.0	12.0	71.0		M14	1	70
336.0194	30.0	4.1	12.0	71.0	M16		1	70
336.0195	31.0	4.2	12.0	71.0		M16	1	70

HSS Co 5 Cone and deburrer set 90° in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

336.0456	6 pcs	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5 mm	530	

HSS TiN Cone and deburrer set 90° in plastic case

- Stackable for storage
- Integral clasp
- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flu es
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

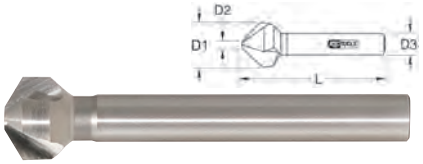
336.0466	6 pcs	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5 mm	530	

CONE - AND DEBURRING 120°

HSS Cone and deburrer 120°

- Form C
- Right hand cutting
- 120° Countersink angle
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

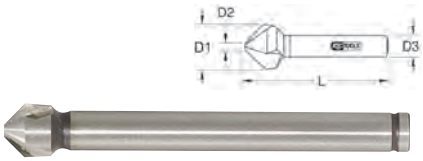


	D1 mm	D2 mm	D3 mm	L mm	Content	g
336.0076	6.3	1.5	5.0	45.0	1	14
336.0077	8.3	2.0	6.0	50.0	1	14
336.0078	10.4	2.5	6.0	50.0	1	20
336.0079	12.4	2.8	8.0	56.0	1	28
336.0080	16.5	3.2	10.0	60.0	1	46
336.0081	20.5	3.5	10.0	63.0	1	54
336.0082	25.0	3.8	10.0	67.0	1	62

HSS Co Cone and deburrer 120°

- Form C
- Right hand cutting
- 120° Countersink angle
- Cylindrical shaft
- Deep ground flu es
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

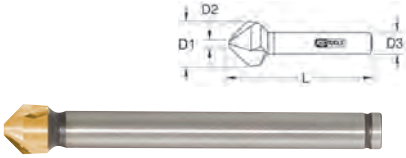


	D1 mm	D2 mm	D3 mm	L mm	Content	g
336.0144	6.3	1.5	5.0	45.0	1	10
336.0145	8.3	2.0	6.0	50.0	1	15
336.0146	10.4	2.5	6.0	50.0	1	20
336.0147	12.4	2.8	8.0	56.0	1	26
336.0148	16.5	3.2	10.0	60.0	1	36
336.0149	20.5	3.5	10.0	63.0	1	52
336.0150	25.0	3.8	10.0	67.0	1	62

HSS TiN Cone and deburrer 120°

- Form C
- Right hand cutting
- 120° Countersink angle
- Cylindrical shaft
- Deep ground flu es
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	g
336.0201	6.3	1.5	5.0	45.0	1	14
336.0202	8.3	2.0	6.0	50.0	1	14
336.0203	10.4	2.5	6.0	50.0	1	20
336.0204	12.4	2.8	8.0	56.0	1	28
336.0205	16.5	3.2	10.0	60.0	1	46
336.0206	20.5	3.5	10.0	63.0	1	54
336.0207	25.0	3.8	10.0	67.0	1	62

HSS THREADED TAP

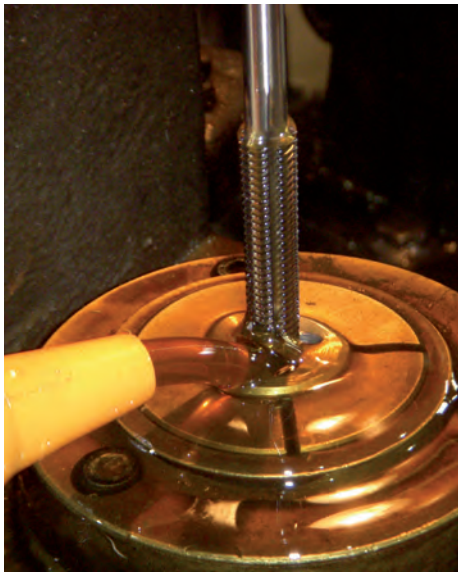
HSS hand drill tap set M

- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel

Ideally usably in high and low alloyed steel up to 800 N/mm² stability, cast iron and NE metals.

Taper tap: ca. 5 - 6 cutting gears
Second tap: ca. 4 - 5 cutting gears
Bottom tap: ca. 2 - 3 cutting gears

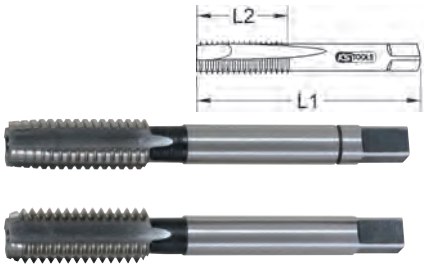
	mm	mm	L1 mm	Individual taper tap	Individual second tap	Individual bottom tap	L2 mm	g
331.0020	M2 x 0,4	1.60	36.0	331.0301	331.0321	331.0341	8.0	8
331.0025	M2,5 x 0,45	2.10	40.0	331.0302	331.0322	331.0342	8.0	10
331.0030	M3 x 0,5	2.50	40.0	331.0303	331.0323	331.0343	10.0	10
331.0035	M3,5 x 0,6	2.90	45.0	331.0304	331.0324	331.0344	12.0	10
331.0040	M4 x 0,7	3.30	45.0	331.0305	331.0325	331.0345	12.0	10
331.0050	M5 x 0,8	4.20	50.0	331.0306	331.0326	331.0346	13.0	30
331.0060	M6 x 1,0	5.00	56.0	331.0307	331.0327	331.0347	15.0	30
331.0070	M7 x 1,0	6.00	56.0	331.0308	331.0328	331.0348	16.0	30
331.0080	M8 x 1,25	6.80	63.0	331.0309	331.0329	331.0349	18.0	40
331.0100	M10 x 1,5	8.50	70.0	331.0310	331.0330	331.0350	24.0	70
331.0110	M11 x 1,5	8.50	70.0	331.0311	331.0331	331.0351	24.0	90
331.0120	M12 x 1,75	10.20	75.0	331.0312	331.0332	331.0352	29.0	110
331.0140	M14 x 2,0	12.00	80.0	331.0313	331.0333	331.0353	30.0	150
331.0160	M16 x 2,0	14.00	80.0	331.0314	331.0334	331.0354	32.0	200
331.0180	M18 x 2,5	15.50	95.0	331.0315	331.0335	331.0355	40.0	260
331.0200	M20 x 2,5	17.50	95.0	331.0316	331.0336	331.0356	40.0	330
331.0220	M22 x 2,5	19.50	100.0	331.0317	331.0337	331.0357	40.0	400
331.0240	M24 x 3,0	21.00	110.0	331.0318	331.0338	331.0358	45.0	470
331.0270	M27 x 3,0	24.00	110.0	331.0319	331.0339	331.0359	50.0	530
331.0300	M30 x 3,5	26.50	125.0	331.0320	331.0340	331.0360	56.0	600



HSS hand drill tap set MF

- DIN 2181
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes for cutting and threading
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel

Ideally usably in high and low alloyed steel up to 800 N/mm² stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears
Bottom tap: ca. 2 - 3 cutting gears

	mm	mm	L1 mm	Individual taper tap	Individual bottom tap	L2 mm	g
331.1101	MF3 x 0,35	2.60	40.0	331.1201	331.1301	10.0	10
331.1102	MF4 x 0,5	3.50	45.0	331.1202	331.1302	12.0	10
331.1103	MF5 x 0,5	4.50	50.0	331.1203	331.1303	13.0	20
331.1104	MF6 x 0,75	5.20	50.0	331.1204	331.1304	15.0	20
331.1105	MF7 x 0,76	6.20	50.0	331.1205	331.1305	14.0	20
331.1106	MF8 x 0,75	7.20	56.0	331.1206	331.1306	18.0	30
331.1107	MF8 x 1,0	7.00	56.0	331.1207	331.1307	18.0	30
331.1108	MF9 x 1,0	8.00	63.0	331.1208	331.1308	20.0	40
331.1109	MF10 x 1	9.00	63.0	331.1209	331.1309	18.0	50
331.1110	MF10 x 1,25	8.70	70.0	331.1210	331.1310	24.0	50
331.1111	MF11 x 1,0	9.20	63.0	331.1211	331.1311	22.0	60
331.1112	MF12 x 1,0	11.00	70.0	331.1212	331.1312	20.0	80
331.1113	MF12 x 1,25	10.70	70.0	331.1213	331.1313	20.0	80
331.1114	MF12 x 1,5	10.50	70.0	331.1214	331.1314	20.0	80
331.1115	MF14 x 1,0	13.00	70.0	331.1215	331.1315	20.0	100
331.1116	MF14 x 1,25	12.70	70.0	331.1216	331.1316	20.0	100
331.1117	MF14 x 1,5	12.50	70.0	331.1217	331.1317	20.0	100
331.1118	MF16 x 1,5	14.50	70.0	331.1218	331.1318	20.0	160
331.1119	MF18 x 1,0	17.00	80.0	331.1219	331.1319	22.0	190
331.1120	MF18 x 1,25	16.80	80.0	331.1220	331.1320	22.0	190
331.1121	MF18 x 1,5	16.50	80.0	331.1221	331.1321	22.0	190
331.1122	MF18 x 2,0	16.00	80.0	331.1222	331.1322	22.0	190
331.1123	MF20 x 1,0	19.00	80.0	331.1223	331.1323	22.0	250
331.1124	MF20 x 1,25	18.80	80.0	331.1224	331.1324	22.0	250
331.1125	MF20 x 1,5	18.50	80.0	331.1225	331.1325	22.0	250
331.1126	MF20 x 2,0	18.00	80.0	331.1226	331.1326	22.0	250

HSS hand drill tap set M in steel case

- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel
- Each size includes 1x second and bottom tap

Ideally usably in high and low alloyed steel up to 800 N/mm² stability, cast iron and NE metals.

Taper tap: ca. 5 - 6 cutting gears
Second tap: ca. 4 - 5 cutting gears
Bottom tap: ca. 2 - 3 cutting gears

			g
336.0621	21 pcs	M3 - M4 - M5 - M6 - M8 - M10 - M12	620

HSS hand drill tap set M in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel
- Each size includes 1x second and bottom tap

Ideally usably in high and low alloyed steel up to 800 N/mm² stability, cast iron and NE metals.

Taper tap: ca. 5 - 6 cutting gears
Second tap: ca. 4 - 5 cutting gears
Bottom tap: ca. 2 - 3 cutting gears

			g
336.0641	21 pcs	M3 - M4 - M5 - M6 - M8 - M10 - M12	620

HSS tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes tamperproof drill, thread gauge and screwdriver
- High performance steel

			kg
331.0644	44 pcs	HSS tap and die set in metal case	3.93
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		2,5 - 3,3 - 4,2 - 5 - 6,8 - 8,5 - 10,2 mm	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
5 x		M3-M4 - M4,5-M6 - M7-M9 - M10-M11 - M12-M14	
2 x		M1-M10 - M3-M12	
1 x			
1 x			

HSS tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance steel

			kg
331.0632	32 pcs	HSS tap and die set in metal case	1.32
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
1 x		M7 - M9	
1 x		M1 - M12	
1 x			
1 x			

HSS tap and die set in metal case

- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance steel

			kg
331.0654	54 pcs	HSS tap and die set in metal case	8.30
33 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M15 - M18 - M20	
11 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M15 - M18 - M20	
6 x		M3-M4 - M4,5-M6 - M7-M9 - M10-M11 - M12-M14 - M16-M20	
2 x		M1-M10 - M5-M20	
1 x			
1 x			

HSS CO THREADED TAP

HSS Co slitting tap and die M

- DIN 352 form B
- Tolerance according to ISO 2 / 6 H
- Right hand cutting
- Hard metal centre
- Metric thread
- Thread process by slicing the cutting edge
- Surface without discolouration
- High performance cobalt steel

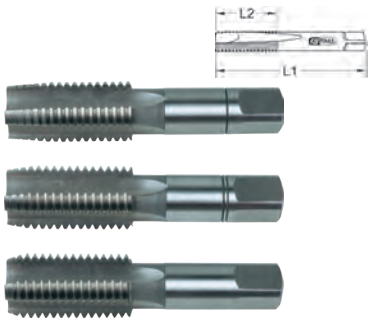
Ideally usably in high and low alloyed steel up to 900 N/mm² stability, cast iron and NE metals.

		mm	mm	L1 mm	L2 mm	Content	g
331.0223	M3 x 0,5	2.50	40.0	11.0	1	4	
331.0224	M4 x 0,7	3.30	45.0	13.0	1	7	
331.0225	M5 x 0,8	4.20	50.0	16.0	1	11	
331.0226	M6 x 1,0	5.00	50.0	19.0	1	13	
331.0228	M8 x 1,25	6.80	56.0	22.0	1	15	
331.0230	M10 x 1,5	8.50	70.0	24.0	1	30	
331.0232	M12 x 1,75	10.50	75.0	29.0	1	44	

HSS Co hand drill tap set M

- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance cobalt steel

Ideally usably in high and low alloyed steel up to 900 N/mm² stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears
Second tap: ca. 4 - 5 cutting gears
Bottom tap: ca. 2 - 3 cutting gears

	mm	mm	L1 mm	Individual taper tap	Individual second tap	Individual bottom tap	L2 mm	g
331.2020	M2 x 0,4	1.60	36.0	331.2301	331.3321	331.3341	8.0	10
331.2025	M2,5 x 0,45	2.10	40.0	331.2302	331.3322	331.3342	9.0	12
331.2030	M3 x 0,5	2.50	40.0	331.2303	331.3323	331.3343	11.0	12
331.2035	M3,5 x 0,6	2.90	45.0	331.2304	331.3324	331.3344	13.0	18
331.2040	M4 x 0,7	3.30	45.0	331.2305	331.3325	331.3345	13.0	20
331.2050	M5 x 0,8	4.20	50.0	331.2306	331.3326	331.3346	16.0	34
331.2060	M6 x 1,0	5.00	50.0	331.2307	331.3327	331.3347	19.0	40
331.2070	M7 x 1,0	6.00	50.0	331.2308	331.3328	331.3348	19.0	44
331.2080	M8 x 1,25	6.80	56.0	331.2309	331.3329	331.3349	22.0	48
331.2100	M10 x 1,5	8.50	70.0	331.2310	331.3330	331.3350	24.0	92
331.2110	M11 x 1,5	8.50	70.0	331.2311	331.3331	331.3351	24.0	112
331.2120	M12 x 1,75	10.20	75.0	331.2312	331.3332	331.3352	29.0	134
331.2140	M14 x 2,0	12.00	80.0	331.2313	331.3333	331.3353	30.0	200
331.2160	M16 x 2,0	14.00	80.0	331.2314	331.3334	331.3354	32.0	230
331.2180	M18 x 2,5	15.50	95.0	331.2315	331.3335	331.3355	40.0	365
331.2200	M20 x 2,5	17.50	95.0	331.2316	331.3336	331.3356	40.0	445
331.2220	M22 x 2,5	19.50	100.0	331.2317	331.3337	331.3357	40.0	470
331.2240	M24 x 3,0	21.00	110.0	331.2318	331.3338	331.3358	50.0	530
331.2270	M27 x 3,0	24.00	110.0	331.2319	331.3339	331.3359	50.0	565
331.2300	M30 x 3,5	26.50	125.0	331.2320	331.3340	331.3360	56.0	606

HSS Co hand drill tap set M in metal case

- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance cobalt steel
- Each size includes 1x second and bottom tap

Ideally usably in high and low alloyed steel up to 900 N/mm² stability, cast iron and NE metals.

Taper tap:	ca. 5 - 6 cutting gears
Second tap:	ca. 4 - 5 cutting gears
Bottom tap:	ca. 2 - 3 cutting gears

			g
336.0631	21 pcs	M3 - M4 - M5 - M6 - M8 - M10 - M12	620

HSS Co hand drill tap set M in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance cobalt steel
- Each size includes 1x second and bottom tap

Ideally usably in high and low alloyed steel up to 900 N/mm² stability, cast iron and NE metals.

Taper tap:	ca. 5 - 6 cutting gears
Second tap:	ca. 4 - 5 cutting gears
Bottom tap:	ca. 2 - 3 cutting gears

			g
336.0651	21 pcs	M3 - M4 - M5 - M6 - M8 - M10 - M12	620

HSS Co tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance cobalt steel

			kg
331.0732	32 pcs	HSS Co tap and die set in metal case	1.32
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
1 x		M7 - M9	
1 x		M1 - M12	
1 x			
1 x			

HSS Co tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance cobalt steel

			kg
331.0744	44 pcs	HSS Co tap and die set in metal case	3.93
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		2,5 - 3,3 - 4,2 - 5 - 6,8 - 8,5 - 10,2 mm	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
5 x		M3-M4 - M4,5-M6 - M7-M9 - M10 M11 - M12-M14	
2 x		M1-M10 - M3-M12	
1 x			
1 x			

HSS Co tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holderIncludes thread gauge and screwdriver
- High performance cobalt steel

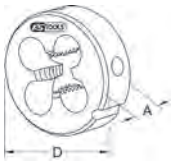
			kg
331.0754	54 pcs	HSS Co tap and die set in metal case	8.30
33 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 M14 - M15 - M18 - M20	
11 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 M14 - M15 - M18 - M20	
6 x		M3-M4 - M4,5-M6 - M7-M9 - M10 M11 - M12-M14 - M16-M20	
2 x		M1-M10 - M5-M20	
1 x			
1 x			

DIE STOCKS

HSS die M

- DIN EN 22568 Form B
- Tolerance according to ISO - 6g
- Right hand cutting
- Specifi ation, ground cutting edge
- Metric thread
- Surface without discolouration
- High performance steel

Ideally usably in high and low alloyed steel up to 800 N/mm² tensile

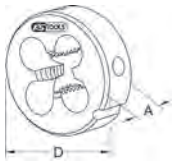


		A mm	D mm	Content	g
332.0030	M3 x 0,50	5.0	20.0	1	8
332.0040	M4 x 0,70	5.0	20.0	1	10
332.0050	M5 x 0,80	7.0	20.0	1	12
332.0060	M6 x 1,00	7.0	20.0	1	14
332.0070	M7 x 1,00	9.0	25.0	1	18
332.0080	M8 x 1,25	9.0	25.0	1	20
332.0090	M9 x 1,25	9.0	25.0	1	35
332.0100	M10 x 1,50	11.0	30.0	1	50
332.0120	M12 x 1,75	14.0	38.0	1	60
332.0140	M14 x 2,00	14.0	38.0	1	73
332.0160	M16 x 2,00	18.0	40.0	1	199
332.0180	M18 x 2,50	18.0	40.0	1	220
332.0200	M20 x 2,50	18.0	40.0	1	240

HSS die MF

- DIN EN 22568 form B
- Tolerance according to ISO - 6g
- Right hand cutting
- Specifi ation, ground cutting edge
- Metric fine thread
- Surface without discolouration
- High performance steel

Ideally usably in high and low alloyed steel up to 800 N/mm² stability and NE metals.

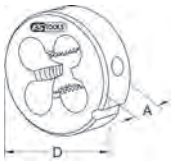


	mm	A mm	D mm	Content		
332.1000	M3 x 0,35	5.0	20.0	1	10	
332.1001	M4 x 0,5	5.0	20.0	1	10	
332.1002	M5 x 0,5	5.0	20.0	1	10	
332.1003	M6 x 0,75	7.0	20.0	1	10	
332.1004	M7 x 0,75	9.0	25.0	1	20	
332.1005	M8 x 0,75	9.0	25.0	1	20	
332.1006	M8 x 1,0	9.0	25.0	1	20	
332.1007	M9 x 1,0	9.0	25.0	1	20	
332.1008	M10 x 1,0	11.0	30.0	1	30	
332.1009	M10 x 1,25	11.0	30.0	1	30	
332.1010	M11 x 1,0	11.0	30.0	1	60	
332.1011	M12 x 1,0	11.0	38.0	1	80	
332.1012	M12 x 1,25	11.0	38.0	1	80	
332.1013	M12 x 1,5	11.0	38.0	1	80	
332.1014	M14 x 1,0	10.0	38.0	1	80	
332.1015	M14 x 1,25	10.0	38.0	1	80	
332.1016	M14 x 1,5	10.0	38.0	1	80	
332.1017	M16 x 1,0	14.0	45.0	1	100	
332.1018	M16 x 1,25	14.0	45.0	1	100	
332.1019	M16 x 1,5	14.0	45.0	1	100	
332.1020	M18 x 1,0	14.0	45.0	1	100	
332.1021	M18 x 1,25	14.0	45.0	1	100	
332.1022	M18 x 1,5	14.0	45.0	1	100	
332.1023	M18 x 2,0	14.0	45.0	1	100	
332.1024	M20 x 1,0	14.0	45.0	1	100	
332.1025	M20 x 1,25	14.0	45.0	1	100	
332.1026	M20 x 1,5	14.0	45.0	1	100	
332.1027	M20 x 2,0	14.0	45.0	1	100	

HSS Co die M

- DIN EN 22568 Form B
- Tolerance according to ISO - 6g
- Right hand cutting
- Specifi ation, ground cutting edge
- Metric thread
- Surface without discolouration
- High performance cobalt high speed steel

Ideally usably in high and low alloyed steel up to 900 N/mm² stability and NE metals.

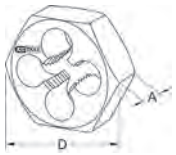


	mm	A mm	D mm	Content		
332.0001	M3 x 0,50	5.0	20.0	1	8	
332.0002	M4 x 0,70	5.0	20.0	1	10	
332.0003	M5 x 0,80	7.0	20.0	1	12	
332.0004	M6 x 1,00	7.0	20.0	1	14	
332.0005	M7 x 1,00	9.0	25.0	1	18	
332.0006	M8 x 1,25	9.0	25.0	1	20	
332.0007	M 9 x 1,25	9.0	25.0	1	35	
332.0008	M10 x 1,50	11.0	30.0	1	50	
332.0009	M12 x 1,75	14.0	38.0	1	60	
332.0010	M14 x 2,00	14.0	38.0	1	73	
332.0011	M16 x 2,00	18.0	45.0	1	199	
332.0012	M18 x 2,50	18.0	45.0	1	220	
332.0013	M20 x 2,50	18.0	45.0	1	220	

HSS hexagon die M

- DIN 382
- Tolerance according to ISO - 6g
- Right hand cutting
- Ground execution
- Metric thread
- Surface without discolouration
- High performance steel

Ideally usably in high and low alloyed steel up to 800 N/mm² stability and NE metals.

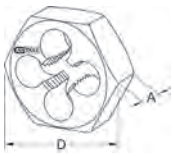


	mm	A mm	D mm	Content		
330.0030	M3 x 0,5	5.0	19.0	1	10	
330.0040	M4 x 0,7	5.0	19.0	1	10	
330.0050	M5 x 0,8	7.0	19.0	1	10	
330.0060	M6 x 1,0	7.0	19.0	1	10	
330.0070	M7 x 1,0	9.0	22.0	1	20	
330.0080	M8 x 1,25	9.0	22.0	1	20	
330.0090	M9 x 1,25	9.0	22.0	1	20	
330.0100	M10 x 1,5	11.0	27.0	1	40	
330.0110	M11 x 1,5	11.0	27.0	1	40	
330.0120	M12 x 1,75	14.0	36.0	1	80	
330.0140	M14 x 2,0	14.0	36.0	1	80	
330.0160	M16 x 2,0	18.0	41.0	1	90	
330.0180	M18 x 2,5	18.0	41.0	1	90	
330.0200	M20 x 2,5	18.0	41.0	1	90	

HSS hexagon die MF

- DIN 382
- Tolerance according to ISO - 6g
- Right hand cutting
- Ground execution
- Metric fine thread
- Surface without discolouration
- High performance steel

Ideally usably in high and low alloyed steel up to 800 N/mm² stability and NE metals.



	mm	A mm	D mm	Content		
333.0017	M3 x 0,35	5.0	19.0	1	20	
333.0018	M4 x 0,35	5.0	19.0	1	23	
333.0019	M4 x 0,5	5.0	19.0	1	27	
333.0020	M5 x 0,5	5.0	19.0	1	31	
333.0021	M5 x 0,75	7.0	19.0	1	32	
333.0022	M6 x 0,5	5.0	19.0	1	33	
333.0023	M7 x 0,75	9.0	22.0	1	35	
333.0024	M8 x 0,5	9.0	22.0	1	38	
333.0025	M8 x 0,75	9.0	22.0	1	41	
333.0026	M8 x 1,0	9.0	22.0	1	42	
333.0027	M9 x 0,75	9.0	22.0	1	45	
333.0028	M9 x 1,0	9.0	22.0	1	47	
333.0029	M10 x 0,75	11.0	27.0	1	50	
333.0031	M10 x 1,0	11.0	27.0	1	52	
333.0032	M10 x 1,25	11.0	27.0	1	55	
333.0033	M11 x 1,0	11.0	27.0	1	58	
333.0034	M11 x 1,25	11.0	27.0	1	60	
333.0035	M12 x 0,75	10.0	36.0	1	61	
333.0036	M12 x 1,0	10.0	36.0	1	63	
333.0037	M12 x 1,25	10.0	36.0	1	64	
333.0038	M12 x 1,5	10.0	36.0	1	66	
333.0039	M13 x 1,0	10.0	36.0	1	70	
333.0041	M13 x 1,5	10.0	36.0	1	72	
333.0042	M14 x 0,75	10.0	36.0	1	75	
333.0043	M14 x 1,00	10.0	36.0	1	78	
333.0044	M14 x 1,25	10.0	36.0	1	79	
333.0045	M14 x 1,5	10.0	36.0	1	82	

	mm	A mm	D mm	Content		
333.0046	M16 x 1,0	14.0	41.0	1	85	
333.0047	M16 x1,25	14.0	41.0	1	87	
333.0048	M16 x 1,5	14.0	41.0	1	90	
333.0049	M18 x 1,0	14.0	41.0	1	92	
333.0051	M18 x 1,25	14.0	41.0	1	94	
333.0052	M18 x 1,5	14.0	41.0	1	95	
333.0053	M18 x 2,0	14.0	41.0	1	97	
333.0054	M20 x 1,0	14.0	41.0	1	101	
333.0055	M20 x 1,25	14.0	41.0	1	103	
333.0056	M20 x 1,5	14.0	41.0	1	104	
333.0057	M20 x 2,0	14.0	41.0	1	107	
333.0058	M21 x 1,5	14.0	41.0	1	112	

TAP WRENCHES AND DIE HOLDERS

Adjustable tap wrench

- DIN 1814
- With two jaw collet chuck
- With steel rail
- Hardened clamping jaws
- Ideal to the thread cutting edge
- To that separating from thin sheet metals
- For diffi ult to access areas
- Die cast zinc housing

		L mm	Content		
331.0011	M1 - M8	130.0	1	90	
331.0029	M1 - M10	180.0	1	96	
331.0021	M1 - M12	180.0	1	110	
331.0012	M3 - M10	180.0	1	120	
331.0013	M3 - M12	200.0	1	220	
331.0014	M4 - M12	280.0	1	280	
331.0015	M5 - M20	380.0	1	400	
331.0016	M11 - M27	500.0	1	850	
331.0017	M13 - M32	700.0	1	1230	
331.0018	M19 - M38	1000.0	1	640	
331.0019	M25 - M52	1200.0	1	720	

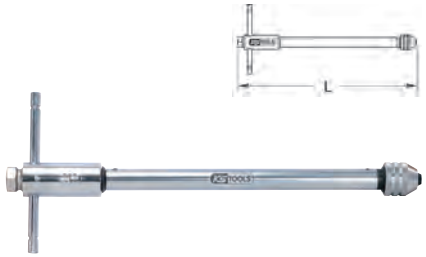
Ball tap holder

- For fast interchanging of the taps
- Square shaft according to DIN 10
- Die cast zinc housing

		L mm	Content		
331.0253	M1 - M4	200.0	1	82	
331.0254	M3,5 - M8	200.0	1	80	
331.0255	M4 - M10	240.0	1	175	
331.0256	M5 - M12	300.0	1	210	
331.0257	M9 - M16	340.0	1	350	
331.0258	M12 - M20	450.0	1	730	
331.0259	M18 - M27	650.0	1	950	

Die holder with exact gearing reversible ratchet head

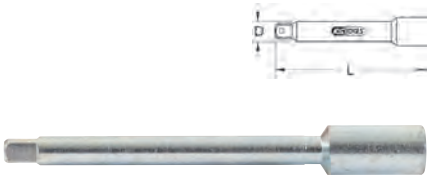
- Clockwise and anticlockwise action with positive adjustment
- With two jaw collet chuck
- With movable drive handle
- Ideal to the thread cutting edge
- For diffi ult to access areas
- Chrome plated and mirror polished
- Special steel



		L mm	Content	g	
331.0660	M3 - M10	85.0	1	190	
331.0665	M5 - M12	100.0	1	320	
331.0670	M3 - M10	250.0	1	250	
331.0675	M5 - M12	300.0	1	440	

Thread drilling extension

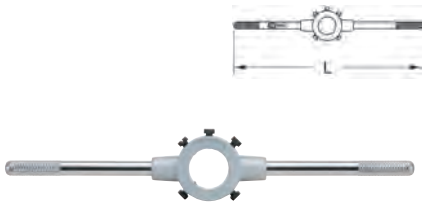
- DIN 377
- Hardened and ground execution
- Square shaft according to DIN 10
- For the extension of the hand threading tap
- High performance steel



		mm	D mm	L mm	Content	g	
331.0241	M1 - M2,6	2.1	2.5	60.0	1	10	
331.0242	M3	2.7	3.7	80.0	1	15	
331.0243	M4	3.4	4.5	95.0	1	40	
331.0244	M5 - M8	4.9	6.5	110.0	1	44	
331.0245	M9 - M10	5.5	7.0	115.0	1	55	
331.0246	M12	7.0	9.0	125.0	1	120	
331.0247	M13 - M16	9.0	12.0	135.0	1	135	
331.0248	M18	11.0	14.0	150.0	1	150	
331.0249	M20	12.0	16.0	155.0	1	175	

Die holder

- DIN 225
- Reinforcement of the cutting edge through iron screws
- With steel rail
- Die cast zinc housing



		L mm	Content	g	
331.0001	M1- M2,6	160.0	1	60	
331.0002	M3 - M4	195.0	1	60	
331.0003	M4,5 - M6	195.0	1	70	
331.0004	M7 - M9	215.0	1	100	
331.0005	M10 - M11	260.0	1	220	
331.0006	M12 - M14	315.0	1	280	
331.0007	MF12 - MF14	315.0	1	260	
331.0008	M16 - M20	445.0	1	480	
331.0009	MF16 - MF20	445.0	1	460	
331.0022	MF22 - MF24	160.0	1	860	
331.0023	M22 - M24	160.0	1	840	
331.0024	MF27 - MF36	160.0	1	1230	
331.0026	M27 - M36	160.0	1	1190	

Threading die adaptor set

- Universal use for round cutting dies according to DIN E 22568 form B
- Slim design
- Ideal for diffi ult to access areas
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Includes extension and locking knob
- Special steel
- In durable plastic storage case

			kg	
331.0620	8 pcs	Threading die adaptor set	1.94	

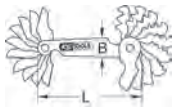
consists of:

		g	
331.0621	Die adaptor, M3-M6, 24mm	60	
331.0622	Die adaptor, M7-M8, 24mm	50	
331.0623	Die adaptor, M9-M10, 24mm	90	
331.0624	Die adaptor, M11-M14, 41mm	230	
331.0625	Die adaptor, M18-M20, 41mm	360	
331.0626	Die adaptor, M22-M24, 41mm	430	
331.0627	Toggle f.extension f.die adaptor	120	
331.0628	1/2" extension f.die adaptor	250	

THREAD GAUGES

Thread gauge

- For controlling and increasing the interior thread and outside thread
- Imperial sizes
- Cylindrical tapered
- Leaves fan shaped arrangement
- Leaves individually marked with size
- Out of hardened spring steel



	Tooth pitch	Measuring range	B mm	L mm	g	
301.0090	22	4-4,5-5-6-7-8-9-10-11-12-13-14-16-18 20-22-24-32-40-48-56-64mm	12.2	66.5	40	
301.0095	20	0,40-0,45-0,50-0,60-0,70-0,75-0,80-1,00-1,25-1,50-1,75-2,00-2,50-3,00-3,50-4,00-4,50-5,00-5,50-6,00mm	12.2	66.5	40	

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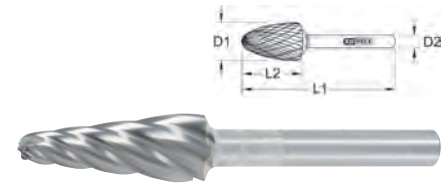
ROTARY BURRS

Round cone rotary burr form L for aluminium alloys, long

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 r.p.m.)
- Smooth running

To that fill ted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fibe -reinforced plastics GFK/CFK, thermoplastics, hard rubber



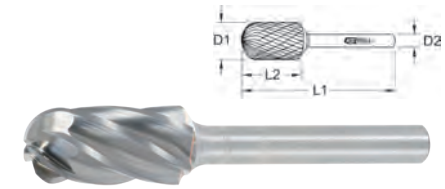
	D1 mm	D2 mm	L1 mm	L2 mm	Content	g	
515.3291	12.0	6.0	65.0	25.0	1	35	

Round milling rotary burr form C for aluminium alloys

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 r.p.m.)
- Smooth running

To that fill ted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fibe -reinforced plastics GFK/CFK, thermoplastics, hard rubber



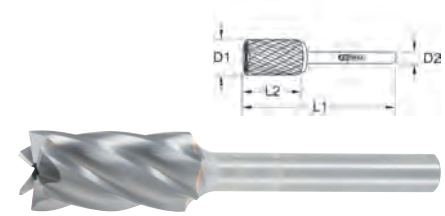
	D1 mm	D2 mm	L1 mm	L2 mm	Content	g	
515.3292	12.0	6.0	65.0	25.0	1	45	

Cylinder rotary burr form A with spur gearing for aluminium alloys

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 r.p.m.)
- Smooth running

To that fill ted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fibe -reinforced plastics GFK/CFK, thermoplastics, hard rubber



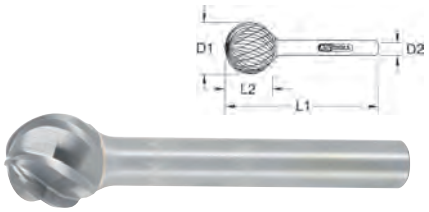
	D1 mm	D2 mm	L1 mm	L2 mm	Content	g	
515.3293	12.0	6.0	65.0	25.0	1	46	

Round milling rotary burr form D for aluminium alloys

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 r.p.m.)
- Smooth running

To that fill ted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fibe -reinforced plastics GFK/CFK, thermoplastics, hard rubber



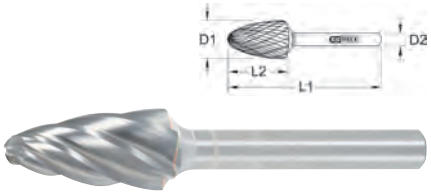
	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3294	12.0	6.0	50.0	10.0	1	27

Round cone rotary burr form L for aluminium alloys, short

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 r.p.m.)
- Smooth running

To that fill ted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fibe -reinforced plastics GFK/CFK, thermoplastics, hard rubber



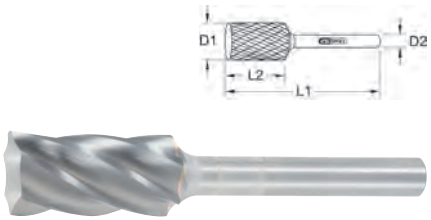
	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3295	12.0	6.0	65.0	25.0	1	37

Cylinder rotary burr form A without spur gearing

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 r.p.m.)
- Smooth running

To that fill ted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fibe -reinforced plastics GFK/CFK, thermoplastics, hard rubber



	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3296	12.0	6.0	65.0	25.0	1	47

Milling burr set for aluminum alloys in plastic case

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 r.p.m.)
- Smooth running

To that fill ted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fibe -reinforced plastics GFK/CFK, thermoplastics, hard rubber

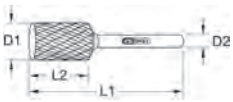
			g
515.3290	3 pcs	Milling burr set for aluminum alloys in plastic case	101

1 x		12 mm
1 x		12 mm
1 x		12 mm

Hard metal cylinder rotary burr form A without spur gearing

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Without spur gearing
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3221	3.0	3.0	38.5	13.0	1	3
515.3222	6.0	6.0	61.0	16.0	1	16
515.3223	8.0	6.0	65.0	20.0	1	21
515.3224	10.0	6.0	65.0	20.0	1	30
515.3225	12.0	6.0	70.0	25.0	1	57
515.3226	16.0	6.0	70.0	25.0	1	81

Hard metal cylinder rotary burr form A with spur gearing

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- With face gearing
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

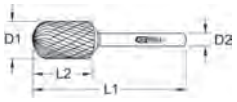
To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3231	3.0	3.0	38.5	13.0	1	3
515.3232	6.0	6.0	61.0	16.0	1	16
515.3233	8.0	6.0	65.0	20.0	1	21
515.3234	10.0	6.0	65.0	20.0	1	30
515.3235	12.0	6.0	70.0	25.0	1	57
515.3236	16.0	6.0	70.0	25.0	1	81

Hard metal round milling rotary burr form C

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

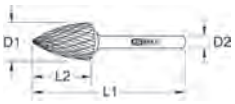


	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3241	3.0	3.0	38.5	13.0	1	3
515.3242	6.0	6.0	61.0	16.0	1	16
515.3243	8.0	6.0	65.0	20.0	1	22
515.3244	10.0	6.0	70.0	20.0	1	28
515.3245	12.0	6.0	70.0	25.0	1	40
515.3246	16.0	6.0	70.0	25.0	1	60

Hard metal pointed arch rotary burr form G

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

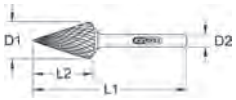


	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3251	3.0	3.0	38.5	13.0	1	3
515.3252	6.0	6.0	63.0	18.0	1	13
515.3253	8.0	6.0	65.0	20.0	1	19
515.3254	10.0	6.0	65.0	20.0	1	22
515.3255	12.0	6.0	70.0	25.0	1	33
515.3256	16.0	6.0	70.0	25.0	1	47

Hard metal tip cone milling burr form M

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3271	3.0	3.0	38.5	11.0	1	3
515.3272	6.0	6.0	63.0	18.0	1	12
515.3273	8.0	6.0	65.0	20.0	1	15
515.3274	10.0	6.0	65.0	20.0	1	18
515.3275	12.0	6.0	70.0	25.0	1	26
515.3276	16.0	6.0	70.0	25.0	1	37

Hard metal milling burr set in steel case

- High strength hinge
- 6 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

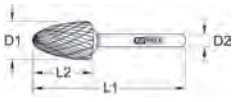
To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

			g
515.3203	3 pcs	Hard metal milling burr set in steel case	590
1 x		10 mm	
1 x		10 mm	
1 x		10 mm	

Hard metal round arch rotary burr form F

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

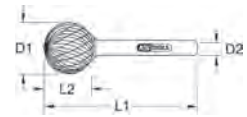


	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3261	3.0	3.0	38.5	13.0	1	3
515.3262	6.0	6.0	61.0	16.0	1	15
515.3263	8.0	6.0	65.0	20.0	1	20
515.3264	10.0	6.0	65.0	20.0	1	24
515.3265	12.0	6.0	70.0	25.0	1	32
515.3266	16.0	6.0	70.0	25.0	1	52

Hard metal ball milling burr form D

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



	D1 mm	D2 mm	L1 mm	L2 mm	Content	g
515.3281	3.0	3.0	38.5	2.7	1	3
515.3282	6.0	6.0	51.0	5.0	1	11
515.3283	8.0	6.0	53.0	7.0	1	12
515.3284	10.0	6.0	54.0	9.0	1	16
515.3285	12.0	6.0	56.0	10.0	1	24
515.3286	16.0	6.0	60.0	14.0	1	59

Hard metal milling burr set in steel case

- High strength hinge
- 3 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

			g
515.3207	7 pcs	Hard metal milling burr set in steel case	590
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	

Hard metal milling burr set in steel case

- High strength hinge
- 6 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

			g
515.3210	10 pcs	Hard metal milling burr set in steel case	590

2 x		8 - 10 mm
2 x		8 - 10 mm
2 x		8 - 10 mm
1 x		10 mm
1 x		10 mm
1 x		10 mm
1 x		8 mm

Hard metal milling burr set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- 6 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

To that fill ted, edges break, plasters, welded seams and area preparation.
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

			g
515.3220	10 pcs	Hard metal milling burr set in plastic case	590

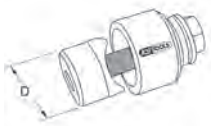
2 x		8 - 10 mm
2 x		8 - 10 mm
2 x		8 - 10 mm
1 x		10 mm
1 x		10 mm
1 x		10 mm
1 x		8 mm

SCREW HOLE PUNCHES

Screw hole punch

- 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For diffi ult to access areas
- Burnished surface
- Special tool steel

Ideally usably in V2A sheet to 1.5 mm, aluminum, copper, steel as well as stainless steel and plastics. The sheet metal thicknesses can be exceeded at the expense of screw. Especially suited for burr free, clean, effortless and fast punching.

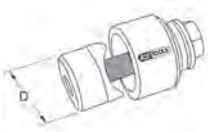


	D mm	Standard	Replacement tension screw	Tension srew		Tapping hole	Content	g
129.0012	12.5	ISO 12	129.0001	MF 8 x 1 x 55,0	9	1	72	
129.0013	12.7	PG7	129.0001	MF 8 x 1 x 55,0	9	1	73	
129.0015	15.2	PG9	129.0001	MF 8 x 1 x 55,0	9	1	94	
129.0016	16.0	ISO 16	129.0001	MF 8 x 1 x 55,0	9	1	96	
129.0018	18.6	PG11	129.0001	MF 8 x 1 x 55,0	9	1	112	
129.0020	20.4	PG13	129.0002	MF 12 X 1,5 X 55	13	1	160	
129.0021	20.5	ISO 20	129.0002	MF 12 X 1,5 X 55	13	1	161	
129.0022	22.5	PG16	129.0002	MF 12 X 1,5 X 65	13	1	164	
129.0025	25.4	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	185	
129.0026	25.5	ISO 25	129.0002	MF 12 X 1,5 X 65	13	1	186	
129.0028	28.3	PG21	129.0002	MF 12 X 1,5 X 65	13	1	212	
129.0030	30.5	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	250	
129.0032	32.5	ISO 32	129.0002	MF 12 X 1,5 X 65	13	1	252	
129.0035	35.0	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	378	
129.0037	37.0	PG29	129.0002	MF 12 X 1,5 X 65	13	1	380	
129.0038	38.0	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	394	
129.0040	40.5	ISO 40	129.0002	MF 12 X 1,5 X 65	13	1	398	
129.0047	47.0	PG36	129.0003	MF 16 x 1,5 x 75,0	18	1	834	
129.0050	50.5	ISO 50	129.0003	MF 16 x 1,5 x 75,0	18	1	768	
129.0054	54.0	PG42	129.0003	MF 16 x 1,5 x 75,0	18	1	964	

Screw hole punch with ball bearing

- Ball bearing
- 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For diffi ult to access areas
- Burnished surface
- Special tool steel

Ideal for use in V2A steel plates up to 1,5 mm, aluminum, copper, steel and iron to 2,0 mm and stainless steel and plastic sinks. The sheet metal thicknesses can be exceeded at the expense of screw. Especially suited for burr free, clean, effortless and fast punching.



	D mm	Standard	Replacement ball bearing screw #	Ball bearing screw		Tapping hole	Content	g
129.0312	12.5	ISO 12	129.0301	MF 8 x 1 x 55,0	9	1	74	
129.0313	12.7	PG7	129.0301	MF 8 x 1 x 55,0	9	1	75	
129.0315	15.2	PG9	129.0301	MF 8 x 1 x 55,0	9	1	96	
129.0316	16.0	ISO 16	129.0301	MF 8 x 1 x 55,0	9	1	98	
129.0318	18.6	PG11	129.0301	MF 8 x 1 x 55,0	9	1	114	
129.0320	20.4	PG13	129.0302	MF 12 x 1,5 x 55,0	13	1	174	
129.0321	20.5	ISO 20	129.0302	MF 12 x 1,5 x 55,0	13	1	175	
129.0322	22.5	PG16	129.0302	MF 12 x 1,5 x 65,0	13	1	178	
129.0325	25.4		129.0302	MF 12 x 1,5 x 65,0	13	1	200	
129.0326	25.5	ISO 25	129.0302	MF 12 x 1,5 x 65,0	13	1	202	
129.0328	28.3	PG21	129.0302	MF 12 x 1,5 x 65,0	13	1	226	
129.0330	30.5		129.0302	MF 12 x 1,5 x 65,0	13	1	264	
129.0332	32.5	ISO 32	129.0302	MF 12 x 1,5 x 65,0	13	1	266	
129.0335	35.0		129.0302	MF 12 x 1,5 x 65,0	13	1	392	
129.0337	37.0	PG29	129.0302	MF 12 x 1,5 x 65,0	13	1	408	
129.0338	38.0		129.0302	MF 12 x 1,5 x 65,0	13	1	409	
129.0340	40.5	ISO 40	129.0302	MF 12 x 1,5 x 65,0	13	1	412	
129.0347	47.0	PG36	129.0303	MF 16 x 1,5 x 75,0	18	1	890	
129.0350	50.5	ISO 50	129.0303	MF 16 x 1,5 x 75,0	18	1	780	
129.0354	54.0	PG42	129.0303	MF 16 x 1,5 x 75,0	18	1	1020	
129.0360	60.0	PG48	129.0304	MF 20 x 1,5 x 80,0	22	1	1084	
129.0363	63.5	ISO 63	129.0304	MF 20 x 1,5 x 80,0	22	1	1162	

HOLESAWS

HSS arbor accessories

- For HSS and HSS Co Bi metal hole saws
- Includes pilot drill
- High performance steel

	Ø mm	Shank mm	Profile	g
129.5501	14,0 - 30,0	6,4		60
129.5502	14,0 - 30,0	9,5		80
129.5503	14,0 - 30,0	11,0		80
129.5505	32,0 - 152,0	11,0		260
129.5504	32,0 - 210,0	16,0		250

Replacement pilot drills for HSS and HSS Co Bi metal hole saws

- For HSS and HSS Co Bi metal hole saws
- High performance steel

	Ø mm	L mm	Content	g
129.5525	6,3	105.0	1	20
129.5526	6,3	75.0	1	10

Extension for HSS and HSS Co Bi metal hole saws

- For HSS and HSS Co Bi metal hole saws
- High performance steel

	L mm	Content	g
129.5520	300.0	1	350

HSS Bi metal holesaws

- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal

Suitable for low alloyed steel up to 700 N/mm² stability, plaster, light construction-, fib e and chipboard as well as wood processing, non ferrous metals and light alloys.

	D mm	Cutting depth mm	Passage Ø	Imperial tube Ø inch	Content	g
129.5014	14.0	38.0		9/16"	1	30
129.5016	16.0	38.0	PG9	5/8"	1	30
129.5017	17.0	38.0		11/16"	1	30
129.5019	19.0	38.0	PG11	3/4"	1	40
129.5020	20.0	38.0		25/32"	1	40
129.5021	21.0	38.0	PG13,5	13/16"	1	50
129.5022	22.0	38.0		7/8"	1	50
129.5024	24.0	38.0	PG16	15/16"	1	60
129.5025	25.0	38.0		1"	1	60
129.5027	27.0	36.0		1.1/16"	1	70
129.5029	29.0	36.0	PG21	1.1/8"	1	70
129.5030	30.0	36.0		1.3/16"	1	80
129.5032	32.0	36.0		1.1/4"	1	80
129.5033	33.0	36.0		1.5/16"	1	80
129.5035	35.0	36.0		1.3/8"	1	90
129.5037	37.0	36.0	PG29	1.7/16"	1	120
129.5038	38.0	36.0		1.1/2"	1	120
129.5040	40.0	36.0		1.9/16"	1	120
129.5041	41.0	36.0		1.5/8"	1	120
129.5043	43.0	36.0		1.11/16"	1	120
129.5044	44.0	36.0		1.3/4"	1	120
129.5045	45.0	36.0		1.25/32"	1	135
129.5046	46.0	36.0		1.13/16"	1	140
129.5048	48.0	36.0	PG36	1.7/8"	1	150
129.5050	50.0	32.0		1.31/32"	1	150
129.5051	51.0	32.0		2"	1	150
129.5052	52.0	32.0		2.1/16"	1	150
129.5054	54.0	32.0	PG42	2.1/8"	1	150
129.5055	55.0	32.0	PG9	2.3/16"	1	150
129.5057	57.0	32.0		2.1/4"	1	160
129.5059	59.0	32.0		2.5/16"	1	160
129.5060	60.0	32.0	PG48	2.3/8"	1	170
129.5064	64.0	32.0		2.1/2"	1	190
129.5065	65.0	32.0		2.9/16"	1	200
129.5067	67.0	32.0		2.5/8"	1	200
129.5068	68.0	32.0		2.22/32"	1	200
129.5070	70.0	32.0		2.3/4"	1	210
129.5073	73.0	32.0		2.7/8"	1	250
129.5075	75.0	32.0		2.31/32"	1	250
129.5076	76.0	32.0		3"	1	250
129.5079	79.0	32.0		3.1/8"	1	250
129.5083	83.0	32.0		3.1/4"	1	260
129.5086	86.0	32.0		3.3/8"	1	260
129.5089	89.0	32.0		3.1/2"	1	290
129.5092	92.0	32.0		3.5/8"	1	320
129.5095	95.0	32.0		3.3/4"	1	370
129.5098	98.0	32.0		3.7/8"	1	390
129.5100	100.0	32.0		3.31/32"	1	410
129.5102	102.0	32.0		4"	1	420
129.5105	105.0	32.0		4.1/8"	1	450
129.5108	108.0	32.0		4.1/4"	1	450
129.5111	111.0	32.0		4.3/8"	1	460
129.5114	114.0	32.0		4.1/2"	1	480
129.5121	121.0	32.0		4.3/4"	1	500
129.5127	127.0	32.0		5"	1	650
129.5140	140.0	32.0		5.1/2"	1	650
129.5146	146.0	32.0		5.3/4"	1	650
129.5152	152.0	32.0		6"	1	700

Electrians hole saw set in plastic box

- Includes hole saw arbor
- With integral clasp
- High strength hinge
- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal

Suitable for high and low alloyed steel up to 700 N/mm² stability, plaster, light construction, MDF and chipboard as well as wood processing, non ferrous metal and light alloy.
For use within electrical trades.

			kg
129.5570	8 pcs	Electrians hole saw set in plastic box	1.35
6 x		22 - 29 - 35 - 44 - 51 - 68 mm	
1 x		14 - 30 mm	
1 x		32 - 152 mm	

Plumbing hole saw set in plastic box

- Includes hole saw arbor
- With integral clasp
- High strength hinge
- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal

Suitable for high and low alloyed steel up to 700 N/mm² stability, plaster, light construction, MDF and chipboard as well as wood processing, non ferrous metal and light alloy.
For use within plumbing trades.

			kg
129.5575	9 pcs	Plumbing hole saw set in plastic box	1.38
7 x		19 - 22 - 29 - 38 - 44 - 51 - 57 mm	
1 x		14 - 30 mm	
1 x		32 - 152 mm	

Universal hole saw set in plastic box

- Inclusive hole saw arbor and extension
- With integral clasp
- High strength hinge
- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal

Suitable for high and low alloyed steel up to 700 N/mm² stability, plaster, light construction, MDF and chipboard as well as wood processing, non ferrous metal and light alloy.
For the use in the areas electric, sanitary, plumbing building and heating.

			kg
129.5580	15 pcs	Universal hole saw set in plastic box	3.49
12 x		19 - 22 - 25 - 29 - 32 - 35 - 38 - 44 51 - 57 - 64 - 68 mm	
1 x		14 - 30 mm	
1 x		32 - 152 mm	
1 x		300 mm	

HANDSAWS

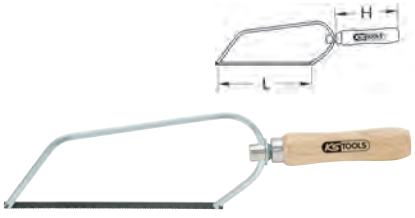
Small handsaw

- With 32 teeth
- For metal
- With wooden handle
- Includes saw blade

	L mm	H mm		g
997.1215	150.0	130.0	997.1214/16	100

Small handsaw with adjustable wooden handle

- With 32 teeth
- For metal
- With adjustable wooden handle
- Includes saw blade



	L mm	H mm		g
997.1217	150.0	90.0	997.1214/16	100

Sawblade

- With 32 teeth

Suitable for: all metals

	L mm	Content	g
997.1214	150.0	12	36

Sawblade

- With 25 teeth

Suitable for: wood, aluminium, plastics and plaster

	L mm	Content	g
997.1216	150.0	12	40

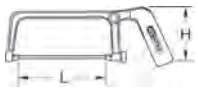
Small handsaw frame

- With 24 teeth
- With red plastic handle cover
- Includes universal saw blade
- For wood, metal, aluminum, plastic and plaster
- Surface black powder coating

	L mm	H mm		g
997.1210	150.0	90.0	907.2131	130

Small hand saw frame

- With 24 teeth
- With black plastic handle cover
- Includes universal saw blade
- For plastic, metal and aluminium



	L mm	H mm		g
907.2130	150.0	90.0	907.2131	140

Universal sawblade for small handsaw frame

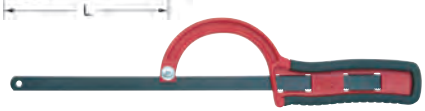
- With 24 teeth

For: plastic, metal and aluminium

	L mm	Content	g
907.2131	150.0	1	10

Metal handsaw frame

- Especially suitable for narrow hard to access areas
- Mode of operation such as key hole sawing
- With two component handle
- Includes universal saw blade
- For plastic, metal and aluminium



	L mm	H mm		g
907.2125	300.0	160.0	129.6620-24	110

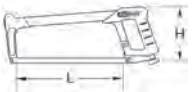
Hack saw frame

- Easy usage
- With hand protection and thumb support
- Includes magazine for saw blades
- With jigsaw function
- Saw blade can be set at 45° or 90°
- Includes HSS Bi metal sawblade

		H mm		g
907.2100	45 or 90	130.0	129.6620-24	270

Hack saw frame

- Easy usage
- With hand protection and thumb support
- Includes magazine for saw blades
- With jigsaw function
- Saw blade can be set at 45° or 90°
- With two component handle
- Includes HSS Bi metal sawblade



	L mm	H mm		g
907.2102	300.0	130.0	129.6620-24	270

Quick release hacksaw frame

- With fast blade clamping device
- Easy usage
- With hand protection and thumb support
- Includes magazine for saw blades
- With jigsaw function
- Saw blade can be set at 45° or 90°
- With ergonomic handle
- Includes HSS Bi metal sawblade

	L mm	H mm		g
907.2110	300.0	135.0	129.6620-24	750

Hack saw frame

- With hand protection
- Includes jigsaw function
- With ergonomic handle
- Includes saw blade

	L mm	H mm		g
907.2115	300.0	130.0	129.6620-24	270

Hack saw frame set in display

- Including safety universal blade
- With hand protection
- Includes jigsaw function
- With ergonomic handle
- Includes saw blade

			kg
907.2103	3 pcs	Hack saw frame set in display	1.03

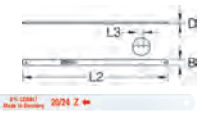
PVC handsaw

- With hand protection
- With ergonomic handle
- Includes saw blade

	L mm	H mm	g
907.1105	300.0	130.0	200
907.1106	450.0	190.0	360

HSS Bi Co 8 metal high performance saw blades

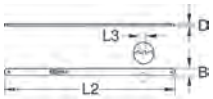
- Variable tooth pitch
- Very fl xible
- For cutting metal and steel
- Cobalt alloyed HSS Bi metal



	No. teeth	B mm	D mm	L2 mm	L3 mm	Content	g
129.6620V	288	13.0	0,6	300.0	1,0-1,3	1	20

HSS Bi Co 8 metal high performance saw blades

- Very fl xible
- For cutting metal and steel
- Cobalt alloyed HSS Bi metal



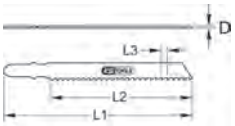
	No. teeth	B mm	D mm	L2 mm	L3 mm	Content	g
129.6620-18	216	13.0	0,6	300.0	1,4	1	20
129.6620-24	288	13.0	0,6	300.0	1,0	1	20
129.6620-32	384	13.0	0,6	300.0	0,8	1	20

JIGSAW BLADES

Jigsaw blades

- Cleaner, fast and fine ut
- Chrome vanadium

In the style of: AEG® 274351, Bosch® T101D, Metabo® 23635, Lenox® CF456S, Milwaukee® 48-42-5500
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

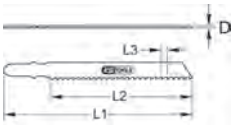
Suitable for:
planned, hard and plywood 5 to 30 mm
laminated wood composition board
plastic

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3101	30	100.0	75.0	2,5	1,5	5	40

Jigsaw blades

- Cleaner, fast and fine ut
- Chrome vanadium

In the style of: AEG® 274351, Bosch® T101D, Metabo® 23635, Lenox® CF456S, Milwaukee® 48-42-5500
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

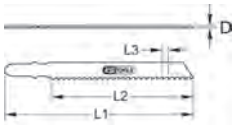
Suitable for:
planned, hard and plywood 8 to 60 mm
plastic
wooden types

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3103	18	100.0	75.0	4,0	1,5	5	30

Jigsaw blades

- Very clean and fast cut
- Chrome vanadium

In the style of: Bosch® T301D, Metabo® 23654
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

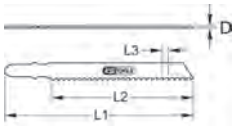
Suitable for:
soft and hardwood 8 to 75 mm
wood fib e board 8 to 75 mm
plastic

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.31035	21	115.0	95.0	4,0	1,5	5	30

Jig saw blades

- Clean and fast cut
- Extra strong blade
- Ideal for angled and parallel cutting

In the style of: Bosch® T101DP, Metabo® 23655
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

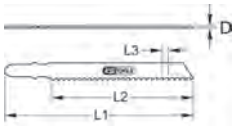
Suitable for:
soft, hard and plywood
wooden composites
wood fib e board 6 to 60 mm
Plastic

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3103S	18	100.0	75.0	4,0	1,7	5	30

Jigsaw blades

- Faster, straight and clean cut
- Chrome vanadium

In the style of: AEG® 213116, Bosch® T144D, Metabo® 23633, Milwaukee® 48-42-5421
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for:
planned, hard and plywood 8 to 60 mm
MDF

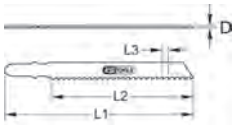
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3104	18	100.0	75.0	4,0	1,3	5	40

Jigsaw blades curved cut

- Fast and clean cut
- Ideal for curved cutting
- Chrome vanadium

In the style of: Bosch® T244D, Metabo® 23649, Milwaukee® 48-42-5512

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

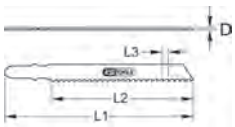
Suitable for:
soft and hardwood 8 to 60 mm
MDF

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3105	18	100.0	75.0	4,0	1,3	5	30

Jigsaw blade

- Fast coarse cut
- Chrome vanadium

In the style of: AEG 254071, Bosch T111C, Metabo 23632, Milwaukee 48-42-5200
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

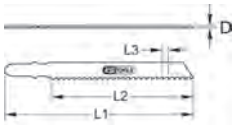
Suitable for:
soft and hardwood 5 to 60 mm
plastic

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3106	24	100.0	75.0	3,0	1,3	5	30

Bi metal jigsaw blades

- Variable tooth pitch
- Straight cut
- Extra long blade
- For different strength materials

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

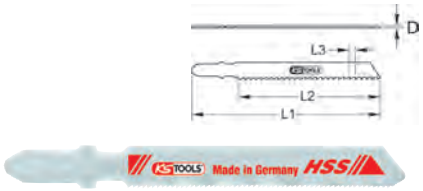
Suitable for:
soft and hardwood 3 to 95 mm
wood with nails and kitchen worktops
steel and stainless steel

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3150F	63	132.0	110.0	1,8 - 2,5	1,3	5	50

Jigsaw blade

- Straight cut
- Ideal for very thin material
- High performance steel

In the style of: AEG® 274652, Bosch® T118G, Metabo® 23636
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: wood and aluminium 0.9 to 1.2 mm; thin sheet metals; non ferrous metal

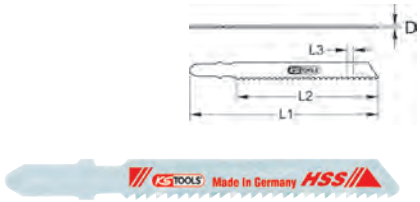
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3110	56	75.0	50.0	0,9	1,0	5	40

Bi metal jigsaw blades

- Straight cut
- For thick material

In the style of: AEG® 254064, Bosch® T118B, Metabo® 23638, Milwaukee® 48-42-5101

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: mild steel and aluminum from 3 to 6 mm; fabric-base plastics; non ferrous metal

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3113	24	75.0	50.0	2,0	1,0	5	30

Jigsaw blades

- Fast and exact cuts
- Ideal for aluminium

In the style of: AEG® 254315, Bosch® T127D, Metabo® 23639
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®

Technical data:

Suitable for: non ferrous metal and aluminium; plastic and eternit 2 to 20 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3118	24	100.0	75.0	3,0	1,15	5	40

Jigsaw blade

- Straight cut
- For thin material
- High performance steel

In the style of: AEG® 254063, Bosch® T118A, Metabo® 23637
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®

Technical data:

Suitable for: mild steel and aluminum; non ferrous metal 1.5 to 3.0 mm; stainless steel

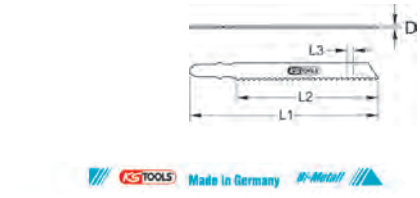
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3111	56	75.0	50.0	0,9	1,0	5	40

Bi metal jigsaw blades

- Straight cut
- Stainless steel

In the style of: Bosch® T111HF, Lenox® 410S

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: mild steel and aluminum; steel and non ferrous metal; stainless steel 3 to 12 mm; wooden with nails

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.31135F	36	100.0	75.0	2,0	1,0	5	40

Bi metal jigsaw blades

- Faster and straight cut
- Flexible and shatter proof
- Ideal for aluminium
- Stainless steel

In the style of: Bosch® T127DF, Metabo® 23974, Lenox® 406S, Milwaukee® 48-42-5300
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®

Technical data:

Suitable for: non ferrous metal and aluminium; plastic and eternit 3 to 15 mm; wooden with nails

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3118F	24	100.0	75.0	3,0	1,27	5	40

Bi metal jigsaw blades

- For thin material
- Straight cut
- Flexible and shatter proof
- Long service life

In the style of: Bosch® T118AF, Metabo® 23971, Lenox® 324S, Milwaukee® 48-42-5161
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®

Technical data:

Suitable for: mild steel and aluminum; non ferrous metal and steel 1,5 to 3 mm; stainless steel

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3111F	42	75.0	50.0	1,2	1,0	5	40

Jigsaw blades

- Clean cut
- Ideal for perspex
- High performance steel

In the style of: AEG® 274651, Bosch® T101A, Metabo® 23640
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®

Technical data:

Suitable for: non ferrous metal and aluminium 2 to 20 mm; stainless steel 2 to 10 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.3116	36	100.0	75.0	2,0	1,27	5	40

Jigsaw blades

- Flexible and shatter proof
- Suitable for:
- Non ferrous metal and stainless steel
- Steel sheet and car body panels
- Compression moulded material and formica

Suitable for: Ober, KS, Pneutec, CP, KS 515.3000 und 515.3200

	No. teeth	TPI	D mm	L mm	Content	g
129.3740	80	32	1,0	100.0	5	30
129.3742	60	24	1,0	100.0	5	30
129.3744	45	18	1,0	100.0	5	30
129.3746	35	14	2,0	100.0	5	30

Jigsaw blades

- Flexible and shatter proof
- Suitable for:
- Non ferrous metal and stainless steel
- Steel sheet and car body panels
- Compression moulded material and formica

Suitable for: SIG und Flex

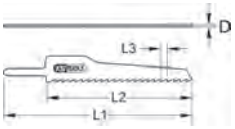
	No. teeth	TPI	D mm	L mm	Content	g
129.3750	80	32	0,7	100.0	5	20
129.3752	60	24	1,0	100.0	5	20
129.3754	45	18	1,4	100.0	5	20
129.3756	35	14	1,8	100.0	5	20

SABRE SAW BLADES

Sabre saw blades curved cut

- Fast cut
- With hardened teeth
- Ideal for aluminium

In the style of: AEG® 318-127, Bosch® S811H, Metabo® 31123, Flex® 200778
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

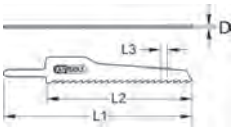
Suitable for: non ferrous metal and aluminium
wood and chip chipboard 6 to 100 mm
plastic and eternit

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4010	66	300.0	280.0	4,2	1,3	5	240

Sabre saw blades curved cut

- Faster, cleaner, straighter and curve cut

In the style of: AEG® 318-126, Bosch® S644D, Black&Decker® 40109, Metabo® 31120, Dewalt® 40109, Milwaukee® 48-00-1031
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

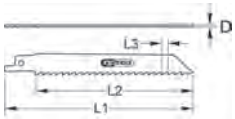
Suitable for: hardwood and softwood 6 to 100 mm
chipboard and plywood
plastic

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4011	30	150.0	130.0	4,2	1,3	5	100

Sabre saw blades

- Fast cut
- Two sided cutting

In the style of: AEG® 318-131, Bosch® S828D, Black&Decker® 40127, Metabo® 31136, Flex® 206016, Milwaukee® 48-00-1052
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: wood and plastic 6 to 100 mm
plasterborad and aerated concrete

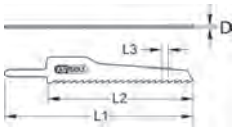
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4014	30	150.0	130.0	4,2	1,3	5	130

Bi metal sabre saw blades

- Fast cut
- Long service life
- Flexible and shatter proof
- Ideal for thick walled cast iron pipe

In the style of: Bosch® S611DF, Lenox® 656R, Milwaukee® 48-01-5035

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: wood with nails and hardwood
plasterborad and aerated concrete

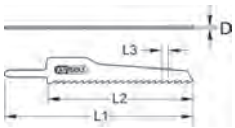
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4016	30	150.0	130.0	4,2	1,3	5	90

Sabre saw blades

- Especially suitable for fast cutting
- Fast, exact, coarse and curve cuts

In the style of: Bosch® S1617K

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: wood and greenwood
hardwood and softwood 20 to 150 mm

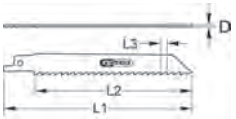
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4020	33	300.0	280.0	8,5	1,3	5	230

Sabre saw blades

- Coarse and fast cut
- Ideal for old building renovation
- Chrome vanadium

In the style of: Bosch® S1111K, Black&Decker® 40108

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



Technical data:

Suitable for: wood and greenwood
hardwood and softwood 20 to 150 mm

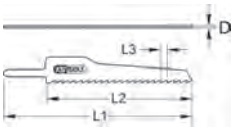
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4022	25	230.0	210.0	8,5	1,3	5	190

Sabre saw blades

- Coarse cut
- Especially suitable for fast cutting
- Ideal for old building renovation

In the style of: Flex® 200751

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



Technical data:

Suitable for: wood and plastic 20 to 100 mm
plasterboard

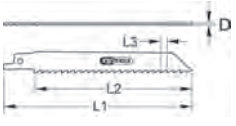
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4031	20	150.0	130.0	6,3	1,3	5	120

Sabre saw blades

- Faster and straight cut
- For thin material
- Flexible and shatter proof
- Stainless steel

In the style of: AEG® 318-129, Bosch® S922EF, Black&Decker® 40116, Metabo® 31132, Flex® 200735, Lenox® 618R, Milwaukee® 48-00-5184

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



Technical data:

Suitable for: steel and stainless steel
non-ferrous metal and steel tubes 1.5 to 12 mm

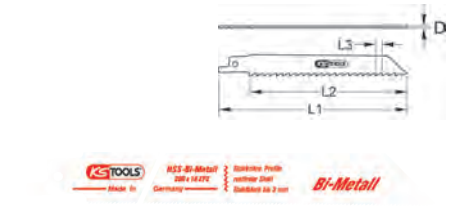
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4401	90	150.0	130.0	1,4	0,9	5	100

Sabre saw blades

- Faster and straight cut
- For thin material
- Flexible and shatter proof
- Stainless steel

In the style of: Bosch® S1122EF, Lenox® 818R, Milwaukee® 48-00-5188

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: non-ferrous metal 1.5 to 3 mm
steel, profile and pip s

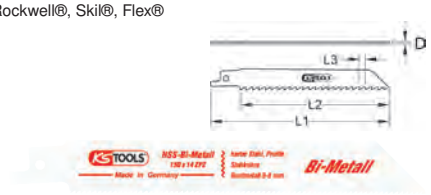
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4402	126	200.0	180.0	1,4	0,9	5	130

Sabre saw blades

- Faster and straight cut
- Flexible and shatter proof
- For thick material
- Stainless steel

In the style of: AEG® 318-130, Bosch® S644D, Black&Decker® 40113, Metabo® 31134, Flex® 200727, Lenox® 614R, Milwaukee® 48-00-5182

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



Technical data:

Suitable for: non-ferrous metal
steel and stainless steel
steel shet and steel tubes 2 to 8 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4411	70	150.0	130.0	1,8	0,9	5	100

Sabre saw blades

- Flexible and shatter proof
- Ideal for wood with nails

In the style of: Bosch® S922HF, Metabo® 31131, Flex® 200778, Lenox®610R, Milwaukee® 48-00-5092

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®

Technical data:

Suitable for: non-ferrous metal
steel, profile and teel tubes 3 to 12 mm
wooden with nails
casement frames 3 to 12 mm

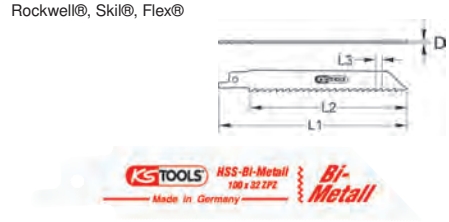
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4430	50	150.0	130.0	2,5	0,9	5	100

Sabre saw blades

- Faster and straight cut
- For thin materials
- Flexible and shatter proof
- Ideal for body constructions
- Stainless steel

In the style of: Bosch® S522GF, Black&Decker® 40127, Metabo® 31127, Flex® 200719

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



Technical data:

Suitable for: sheet steel and profile o 1 mm
car body panels

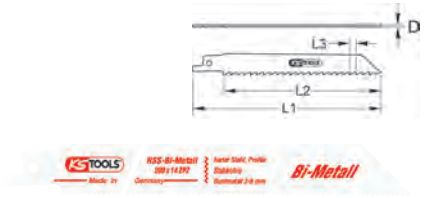
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4404	91	100.0	80.0	0,8	0,9	5	60

Sabre saw blades

- Faster and straight cut
- Flexible and shatter proof
- For thick material
- Stainless steel

In the style of: Metabo® 31135

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



Technical data:

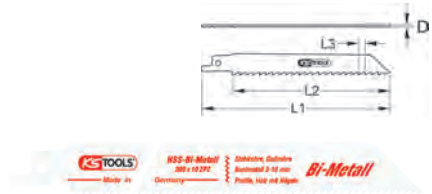
Suitable for: non-ferrous metal
steel and stainless steel
steel shet and steel tubes 2 to 8 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4415	98	200.0	180.0	1,8	0,9	5	130

Sabre saw blades

- Flexible and shatter proof
- Ideal for wood with nails

In the style of: Flex® 217190, Lenox® S810R
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: steel and steel tubes 3 to 12 mm
Aluminum and metal
profile and pall t constrction 3 to 150 mm
wooden with nails

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4431	70	200.0	180.0	2,5	0,9	5	130

Sabre saw blades

- Faster and straight cut
- For thin materials
- Flexible and shatter proof
- Stainless steel

In the style of: AEG® 318-128, Bosch® S922AF, Black&Decker® 40125, Metabo® 31129, Flex® 200743, Lenox® 624R, Milwaukee® 48-00-5186

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®

Technical data:

Suitable for: sheet steel and profile
non-ferrous metal up to 1 mm

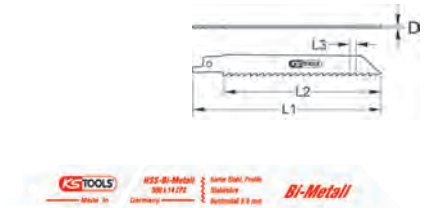
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4405	120	150.0	130.0	1,0	0,9	5	100

Sabre saw blades

- Clean cut
- Ideal for non ferrous metal

In the style of: Metabo® 31124

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®,Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: steel and non ferrous metal
steel tube 2 to 8 mm
wooden with nails

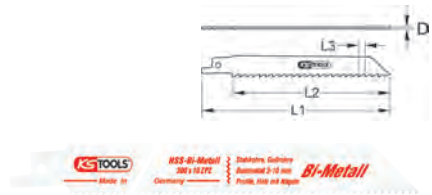
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4422	154	300.0	280.0	1,8	0,9	5	200

Sabre saw blades

- Flexible and shatter proof
- Ideal for wood with nails

In the style of: Bosch® S1211H, Metabo® 31125, Flex® 201928

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for: steel and steel tubes 3 to 12 mm
non ferrous metal and insulation material
wood with nails 3 to 230 mm

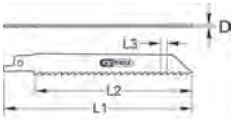
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4432	110	300.0	280.0	2,5	0,9	5	200

Sabre saw blades

- Variable tooth pitch
- Flexible and shatter proof
- For different materials

In the style of: Lenox® 650R

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



Technical data:

Suitable for:
- tube and profile
- non ferrous metal 3 to 12 mm
- wood with nails from 3 to 100 mm

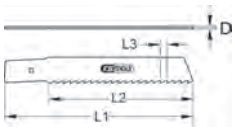
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4440V	70	150.0	130.0	1,8 - 2,5	1,3	5	130

Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561003

Suitable for: Pipe cutting machines Rems®



Technical data:

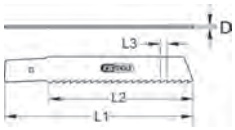
Suitable for:
- steel and non ferrous metal
- tube and profile up o 100 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4454	98	200.0	180.0	1,8	0,9	5	180

Sabre saw blades

- Variable tooth pitch
- Straight cut
- Ideal for cutting pipes
- Stainless steel

Suitable for: Pipe cutting machines Rems®, Ridgid®, Rothenberger®, Virax®



Technical data:

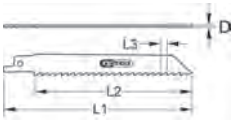
Suitable for:
- thick walled cast and steel pipe up to 50 mm
- non-ferrous metal and aluminium
- steel

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4483	45	140.0	120.0	2,5	1,7	5	220

Sabre saw blades

- Variable tooth pitch
- Flexible and shatter proof
- For different materials
- Stainless steel

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



Technical data:

Suitable for:
- metal from 3 to 12 mm
- wood with nails from 3 to 190 mm
- plastic

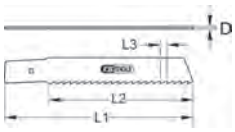
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4441V	98	200.0	180.0	1,8 - 2,5	1,3	5	40

Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561004

Suitable for: Pipe cutting machines Rems®



Technical data:

Suitable for:
- steel and non ferrous metal 2 to 8 mm
- tube and profile up o 150 mm

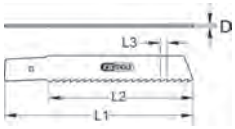
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4457	154	300.0	280.0	1,8	0,9	5	270

Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561002

Suitable for: Pipe cutting machines Rems®



Technical data:

Suitable for:
- steel and non ferrous metal
- thick walled cast and steel pipe up l to 10 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4486	56	200.0	180.0	3,2	1,6	5	300

Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561005

Suitable for: Pipe cutting machines Rems®

Technical data:

Suitable for:
- steel and non ferrous metal to 50 mm
- tube and profile

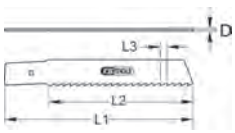
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4451	70	150.0	130.0	1,8	0,9	5	130

Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561001

Suitable for: Pipe cutting machines Rems®



Technical data:

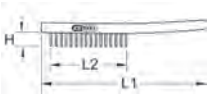
Suitable for:
- steel and non ferrous metal
- cast and steel pipe from 4 mm
- Aluminium

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g
129.4482	36	140.0	120.0	3,2	1,6	5	220

HAND WIRE BRUSHES

Steel hand wire brush 3 rowed

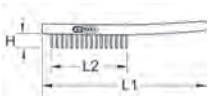
- 3 rowed
- Universal use
- Handle made out of wood
- For surface preparation
- With steel bristles



	H mm	L1 mm	L2 mm	g
201.2305	32.0	290.0	138.0	120

Steel hand wire brush 4 rowed

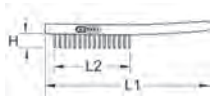
- 4 rowed
- Universal use
- Handle made out of wood
- For surface preparation
- With steel bristles



	H mm	L1 mm	L2 mm	g
201.2311	32.0	290.0	138.0	120

Stainless steel hand wire hand brush 3 rowed

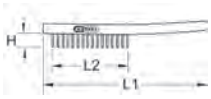
- 3 rowed
- Universal use
- Handle made out of wood
- For surface preparation
- With stainless steel bristles



	H mm	L1 mm	L2 mm	g
201.2310	32.0	290.0	138.0	120

Stainless steel hand wire hand brush 4 rowed

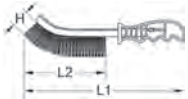
- 4 rowed
- Universal use
- Handle made out of wood
- For surface preparation
- With stainless steel bristles



	H mm	L1 mm	L2 mm	g
201.2306	32.0	290.0	138.0	100

Steel wire all purpose wire brush

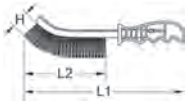
- With plastic handle
- For surface preparation
- Crimped steel wire



	H mm	L1 mm	L2 mm	g
201.2300	28.0	250.0	145.0	90

Stainless steel wire all purpose wire brush

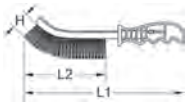
- With plastic handle
- For surface preparation
- Curled and rust free steel wire



	H mm	L1 mm	L2 mm	g
201.2301	28.0	250.0	145.0	90

Brass steel all purpose wire brush

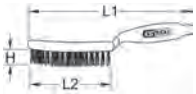
- With plastic handle
- For surface preparation
- Curved brass wire



	H mm	L1 mm	L2 mm	g
201.2302	28.0	250.0	145.0	90

Brass wire hand brush 3 rowed

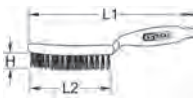
- 3 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Straight brass wire



	H mm	L1 mm	L2 mm	g
201.2326	25.0	285.0	130.0	105

Steel wire hand brush 4 rowed

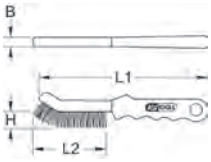
- 4 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Straight steel wire



	H mm	L1 mm	L2 mm	g
201.2325	25.0	285.0	130.0	120

Steel wire brake saddle wire brush 2 rowed, straight

- 2 rowed
- Hanging hole
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Smooth steel wire



	B mm	H mm	L1 mm	L2 mm	g
201.2320	12.0	22.0	225.0	90.0	90

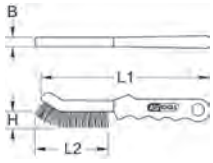
Steel wire brake saddle wire brush 2 rowed, straight and tapered point

- 2 rowed
- Hanging hole
- Tapered point
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Smooth steel wire

	B mm	H mm	L1 mm	L2 mm	g
201.2321	12.0	14,0 - 22,0	225.0	90.0	90

Brass wire brake saddle wire brush 2 rowed, straight

- 2 rowed
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Hanging hole
- Dual component handle
- For removing of stubborn brake dust
- For surface preparation
- Curved brass wire



	B mm	H mm	L1 mm	L2 mm	g
201.2322	12.0	22.0	225.0	90.0	90

Brass wire spark plug wire brush 2 rowed

- 2 rowed
- For use with sparks plugs
- For surface preparation
- Brass wire

	H mm	L1 mm	L2 mm	g	
201.2316	14.8	170.0	24.5	20	

Steel wire spark plug wire brush 2 rowed

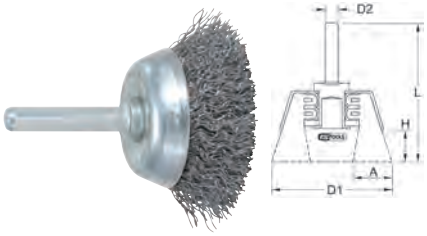
- 2 rowed
- For use with sparks plugs
- For surface preparation
- Steel wire

	H mm	L1 mm	L2 mm	g	
201.2315	14.8	170.0	24.5	20	

MACHINE OPERATED WIRE BRUSHES

Steel wire jar brush 0,3 mm

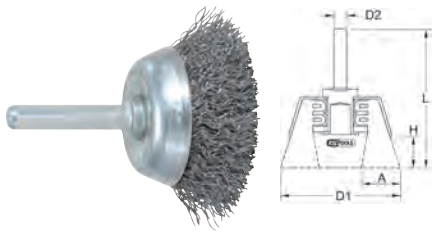
- With 6 mm mandril
- To enable with high rotary speed
- Long durability through compact border
- For use with drill machine
- For surface preparation
- Crimped steel wire



	RPM max	A mm	D1 mm	D2 mm	H mm	L mm	g	
340.0001	8000	10.0	38.0	6.0	20.0	55.0	50	
340.0002	10500	10.0	50.0	6.0	20.0	70.0	60	
340.0003	4500	10.0	63.0	6.0	20.0	88.0	70	
340.0004	4500	15.0	75.0	6.0	25.0	105.0	80	
340.0005	4500	15.0	80.0	6.0	25.0	112.0	90	

Rust free steel jar brush 0,3 mm

- With 6 mm mandril
- To enable with high rotary speed
- Long durability through compact border
- For use with drill machine
- For surface preparation
- Curled and rust free steel wire



	RPM max	A mm	D1 mm	D2 mm	H mm	L mm	g	
340.0011	8000	10.0	38.0	6.0	20.0	55.0	50	
340.0012	10500	10.0	50.0	6.0	20.0	70.0	60	
340.0013	4500	10.0	63.0	6.0	20.0	88.0	70	
340.0014	4500	15.0	75.0	6.0	25.0	105.0	80	
340.0015	4500	15.0	80.0	6.0	25.0	112.0	90	

Steel wire brush 0,3 mm

- With 6 mm mandril
- For use with drill machine
- For diffi ult to access areas
- For surface preparation
- Crimped steel wire

	RPM max	D1 mm	D2 mm	H mm	L mm	g	
340.0016	20000	17.0	6.0	22.0	65.0	30	
340.0017	18000	23.0	6.0	25.0	68.0	40	
340.0018	18000	30.0	6.0	25.0	68.0	50	

Paint brush steel wire brush 0,5 mm

- With 6 mm mandril
- For use with drill machine
- For diffi ult to access areas
- For surface preparation
- Crimped steel wire

	RPM max	D1 mm	D2 mm	H mm	L mm	g	
340.0019	20000	17.0	6.0	22.0	65.0	30	
340.0020	18000	23.0	6.0	25.0	68.0	40	
340.0021	18000	30.0	6.0	25.0	68.0	40	

Steel wire jar brush 0,5 mm

- Braided design
- With thread arbor
- For use in one hand angle grinder
- Ideal for heavy brush works
- For surface preparation
- Crimped steel wire

	RPM max	mm	D mm	H mm	L mm	No. plaits	g	
340.0022	12500	M14 x 2,0	65.0	20.0	55.0	18	160	
340.0023	11500	M14 x 2,0	80.0	22.0	68.0	20	200	
340.0024	11500	M14 x 2,0	90.0	22.0	77.0	20	240	

Rust free stainless steel wire jar brush 0,5 mm

- Braided design
- With thread arbor
- For use in one hand angle grinder
- Ideal for heavy brush works
- For surface preparation
- Curled and rust free steel wire

	RPM max	mm	D mm	H mm	L mm	No. plaits	g	
340.0025	12500	M14 x 2,0	65.0	20.0	55.0	18	160	
340.0026	11500	M14 x 2,0	80.0	22.0	68.0	20	200	
340.0027	11500	M14 x 2,0	90.0	22.0	77.0	20	240	

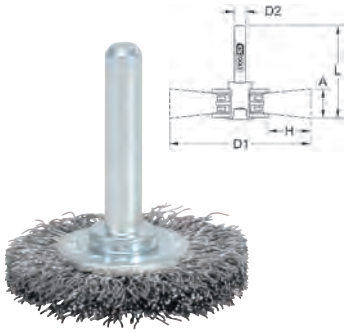
Steel wire brush disc 0,3 mm

- With 6 mm mandril
- Especially longlife industry version
- For use with drill machine
- For surface preparation
- Curled steel wire

	RPM max	A mm	D1 mm	D2 mm	H mm	L mm	g	
340.0028	20000	9.0	30.0	6.0	6.0	45.0	40	
340.0029	15000	14.0	50.0	6.0	12.0	45.0	40	
340.0030	15000	14.0	60.0	6.0	17.0	45.0	60	
340.0031	15000	16.0	70.0	6.0	19.0	45.0	80	
340.0032	15000	18.0	80.0	6.0	20.0	45.0	100	

Rust free steel wire brush disc 0,3 mm

- With 6 mm mandril
- Especially longlife industry version
- For use with drill machine
- For surface preparation
- Curled and rust free steel wire



	RPM max	A mm	D1 mm	D2 mm	H mm	L mm	g	
340.0033	20000	9.0	30.0	6.0	6.0	45.0	40	
340.0034	15000	14.0	50.0	6.0	12.0	45.0	40	
340.0035	15000	14.0	60.0	6.0	17.0	45.0	60	
340.0036	15000	16.0	70.0	6.0	19.0	45.0	80	
340.0037	15000	18.0	80.0	6.0	20.0	45.0	100	

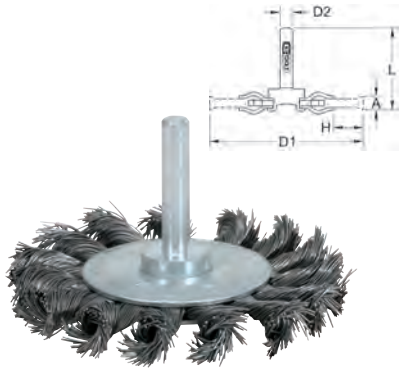
Steel wire circular brush 0,3 mm

- Braided design
- With 6 mm mandril
- Especially longlife industry version
- For use in with drill machine
- For removing of underbody coating
- For surface preparation
- Flat steel wire

	RPM max	A mm	D1 mm	D2 mm	H mm	L mm	g
340.0038	15000	12.0	75.0	6.0	15.0	43.0	100

Steel wire circular brush 0,5 mm

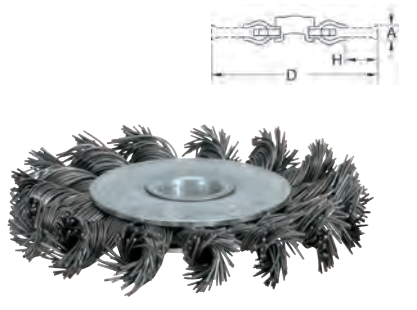
- Braided design
- With 6 mm mandril
- Especially longlife industry version
- For use in with drill machine
- For removing of underbody coating
- For surface preparation
- Flat steel wire



	RPM max	A mm	D1 mm	D2 mm	H mm	L mm	g
340.0039	15000	12.0	75.0	6.0	15.0	43.0	100

Steel wire circular brush 0,5 mm

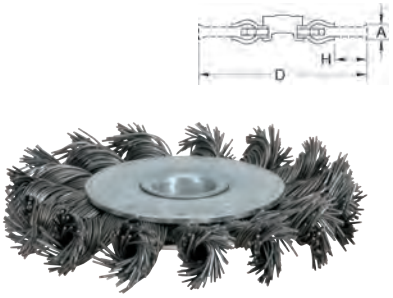
- Braided design
- With 22,2 mm bore reception
- Longlife industry version
- For use in one hand angle grinder
- For removing of rubber, grate and lacquer residue
- For surface preparation
- Flat steel wire



	RPM max	A mm	D mm	H mm	No. plaits	g
340.0040	12500	11.0	75.0	16.0	15	90
340.0041	12500	11.0	100.0	20.5	18	120
340.0042	12500	11.0	115.0	23.5	20	140
340.0043	12500	11.0	125.0	24.5	22	150

Stainless steel and brushed steel 0,5 mm

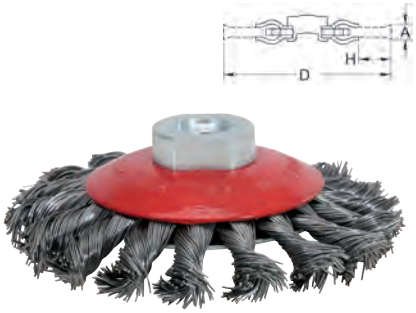
- Braided design
- With 22,2 mm bore reception
- Longlife industry version
- For use in one hand angle grinder
- For removing of rubber, grate and lacquer residue
- For surface preparation
- Flat and grate free steel wire



	RPM max	A mm	D mm	H mm	No. plaits	g
340.0044	12500	11.0	75.0	16.0	15	90
340.0045	12500	11.0	100.0	20.5	18	120
340.0046	12500	11.0	115.0	23.5	20	140
340.0047	12500	11.0	125.0	24.5	22	150

Cone design steel wire circular brush 0,5 mm

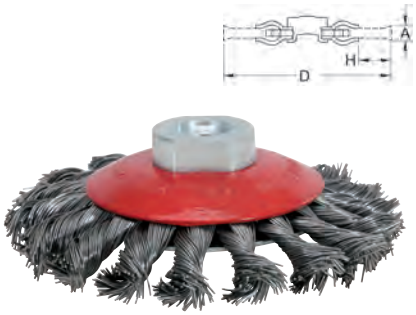
- Braided design
- With thread arbor
- Especially longlife industry version
- For use in one hand angle grinder
- For hard to reach places
- For surface preparation
- Flat steel wire



	RPM max		A mm	D mm	H mm	No. plaits	g
340.0048	12500	M 14 x 2,0	12.0	100.0	20.0	18	190
340.0049	15000	M 14 x 2,0	12.0	115.0	24.0	20	210

Rust free cone design steel wire circular brush 0,5 mm

- Braided design
- With thread arbor
- Especially longlife industry version
- For use in one hand angle grinder
- For hard to reach places
- For surface preparation
- Flat and grate free steel wire



	RPM max		A mm	D mm	H mm	No. plaits	g
340.0050	12500	M 14 x 2,0	12.0	100.0	20.0	18	190
340.0051	15000	M 14 x 2,0	12.0	115.0	24.0	20	210

CUT OFF AND FLAP WHEELS

Clamping mandrel

- High performances thin disks
- Special steel

	Shank mm	Profile	g
515.3017	6,0	round	72

High performances thin cutting disk

- Exact and clean cut
- No deburring necessary
- Very short cutting times
- Machine load reduced
- Inox stainless steel

Ideal for use in very thin materials until 2.5 mm, tool steel, sheet metal, thin walled pipes and profil s all type suited for locksmiths, car body building, sanitary and heating fi ting, plumbing, sheet metal processing, carpentry, joinery, roofi g, metal processing and all motor vehicles businesses.

	RPM max	D1 mm	D2 mm	H mm	Content	g
337.2005	13300	50,0	6.0	1.0	25	100
337.2010	15250	100,0	16.0	1.6	25	1200
337.2015	13300	115,0	22.2	1.0	25	730
337.2025	12200	125,0	22.2	1.0	25	800

Allround flap whe l, curved

- For universal usage
- Zirconium aluminum oxide on a glassfib e plate
- Fan like and radial arrangement of the multi purpose disc
- High level of fl xibilty
- Consistent high cutting power

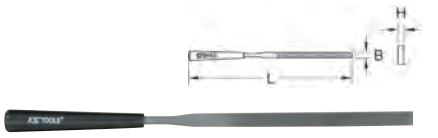
Ideal for use in metal, stainless steel, wood and plastic.

	RPM max	D1 mm	D2 mm	Grain	H mm	Content	g
337.2050	13300	115,0	22.2	40	7.2	10	730
337.2055	13300	115,0	22.2	60	7.2	10	730
337.2060	13300	115,0	22.2	80	7.2	10	730
337.2065	12200	125,0	22.2	40	7.2	10	800
337.2070	12200	125,0	22.2	60	7.2	10	800
337.2075	12200	125,0	22.2	80	7.2	10	800

FILES

Flat needle fil

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel



	B mm	H mm	L mm	g	
140.3051	5.0	1.0	145.0	10	

Half round needle fil

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	D mm	L mm	g	
140.3058	5.0	145.0	10	

Round needle fil

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	D mm	L mm	g	
140.3052	3.0	145.0	10	

Square needle fil

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	B mm	L mm	g	
140.3056	2.0	145.0	10	

Three square needle fil

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	B mm	L mm	g	
140.3054	3.0	145.0	10	

Square needle fil , extra slim

- High cutting rate
- Extra slim execution
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	B mm	L mm	g	
140.3055	2.0	90.0	10	

Oval needle fil

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	B mm	L mm	g	
140.3059	5.0	145.0	10	

Insert needle fil s

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	B mm	L mm	g	
140.3057	5.0	145.0	10	

Tapered needle fil

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

	D mm	L mm	g	
140.3053	5.0	145.0	10	

Needle file s t in soft plastic storage case, 12 pcs

- High cutting rate
- With solid plastic handle
- For working in the area of the fine me hanics
- Special steel

			g	
140.3050	12 pcs	Needle file s t in soft plastic storage case, 12 pcs	900	

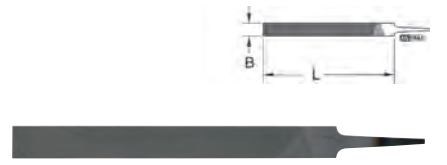
Flat fil

- DIN 7261 form B
- With two component handle
- With hanging hole
- Special steel

		L1 mm	L2 mm	B mm	File blade	g	
157.0025	1	315.0	200.0	20.0	161.0025	230	
157.0026	1	380.0	250.0	25.0	161.0026	350	
157.0027	1	420.0	300.0	30.0	161.0027	510	
157.0028	1	470.0	350.0	35.0	161.0028	690	
157.0004	2	230.0	150.0	15.0	161.0004	160	
157.0005	2	315.0	200.0	20.0	161.0005	200	
157.0006	2	380.0	250.0	25.0	161.0006	350	
157.0007	2	420.0	300.0	30.0	161.0007	510	
157.0008	2	470.0	350.0	35.0	161.0008	690	
157.0014	3	230.0	150.0	15.0	161.0014	160	
157.0015	3	315.0	200.0	20.0	161.0015	230	
157.0016	3	380.0	250.0	25.0	161.0016	350	

Flat file inse t

- DIN 7261 form B
- Special steel



		L mm	B mm		g	
161.0025	1	200.0	20.0	161.0013	130	
161.0026	1	250.0	25.0	161.0010	250	
161.0027	1	300.0	30.0	161.0010	410	
161.0028	1	350.0	35.0	161.0010	590	
161.0004	2	150.0	15.0	161.0012	60	
161.0005	2	200.0	20.0	161.0013	100	
161.0006	2	250.0	25.0	161.0010	250	
161.0007	2	300.0	30.0	161.0010	410	
161.0008	2	350.0	35.0	161.0010	590	
161.0014	3	150.0	15.0	161.0012	60	
161.0015	3	200.0	20.0	161.0013	130	
161.0016	3	250.0	25.0	161.0010	250	

Half round file

- DIN 7261 form E
- With two component handle
- With hanging hole
- Special steel

		L1 mm	L2 mm	D mm	File blade	g	
157.0125	1	315.0	200.0	20.0	161.0125	230	
157.0126	1	380.0	250.0	25.0	161.0126	340	
157.0127	1	420.0	300.0	30.0	161.0127	510	
157.0128	1	470.0	350.0	35.0	161.0128	750	
157.0104	2	260.0	150.0	15.0	161.0104	160	
157.0105	2	315.0	200.0	20.0	161.0105	230	
157.0106	2	380.0	250.0	25.0	161.0106	340	
157.0107	2	420.0	300.0	30.0	161.0107	510	
157.0114	3	260.0	150.0	15.0	161.0114	160	
157.0115	3	315.0	200.0	20.0	161.0115	230	
157.0116	3	380.0	250.0	25.0	161.0116	340	

Half round file inse t

- DIN 7261 form E
- Special steel

		L mm	B mm		
161.0125	1	200.0	20.0	161.0013	130
161.0126	1	250.0	25.0	161.0010	240
161.0127	1	300.0	30.0	161.0010	410
161.0128	1	350.0	35.0	161.0010	650
161.0104	2	150.0	15.0	161.0012	60
161.0105	2	200.0	20.0	161.0013	130
161.0106	2	250.0	25.0	161.0010	240
161.0107	2	300.0	30.0	161.0010	410
161.0114	3	150.0	15.0	161.0012	60
161.0115	3	200.0	20.0	161.0013	130
161.0116	3	250.0	25.0	161.0010	240

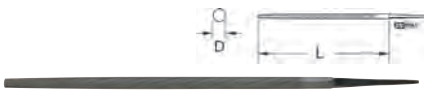
Round file

- DIN 7261 form F
- With two component handle
- With hanging hole
- Special steel

		L1 mm	L2 mm	D mm	File blade	
157.0224	1	230.0	150.0	6.0	161.0224	130
157.0225	1	315.0	200.0	7.5	161.0225	150
157.0226	1	370.0	250.0	9.5	161.0226	200
157.0204	2	230.0	150.0	6.0	161.0204	60
157.0205	2	315.0	200.0	7.5	161.0205	150
157.0206	2	370.0	250.0	9.5	161.0206	200
157.0214	3	230.0	150.0	6.0	161.0214	130
157.0215	3	315.0	200.0	7.5	161.0215	150

Round file inse t

- DIN 7261 form F
- Special steel



		L mm	D mm		
161.0224	1	150.0	6.0	161.0012	30
161.0225	1	200.0	7.5	161.0013	50
161.0226	1	250.0	9.5	161.0011	100
161.0204	2	150.0	6.0	161.0012	30
161.0205	2	200.0	7.5	161.0013	50
161.0206	2	250.0	9.5	161.0011	100
161.0214	3	150.0	6.0	161.0012	30
161.0215	3	200.0	7.5	161.0013	50

Square file

- DIN 7261 form D
- With two component handle
- With hanging hole
- Special steel

		L1 mm	L2 mm	B mm	File blade	
157.0324	1	230.0	150.0	6.0	161.0324	130
157.0325	1	320.0	200.0	8.0	161.0325	170
157.0326	1	370.0	250.0	10.0	161.0326	250
157.0304	2	230.0	150.0	6.0	161.0304	130
157.0305	2	320.0	200.0	8.0	161.0305	170
157.0306	2	370.0	250.0	10.0	161.0306	250
157.0314	3	230.0	150.0	6.0	161.0314	130
157.0315	3	320.0	200.0	8.0	161.0315	170

Square file inse t

- DIN 7261 form D
- Special steel

		L mm	B mm		
161.0324	1	150.0	6.0	161.0012	30
161.0325	1	200.0	8.0	161.0013	70
161.0326	1	250.0	10.0	161.0011	150
161.0304	2	150.0	6.0	161.0012	30
161.0305	2	200.0	8.0	161.0013	70
161.0306	2	250.0	10.0	161.0011	150
161.0314	3	150.0	6.0	161.0012	30
161.0315	3	200.0	8.0	161.0013	70

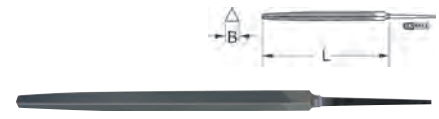
Three square file

- DIN 7261 form C
- With two component handle
- With hanging hole
- Special steel

		L1 mm	L2 mm	B mm	File blade	
157.0424	1	230.0	150.0	11.0	161.0424	170
157.0425	1	320.0	200.0	15.0	161.0425	240
157.0426	1	370.0	250.0	17.5	161.0426	380
157.0427	1	420.0	300.0	20.0	161.0427	520
157.0404	2	230.0	150.0	11.0	161.0404	170
157.0405	2	320.0	200.0	15.0	161.0405	240
157.0406	2	370.0	250.0	17.5	161.0406	380
157.0407	2	420.0	300.0	20.0	161.0407	520
157.0414	3	230.0	150.0	11.0	161.0414	170
157.0415	3	320.0	200.0	15.0	161.0415	240
157.0416	3	370.0	250.0	17.5	161.0416	200

Three square file inse t

- DIN 7261 form C
- Special steel



		L mm	B mm		
161.0424	1	150.0	11.0	161.0012	70
161.0425	1	200.0	15.0	161.0013	140
161.0426	1	250.0	17.5	161.0011	280
161.0427	1	300.0	20.0	161.0011	420
161.0404	2	150.0	11.0	161.0012	70
161.0405	2	200.0	15.0	161.0013	140
161.0406	2	250.0	17.5	161.0010	300
161.0407	2	300.0	20.0	161.0011	420
161.0414	3	150.0	11.0	161.0012	70
161.0415	3	200.0	15.0	161.0013	140
161.0416	3	250.0	17.5	161.0010	300

File handle

- For rectangle and round reception
- With two component handle
- With hanging hole

		D mm	L mm	
161.0010	▭	39.0	120.0	80
161.0011	◯	39.0	120.0	80
161.0012	◯	28.0	80.0	40
161.0013	◯	35.0	106.0	65

Workshop file s t

- DIN 7261 form B, C, D, E, F
- Second cut
- 200 mm long
- With two component handle
- With hanging hole
- Special steel

Includes one fl t, halfround, round, square and triangular file with a length of 200 mm and second cut

140.3000	5 pcs	Workshop file s t	900
1 x		200 mm	
1 x		200 mm	
1 x		200 mm	
1 x		200 mm	
1 x		200 mm	

THREAD FILES

Thread fil , metric

- For the restoration of defective internal and external threads
- Suitable for right and left handed threads
- Two sided serviceable
- Special steel

Suitable for thread pitch: 0.8 - 3.0 mm

	L mm	
150.1340	230.0	130

Thread fil , imperial

- For the restoration of defective internal and external threads
- Suitable for right and left handed threads
- Two sided serviceable
- Special steel

Suitable for thread pitch: 24 - 10 pitch imperial

	L mm	
150.1345	230.0	130

21 CUTTING- AND SCRAPING TOOLS

KSTOOLS®

Innovation is our mission!

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REPLACEMENT KNIFE BLADE	658
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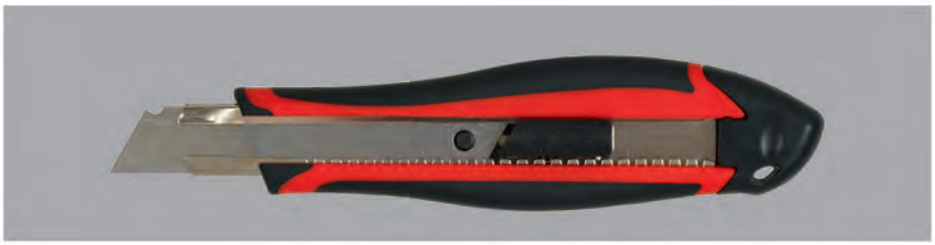
CUTTING AND SCRAPING TOOLS

Universal snap off blade knife

- For right handed use
- Reinforcement eyelet
- Blade 9 x 80 mm
- 0.4 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0.5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- With two component handle



- For right handed use
- Blade 25 x 125 mm
- With 0.5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- With two component handle

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 6 snap off blades 0.5 mm thick
- Blade guide out of metal
- With integrated blade magazine
- Housing made out of plastic
- With two component handle

Blade types

Snap off blades
9 x 80 mm

Snap off blades
18 x 100 mm

Trapezoid blades

Snap off blades
25 x 100 mm

Snap off blades
25 x 125 mm

Hook blade

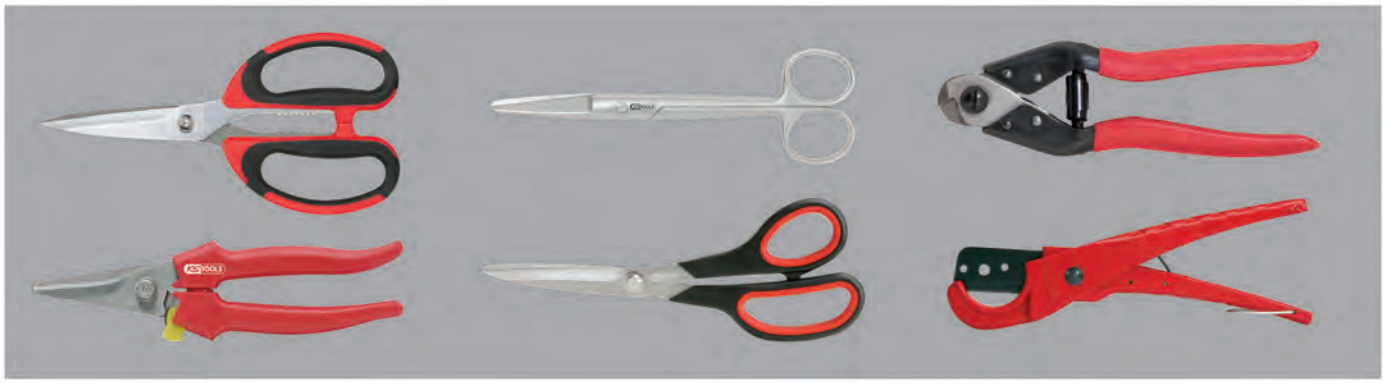
Cutting and scraping tool lines

Snap off knives

Pen knife

Hand knife with trapezoidal blade

Shears



Metal shears

Scrapers

SNAP OFF KNIVES

Universal snap off blade knife

- For right handed use
- With pocket clip
- Blade 9 x 80 mm
- With 0,4 mm strong snap off blades
- Housing made from metal

	L mm		g	
907.2167	130.0	907.2168	30	

Universal snap off blade knife

- For right handed use
- Reinforcement eyelet
- Blade 9 x 80 mm
- 0.4 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle

	L mm		g	
907.2152	140.0	907.2168	50	

Standard universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic

	L mm		g	
907.2157	140.0	907.2166	70	

Universal snap off blade knife

- For right handed use
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- With two component handle

	L mm		g	
907.2165	140.0	907.2166	90	

Universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 9 x 80 mm
- With 0.4 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- With two component handle

	L mm		g	
907.2120	140.0	907.2168	40	

Universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0.5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- With two component handle

	L mm		g	
907.2135	170.0	907.2166	81	

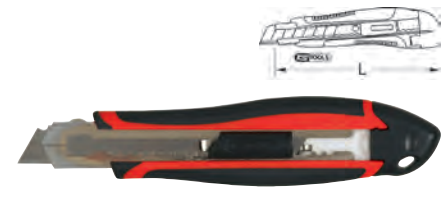
Universal snap off blade knife

- For right handed use
- Blade 25 x 125 mm
- With 0.5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- With two component handle

	L mm		g	
907.2180	220.0	907.2159	137	

Comfort snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 6 snap off blades 0.5 mm thick
- Blade guide out of metal
- With integrated blade magazine
- Housing made out of plastic
- With two component handle



	L mm		g	
907.2175	180.0	907.2176	150	

Comfort snap off blade knife display

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 6 snap off blades 0.5 mm thick
- Blade guide out of metal
- With integrated blade magazine
- Housing made out of plastic
- With two component handle
- Supplied in counter sales display

			kg	
907.2175D	12 pcs	12 x 907.2175	1.91	

Universal comfort snap off blade knife display

- For right handed use
- With reinforcement eyelet
- Blade guide out of metal
- Housing made out of plastic
- With two component handle
- Delivery in display stand

			kg	
907.2104D	28 pcs	12 x 907.2120 - 12 x 907.3135 - 4 x 907.2180	2.20	

Comfort snap off blade knife

- For right handed use
- Blade 25 x 125 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Knife adjustment using the rotary mechanism
- Housing made out of plastic
- With two component handle

	L mm		g	
907.2158	180.0	907.2159	90	

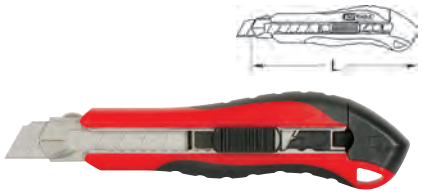
Comfort snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Knife adjustment using the rotary mechanism
- Housing made from metal
- With two component handle

	L mm		g
907.2141	180.0	907.2166	220

Comfort snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 6 snap off blades 0,5 mm thick
- Blade guide out of metal
- With integrated blade magazine
- Knife adjustment using the rotary mechanism on the cutter head
- Housing made out of plastic
- With two component handle



	L mm		g
907.2195	160.0	907.2196	250

Comfort snap off blade knife display

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 6 snap off blades 0,5 mm thick
- Blade guide out of metal
- With integrated blade magazine
- Knife adjustment using the rotary mechanism on the cutter head
- Housing made out of plastic
- With two component handle
- Delivery in display stand

			kg	
907.2195D	24 pcs	24 x 907.2195	6.20	

PEN KNIFE

Pen knife set

- For right and left handed use
- Includes 5 trapezoid blades
- With 0,5 mm strong trapezoid blades
- With rapid fastening
- Metal execution

			g	
907.2172	2 pcs	Pen knife set	120	

consists of:

		g	
907.2173	Pen knife 97 mm	60	
907.2174	Pen knife 155 mm	60	

Folding knife with locking mechanism

- Teflon oated blade
- Blade fi ator folded out
- Non slip handle with fi ger recesses
- Ideal for mechanics

	B mm	L1 mm	L2 mm	g	
907.2105	25.0	193.0	78.0	100	

Folding knife display with detent

- Teflon oated blade
- Blade fi ator folded out
- Non slip handle with fi ger recesses
- Ideal for mechanics
- Supplied in counter sales display

			kg	
907.2105D	24 x 907.2105		1.50	

HAND KNIFE WITH TRAPEZOIDAL BLADE

Professional universal knife

- For right and left handed use
- With reinforcement eyelet
- Trapezoid blade
- With 0,5 mm strong trapezoid blades
- With integrated foil and paper cutter
- Housing made from aluminium
- With two component handle

	L mm		g	
907.2145	145.0	907.2206	100	

Professional universal knife display

- For right and left handed use
- With reinforcement eyelet
- Trapezoid blade
- With 0,5 mm strong trapezoid blades
- With integrated foil and paper cutter
- Housing made from aluminium
- With two component handle
- Delivery in display stand

			kg	
907.2145D	24 pcs	24 x 907.2145	2.60	

Professional universal knife

- For right and left handed use
- With reinforcement eyelet
- Trapezoid blade
- With 0,5 mm strong trapezoid blade
- With integrated blade magazine
- Blade changed in seconds by the side mounted locking knob
- Housing made from Aluminium

	L mm		g	
907.2170	145.0	907.2206	90	

Professional safety universal knife

- For right and left handed use
- With reinforcement eyelet
- Trapezoid blade
- With 0,5 mm strong trapezoid blades
- Automatic knife retraction
- Housing made from metal

	L mm		g
907.2140	145.0	907.2206	100

Two direction professional universal knife

- For right and left handed use
- With reinforcement eyelet
- Double sided insertable
- With 0,5 mm strong trapezoid blade
- With 0,5 mm strong hook blade
- With integrated blade magazine
- Blade changed in seconds by the side mounted locking knob
- Housing made from metal

	L mm			g
907.2155	165.0	907.2163	907.2206	220

Professional universal knife with proctective sheat

- For right and left handed use
- Trapezoid blade
- With 0,5 mm strong trapezoid blades
- Housing made from metal

	L mm		g
907.2160	165.0	907.2206	220

Professional universal knife display

- For right and left handed use
- Trapezoid blade
- With 0,5 mm strong trapezoid blades
- Housing made from metal

			kg
907.2150	12 pcs	12 x 907.2160	2.75

REPLACEMENT KNIFE BLADE

Snap off blades

- For all standard cutter knives
- SK steel
- In the storage dispenser

	L mm	B mm	S mm	Content	g
907.2168	80.0	9,0	0.4	10	35

Snap off blades

- For all standard cutter knives
- SK steel
- In the storage dispenser

	L mm	B mm	S mm	Content	g
907.2166	100.0	18,0	0.5	10	90

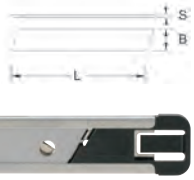
Snap off blades

- For all standard cutter knives
- SK steel
- In the storage dispenser

	L mm	B mm	S mm	Content	g
907.2159	100.0	25,0	0.5	10	20

Snap off blade magazine

- For all standard cutter knives
- SK steel
- In an aluminium magazine



	L mm	B mm	S mm	Content	g
907.2176	100.0	18,0	0.5	6	70
907.2196	100.0	18,0	0.5	6	65

Trapezoid blades

- For all standard cutter knives
- SK steel
- In the storage dispenser

	L mm	B mm	S mm	Content	g
907.2164	29.0	9,4	0.45	5	20
907.2206	53.0	19,0	0.45	10	60

Hook blades

- For all standard cutter knives
- SK steel
- In the storage dispenser

	L mm	B mm	S mm	Content	g
907.2163	54.0	19,0	0.63	10	35

Electric knives and insulated knives can be found in the VDE and general electrician tool kits section.

SHEARS

Universal workshop shear

- Robust short shears
- Various applications
- With cable cutter
- Includes belt pouch

	L mm	S mm	g	
118.0060	140.0	42,0	170	

Universal workshop shear

- Robust short shears
- With screw on blade
- Various applications
- Special tool steel
- Stainless steel blade

	L mm	S mm	g	
118.0010	140.0	43,0	100	

Universal Kevlar workshop shear

- Robust short shears
- Adjustable screw joint
- Ergonomic plastic handle
- Universal applications
- With one component handle

	L mm	S mm	g	
118.0065	140.0	45,0	130	

Universal shear

- Long cutting edge
- Adjustable screw joint
- With screw on blade
- With intergrated interlocking
- Stainless steel blade
- With two component handle

	L mm	S mm	g	
118.0066	190.0	75,0	120	

Universal shear

- Long cutting edge
- Adjustable screw joint
- Round gripping handle
- Nickel plated
- Stainless steel blade

	L mm	S mm	g	
118.0078	200.0	105,0	110	
118.0079	250.0	140,0	150	

Shears

- Robust execution
- Adjustable screw joint
- Handle black lacquer
- Polished cutting edges
- Stainless steel blade

	L mm	S mm	g	
118.0076	200.0	100,0	200	
118.0077	250.0	120,0	370	

Textile shear

- Adjustable screw joint
- Stainless steel blade
- With one component handle

	L mm	S mm	g	
118.0011	205.0	65,0	80	

Carpet shear

- Long cutting edge
- Adjustable screw joint
- Stainless steel blade
- With one component handle

	L mm	S mm	g	
118.0012	230.0	135,0	120	

Universal workshop shear

- Long, robust cutting edge
- With screw on blade
- Stainless steel blade
- With two component handle

	L mm	S mm	g	
118.0067	220.0	90,0	130	

Universal shear, serrated

- Self opening
- Safety locking device
- Ergonomic moulded plastic handle
- Ideal for gaskets

	Ø mm	L mm	S mm	g	
118.0075	24,0	145.0	32,0	130	

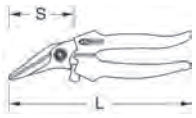
Universal shear

- Self opening
- With safety locking device
- With ergonomic moulded plastic handle
- Ideal for gaskets

	Ø mm	L mm	S mm	g	
118.0071	35,0	190.0	42,0	148	

Universal shear, angled

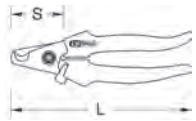
- Self opening
- With safety locking device
- With ergonomic moulded plastic handle
- Ideal for gaskets



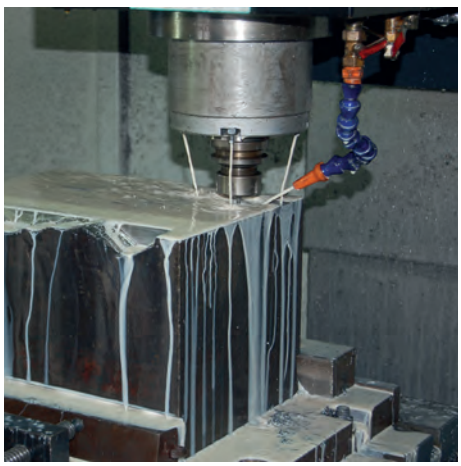
	Ø mm	L mm	S mm	g
118.0072	35,0	185.0	42,0	190

Universal cable shear

- Self opening
- Safety locking device
- Ergonomic moulded plastic handle
- For soft cable

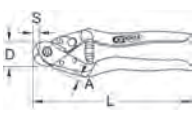


	Ø mm	L mm	S mm	g
118.0073	10,0	165.0	50,0	180



Steel wire shear

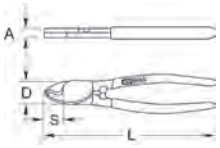
- For medium steel wire up to 4,7 mm
- With opening spring and safety catch
- Induction hardened cutting
- No splaying out of the wire
- With PVC dipped handle
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g
118.0092	4,7	11.0	27.0	190.0	9,0	273

Cable cutter

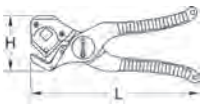
- Precision ground cutting edges
- Smooth cut
- For lead cable up to max. Ø 60 mm²
- With before and after cut
- For bruise free cutting of single and multi strand wire copper and aluminium cable
- Not suited for steel wire and hard drawn Copper cables
- Requires light expenditure of energy
- With PVC dipped handle
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g
118.0090	10,0	12.0	25.0	160.0	15,0	180
118.0091	15,0	13.0	29.0	210.0	20,0	320

Hose cutter

- Aluminium die cast body



	Ø mm	H mm	L mm		g
222.2060	6,0 - 25,0	50.0	185.0	222.2061	300
222.2062	6,0 - 35,0	52.0	250.0	222.2061	420

Hose cutter

- Teflon oated blade
- Aluminium die cast body

	Ø mm	H mm	L mm		g
222.2051	0 - 37,0	95.0	210.0	222.2052	80

METAL SHEARS

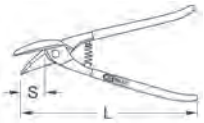
Sheet steel nibbler

- Burr free cutting
- No deformation of the sheet metal
- Clean cut on the edges
- Easy locking action
- PVC dipped handle
- Cuts sheet metal up to 1.2 mmIdeal also for aluminum, copper and plastic
- Special tool steel

	Ø mm	B mm	L mm	S mm	Replacement blades	g
140.2175	1,2	14.0	265.0	3,0	140.2175-1	460

Ideal shears

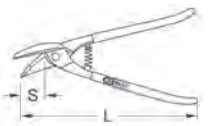
- Straight cut
- With spring
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1.2 mm, stainless steel up to 0.7 mm
- Special tool steel



	Ø mm	L mm	S mm	g
118.0145	1,2 (0,7)	280.0	38,0	640

Tin snips, left handed cut

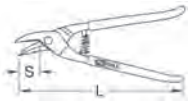
- Left handed cut
- With spring
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	L mm	S mm	g
118.0146	1,2 (0,7)	280.0	38,0	540

Punching shears

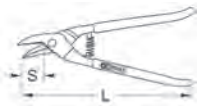
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1.2 mm, stainless steel up to 0.7 mm
- Special tool steel



	Ø mm	L mm	S mm	g	
118.0147	1,2 (0,7)	250.0	42	455	

Punching scissors, left handed cut

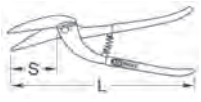
- Left handed cut
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	L mm	S mm	g	
118.0148	1,2 (0,7)	250.0	42	455	

Pelican straight cut shears

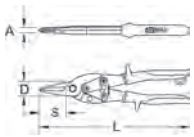
- Right hand cutting
- Straight cut
- With spring
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1.2 mm, stainless steel up to 0.7 mm
- Special tool steel



	Ø mm	L mm	S mm	g	
118.0149	1,2 (0,7)	305.0	73,5	465	

Mini metal shears, straight cut

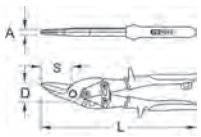
- Straight cut
- Optimal for fine orking
- Self opening handle
- With internal spring
- With easy locking action
- Induction-hardened precision cutting
- With two component handle
- Cuts sheet metal up to 1.2 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g	
118.0152	1,2	10.0	20.0	180.0	20,0	300	

Mini metal shears, right handed cut

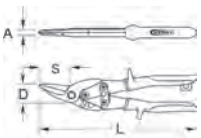
- Right handed cut
- Optimal for fine orking
- Self opening handle
- With internal spring
- With easy locking action
- Induction-hardened precision cutting
- With two component handle
- Cuts sheet metal up to 1.2 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g	
118.0151	1,2	17.0	33.0	180.0	20,0	300	

Mini metal shears, left handed cut

- Left handed cut
- Optimal for fine orking
- Self opening handle
- With internal spring
- With easy locking action
- Induction-hardened precision cutting
- With two component handle
- Cuts sheet metal up to 1.2 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g	
118.0153	1,2	20.0	25.0	180.0	20,0	300	

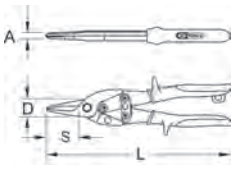
Mini straight and shape cutting snip set

- Self opening handle
- With internal spring
- With easy locking action
- With two component handle
- 25% power savings
- Left, right hand cutting & straight
- Smooth blades
- Induction-hardened precision cutting
- Cuts sheet metal up to 1.2 mm
- Chrome molybdenum

			g	
118.0150	3 pcs	Mini straight and shape cutting snip set	800	

Tin snips sheet metal shear, self opening, straight cut

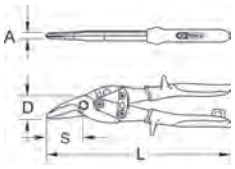
- Straight cut
- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g	
118.0051	1,2 (0,7)	20.0	19.0	250.0	45,0	400	

Tin snips sheet metal shear, self opening, right handed cut

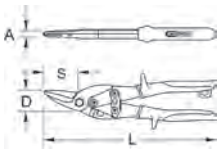
- Right handed cut
- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g	
118.0052	1,2 (0,7)	18.0	21.0	240.0	42,0	400	

Tin snips sheet metal shear, self opening, left handed cut

- Left handed cut
- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	g
118.0053	1,2 (0,7)	17.0	26.0	240.0	44,0	400

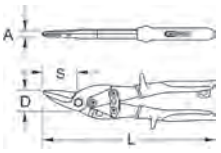
Tin snips sheet metal shear set

- Self opening handle
- Serrated blades
- Internal spring
- Easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel

			kg
118.0050	3 pcs	Tin snips sheet metal shear set	1.20

Template cutting shear with lever gearing, right handed cut

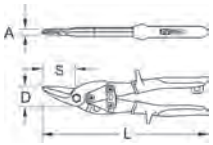
- Right handed cut
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- With two component handle
- Cuts steel sheet up to 1.5 mm, stainless steel up to 1.0 mm
- Special tool steel



		Ø mm	A mm	D mm	L mm	S mm	g
118.0045	right	1,5 (1,0)	30.0	50.0	260.0	40,0	540

Template cutting shear with lever gearing, left handed cut

- Left handed cut
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction hardened precision cutting
- With two component handle
- Cuts steel sheet up to 1.5 mm, stainless steel up to 1.0 mm
- Special tool steel



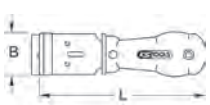
		Ø mm	A mm	D mm	L mm	S mm	g
118.0046	left	1,5 (1,0)	30.0	50.0	260.0	40,0	540

Insulated cable shears can be found in the VDE and general electrician tool kits section.

SCRAPERS

Scraper

- With easily interchangeable blades
- With reinforcement eyelet
- Soft grip handle



	B mm	L mm		g
911.8126	38.0	160.0	911.8127	90

Scraper

- With easily interchangeable and retractable blades
- With reinforcement eyelet
- With metal housing

	B mm	L mm		g
907.2240	39.0	110.0	911.8127	90

Spare blades

- For all standard scrapers
- SK steel
- In a carton

	Content	L mm	B mm	S mm	g
911.8127	5	40.0	19,5	0.29	40

Pinch weld scraper set

- Ideal for removing of stickers, seal and glue residues
- Simple blade change by loosening the knurled thumb screw on the chuck
- With 10 straight scraper blades 16 mm
- Scraper with two component handle

			g
907.2215	11 pcs	Pinch weld scraper set	100
1 x		907.2201	
10 x		16 mm	

Knife scraper set

- Ideal for removing of stickers, seal and glue residues
- Simple blade change by loosening the knurled thumb screw on the chuck
- Practical storage system for changeable blades
- Suitable for many different application due to the wide range of blades
- Scraper with two component handle
- Professional universal knife with aluminium housing
- In durable plastic case

			kg
907.2200	27 pcs	Knife scraper set	0.60

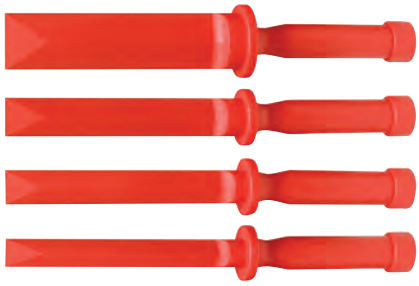
1 x	
1 x	
5 x	
5 x	12 mm
5 x	16 mm
5 x	20 mm
5 x	16 mm

Replacement blades:

	Width mm	Form	Content	g	
907.2202	12.0	straight	10	20	
907.2204	16.0	53° angled	10	20	
907.2203	16.0	straight	10	20	
907.2205	20.0	straight	10	40	

Glassfib e chisel set

- For paint preserving removal of ornament and window strips
- Flexible chisel blade
- Impact cap for light impacts
- Ergonomic handle
- Special plastic



			g	
911.8130	4 pcs	19 - 22 - 26 - 38 mm	570	

consists of:

		g	
911.8131	Glassfib e chisel, 19 mm	130	
911.8132	Glassfib e chisel, 22 mm	140	
911.8133	Glassfib e chisel, 26 mm	150	
911.8134	Glassfib e chisel, 38 mm	180	

STAINLESS STEEL Chisel scraper

- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

	B mm	D mm	L mm	g	
907.2211	32.0	1,2	190.0	160	
907.2213	25.0	1,2	165.0	100	
907.2212	32.0	2,5	190.0	160	
907.2214	25.0	2,5	165.0	110	

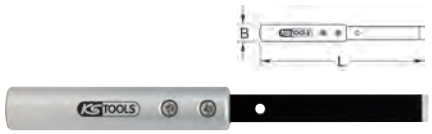
STAINLESS STEEL Chisel scraper set

- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

			kg	
907.2210	4 pcs	32 x 1,2; 32 x 2,5; 25 x 1,2; 25 x 2,5 mm	0.58	

Pinch weld scraper

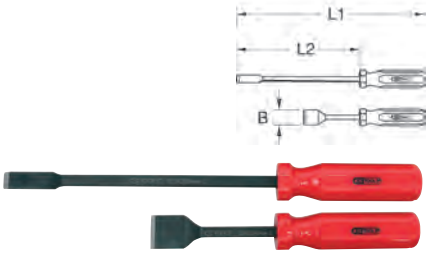
- With interchangeable spring steel blade
- Working length max. 115 mm
- Aluminium handle



	B mm	L mm		g	
140.2282	13.0	240.0	140.2283	200	
140.2286	16.0	240.0	140.2287	200	
140.2288	19.0	240.0	140.2289	200	

Gasket scraper

- Blades can be re sharpened
- Blade 10° angled
- Extra long execution for reaching inaccessible areas
- For removing extremely stubborn gaskets and seals
- With ergonomic moulded one component handle

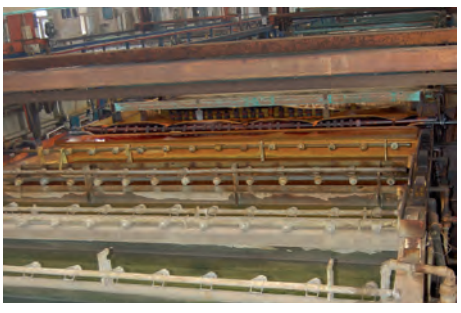


	B mm	L1 mm	L2 mm	g	
907.2231	12.5	200.0	100,0	120	
907.2232	25.0	200.0	100,0	140	
907.2233	12.5	300.0	200,0	180	
907.2234	25.0	300.0	200,0	200	

Gasket scraper set

- Blades can be resharpened
- Blade 10° angled
- Extra long execution for reaching inaccessible areas
- For removing extremely stubborn gaskets and seals
- With ergonomic moulded one component handle

			kg	
907.2230	4 pcs	12,5 x 200; 25 x 200; 12,5 x 300; 25 x 300 mm	1.28	



HAMMER

KS TOOLS®

Innovation is
our mission!

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HAMMER

Technical data

RUBBER HAMMER

- For sensitive blow surfaces and edges
- Head made from a hard rubber mix
- Ergonomically formed and comfortable in the hand wooden handle
- Ring wedge for a safe connection of handle and hammer head

DEAD BLOW HAMMER

- Hundreds of metal balls reduce the impact of the blow force
- The coarse metal shot follows the impact, they support the blow and prevent the recoil impact
- Steel tube handle, polyurethane coated, with ergonomical formed rubber handle
- Extremely tough synthetic material coated from a cast, no damaging from sharp edges

FITTERSHAMMER WITH WOODEN HANDLE

- Annealing forged hammer head acc. to DIN standard
- Ergonomically formed and comfortable wooden handle
- Ring wedge for a safe connection of handle and hammer head

Safety

unprotected hammer handle

• Clear damage of the handle, thereby danger of fracture!

protected hammer handle

• No distortion, with slight traces in the lacquer surface!

Hammer lines

Recoil free soft headed hammers

Soft headed hammers

Fitters hammers

Joiner's hammers

Electrician's hammers

Club hammers

Sledge hammers

Panel beating hammers

Scabbling picks

Claw hammers

Brick hammers

Bolster chisels

Chipping hammers

Welding-chipping hammers

Picks

Bricklayer's hammers and axes

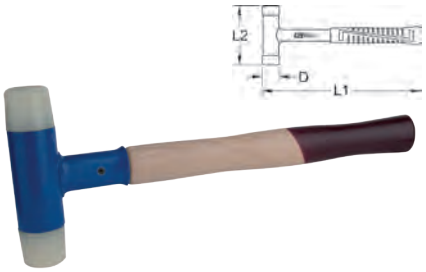
Axes

Replacement handles

RECOIL FREE SOFT FACED HAMMER

Recoil free soft faced hammer

- With hickory handle
- Shock absorbing effect through steel shot in the head
- Up to 100% higher impact effect than normal Soft head hammers
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil



	g	D mm	L1 mm	L2 mm	
140.1215	350	32.0	330.0	120.0	480

Recoil free soft faced hammer

- With steel tube handle and plastic handle
- Shock absorbing effect through steel shot in the head
- Up to 100% higher impact effect than normal Soft head hammers
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil

	g	D mm	L1 mm	L2 mm	handle,spare	head,spare		
140.5270	360	25.0	270.0	105.0	-	140.5280	-	360
140.5271	480	30.0	290.0	105.0	-	140.5281	-	480
140.5272	590	35.0	295.0	110.0	-	140.5282	-	590
140.5273	850	40.0	300.0	120.0	-	140.5283	-	850
140.5274	990	45.0	305.0	120.0	-	140.5284	-	990
140.5275	1110	50.0	310.0	125.0	-	140.5285	-	1110
140.5276	1290	55.0	325.0	135.0	-	140.5286	-	1290
140.5277	1670	60.0	335.0	140.0	-	140.5287	-	1670

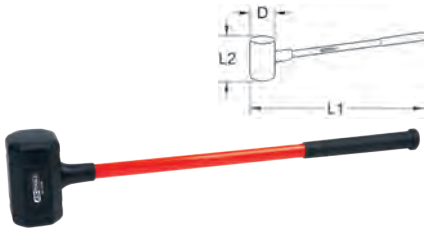
Recoil free soft faced hammer

- With polyurethane glassfiber omposite handle
- Shock absorbing effect through steel shot in the hammer head
- Substantially higher impact effect than standard conventional hammers
- For safer working with less recoil

	g	D mm	L1 mm	L2 mm	handle,spare		
140.5252	400	40.0	270.0	81.0	-	-	480
140.5254	560	40.0	305.0	100.0	-	-	640
140.5255	645	42.0	325.0	100.0	-	-	725
140.5256	860	50.0	342.0	118.0	-	-	940
140.5257	1270	56.0	355.0	118.0	-	-	1350
140.5258	1720	65.0	370.0	135.0	-	-	1800

Recoil free soft faced hammer, extra large

- Fiberglass handle
- Special absorbing effect through steel shot in the hammer head
- Substantially higher impact effect than standard conventional hammers
- Polyurethane glassfiber omposite
- For safer working with less recoil



	g	D mm	L1 mm	L2 mm	handle,spare		kg
140.5259	4500	105.0	890.0	180.0	-	-	4.76
140.5260	5000	105.0	900.0	200.0	-	-	5.26

SOFT HEAD HAMMER

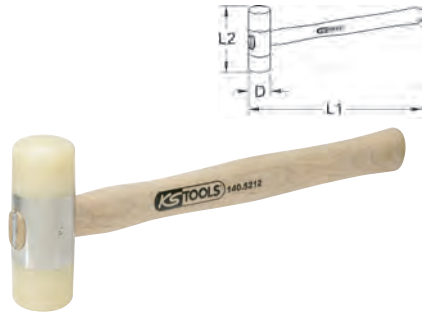
Plastic hammer

- With ash handle
- With transparent head made from impact resistant cellulose acetate

	g	D mm	L1 mm	L2 mm	handle,spare		
140.5201	200	28.0	260.0	82.0	140.5301	140.5401	210
140.5202	340	35.0	300.0	95.0	140.5304	140.5404	350

Nylon hammer

- With ash handle
- With head made out of impact resistant nylon



	g	D mm	L1 mm	L2 mm	handle,spare		
140.5211	200	28.0	260.0	82.0	140.5301	140.5401	230
140.5212	340	35.0	300.0	95.0	140.5304	140.5404	450

Rubber hammer

- DIN 5128
- With ash handle
- Hammer head made out of hard rubber

	g	D mm	L1 mm	L2 mm	handle,spare		
140.5221	300	54.0	310.0	85.0	140.5304	140.5404	360
140.5222	500	60.0	320.0	100.0	140.5305	140.5405	560
140.5223	700	74.0	350.0	120.0	140.5306	140.5405	760

Rubber hammer

- DIN 5128
- With tapered ash inserted handle
- Hammer head made out of hard rubber

	g	D mm	L1 mm	L2 mm	
140.1230	425	60.0	340.0	110.0	525

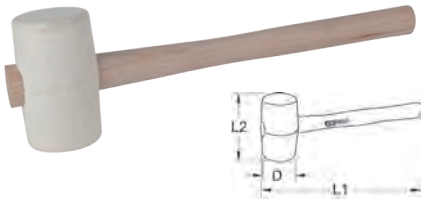
Rubber hammer

- DIN 5128
- With fiber lass handle
- Hammer head made out of hard rubber

	g	D mm	L1 mm	L2 mm	
140.1237	700	56.0	3250.0	100.0	820

Rubber hammer

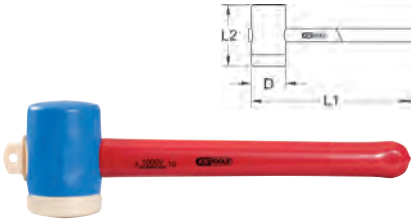
- DIN 5128
- With tapered ash inserted handle
- Hammer head made out of hard rubber
- With white rubber head



	g	D mm	L1 mm	L2 mm	
140.1234	270	50.0	320.0	85.0	320
140.1235	500	65.0	335.0	115.0	540
140.1236	700	74.0	375.0	126.0	750

Insulated soft face hammer

- Insulated to IEC 60900
- Made from plastic
- Without metal parts



	D mm	L1 mm	L2 mm		
117.1131	55.0	300.0	82.0	1000V	325

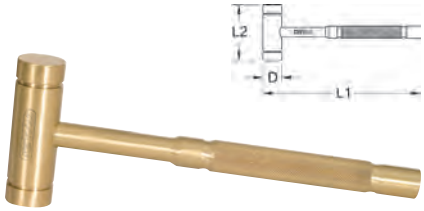
Insulated dead blow hammer

- Insulated to IEC 60900
- Shock absorbing effect through steel shot in the head
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil

	D mm	L1 mm	L2 mm	head,spare		
117.1126	25.0	300.0	105.0	117.1128	1000V	560
117.1127	35.0	310.0	115.0	117.1129	1000V	790

Brass hammer

- Full brass execution
- Protective material



	g	D mm	L1 mm	L2 mm	handle,spare		
140.2081	800	26.0	230.0	83.0	-	-	800
140.2082	1400	31.0	260.0	100.0	-	-	1400

Wooden hammer

- DIN 7462
- With ash handle
- Made completely from ash

	D mm	L1 mm	L2 mm	
140.5231	40.0	240.0	90.0	160
140.5232	60.0	300.0	125.0	360
140.5233	80.0	360.0	145.0	560

FITTERS HAMMER

Fitters hammer

- DIN 1041
- With hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare			
142.1310	100	15.0	260.0	82.0	142.5305	140.5405		180
142.1320	200	19.0	280.0	95.0	142.5306	140.5405		283
142.1330	300	23.0	300.0	105.0	142.5307	140.5405		350
142.1350	500	27.0	320.0	118.0	142.5308	140.5406		590
142.1380	800	33.0	350.0	130.0	142.5309	140.5406		920
142.1400	1000	36.0	360.0	135.0	142.5310	140.5406		1268

Fitters hammer

- DIN 1041
- With fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		
142.1311	100	15.0	260.0	82.0	-	-	180
142.1321	200	19.0	280.0	95.0	-	-	280
142.1331	300	23.0	300.0	105.0	-	-	380
142.1351	500	27.0	320.0	118.0	-	-	590
142.1381	800	33.0	350.0	130.0	-	-	920
142.1401	1000	36.0	360.0	135.0	-	-	1325

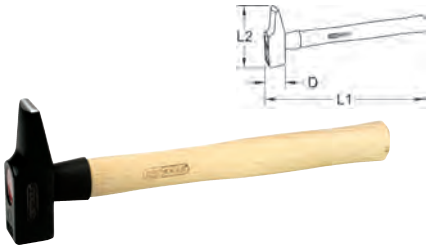
Fitters hammer

- DIN 1041
- With steel tube handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	
142.1221	350	20.0	300.0	100.0	580

Fitters hammer, French form

- With ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	handle,spare		
142.1030	250	25.0	300.0	81.5	142.5301	140.5401	365
142.1050	400	32.0	320.0	92.0	142.5302	140.5402	525
142.1080	800	40.0	350.0	110.0	142.5303	140.5403	1055
142.1100	1000	42.0	360.0	120.0	142.5303	140.5403	1140
142.1150	1500	50.0	380.0	138.0	142.5304	140.5404	1957
142.1250	2500	60.0	380.0	150.0	142.5304	140.5404	2730

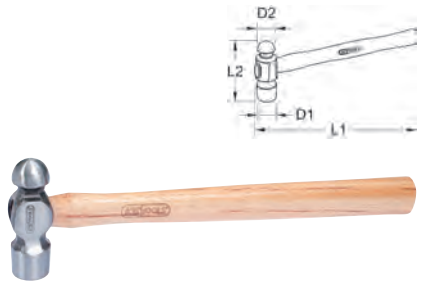
Fitters hammer, French form

- With fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
142.1031	250	25.0	290.0	81.5	-	-	415
142.1051	400	32.0	310.0	92.0	-	-	575
142.1081	800	40.0	338.0	110.0	-	-	1160
142.1101	1000	42.0	340.0	117.0	-	-	1270
142.1151	1500	50.0	405.0	138.0	-	-	2140

Pin hammer

- With hickory handle
- Additional head security
- Extremely durable



	g	D1 mm	D2 mm	L1 mm	L2 mm	Handle		kg
142.1508	225	20.0	20.0	290.0	80.0	142.1510	140.5403	0.30
142.1512	340	28.0	25.0	310.0	91.0	142.1520	140.5403	0.42
142.1516	450	30.0	27.0	350.0	102.0	142.1530	140.5405	0.55
142.1524	680	38.0	32.0	365.0	116.0	142.1540	140.5405	0.80
142.1532	900	40.0	35.0	380.0	130.0	142.1550	140.5405	1.10

CLAW HAMMERS

Claw hammer, French form

- With lacquered ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
142.2020	200	20.0	270.0	92.0	142.5311	140.5401	300
142.2045	500	30.0	310.0	121.0	142.5313	140.5402	600

Claw hammer, French form

- With fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
142.2021	200	20.0	285.0	92.0	-	-	270
142.2033	250	22.0	290.0	107.0	-	-	320
142.2046	500	30.0	328.0	121.0	-	-	600

ELECTRICIANS HAMMER

Electricians hammer, French form

- With lacquered ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
142.4020	200	18.0	260.0	128.0	142.5314	140.5401	260

Electricians hammer, French form

- With fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
142.4030	200	18.0	285.0	126.0	-	-	250

CLUB HAMMER

Club hammer

- DIN 6475
- With lacquered ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		kg
142.5100	1000	40.0	260.0	95.0	142.5316	140.5405	1.10
142.5125	1250	43.0	260.0	100.0	142.5317	140.5405	1.36
142.5150	1500	45.0	280.0	110.0	142.5318	140.5406	1.60

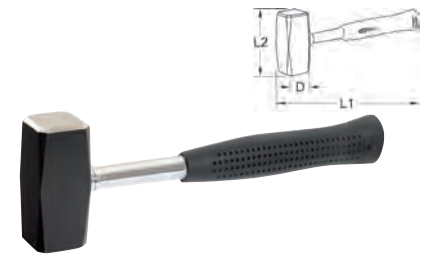
Club hammer

- DIN 6475
- With fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		kg
142.5101	1000	40.0	260.0	95.0	-	-	1.13
142.5126	1250	43.0	260.0	100.0	-	-	1.36
142.5151	1500	45.0	280.0	110.0	-	-	1.65

Club hammer

- DIN 6475
- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	handle,spare		kg
142.5165	1000	40.0	260.0	95.0	-	-	1.18
142.5166	1250	43.0	260.0	100.0	-	-	1.43

Club hammer

- DIN 6475
- With tapered ash inserted handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked laquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		kg
142.5102	1000	42.0	260.0	95.0	140.5320	-	1.13
142.5127	1250	44.0	260.0	100.0	140.5321	-	1.31
142.5152	1500	45.0	280.0	110.0	140.5322	-	1.63
142.5162	2000	48.0	300.0	120.0	140.5323	-	2.13

Club hammer

- DIN 6475
- With tapered fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		kg
142.5103	1000	42.0	280.0	95.0	142.5319	-	1.15
142.5128	1250	44.0	260.0	100.0	142.5319	-	1.32
142.5153	1500	45.0	280.0	110.0	142.5319	-	1.65

Rubber cap for club hammer

- Rubber cap for club hammer to DIN 6475

	H1 mm	H2 mm	L1 mm	L2 mm	g
140.2075	55.0	27.0	72.0	40.0	400
140.2076	55.0	29.0	72.0	42.0	400
140.2077	55.0	33.0	72.0	44.0	400

SLEDGE HAMMER

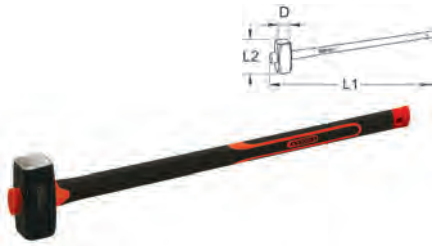
Sledge hammer

- Forged execution
- With tapered inserted ash handle
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		kg
142.6300	3000	58.0	900.0	138.0	140.5330	-	3.50
142.6400	4000	64.0	900.0	148.0	140.5330	-	4.44
142.6500	5000	70.0	900.0	158.0	140.5330	-	5.44

Sledge hammer

- With tapered fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	handle,spare		kg
142.6301	3000	58.0	900.0	138.0	142.5323	-	3.80
142.6401	4000	64.0	900.0	148.0	142.5323	-	4.80
142.6501	5000	70.0	900.0	158.0	142.5332	-	5.80

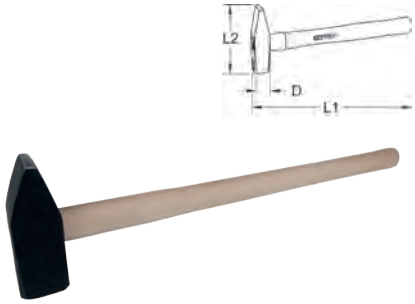
Chipping hammer

- With tapered inserted beech handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		kg
140.6510	3000	55.0	900.0	148.0	140.5330	-	4.00

Sledge hammer

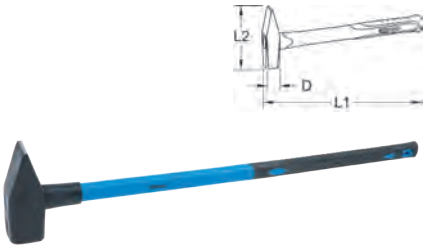
- DIN 1042
- With ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	kg
142.1223	3000	54.0	600.0	162.0	3.30

Sledge hammer

- With fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	kg
142.1210	4000	70.0	880.0	180.0	6.00

PANEL BEATING HAMMERS

Panel beaters hammer

- With ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
140.4003	400	30.0	310.0	118.0	140.5304	140.5404	560

Panel beaters hammer, round/square

- Bumping hammer with strong arched faces
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	square dim.mm	g
140.2130	325.0	105.0	30.0	26 x 26 mm	390

Panel beaters hammer, small round/square

- Simple hammer with a fl t, angular face and a round, slightly arched face
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	square dim.mm	g
140.2138	325.0	100.0	30.0	28 x 28 mm	390

Panel beaters serrated hammer, round/square

- For forming with an square, fin ly serrated face
- For streching with a round, slightly domed face
- Round work surfaces ground
- Special steel

	L mm	head length mm	Ø round side mm	square dim.mm	g
140.2132	325.0	100.0	40.0	38 x 38 mm	490

Panel beaters hammer rounded head, small round/square

- Simple hammer with a fl t, angular face and a round, slightly arched face
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	square dim.mm	g
140.2135	325.0	100.0	30.0	27 x 27 mm	390

Panel beaters standard hammer, large round/square

- Planishing hammer with a square and round, fl t face
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	square dim.mm	g
140.2133	325.0	100.0	40.0	39 x 39 mm	420

Panel beaters standard hammer curved head, large round/square

- Simple hammer with a fl t, angular face and a round, slightly arched face
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	square dim.mm	g
140.2134	325.0	100.0	40.0	38 x 38 mm	490

Panel beaters pick hammer straigh head, round/fl t point

- Planishing hammer with a round, slightly domed face
- Fine face for accurate hammering out
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	Tip width mm	g
140.2136	325.0	140.0	40.0	19.0	460

Panel beaters pick hammer straight head, round/pointed

- Planishing hammer with a round, slightly domed face
- Fine conical face for accurate hammering out
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	g
140.2137	325.0	140.0	40.0	460

Panel beaters pick hammer straight head, fl t/pointed

- Planishing hammer with a round, slightly domed face
- Fine face curved for accurate hammering out
- Work areas ground
- Special steel

	L mm	head length mm	Ø round side mm	Tip width mm	g
140.2131	325.0	140.0	40.0	19.0	460

Panel beaters serrated hammer fin , round/square

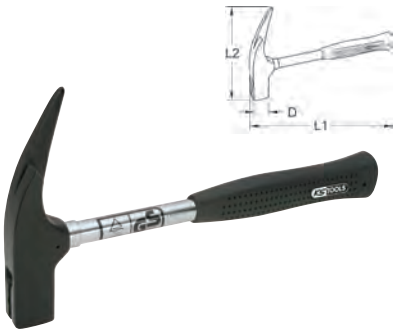
- For forming with an square, rough serrated face
- For streching with a round, slightly domed face
- Round work surfaces ground
- Special steel

	L mm	head length mm	Ø round side mm	square dim.mm	g
140.2139	325.0	100.0	40.0	38 x 38 mm	490

SCABBLING PICK

Scabbling pick

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder



	g	D mm	L1 mm	L2 mm	handle,spare		g
140.2001	600	28.0	370.0	29.0	-	-	900

Scabbling pick, magnetic

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder

	g	D mm	L1 mm	L2 mm	handle,spare		
140.2002	600	28.0	370.0	29.0	-	-	900

CLAW HAMMER

Claw hammer, French form

- With lacquered ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder

	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		
140.3030	300	24.5	300.0	105.0	33.0	140.5303	140.5404	360
140.3040	400	26.0	300.0	115.0	35.0	140.5304	140.5404	460

Claw hammer

- With tapered ash inserted handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder

	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		
142.2008	700	30.0	370.0	172.0	48.0	140.5315	-	860

Claw hammer

- With tapered fiber lass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder

	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		
142.2010	700	28.0	370.0	172.0	48.0	142.5315	-	920

Claw hammer with steel tube handle

- Steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail channel
- With nail holder

	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		
140.2005	600	28.0	370.0	144.0	44.0	-	-	900

Claw hammer American form

- Steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller

	g	D mm	L1 mm	L2 mm	handle,spare		
140.2006	600	30.0	320.0	133.0	-	-	850

BRICK HAMMER

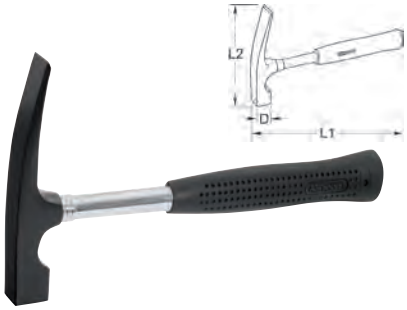
Brick hammer, Geneva form

- With tapered ash inserted handle
- Forged execution
- Impact area surfaces inductively hardened
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		
140.2015	750	24.0	370.0	250.0	140.5336	-	900

Brick hammer, Rhenish form

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Extremely strong and robust



	g	D mm	L1 mm	L2 mm	handle,spare		
140.2030	500	25.0	270.0	178.0	-	-	800

Brick hammer, Berlin form

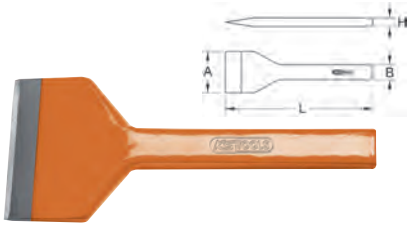
- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head with nail puller
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		
140.2003	600	27.0	270.0	203.0	-	-	940

BOLSTER CHISEL

Bolster chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft gold lacquer
- Carbon manganese silicon steel



	L mm	A mm	H mm	B mm		g
162.0431	200.0	60.0	15.0	18.0	-	500
162.0432	200.0	80.0	15.0	20.0	-	600
162.0433	220.0	100.0	18.0	22.0	-	750
162.0434	220.0	120.0	18.0	22.0	-	900

CHIPPING HAMMERS

Chipping hammer

- DIN 5133
- With steel tube handle

	D mm	L1 mm	L2 mm	kg
140.1220	15.0	295.0	155.0	0.36

WELDING CHIPPING HAMMER

Welders hammer with vertical cutting edge

- With ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Pane polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
140.2171	330	20.0	300.0	165.0	140.5404	140.5304	380

Welding chipping hammer

- With ash handle
- Forged execution
- Impact area surfaces inductively hardened
- Pane polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
140.2170	300	20.0	300.0	165.0	140.5303	140.5404	320

PICKS & AXES

Pick axe

- With tapered ash inserted handle
- Forged execution
- Impact area surfaces inductively hardened
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
140.2019	750	35.0	370.0	350.0	140.5336	-	950

Pick axe

- With tapered ash inserted handle
- Forged execution
- Impact area surfaces inductively hardened
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	handle,spare		g
140.2017	700	10.0	370.0	350.0	140.5336	-	930

BRICKLAYER'S HAMMER AND AXES

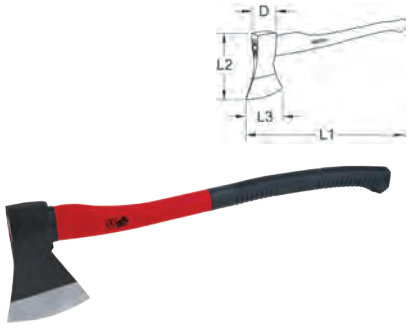
Wood axe

- DIN 5131
- With cambered hickory handle
- Handle with round double fi ed wedges
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		kg
140.2066	1250	60.0	700.0	185.0	130.0	140.2069	140.5405	1.80

Axe

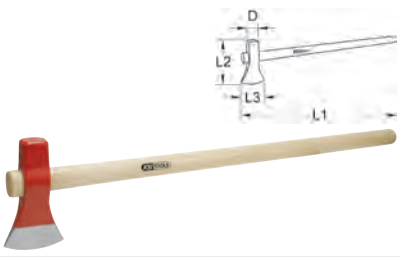
- DIN 7287
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel
- With fib eglass handle



	g	D mm	L1 mm	L2 mm	kg
140.1213	1800	60.0	690.0	185.0	2.28

Bricklayer's hammer

- DIN 7287
- With tapered ash inserted handle
- Forged execution
- Blade polished ground
- Cambered hickory handle with round double fi ed wedges
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		kg
140.2070	3000	50.0	890.0	230.0	120.0	140.5331	-	3.20

AXES

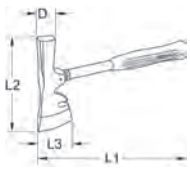
Hand axe

- DIN 5131
- With cambered hickory handle
- Handle with round double fi ed wedges
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel

	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		g
140.2062	600	40.0	350.0	15.0	105.0	140.2067	140.5403	800
140.2063	800	45.0	380.0	17.0	115.0	140.2068	140.5405	1040

Plasterers axe

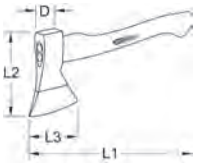
- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Blade polished ground, serrated hammer head
- Hammer head with nail puller
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	L3 mm	handle,spare		g
140.2004	600	27.0	330.0	180.0	70.0	-	-	900

Hand axe

- DIN 5131
- With fibe glass handle
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	
140.1239	800	40.0	350.0	150.0	1232

REPLACEMENT HANDLES

Replacement handle, ash and hickory

- Without wedge

	L mm	Handle form	Handle style	g
140.5301	260.0	round key	ash	10
140.5303	300.0	round key	ash	60
140.5304	300.0	round key	ash	160
140.5305	310.0	round key	ash	60
140.5306	330.0	round key	ash	60
140.5315	370.0	beveled	ash	160
140.5320	260.0	beveled	ash	130
140.5321	260.0	beveled	ash	60
140.5322	280.0	beveled	ash	130
140.5323	300.0	beveled	ash	130
140.5330	800.0	beveled	ash	440
140.5331	890.0	beveled	ash	200
140.5336	370.0	beveled	ash	200
142.5301	300.0	round key	ash	10
142.5302	320.0	round key	ash	160
142.5303	350.0	round key	ash	120
142.5304	380.0	round key	ash	160
142.5311	270.0	round key	ash	100
142.5312	290.0	round key	ash	100
142.5313	310.0	round key	ash	100
142.5314	260.0	round key	ash	60
142.5316	260.0	round key	ash	100
142.5317	260.0	round key	ash	110
142.5318	280.0	round key	ash	100
140.2067	350.0	round key	hickory	200
140.2068	380.0	round key	hickory	240
140.2069	700.0	round key	hickory	550
142.5305	260.0	round key	hickory	80
142.5306	280.0	round key	hickory	83
142.5307	300.0	round key	hickory	50
142.5308	320.0	round key	hickory	90
142.5309	350.0	round key	hickory	120
142.5310	360.0	round key	hickory	268

Replacement handles fibe glass

- Without wedge
- Tapered style form

	L mm	Handle form	Handle style	g
142.5315	370.0	beveled	fibe glas	220
142.5319	280.0	beveled	fibe glas	150
142.5332	900.0	beveled	fibe glas	800

ROUND KEY, LOCKING DEVICE

Round key, locking device

	D1 mm	D2 mm	g
140.5401	7.0	8.0	10
140.5402	8.0	9.0	10
140.5403	9.0	10.0	10
140.5404	10.0	12.0	10
140.5405	12.0	14.0	10
140.5406	14.0	16.0	10

You can find mo e hammers in the Non-sparking Tools section.

CHISELS / PUNCHES

KSTOOLS®

Innovation is our mission!

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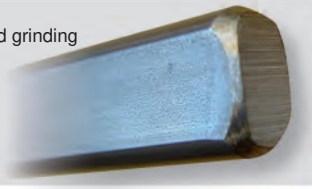
STRIKING TOOLS

Manufacturing and fabrication steps

Section

Impact head grinding



Embossing

Forging

Hardening

Head tempering

Tempering

Sand blasting

Powder baking and lacquering

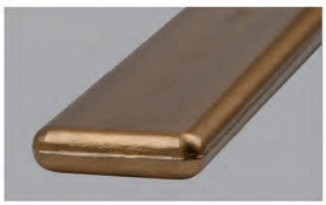
Our chisels are forged professionally, are polished and are sealed with transparent rust protection lacquer. Carefully rounded head forms without sharp corners and edges are similar to the blow radius of the hammer - with big impact surfaces for safe striking.

The special head compensation fi hts against chipping and burring where the striking and the impact connects with it.
Our chisels can be reground without additional remachining up to the blade end.

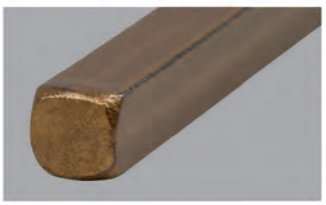
Impact head formats

Flat oval

Flat oval extra thin



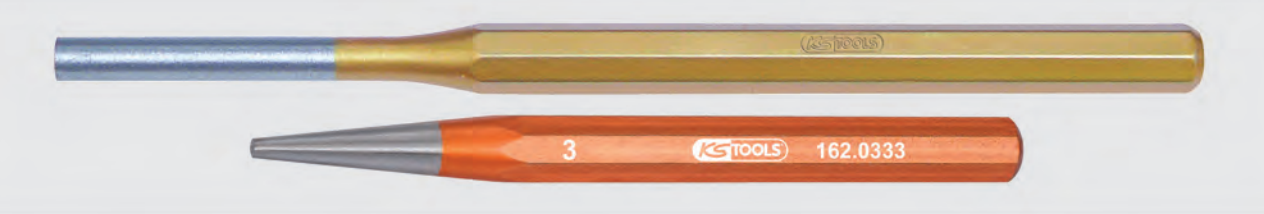
4-point



8-point

PUNCHES AND PIN PUNCHES

All split punches and pin punches are manufactured with minus tolerance to avoid getting stuck in holes while driving out pins and bolts.



Chisel and punch lines

Flat chisel

Tilers flat chise

Slitting chisel

Jointing chisel

Bricklayers chisel

Pointed chisel

Electrians chisel

Cross chisel

Tilers pointed chisel

Bodywork slitting chisel

Bolster chisel

Glassfibre chise

Hand grips

Pin punch

Pin punch

Centre punch

Centre punch

Scriber

Punches

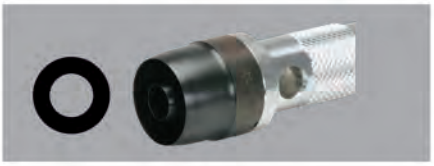
Awle

Stamp sets

Gasket ring dismantling tool

Handle punch

Hole punches



Rivet processing tool

Flattener

Drawbore pins

Bending and pry bars

FLAT CHISELS

Flat chisel

- DIN 6453
- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	B mm	H mm		g	
162.0101	100.0	18.0	14.0	9.0	-	80	
162.0102	125.0	18.0	14.0	9.0	-	100	
162.0103	150.0	21.0	17.0	11.0	-	180	
162.0104	175.0	24.0	20.0	12.0	-	280	
162.0105	200.0	28.0	23.0	13.0	162.0442	380	
162.0106	250.0	28.0	23.0	13.0	162.0442	500	
162.0107	300.0	31.0	23.0	13.0	162.0442	600	

Flat chisel with hand grip

- DIN 6453
- Flat oval form
- Ground point
- Quenched and tempered
- Shaft with gold coated lacquer
- Tip can be resharpened
- Chrome molybdenum

	L mm	A mm	B mm	H mm	g	
162.0113	250.0	28.0	23.0	13.0	500	
162.0114	300.0	31.0	23.0	13.0	600	

Flat chisel

- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	S mm		g	
162.0211	125.0	13.0	10.0	-	80	
162.0212	150.0	15.0	12.0	-	120	

Flat chisel

- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Carbon manganese silicon steel

	L mm	A mm	S mm		g	
156.0555	150.0	14.0	10.0	-	90	
156.0556	200.0	14.0	10.0	-	110	
156.0557	250.0	14.0	10.0	-	150	

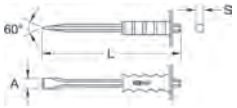
Flat chisel

- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Carbon manganese silicon steel

	L mm	A mm	S mm		g	
156.0531	250.0	24.0	16.0	162.0445	380	
156.0532	300.0	24.0	16.0	162.0445	440	
156.0533	350.0	24.0	16.0	162.0445	520	
156.0534	400.0	27.0	18.0	162.0446	820	

Flat chisel with hand grip

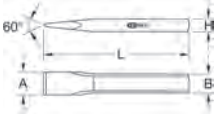
- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Carbon manganese silicon steel



	L mm	A mm	S mm	g	
156.0535	250.0	24.0	16.0	520	
156.0536	300.0	24.0	16.0	650	
156.0537	350.0	24.0	16.0	710	

Flat chisel

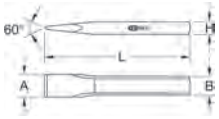
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Chrome molybdenum



	L mm	A mm	B mm	H mm		g	
156.0585	150.0	15.0	15.0	9.0	-	180	
156.0586	200.0	25.0	23.0	13.0	162.0442	320	
156.0587	250.0	25.0	23.0	13.0	162.0442	500	
156.0588	300.0	25.0	23.0	13.0	162.0442	600	

Flat chisel

- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm		g	
156.0691	125.0	19.0	13.0	8.0	-	81	
156.0692	150.0	21.0	14.0	9.0	-	136	
156.0693	200.0	27.0	17.0	11.0	-	244	
156.0694	250.0	31.0	19.0	12.0	-	411	

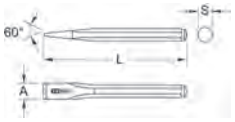
Flat chisel set

- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Highly polished
- Chrome molybdenum

			g	
156.0690	4 pcs	125x19 - 150x21 - 200x27 - 250x31 mm	970	

Flat chisel

- 8 point
- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium



	L mm	A mm	S mm		g	
156.0162	130.0	12.0	9.0	-	70	

Flat chisel with hand grip

- 8 point
- Quenched and tempered
- Tip can be resharpened
- Highly polished
- Chrome molybdenum

	L mm	A mm	S mm	g	
156.0241	210.0	20.0	14.0	273	

TILER'S FLAT CHISELS

Tilers fl t chisel

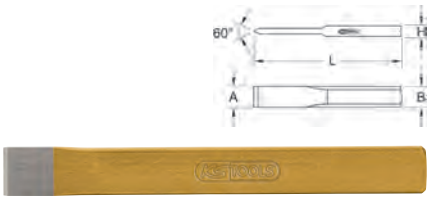
- 4 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	S mm		
162.0311	100.0	10.0	8.0	-	40

SLITTING CHISEL

Slitting chisel

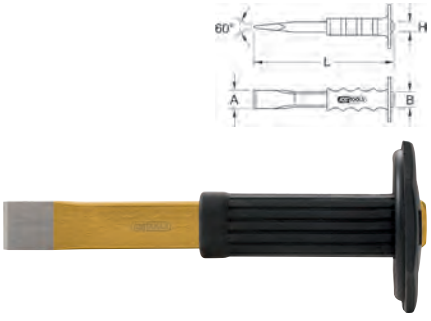
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm		
162.0131	230.0	26.0	26.0	7.0	162.0441	285

Slitting chisel with hand grip

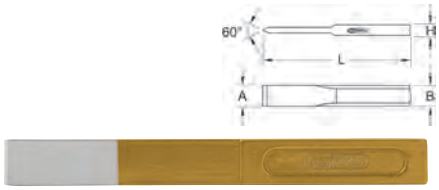
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	
162.0141	230.0	26.0	26.0	7.0	285

Panel beaters slitting chisel, extra thin

- Flat oval form
- Extra thin
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm		
162.0421	240.0	26.0	26.0	7.0	162.0443	260

Slitting chisel with hand grip

- Flat oval form
- Extra thin
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	B mm	H mm	
162.0471	240.0	26.0	26.0	7.0	370

JOINTING CHISELS

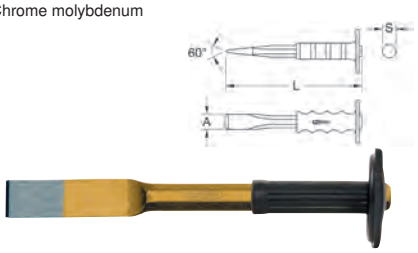
Jointing chisel

- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	S mm		
162.0151	250.0	25.0	18.0	162.0446	420
162.0152	250.0	100.0	20.0	162.0447	685

Jointing chisel with hand grip

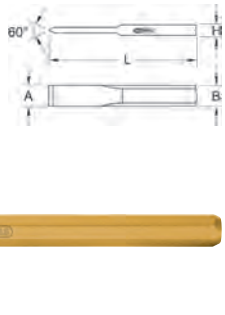
- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	
162.0161	250.0	25.0	18.0	420
162.0162	250.0	100.0	20.0	685

Jointing chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm		
162.0171	250.0	50.0	23.0	13.0	162.0442	500
162.0172	250.0	60.0	26.0	13.0	162.0444	550
162.0173	250.0	70.0	26.0	13.0	162.0444	580

Jointing chisel with hand grip

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	B mm	H mm	
162.0181	250.0	50.0	23.0	13.0	500
162.0182	250.0	60.0	26.0	13.0	550
162.0183	250.0	70.0	26.0	13.0	580

Jointing chisel

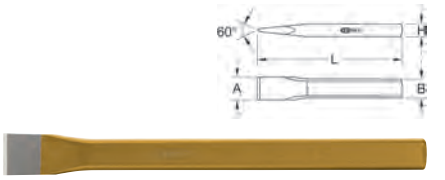
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft powder coated lacquer
- Carbon manganese silicon steel

	L mm	A mm	B mm	H mm		
156.0570	205.0	50.0	24.0	12.0	-	300
156.0571	215.0	70.0	24.0	12.0	-	400

BRICKLAYERS CHISEL

Bricklayers chisel

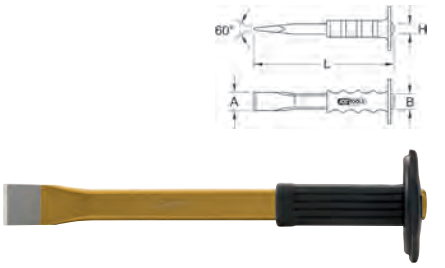
- DIN 7254 form A
- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm		g	
162.0191	200.0	27.0	20.0	12.0	162.0441	310	
162.0192	250.0	27.0	20.0	12.0	162.0441	400	
162.0193	300.0	31.0	23.0	13.0	162.0442	580	
162.0194	350.0	31.0	23.0	13.0	162.0442	720	
162.0195	400.0	31.0	23.0	13.0	162.0442	800	
162.0196	500.0	33.0	26.0	13.0	162.0444	1160	
162.0197	600.0	33.0	26.0	13.0	162.0444	1400	
162.0198	800.0	33.0	26.0	13.0	162.0444	1860	
162.0199	1000.0	33.0	26.0	13.0	162.0444	2360	

Bricklayers chisel with hand grip

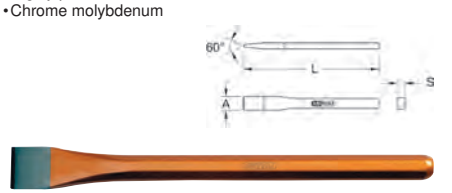
- DIN 7254 form A
- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	g	
162.0202	250.0	27.0	20.0	12.0	400	
162.0203	300.0	31.0	23.0	13.0	580	
162.0204	350.0	31.0	23.0	13.0	720	
162.0205	400.0	31.0	23.0	13.0	800	
162.0206	500.0	33.0	26.0	13.0	1160	
162.0207	600.0	33.0	26.0	13.0	1400	
162.0208	800.0	33.0	26.0	13.0	1860	
162.0209	1000.0	33.0	26.0	13.0	2360	

Bricklayers chisel

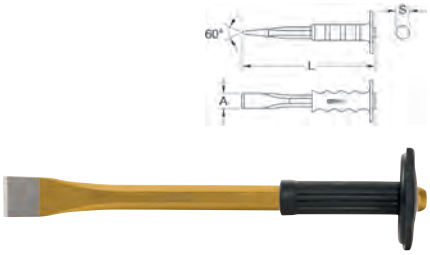
- DIN 7254 form B
- 8 point
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm		g	
162.0481	200.0	27.0	16.0	162.0445	300	
162.0482	250.0	27.0	16.0	162.0445	380	
162.0483	300.0	30.0	18.0	162.0446	600	
162.0484	350.0	30.0	18.0	162.0446	700	
162.0485	400.0	30.0	20.0	162.0447	980	
162.0486	500.0	30.0	20.0	162.0447	1240	

Bricklayers chisel with hand grip

- DIN 7254 form B
- 8 point
- Ground point
- With hand protection grip
- Quenched and tempered
- Shaft with gold coated lacquer
- Tip can be resharpened
- Chrome molybdenum



	L mm	A mm	S mm	g	
162.0222	250.0	27.0	16.0	380	
162.0223	300.0	30.0	18.0	600	
162.0224	350.0	30.0	18.0	700	
162.0225	400.0	30.0	20.0	980	
162.0226	500.0	30.0	20.0	1240	

POINTED CHISELS

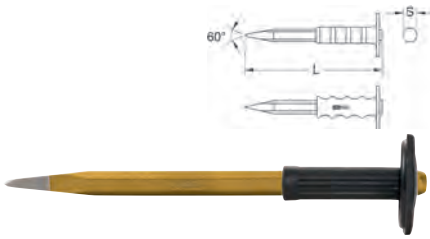
Pointed chisel

- DIN 7256
- 8 point
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	S mm		g	
162.0231	200.0	16.0	162.0445	280	
162.0232	250.0	16.0	162.0445	360	
162.0233	300.0	18.0	162.0446	560	
162.0234	350.0	18.0	162.0446	660	
162.0235	400.0	20.0	162.0447	940	
162.0236	500.0	20.0	162.0447	1200	
162.0237	600.0	20.0	162.0447	1480	
162.0238	800.0	20.0	162.0447	1960	
162.0239	1000.0	20.0	162.0447	2440	

Pointed chisel with hand grip

- DIN 7256
- 8 point
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	S mm	g	
162.0242	250.0	16.0	360	
162.0243	300.0	18.0	560	
162.0244	350.0	18.0	660	
162.0245	400.0	20.0	940	
162.0246	500.0	20.0	1200	
162.0247	600.0	20.0	1480	
162.0248	800.0	20.0	1960	
162.0249	1000.0	20.0	2440	

Pointed chisel

- 8 point
- Quenched and tempered
- Tip can be resharpened
- Shaft with powder coated lacquer
- Carbon manganese silicon steel

	L mm	S mm		g	
156.0511	250.0	16.0	162.0445	390	
156.0512	300.0	16.0	162.0445	400	
156.0513	350.0	16.0	162.0445	450	
156.0514	400.0	18.0	162.0446	660	

Pointed chisel with hand grip

- 8 point
- Quenched and tempered
- Tip can be resharpened
- Shaft with powder coated lacquer
- Carbon manganese silicon steel

	L mm	S mm	g	
156.0515	250.0	16.0	530	
156.0516	300.0	16.0	620	
156.0517	350.0	16.0	710	
156.0518	400.0	16.0	790	

Pointed chisel

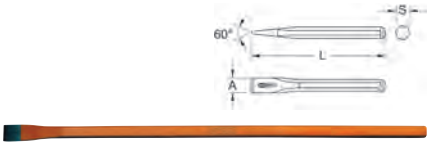
- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Carbon manganese silicon steel

	L mm	S mm		g	
156.0550	150.0	10.0	-	60	

ELECTRICIANS CHISEL

Electrians chisel

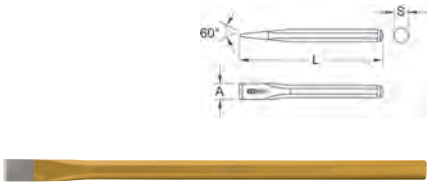
- 4 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm		g	
162.0251	200.0	8.0	6.0	-	60	
162.0252	200.0	10.0	8.0	-	100	
162.0253	200.0	12.0	8.0	-	101	
162.0254	200.0	12.0	10.0	-	140	
162.0255	250.0	10.0	8.0	-	120	
162.0256	250.0	12.0	8.0	-	120	
162.0257	250.0	12.0	10.0	-	185	
162.0258	300.0	12.0	8.0	-	140	

Electrians chisel

- 8 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm		
162.0261	200.0	12.0	10.0	-	120
162.0262	200.0	14.0	12.0	-	160
162.0263	250.0	12.0	10.0	-	150
162.0264	250.0	14.0	12.0	-	210
162.0265	300.0	12.0	10.0	-	200
162.0266	300.0	14.0	12.0	-	260

CROSS CHISEL

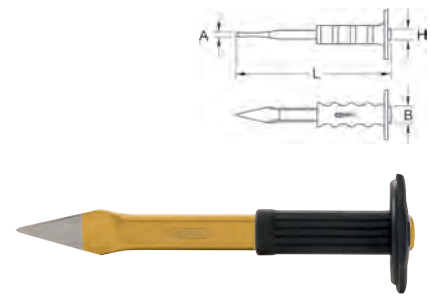
Cross chisel

- DIN 6451
- Flat oval form
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	B mm	H mm		
162.0281	100.0	5.0	14.0	9.0	-	60
162.0282	125.0	5.0	14.0	9.0	-	80
162.0283	150.0	6.0	17.0	11.0	-	160
162.0284	175.0	7.0	20.0	12.0	-	240
162.0285	200.0	8.0	23.0	13.0	162.0442	340
162.0286	250.0	8.0	23.0	13.0	162.0442	460
162.0287	300.0	9.0	23.0	13.0	162.0442	560

Cross chisel with hand grip

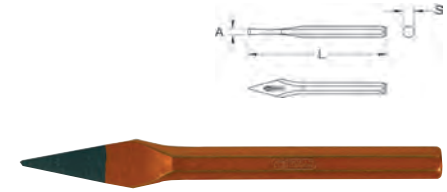
- DIN 6451
- Flat oval form
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	
162.0293	250.0	8.0	23.0	13.0	460
162.0294	300.0	9.0	23.0	13.0	560

Cross chisel

- 8 point
- Quenched and tempered
- Tip can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm		
162.0301	125.0	4.0	10.0	-	60

Cross chisel

- Flat oval form
- Quenched and tempered
- Tip can be resharpened
- Black lacquer
- Chrome vanadium

	L mm	A mm	B mm	H mm		
156.0326	210.0	8.0	20.0	12.0	-	311
156.0327	250.0	9.0	23.0	13.0	-	430

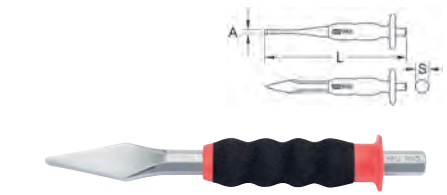
Cross chisel

- 8 point
- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium

	L mm	A mm	S mm		
156.0161	130.0	5.0	10.0	-	60

Cross chisel with hand grip

- 8 point
- Quenched and tempered
- Tip can be resharpened
- Highly polished
- Chrome molybdenum

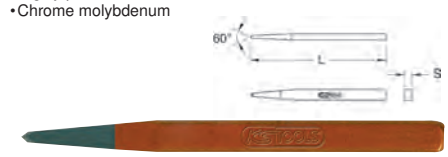


	L mm	A mm	S mm	
156.0242	190.0	7.0	12.0	169

TILERS POINTED CHISELS

Tilers pointed chisel

- 4 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	S mm		
162.0321	100.0	8.0	-	40
162.0322	200.0	6.0	-	60
162.0323	200.0	8.0	-	100
162.0324	250.0	8.0	-	120
162.0325	250.0	10.0	-	180

BODYWORK CHISELS

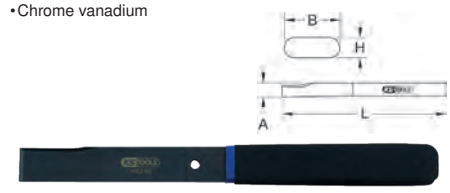
Bodywork slitting chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	A mm	B mm	H mm		
162.0271	250.0	30.0	23.0	13.0	162.0442	460

Bodywork slitting chisel

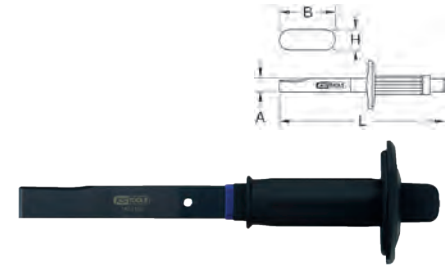
- DIN 7255
- Flat oval form
- Blade can be resharpened
- Extra fl t
- Burnished
- Chrome vanadium



	L mm	A mm	B mm	H mm		
140.2162	300.0	21.0	25.0	6.0	-	310

Bodywork slitting chisel with hand grip

- DIN 7255
- Flat oval form
- Blade can be resharpened
- Extra fl t
- Burnished
- Chrome vanadium

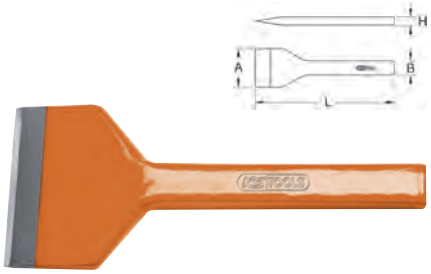


	L mm	A mm	B mm	H mm	
140.2165	300.0	21.0	25.0	6.0	550

BOLSTER CHISEL

Bolster chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft gold lacquer
- Carbon manganese silicon steel



	L mm	A mm		H mm	g	
162.0431	200.0	60.0	-	15.0	500	
162.0432	200.0	80.0	-	15.0	600	
162.0433	220.0	100.0	-	18.0	750	
162.0434	220.0	120.0	-	18.0	900	

GLASS FIBRE CHISELS

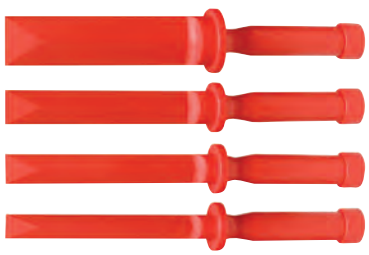
Glassfib e chisel

- For paint preserving removal of ornament and window strips and wheel weights on aluminium rims
- Flexible chisel blade
- Impact cap for light impacts
- Ergonomic handle
- Special plastic

	A mm	g	
911.8131	19.0	130	
911.8132	22.0	140	
911.8133	26.0	150	
911.8134	38.0	180	

Glassfib e chisel set

- For paint preserving removal of ornament and window strips
- Flexible chisel blade
- Impact cap for light impacts
- Ergonomic handle
- Special plastic



			g	
911.8130	4 pcs	19 - 22 - 26 - 38 mm	570	

HAND GRIPS

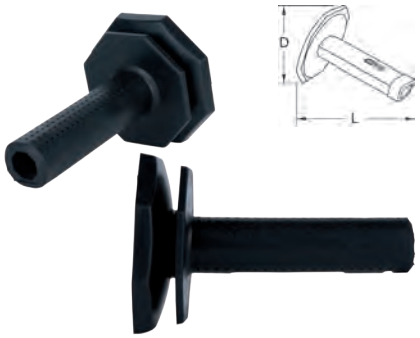
Hand grip for chisel

- Standard version
- PVC

	L mm	D mm	Handle size mm	g	
162.0441	120.0	80.0	20x12	110	
162.0442	120.0	80.0	23x13	110	
162.0443	120.0	80.0	26x7	110	
162.0444	120.0	80.0	26x13	110	
162.0445	120.0	80.0	16	110	
162.0446	120.0	80.0	18	110	
162.0447	120.0	80.0	20	110	

Safety hand grip for chisel

- Double hand protection
- PVC



	L mm	D mm	Handle size mm	g	
162.2128	140.0	100.0	23x13	170	
162.2129	140.0	100.0	20	170	
162.2130	140.0	100.0	26x7	170	
162.2132	140.0	100.0	26x13	170	

PIN PUNCHES

Pin punch

- DIN 6458 form B
- 8 point
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	D mm	S mm		g	
162.0331	120.0	1.0	10.0	-	65	
162.0332	120.0	2.0	10.0	-	65	
162.0333	120.0	3.0	10.0	-	65	
162.0334	120.0	4.0	10.0	-	65	
162.0335	120.0	5.0	10.0	-	65	
162.0336	120.0	6.0	10.0	-	65	

Pin punch

- DIN 6458 form D
- 8 point
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	D mm	S mm		g	
162.0341	120.0	1.0	12.0	-	85	
162.0342	120.0	2.0	12.0	-	85	
162.0343	120.0	3.0	12.0	-	85	
162.0344	120.0	4.0	12.0	-	90	
162.0345	120.0	5.0	12.0	-	90	
162.0346	120.0	6.0	12.0	-	90	
162.0347	120.0	7.0	12.0	-	95	
162.0348	120.0	8.0	12.0	-	95	
162.0349	120.0	9.0	12.0	-	100	
162.0350	120.0	10.0	12.0	-	105	
162.0352	150.0	12.0	16.0	-	220	

Pin punch with hollow tip

- DIN 6458
- 8 point
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	D mm	S mm		g	
162.0461	120.0	1.0	10.0	-	65	
162.0462	120.0	2.0	10.0	-	65	
162.0463	120.0	3.0	10.0	-	65	
162.0464	120.0	4.0	10.0	-	65	
162.0465	120.0	5.0	10.0	-	65	
162.0466	120.0	6.0	10.0	-	65	

Truck punch

- Conical tapered point
- Universal use
- For extracting cotter pins, bolts, bearing rings, etc.
- Ideally suited for daily workshop use
- High quality and substaintial construction
- Premium tempered and hardened steel
- Special steel

	Ø mm	L mm	g	
450.0091	6,4	300.0	390	
450.0092	6,4	380.0	730	
450.0093	8,0	300.0	410	
450.0094	13,0	460.0	1310	

Punch set for trucks

- Conical tapered point
- Universal use
- For extracting cotter pins, bolts, bearing rings, etc.
- Ideally suited for daily workshop use
- High quality and substaintial construction
- Premium tempered and hardened steel
- Special steel

			kg
450.0090	4 pcs	6,4 - 6,4 - 8,0 - 13,0 mm	2.91

Pin punch

- 8 point
- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium

	L mm	D mm	S mm		g
156.0130	120.0	2.0	9.5	-	60
156.0131	120.0	3.0	9.5	-	60
156.0132	120.0	4.0	9.5	-	60
156.0133	120.0	5.0	9.5	-	60
156.0134	120.0	6.0	9.5	-	60

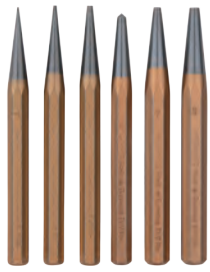
Pin punches with hand grip

- 8 point
- Quenched and tempered
- Tip can be resharpened
- Highly polished
- Chrome molybdenum

	L mm	D mm	S mm	g
156.0244	185.0	5.0	10.0	115

Pin punch set

- DIN 6458 Form B+D
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In a plastic bag



			g
162.2126	6 pcs	120x10x1 - 120x10x2 - 120x10x3 - 120x10x4 - 120x10x5 - 120x10 mm	710

Pin punch set

- DIN 6458 Form B+D
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In plastic stands

			g
162.2127	6 pcs	120x10x1 - 120x10x2 - 120x10x3 - 120x10x4 - 120x10x5 - 120x10 mm	710

Pin punch set

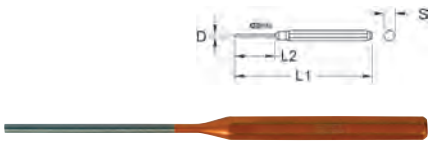
- DIN 6458 Form B+D
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In metal storage cassette

			g
162.2124	6 pcs	120x10x1 - 120x10x2 - 120x10x3 - 120x10x4 - 120x10x5 - 120x10 mm	710

COTTER PIN DRIVES

Cotter pin drive, long

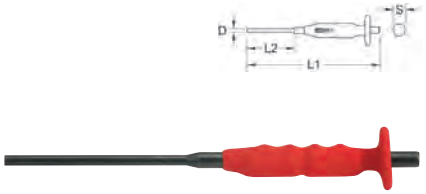
- 8 point
- Quenched and tempered
- Tip can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D mm	S mm		g
162.0391	175.0	80.0	3.0	10.0	-	60
162.0392	175.0	80.0	4.0	10.0	-	70
162.0393	175.0	80.0	5.0	10.0	-	80
162.0394	175.0	80.0	6.0	10.0	-	90
162.0395	175.0	80.0	8.0	12.0	-	140
162.0396	175.0	80.0	10.0	12.0	-	150

Pin punches with hand grip

- Round
- Quenched and tempered
- Tip can be resharpened
- Burnished
- Chrome vanadium



	L1 mm	L2 mm	D mm	S mm	g
156.0026	270.0	110.0	6.0	10.0	130
156.0028	300.0	130.0	8.0	12.0	220
156.0030	300.0	140.0	10.0	12.0	250
156.0032	300.0	140.0	12.0	14.0	340
156.0034	300.0	140.0	14.0	16.0	450

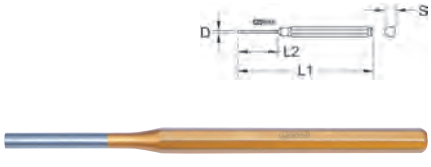
Pin punch set with hand protection grip

- Quenched and tempered
- Tip can be resharpened
- Burnished
- Chrome vanadium
- In metal stand with the possibility of wall hanging

			kg
156.0020	5 pcs	270x6 - 300x8 - 300x10 - 300x12 - 300x14 mm	2.70

Pin punch, extra long

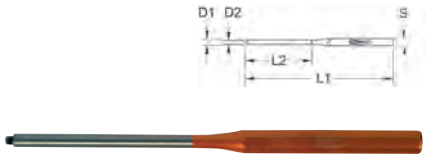
- 8 point
- Quenched and tempered
- Tip can be resharpened
- Shaft with gold coated lacquer
- Chrome molybdenum



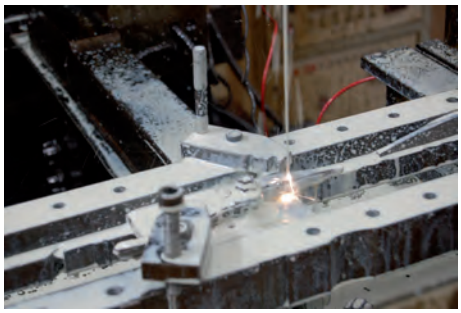
	L1 mm	L2 mm	D mm	S mm		g
162.0401	200.0	40.0	2.0	10.0	-	82
162.0402	200.0	50.0	3.0	10.0	-	90
162.0403	200.0	55.0	4.0	10.0	-	92
162.0404	200.0	55.0	5.0	10.0	-	96
162.0405	200.0	55.0	6.0	12.0	-	100
162.0406	200.0	55.0	8.0	12.0	-	150
162.0407	200.0	55.0	10.0	12.0	-	165

Brake pad cotter pin drive with guide tip

- 8-point
- Extra-long execution
- Quenched and tempered
- With guide pin for locking pins
- Suitable for locking pins on vehicles with disk brakes
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D1 mm	D2 mm	S mm		g
162.0411	175.0	85.0	4.0	2.7	10.0	-	60
162.0412	175.0	85.0	6.0	3.8	10.0	-	70



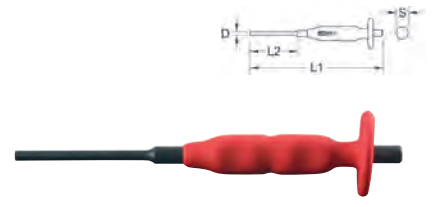
Brake pad cotter pin drive with guide tip

- 6-point
- Extra-long execution
- Quenched and tempered
- 150.2151 with guide pin for locking pins
- Suitable for locking pins on vehicles with disk brakes
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L1 mm	L2 mm	D1 mm	D2 mm	S mm		g
150.2150	180.0	80.0	4.0	-	10.0	-	70
150.2151	175.0	80.0	5.8	3.1	10.0	-	70

Pin punch with hand protection grip

- Round
- Quenched and tempered
- Tip can be resharpened
- Burnished
- Chrome vanadium



	L1 mm	L2 mm	D mm	S mm	g
156.0002	130.0	30.0	3.0	8.0	50
156.0003	145.0	40.0	3.0	8.0	60
156.0004	180.0	50.0	4.0	8.0	100
156.0005	180.0	60.0	5.0	10.0	100
156.0006	205.0	80.0	6.0	10.0	130
156.0008	225.0	85.0	8.0	12.0	150
156.0010	225.0	90.0	10.0	12.0	200

Pin punch set with hand protection grip

- With wall mounting possibility
- Tip can be resharpened
- Quenched and tempered
- Burnished
- Chrome vanadium
- In metal stand

			g
156.0000	5 pcs	145x3 - 180x4 - 180x5 - 205x6 - 225x8 mm	650

Pin punch

- 8 point
- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium

	L1 mm	L2 mm	D mm	S mm		g
156.0111	115.0	30.0	2.0	8.0	-	40
156.0112	125.0	40.0	3.0	8.0	-	40
156.0113	150.0	50.0	4.0	9.5	-	60
156.0114	165.0	50.0	5.0	9.5	-	70
156.0115	180.0	55.0	6.0	12.7	-	140
156.0116	180.0	55.0	8.0	12.7	-	150

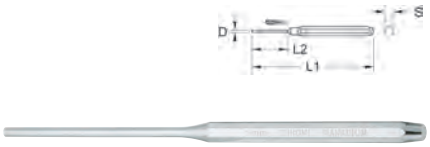
Pin punch set

- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium
- In plastic support bracket

			g
156.0150	6 pcs	115x2 - 125x3 - 150x4 - 165x5 - 180x6 - 180x8 mm	520

Pin punch, extra long

- 8 point
- Quenched and tempered
- chrome plated and mirror polished
- Highly polished
- Chrome vanadium



	L1 mm	L2 mm	D mm	S mm		g
156.0121	200.0	80.0	3.0	9.5	-	70
156.0122	200.0	85.0	4.0	9.5	-	70
156.0123	200.0	90.0	5.0	9.5	-	80
156.0124	200.0	93.0	6.0	9.5	-	80
156.0125	200.0	93.0	8.0	12.7	-	150
156.0126	200.0	93.0	10.0	12.7	-	170

Pin punch set

- 8 point
- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium
- In metal stand with the possibility of wall hanging

			kg
156.0180	17 pcs	Pin punch set	1.00

consists of:

		g
156.0111	Punch, octagonal, mirror polished, Ø 2mm	40
156.0112	Punch, octagonal, mirror polished, Ø 3mm	40
156.0113	Punch, octagonal, mirror polished, Ø 4mm	60
156.0114	Punch, octagonal, mirror polished, Ø 5mm	70
156.0115	Punch, octagonal, mirror polished, Ø 6mm	140
156.0116	Punch, octagonal, mirror polished, Ø 8mm	150
156.0121	Punch, extra long, octagonal, mirror polished, Ø 3mm	70
156.0122	Punch, extra long, octagonal, mirror polished, Ø 4mm	70
156.0123	Punch, extra long, octagonal, mirror polished, Ø 5mm	80
156.0124	Punch, extra long, octagonal, mirror polished, Ø 6mm	80
156.0125	Punch, extra long, octagonal, mirror polished, Ø 8mm	150
156.0126	Punch, extra long, octagonal, mirror polished, Ø 10mm	170
156.0130	Punch, mirror polished, Ø 2mm	60
156.0131	Punch, mirror polished, Ø 3mm	60
156.0132	Punch, mirror polished, Ø 4mm	60
156.0133	Punch, mirror polished, Ø 5mm	60
156.0134	Punch, mirror polished, Ø 6mm	60

Combi tool set

- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium
- In plastic support bracket

			g
156.0160	5 pcs	Combi tool set	360

consists of:

		g
156.0113	Punch, octagonal, mirror polished, Ø 4mm	60
156.0131	Punch, mirror polished, Ø 3mm	60
156.0175	Center punch, octagonal, mirror polished, Ø 5mm	60
156.0162	Flat chisel, octagonal, mirror polished, 130mm	70
156.0161	Cross chisel, mirror polished, 130mm	60

Pin punches with hand grip

- Round
- Quenched and tempered
- With two component handle
- Tip can be re-sharpened
- Tip polished, shaft burnished
- Chrome vanadium

	D mm	L1 mm	L2 mm	S mm	g
156.0211	2.0	150.0	30.0	10.0	100
156.0212	3.0	150.0	40.0	10.0	100
156.0213	4.0	150.0	55.0	10.0	100
156.0214	5.0	150.0	60.0	10.0	100
156.0215	6.0	150.0	60.0	10.0	100
156.0216	7.0	150.0	60.0	12.0	110
156.0217	8.0	150.0	60.0	12.0	110
156.0218	9.0	150.0	60.0	12.0	110
156.0219	10.0	150.0	60.0	12.0	130

Pin punch set with hand protection grip

- Round
- Quenched and tempered
- With two component handle
- Tip can be re-sharpened
- Tip polished, shaft burnished
- Chrome vanadium

			g
156.0220	5 pcs	3 - 4 - 5 - 6 - 8 mm	800

Pin punch, cylindrical shaft

- Quenched and tempered
- Tip can be resharpened
- Highly polished
- Chrome molybdenum

	L1 mm	L2 mm	D mm	S mm	g
156.0231	150,0	50.0	3.0	8.0	52
156.0232	180,0	61.0	4.0	10.0	93
156.0233	200,0	61.0	5.0	10.0	109
156.0234	210,0	71.0	6.0	12.0	160
156.0235	220,0	85.0	8.0	12.0	172

Punch set, cylindrical shaft

- Quenched and tempered
- Tip can be resharpened
- Highly polished
- Chrome molybdenum

			g
156.0230	5 pcs	3 - 4 - 5 - 6 - 8 mm	715

Chisel and punch set

- Quenched and tempered
- Tip can be resharpened
- Highly polished
- Chrome molybdenum

			g
156.0240	5 pcs	Chisel and punch set	370

consists of:

		g
156.0232	Cotter pin drive Ø 4 mm, cylindrical	93
156.0241	Flat chisel, 20 mm, 8-point	273
156.0242	Cross chisel, 7 mm, 8-point	169
156.0243	Centre punch, 10 mm, 8-point	118
156.0244	Punch, Ø 5 mm, conical	115

Cotter pin drive with guide sleeve

- Guide sleeve, coded
- Ø 0.9 to 4.9 mm with loose guide sleeve
- Ø 5.9 mm with fi ed sleeve
- Highly polished
- Chrome vanadium

	L mm	D mm	S mm	g
162.2249	70.0	0.9	5.0	15
162.2250	80.0	1.4	6.0	21
162.2251	83.0	1.8	6.0	21
162.2252	92.0	2.4	7.0	30
162.2253	94.0	2.8	7.0	30
162.2254	100.0	3.4	8.0	35
162.2255	100.0	3.9	8.0	35
162.2256	110.0	4.9	10.0	45
162.2257	115.0	5.9	12.0	68

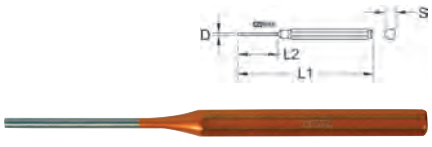
Cotter pin drive set with guide sleeve

- Guide sleeve, coded
- Ø 0.9 to 4.9 mm with loose guide sleeve
- Ø 5.9 mm with fi ed sleeve
- Highly polished
- Chrome vanadium
- In a plastic bag

			g
162.2310	8 pcs	70x0,9 - 80x1,4 - 83x1,8 - 92x2,4 - 94x2,8 - 100x3,4 - 100x3,9 - 115x5,9 mm	520

Pin punch

- DIN 6450 form C
- 8 point
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D mm	S mm		g
162.0371	150.0	35.0	2.0	10.0	-	60
162.0372	150.0	40.0	2.5	10.0	-	60
162.0373	150.0	40.0	3.0	10.0	-	60
162.0374	150.0	40.0	3.5	10.0	-	65
162.0375	150.0	50.0	4.0	10.0	-	65
162.0376	150.0	50.0	4.5	10.0	-	65
162.0377	150.0	50.0	5.0	10.0	-	65
162.0378	150.0	50.0	6.0	10.0	-	70
162.0379	150.0	55.0	7.0	10.0	-	95
162.0380	150.0	55.0	8.0	12.0	-	100
162.0381	150.0	55.0	9.0	12.0	-	110
162.0382	150.0	55.0	10.0	12.0	-	115
162.0383	150.0	55.0	12.0	16.0	-	170

Pin punch set

- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In a plastic bag

162.2122	6 pcs	150x10x3 - 150x10x4 - 150x10x5 - 150x10x6 - 150x12x8 - 150x12x10 mm	470

Pin punch set

- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome vanadium
- In a plastic holder

162.2123	6 pcs	150x10x3 - 150x10x4 - 150x10x5 - 150x10x6 - 150x12x8 - 150x12x10 mm	470

Pin punch set

- Quenched and tempered
- Tip can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In metal storage box

162.0370	6 pcs	150x10x3 - 150x10x4 - 150x10x5 - 150x10x6 - 150x12x8 - 150x12x10mm	750

Combination set

- Evenly hardened and carefully tempered through the whole length
- Impact heads inductively tempered
- Working ends polished ground and clear lacquered
- In metal storage cassette

162.2114	6 pcs	Combination set	740

consists of:

162.0212	Flat chisel, 8-point, 150mm	120
162.0301	Cross chisel, 8-point, 4x125mm	60
162.0361	Centre punch, 8-point, Ø 4mm	65
162.0375	Cotter pin drive, 8-point, Ø 4mm	65
162.0333	Punch, 8-point, Ø 3mm	65
162.0345	Punch, 8-point, Ø 5mm	90

Combination set

- Evenly hardened and carefully tempered through the whole length
- Impact heads inductively tempered
- Working ends polished ground and clear lacquered
- In a plastic bag

162.2117	6 pcs	Combination set	510

consists of:

162.0212	Flat chisel, 8-point, 150mm	120
162.0301	Cross chisel, 8-point, 4x125mm	60
162.0361	Centre punch, 8-point, Ø 4mm	65
162.0375	Cotter pin drive, 8-point, Ø 4mm	65
162.0333	Punch, 8-point, Ø 3mm	65
162.0345	Punch, 8-point, Ø 5mm	90

Combination set

- Evenly hardened and carefully tempered through the whole length
- Impact heads inductively tempered
- Working ends polished ground and clear lacquered
- In a plastic holder

162.2118	6 pcs	Combination set	510

consists of:

162.0212	Flat chisel, 8-point, 150mm	120
162.0301	Cross chisel, 8-point, 4x125mm	60
162.0361	Centre punch, 8-point, Ø 4mm	65
162.0375	Cotter pin drive, 8-point, Ø 4mm	65
162.0333	Punch, 8-point, Ø 3mm	65
162.0345	Punch, 8-point, Ø 5mm	90

CENTRE PUNCH

Centre punch

- Round
- Quenched and tempered
- Tip can be resharpened
- Black surface finis
- Chrome vanadium

	L mm	D mm	S mm		
156.0340	150.0	5.0	10.0	-	70
156.0342	150.0	6.0	12.0	-	120
156.0344	210.0	7.0	14.0	-	170
156.0346	215.0	8.0	16.0	-	230
156.0348	220.0	9.0	18.0	-	310
156.0350	220.0	10.0	20.0	-	410
156.0352	220.0	11.0	22.0	-	510
156.0354	250.0	12.0	24.0	-	640

CENTRE PUNCHES

Centre punch

- DIN 7250
- 8 point
- Tip can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

	L mm	D mm	S mm		
162.0361	120.0	4.0	10.0	-	65
162.0362	120.0	5.0	12.0	-	90
162.0363	150.0	5.0	12.0	-	120
162.0364	150.0	6.0	14.0	-	200
162.0365	150.0	8.0	18.0	-	260

Centre punch

- Round
- Quenched and tempered
- Burnished
- Chrome vanadium

	L mm	D mm	S mm		g
156.0404	100.0	4.0	10.0	-	30
156.0406	115.0	6.0	10.0	-	60
156.0408	120.0	8.0	12.0	-	120
156.0410	130.0	10.0	14.0	-	135

Centre punch

- 8 point
- Quenched and tempered
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium

	L mm	D mm	S mm		g
156.0175	120.0	5.0	10.0	-	60

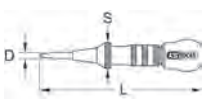
Centre punch with hand grip

- 8 point
- Quenched and tempered
- Tip can be resharpened
- Highly polished
- Chrome molybdenum

	L mm	D mm	S mm	g
156.0243	185.0	10.0	10.0	118

Automatic centre punch

- Round
- Ergonomic handle
- Power of impact 17-20 kg
- Phosphate finis
- Chrome vanadium



	L mm	D mm	S mm	g
156.0466	160.0	4.0	25.0	250

SCRIBER

Scriber

- For marking of work pieces
- Straight and 70° bent tip
- Knurled handle
- Hardened point
- Burnished
- Special steel

	L mm	D mm	g
300.0300	190.0	4.0	10

Hard metal scriber

- For marking of workpieces
- Straight and 70° bent tip
- With hard metal tip
- With hardened point
- Special steel

	L mm	D mm	g
300.2136	250.0	8.0	46

Hard metal scriber

- For marking of workpieces
- Straight and one-sided tip
- With hard metal tip
- With hardened point
- Special steel

	L mm	D mm	g
300.2135	170.0	4.0	38

Hard metal scriber

- For marking of work pieces
- Straight form
- Hard metal tip
- Pocket clip
- Hardened point
- Chrome plated
- Special steel

	L mm	D mm	g
300.0301	145.0	5.0	60
300.2137	150.0	6.0	36

Hard metal scriber in ball-point pen form

- For marking of work pieces
- Straight form
- Hardened and interchangeable hard metal tips
- Pocket clip
- Protection through foldaway needle tip
- Adjustable and lead bow mine
- Metal housing

	L mm	D mm	Replacement tip	g
300.0302	150.0	8.0	300.0303	40

Hard metal scriber in ball-point pen form

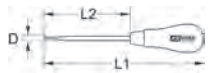
- For marking of workpieces
- Straight form
- With hardened and interchangeable hard metal tips
- With pocket clip
- Protection through foldaway needle tip
- With adjustable and lead bow mine
- Metal housing

	L mm	D mm	Replacement tip	g
300.2138	160.0	8.0	300.2139	22

PUNCHES

Punches

- Impact cap on the handle end
- Sealed beech wood handle
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium

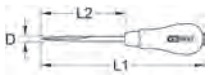


	L1 mm	L2 mm	D mm	g
300.1081	190.0	100.0	6.0	70

AWLE

Awle

- Impact cap on the handle end
- Sealed beech wood handle
- Chrome plated and mirror polished
- Highly polished
- Chrome vanadium



	L1 mm	L2 mm	D mm	g
300.1082	190.0	100.0	6.0	70

STAMP SETS

Number stamping set

- Lettering to DIN 1451
- Numbers „0 - 9“
- For stamping in materials up to 100 kp / mm² resistance
- 4 point shaft
- Font size 5 - 6mm
- Shaft engraved
- In plastic storage box

			kg
156.0467	10 pcs	Number stamping set	0.50

Letter stamping set

- Lettering to DIN 1451
- Letters „A - Z“
- For stamping in materials up to 100 kp / mm² resistance
- 4 point shaft
- Font size 5 - 6mm
- Shaft engraved
- In plastic storage box

			kg
156.0468	27 pcs	Letter stamping set	1.33

Universal letter and number punch set

- Lettering to DIN 1451
- For stamping in materials up to 100 kp / mm² resistance
- 4 point shaft
- Font size 5 - 6mm
- Shaft engraved
- In durable plastic storage case

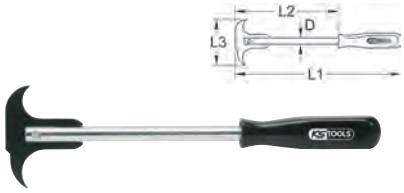
			kg
156.0465	40 pcs	Universal letter and number punch set	2.37

1 x		
1 x		0 - 9
1 x		A - Z
1 x		
1 x		

GASKET RING DISMANTLING TOOL

Gasket ring dismantling tool

- Burnished
- Chrome vanadium



	L1 mm	L2 mm	L3 mm	D mm	g	
550.1060	300.0	195.0	85.0	12.0	380	

Hook tool set

- Ideal for removing and use of O rings and seals
- With one component handle
- With hanging hole
- Special steel

			g
550.1045	4 pcs	Hook tool set	120

consists of:

		g
550.1046	Hook tool 120mm blade, straight version	27
550.1047	Hook tool 120mm blade, 45° angled version	27
550.1048	Hook tool 120mm blade, 90° angled version	27
550.1049	Hook tool 120mm blade, 135° angled version	27

Master hook tool set

- Ideal for removing and use of O rings and seals
- With hanging hole
- Special steel

			g
550.1070	9 pcs	Master hook tool set	680

consists of:

		g
550.1046	Hook tool 120mm blade, straight version	27
550.1047	Hook tool 120mm blade, 45° angled version	27
550.1048	Hook tool 120mm blade, 90° angled version	27
550.1049	Hook tool 120mm blade, 135° angled version	27
550.1071	Hook tool large, straight	91
550.1072	Hook tool large, 90°offset	105
550.1073	Hook tool large, sickle form	88
550.1074	T-handle hook tool, S-form small	42
550.1075	T-handle hook tool, S-form big	96

HANDLE PUNCH

Handle punch

- According to DIN 7200 form A
- Strong forged form
- Pipe polished ground
- For punching holes and production of seals and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel

	L mm	D mm	D	kg	
129.2002	100.0	2.0	-	0.04	
129.2003	100.0	3.0	-	0.04	
129.2004	105.0	4.0	-	0.05	
129.2005	110.0	5.0	-	0.06	
129.2006	110.0	6.0	-	0.07	
129.2007	115.0	7.0	-	0.08	
129.2008	120.0	8.0	-	0.09	
129.2009	120.0	9.0	-	0.10	
129.2010	130.0	10.0	-	0.12	
129.2011	130.0	11.0	-	0.12	
129.2012	130.0	12.0	15/32	0.12	
129.2013	140.0	13.0	1/2	0.16	
129.2014	140.0	14.0	9/16	0.16	
129.2015	140.0	15.0	19/32	0.16	
129.2016	145.0	16.0	5/8	0.17	
129.2017	145.0	17.0	21/32	0.21	
129.2018	145.0	18.0	11/16	0.21	
129.2019	145.0	19.0	3/4	0.21	
129.2020	160.0	20.0	25/32	0.29	
129.2021	160.0	21.0	13/16	0.29	
129.2022	160.0	22.0	7/8	0.30	
129.2023	170.0	23.0	29/32	0.33	
129.2024	170.0	24.0	15/16	0.34	
129.2025	170.0	25.0	1	0.36	
129.2026	170.0	26.0	1.1/32	0.36	
129.2027	175.0	27.0	1.1/16	0.45	
129.2028	175.0	28.0	1.3/32	0.46	
129.2029	175.0	29.0	1.1/8	0.46	
129.2030	190.0	30.0	1.3/16	0.56	
129.2031	190.0	31.0	-	0.56	
129.2032	192.0	32.0	1.1/4	0.56	
129.2033	195.0	33.0	-	0.64	
129.2034	195.0	34.0	1.5/16	0.65	
129.2035	195.0	35.0	1.3/8	0.66	
129.2036	195.0	36.0	-	0.66	
129.2037	205.0	37.0	1.7/16	0.75	
129.2038	205.0	38.0	1.1/2	0.78	
129.2039	205.0	39.0	-	0.80	
129.2040	205.0	40.0	1.9/16	0.81	
129.2041	205.0	41.0	1.5/8	0.82	
129.2042	220.0	42.0	-	0.98	
129.2043	220.0	43.0	1.11/16	0.98	
129.2044	220.0	44.0	-	0.98	
129.2045	220.0	45.0	1.3/4	1.00	
129.2046	220.0	46.0	1.13/16	1.10	
129.2047	230.0	47.0	1.7/8	1.16	
129.2048	230.0	48.0	-	1.18	
129.2049	230.0	49.0	1.15/16	1.19	
129.2050	230.0	50.0	-	1.20	
129.2051	230.0	51.0	2	1.20	
129.2052	240.0	52.0	-	1.85	
129.2053	240.0	53.0	-	1.85	
129.2054	240.0	54.0	2.1/8	1.85	
129.2055	240.0	55.0	-	1.85	
129.2056	260.0	56.0	2.3/16	1.85	
129.2057	260.0	57.0	-	1.85	
129.2058	260.0	58.0	2.1/4	1.85	
129.2059	260.0	59.0	-	1.85	
129.2060	260.0	60.0	-	1.85	
129.2061	260.0	61.0	-	1.85	

	L mm	D mm	D	kg	
129.2062	260.0	62.0	-	1.85	
129.2063	260.0	63.0	-	1.85	
129.2064	260.0	64.0	2.1/2	1.85	
129.2065	260.0	65.0	-	3.65	
129.2066	260.0	66.0	-	3.65	
129.2067	300.0	67.0	-	3.65	
129.2068	300.0	68.0	-	3.65	
129.2069	300.0	69.0	-	3.65	
129.2070	300.0	70.0	2.3/4	3.65	
129.2071	300.0	71.0	-	3.65	
129.2072	300.0	72.0	-	3.65	
129.2073	300.0	73.0	-	3.65	
129.2074	300.0	74.0	-	3.65	
129.2075	300.0	75.0	-	4.30	
129.2076	300.0	76.0	3	4.30	
129.2077	340.0	77.0	-	4.30	
129.2078	340.0	78.0	-	4.30	
129.2079	340.0	79.0	-	4.30	
129.2080	340.0	80.0	-	4.30	
129.2085	340.0	85.0	-	4.30	
129.2090	345.0	90.0	-	5.15	
129.2095	345.0	95.0	3.3/4	8.50	
129.2100	380.0	100.0	-	8.50	
129.2105	380.0	105.0	-	8.50	
129.2110	380.0	110.0	-	8.50	
129.2115	380.0	115.0	4.1/2	8.50	
129.2120	380.0	120.0	-	8.50	

Arc punch set

- According to DIN 7200 form A
- Strong forged form
- Pipe polished ground
- For punching holes and production of seals and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel

			g	
129.2102	7 pcs	3 - 5 - 7 - 8 - 10 - 11 - 13 mm	800	
129.2103	8 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 mm	1080	
129.2106	8 pcs	6 - 8 - 10 - 12 - 14 - 16 - 20 - 25 mm	1510	
129.2104	10 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 - 22 - 25 mm	1780	

ROUND HOLE PUNCH

Round hole punch

- According to DIN 7200 form B
- Strong forged form
- Pipe polished ground
- For punching holes and production of seals and gasket rings
- Interior conical for removing the blank head
- Red lacquer
- Cutting edge hardened
- Special tool steel

	L mm	D mm	g	
129.2301	105.0	1.0	22	
129.23015	105.0	1.5	22	
129.23025	105.0	2.5	26	
129.2302	105.0	2.0	22	
129.23035	110.0	3.5	35	
129.2303	105.0	3.0	26	
129.23045	115.0	4.5	44	
129.2304	110.0	4.0	35	
129.2305	115.0	5.0	45	
129.2306	115.0	6.0	54	
129.2307	120.0	7.0	68	
129.2308	120.0	8.0	76	
129.2309	125.0	9.0	109	
129.2310	125.0	10.0	124	
129.2311	125.0	11.0	134	
129.2312	130.0	12.0	156	
129.2313	130.0	13.0	170	
129.2314	135.0	14.0	192	
129.2315	135.0	15.0	213	
129.2316	140.0	16.0	270	
129.2317	140.0	17.0	289	
129.2318	150.0	18.0	333	
129.2319	150.0	19.0	360	
129.2320	156.0	20.0	398	
129.2321	156.0	21.0	429	
129.2322	156.0	22.0	452	
129.2323	156.0	23.0	471	
129.2324	160.0	24.0	518	
129.2325	160.0	25.0	550	

Round hole punch set

- According to DIN 7200 form B
- Strong forged form
- Pipe polished ground
- For punching holes and production of seals and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel

			g	
129.2113	7 pcs	5 - 6 - 7 - 10 - 11 - 12 mm	620	
129.2108	7 pcs	3 - 5 - 7 - 8 - 10 - 11 - 13 mm	725	
129.2109	8 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 mm	1260	
129.2107	9 pcs	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm	640	
129.2111	9 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 - 22 mm	1760	
129.2112	10 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 - 22 - 25 mm	2360	

HOLE PUNCHES

Hole punch set

- For punching out rings and for making discs and holes
- Punches can also be used in pairs
- Chrome vanadium
- In durable plastic storage case

Suitable for: foam rubber, cardboard, leather, rubberfib ous materials, plastics and lead

			kg	
129.0100	16 pcs	Hole punch set	1.10	

consists of:

		g	
129.0101	Three-size holder for seal punches		
129.0103	Hole punch, thread holder, 3mm	10	
129.0104	Hole punch, thread holder, 4mm	10	
129.0106	Hole punch, thread holder, 6mm	10	
129.0108	Hole punch, thread holder, 8mm	10	
129.0110	Hole punch, thread holder, 10mm	10	
129.0112	Hole punch, punching iron mandrel, 12mm	20	
129.0114	Hole punch, punching iron mandrel, 14mm	20	
129.0116	Hole punch, punching iron mandrel, 16mm	20	
129.0118	Hole punch, punching iron mandrel, 18mm	20	
129.0120	Hole punch, punching iron mandrel, 20mm	20	
129.0122	Hole punch, punching iron mandrel, 22mm	40	
129.0124	Hole punch, punching iron mandrel, 24mm	40	
129.0126	Hole punch, punching iron mandrel, 26mm	40	
129.0128	Hole punch, punching iron mandrel, 28mm	40	
129.0130	Hole punch, punching iron mandrel, 30mm	40	

RIVET PROCESSING TOOL

Rivet setters

- Working ends polished ground and clear lacquered
- Suitable for rivets according to DIN 660 / 661 / 662 / 674
- Chrome vanadium

	Ø rivet mm	L mm	S mm	g	
129.2400	2.0	100.0	10.0	60	
129.2401	3.0	100.0	10.0	60	
129.2402	4.0	100.0	12.0	90	
129.2403	5.0	110.0	14.0	135	
129.2404	6.0	110.0	14.0	135	
129.2405	7.0	120.0	16.0	190	
129.2406	8.0	120.0	16.0	190	
129.2407	9.0	130.0	18.0	265	
129.2408	10.0	130.0	20.0	325	

Rivet setter set

- According to DIN 7200 Form B
- Suitable for rivets according to DIN 660 / 661 / 662 / 674
- Strong forged form
- Pipe polished ground
- For punching holes and production of seals and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel
- In a plastic holder

			g
129.2420	5 pcs	2 - 3 - 4 - 5 - 6 mm	520

Rivet setter and rivet header, combined

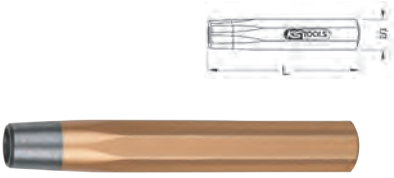
- 8-point
- Premium tempered and hardened steel
- Lacquered
- Chrome vanadium

	Ø rivet mm	L mm	B mm	H mm	g
129.2210	2.0	100.0	16.0	10.0	115
129.2211	3.0	100.0	16.0	10.0	115
129.2212	4.0	100.0	20.0	10.0	145
129.2213	5.0	110.0	25.0	12.0	215
129.2214	6.0	120.0	25.0	15.0	310
129.2215	7.0	120.0	30.0	15.0	330
129.2216	8.0	140.0	40.0	20.0	680
129.2217	9.0	160.0	40.0	25.0	950
129.2218	10.0	160.0	40.0	25.0	940

RIVET SETS

Rivet head setter

- Working ends polished ground and clear lacquered
- Suitable for rivets according to DIN 660
- Chrome vanadium



	Ø rivet mm	L mm	S mm	g
129.2199	2.0	100.0	10.0	60
129.2200	3.0	100.0	10.0	60
129.2201	4.0	100.0	12.0	90
129.2202	5.0	110.0	14.0	135
129.2203	6.0	110.0	16.0	175
129.2204	7.0	120.0	18.0	240
129.2205	8.0	120.0	20.0	305
129.2206	9.0	130.0	22.0	400
129.2207	10.0	130.0	24.0	480

Rivet head setter set

- Working ends polished ground and clear lacquered
- Suitable for rivets according to DIN 660
- Chrome vanadium
- In a plastic holder

			g
129.2209	5 pcs	2 - 3 - 4 - 5 - 6 mm	520

FLATTENERS

Tapware assembly and dismantling set

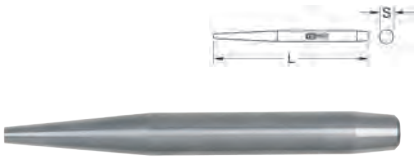
- 8-point
- Quenched and tempered
- Special steel

	L mm	S mm	g
156.0770	170.0	16.0	510

TAPER PUNCHES

Punch drawbore pin

- Hardened through the whole length
- Cone polished
- Carbon manganese silicon steel



	L mm	S mm	kg
129.2161	110.0	11.0	0.07
129.2162	120.0	13.0	0.11
129.2163	150.0	15.0	0.19
129.2164	170.0	17.0	0.27
129.2165	170.0	19.0	0.34
129.2166	190.0	21.0	0.45
129.2167	200.0	23.0	0.47
129.2168	200.0	25.0	0.68
129.2169	210.0	27.0	0.84
129.2170	210.0	28.0	0.91
129.2171	230.0	29.0	1.06
129.2172	230.0	31.0	1.21
129.2173	250.0	33.0	1.52
129.2174	280.0	34.0	1.80
129.2175	280.0	36.0	2.02
129.2176	280.0	37.0	2.14

Assembly drawbore pin

- Hardened through the whole length
- Cone polished
- Carbon manganese silicon steel

	L mm	D mm	S mm	g
129.2177	120.0	5.0	11.0	75
129.2178	120.0	5.0	13.0	90
129.2179	150.0	6.0	15.0	165
129.2180	170.0	7.0	17.0	240
129.2181	170.0	7.0	19.0	300
129.2182	190.0	8.0	21.0	410
129.2183	190.0	9.0	23.0	485
129.2184	200.0	10.0	25.0	585
129.2185	210.0	12.0	28.0	805
129.2186	230.0	12.0	31.0	1050
129.2187	250.0	13.0	34.0	1345
129.2188	270.0	14.0	37.0	1720

Assembly punch

- Hardened through the whole length
- Cone polished
- Chrome vanadium

	L mm	D mm	S mm	g
129.2189	180.0	5.0	12.0	110
129.2190	200.0	6.0	13.0	150
129.2191	200.0	8.0	16.0	220
129.2192	200.0	9.0	20.0	340
129.2193	230.0	10.0	22.0	460
129.2194	250.0	11.0	24.0	620
129.2195	280.0	12.0	27.0	870
129.2196	315.0	14.0	30.0	1260
129.2197	340.0	15.0	32.0	1570
129.2198	380.0	16.0	36.0	2230

BENDING IRONS AND PRY BARS

Pry bar

- round
- Quenched and tempered
- Forged
- Cone polished
- Special steel

	D mm	L1 mm	L2 mm	S mm	g
129.2220	5.5	500.0	170.0	20.0	970

Bending iron/pry bar

- 4-point
- Quenched and tempered
- Forged
- Cone polished
- Special steel

	D1 mm	D2 mm	L mm	S mm	g
129.2221	14.0	1.0	400.0	14.0	500

Bending iron/pry bar

- round
- Quenched and tempered
- Forged
- Special steel

	D1 mm	D2 mm	L mm	S mm	kg
129.2219	22.0	5.0	605.0	19.0	1.30

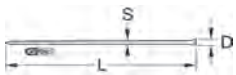
Bending iron/pry bar

- 6-point
- Quenched and tempered
- Forged
- Cone polished
- Special steel

	D1 mm	D2 mm	L mm	S mm	g
129.2222	22.0	5.0	405.0	16.0	650

Crow bar

- 8-point
- Quenched and tempered
- Red powder coating
- Special steel



	D mm	L m	S mm		kg
156.0595	50.0	1.50	25.0	-	4.84
156.0596	50.0	1.80	25.0	-	5.89
156.0597	50.0	1.25	25.0	-	7.07

Special crow bar

- flat
- Quenched and tempered
- Red powder coating
- Forged
- Special steel

	D1 mm	D2 mm	L mm	kg
129.2223	35.0	37.0	500.0	1.35
129.2224	35.0	37.0	600.0	1.80
129.2225	35.0	37.0	800.0	2.30

Crow bar

- 6 point
- Quenched and tempered
- Red powder coating
- Forged
- Special steel

	D1 mm	D2 mm	L m	S mm		kg
156.0590	30.0	37.0	0.45	19.0	-	1.16
156.0591	32.0	40.0	0.60	19.0	-	1.30
156.0592	37.0	40.0	0.70	19.0	-	1.56
156.0593	38.0	45.0	0.80	19.0	-	1.95
156.0594	38.0	45.0	1.00	19.0	-	3.27

Crow bar

- 8-point
- Quenched and tempered
- Red powder coating
- Special steel

	D1 mm	D2 mm	L m	S mm		kg
156.0575	105.0	25.0	1.60	25.0	-	6.21
156.0576	105.0	25.0	1.80	25.0	-	7.94

Steel reinforcement pry bar

- Round
- For bending and aligning of steel reinforcement and armouring rod
- Quenched and tempered
- Special steel

	D1 mm	D2 mm	L mm	S mm		kg
118.3120	6.0	8.0	375.0	11.0	-	0.32
118.3121	8.0	10.0	465.0	12.0	-	0.55
118.3122	10.0	12.0	560.0	14.0	-	0.79
118.3123	12.0	14.0	650.0	16.0	-	1.02

PLUMBING AND INSTALLATION TOOLS

KSTOOLS®

Innovation is our mission!

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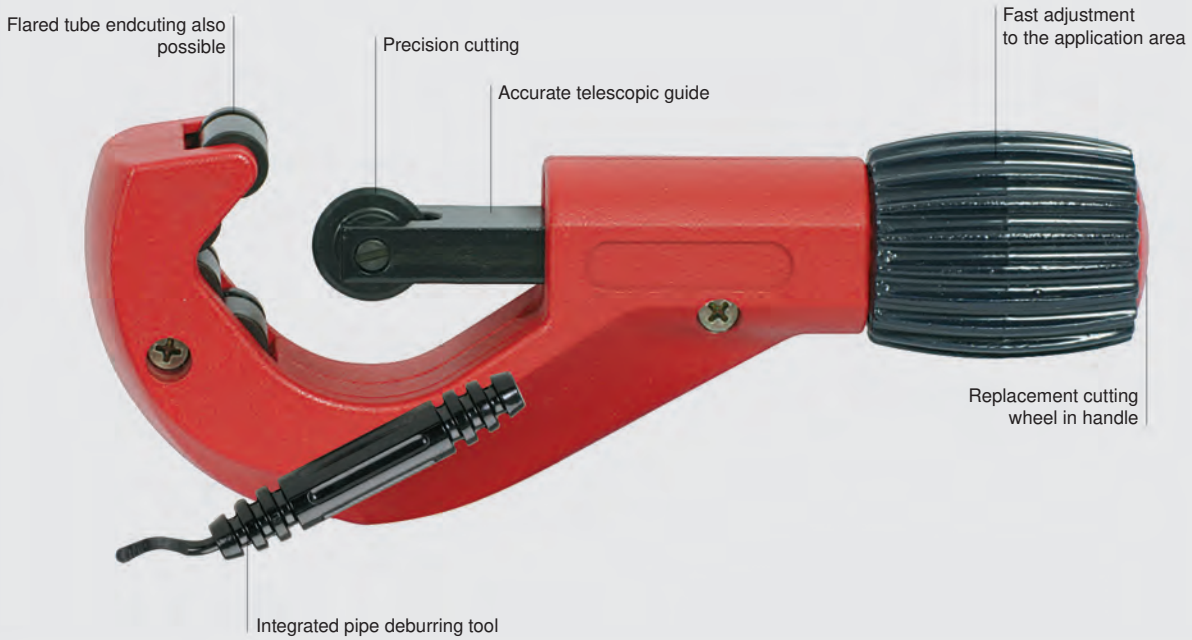
TELESCOPIC PIPE CUTTING PROGRAM

Technical data



• Ratchet pipe cutter
15-16-22-28 mm

• Automatic ratchet pipe cutter
3-13; 8-23; 8-28,5; 10-23 and 28-67mm

• Telescopic pipe cutter
6-38; 3-42mm

• Telescopic pipe cutter for stainless steel pipes
6-38; 3-42mm

CUTTING AND CHAMFERING

Technical data

- With extension set suitable to separate down pipes
- Cutting and chamfering of all usual market synthetic material tubes (PVC-, PE-, PP-, VPE-, PVDF-, PB and ABS) in one working process
- Milled nut for adjusting the tension force

- Plastic pipe shear
  0-63mm

- Plastic pipe cutter
  6-64 mm

PIPE CUTTERS

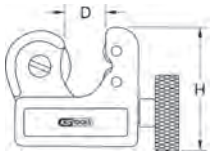
Ratchet copper pipe cutter

- Ideal for confined spa es
- Automatic cutting after each rotation
- Metal housing

	D mm	H mm	Metal	V²A	Plastic	g
104.2015	15,0	56.0	104.2001	-	-	180
104.2016	16,0	60.0	104.2001	-	-	180
104.2022	22,0	68.0	104.2001	-	-	240
104.2028	28,0	70.0	104.2001	-	-	194

Mini pipe cutter

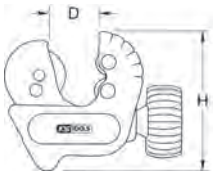
- For copper, brass and thin walled steel tubes
- With 2 support rollers
- V²A cutter can be retrofi ted
- With hard chrome plated knurled knob
- Metal housing
- Special steel



	D mm	H mm	Metal	V²A	Plastic	g
101.1000	3,0 - 16,0	35.0	101.1001	101.1002	-	100
101.2000	3,0 - 22,0	40.0	101.1001	101.1002	-	120

Mini pipe cutter

- Ergonomically designed
- For copper, brass and thin walled steel tubes
- With 2 support rollers
- With large impact head
- V²A cutter can be retrofi ted
- Metal housing
- Special steel



	D mm	H mm	Metal	V²A	Plastic	g
101.5000	3,0 - 28,0	55.0	101.1001	101.1002	-	260
101.5016	3,0 - 16,0	41.0	101.1001	101.1002	-	120
101.5022	3,0 - 22,0	50.0	101.1001	101.1002	-	120

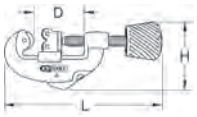
Mini pipe cutter display

- Ergonomically designed
- For copper, brass and thin walled steel tubes
- With 2 support rollers
- V²A cutter can be retrofi ted
- With large knurled knob
- Metal housing
- Special steel

			kg
101.5000D	12 pcs	12 x 101.5000	3.13

Pipe cutter

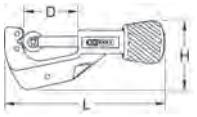
- With folding internal deburrer
- Includes spare wheel under the cover plate on the rotary handle
- With 2 support rollers
- V²A cutter can be retrofi ted
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	g
102.1000	3,0 - 30,0	55.0	150.0	101.1001	101.1002	-	300

Telescopic pipe cutter

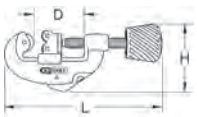
- With folding internal deburrer
- Includes spare wheel under the cover plate on the rotary handle for steel pipe
- With 2 support rollers
- V²A cutter can be retrofi ted
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	g
103.1000	3,0 - 32,0	57.0	141.0	101.1001	101.1002	-	270

Pipe cutter

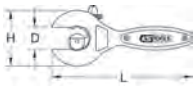
- With folding internal deburrer
- Includes spare wheel under the cover plate on the rotary handle
- With 2 support rollers
- V²A cutter can be retrofi ted
- With large impact head
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	Copper	g
104.1000	7,0 - 39,0	78.0	210.0	101.1001	101.1002	-	104.1001	425

Ratchet pipe cutter

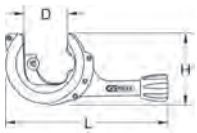
- With 2 support rollers
- With folding internal deburrer
- V²A cutter can be retrofi ted
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	g
104.5000	3,0 - 13,0	60.0	120.0	104.5001	104.5005	-	180
104.5002	8,0 - 28,5	75.0	175.0	104.5003	104.5052	-	380
104.5022	6,0 - 23,0	65.0	160.0	222.0665	103.2002	-	360

Ratchet pipe cutter

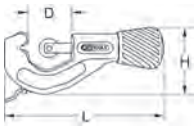
- With 2 support rollers
- Cutting depth max. 3 mm
- V²A cutter can be retrofi ted
- Ideal for confined spa es
- Robust ratchet mechanism
- With large knurled knob
- Plastic housing
- Ratchet mechanism from special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	g
104.5060	12,0 - 35,0	70.0	180.0	104.5052	104.5052	104.5051	520
104.5050	28,0 - 67,0	110.0	250.0	104.5052	104.5052	104.5051	1032

Telescopic pipe cutter

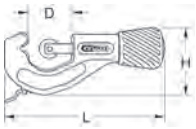
- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
103.5000	6,0 - 38,0	60.0	156.0	103.5001	-	-	500

STAINLESS STEEL Telescopic pipe cutter

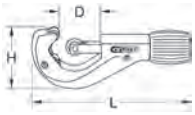
- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handleWith 2 support rollers in stainless steel
- With large knurled knob
- Metal housing
- Special steel



	D mm	L mm	H mm	Metal	V/A	g
103.5010I	3,0 - 38,0	165.0	68.0	-	103.5011I	480

Telescopic pipe cutter

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Accurate telescopic guide
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
103.5050	3,0 - 42,0	50.0	180.0	103.5001	-	-	450

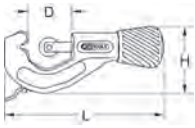
Telescopic pipe cutter display

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special steel

			kg
103.5000D	10 pcs	10 x 103.5000	4.80

STAINLESS STEEL Telescopic pipe cutter

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handleWith 2 support rollers in stainless steel
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
103.5000i	6,0 - 38,0	60.0	156.0	-	103.5002	-	500

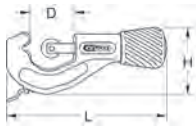
Telescopic pipe cutter display

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Accurate telescopic guide
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel

			kg
103.5050D	10 pcs	10 x 103.5050	5.60

Telescopic pipe cutter

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	L mm	H mm	Metal	V/A	g
103.5010	3,0 - 38,0	165.0	68.0	103.5011	-	500

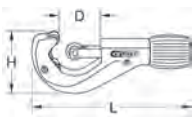
STAINLESS STEEL Telescopic pipe cutter display

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special steel

			kg
103.5000iD	10 pcs	10 x 103.5000i	5.00

STAINLESS STEEL Telescopic pipe cutter

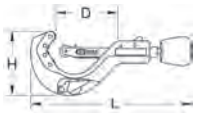
- With removeable internal deburrer
- Accurate telescopic guide
- Includes spare wheel under the cover cap on the rotary handle
- With 4 support rollers in stainless steel
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
103.5050i	3,0 - 42,0	50.0	180.0	-	103.5002	-	500

Automatic ratchet pipe cutter for copper pipe

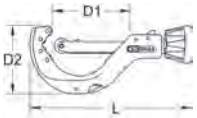
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- V²A cutter can be retrofi ted
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	g
222.0660-1	6,0 - 64,0	90.0	225.0	222.0665	103.2002	222.0666	500

Automatic ratchet pipe cutter for copper pipe

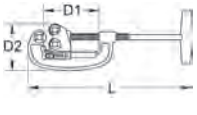
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- Plastic cutter can be retrofi ted
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	kg
222.0750-1	15,0 - 80,0	100.0	250.0	222.0752	-	222.0751	0.80
222.1250-1	50,0 - 140,0	150.0	350.0	222.0752	-	222.1251	1.54

Steel pipe cutter

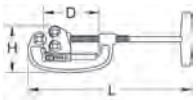
- T-handle for adjusting the working range
- Optimum power transfer
- With 2 support rollers
- Metal housing
- Special steel



	Imperial tube Ø inch	H mm	L mm	Metal	V²A	Plastic	kg
110.1000	1/8"-2	108.0	378.0	110.1001	-	-	2.50
110.1014	1/8"-1.1/4	82.0	265.0	110.1015	-	-	1.50

STAINLESS STEEL Steel pipe cutter

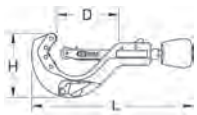
- T-handle for adjusting the working range
- Optimum power transfer
- With 2 support rollers in stainless steel
- Metal housing
- Special steel



	Imperial tube Ø inch	H mm	L mm	Metal	V²A	Plastic	kg
110.1000i	1/8"-2	108.0	378.0	-	110.1002	-	2.50
110.1014i	1/8"-1.1/4	82.0	265.0	-	110.1016	-	1.50

Automatic ratchet pipe cutter for plastic pipe

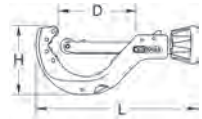
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- Cutting depth max. 5 mm
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	g
222.0660	6,0 - 64,0	90.0	225.0	222.0665	-	222.0666	500

Automatic ratchet pipe cutter for copper pipe

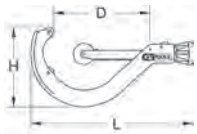
- With folding internal deburrer
- Quick through ratchet telescopic guide with automatic spring return
- Plastic cutter can be retrofi ted
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	kg
222.0750	15,0 - 80,0	100.0	250.0	222.0752	-	222.0751	0.80

Automatic ratchet pipe cutter for plastic pipe

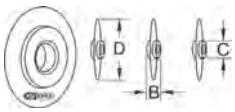
- Quick through ratchet telescopic guide with automatic spring return
- Metal cutter can be retrofi ted
- Cutting depth max. 19 mm
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	kg
222.1250	50,0 - 140,0	150.0	350.0	222.0752	-	222.1251	1.54
222.1680	100,0 - 168,0	190.0	385.0	-	-	222.1251	1.60

Replacement cutting wheel for pipe cutters

- Special steel



	D mm	B mm	C mm	Metal	V²A	Plastic	g
101.1001	18.2	3.0	4.8	x	-	-	40
101.1002	18.0	3.0	4.8	-	x	-	30
103.2002	18.2	6.2	4.8	-	x	-	10
103.5001	20.0	4.9	5.1	x	-	-	10
103.5002	20.0	4.9	5.1	-	x	-	10
104.5005	15.3	3.0	4.5	-	x	-	10
110.1002	31.4	18.9	8.3	-	x	-	30
110.1015	25.6	13.5	7.5	-	-	-	30
110.1016	25.6	13.5	7.5	-	x	-	30
222.0665	18.2	6.2	4.8	x	-	-	50
222.0666	26.0	8.8	8.5	-	-	x	10
222.0751	42.0	8.7	8.5	-	-	x	20
222.0752	23.0	10.9	8.6	x	-	-	20
222.1251	25.9	11.1	9.4	-	-	x	20
104.1001	18.0	6.0	11.0	x	-		10
103.5011	20.0	5.0	12.0	x	-	-	10
103.5011l	20.0	5.0	14.0	-	x	-	10

CARTRIDGE GUNS

Cartridge tip pliers

- PVC dipped handle
- Very versitile
- Safety locking device
- Clean V-cut in the cartridge tip
- Cut from solid steel
- Chrome vanadium

	A mm	L mm	S mm	g	
140.2220	33.0	210.0	20,0	420	

Hand gun for double cartridges

- For two component adhesives
- For gluing of windshields
- Also suitable for double cartridge systems with epoxy hardeners

	L mm	H mm	g	
980.1080	300.0	170.0	500	

Hand cartridge gun 310 ml

- For working with cartridges and softpacks
- Fast and simple cartridge change
- Metal housing

	L mm	H mm	Replacement nozzle	g	
980.1000	340.0	210.0	980.1001	750	

Hand cartridge gun 600 ml

- For working with cartridges and softpacks
- Fast and simple cartridge change
- Metal housing

	L mm	H mm	Replacement nozzle	kg	
980.3000	480.0	210.0	980.1001	1.10	

Cordless cartridge gun 310 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- With lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temparture 20 °C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case

Technical data:

Capacity:	10,8 V
Capacity of the unit:	310 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3569	410.0	138.0	245.0	515.3596	515.3592	0	0	3.60	
515.3570	410.0	138.0	245.0	515.3596	515.3592	1	1	2.10	
515.3571	410.0	138.0	245.0	515.3596	515.3592	2	1	4.70	

Cordless cartridge gun 400 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- Lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temparture 20 °C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case

Technical data:

Capacity:	10,8 V
Capacity of the unit:	400 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3574	450.0	138.0	245.0	515.3596	515.3592	0	0	3.70	
515.3575	450.0	138.0	245.0	515.3596	515.3592	1	1	4.60	
515.3576	450.0	138.0	245.0	515.3596	515.3592	2	1	4.80	

Cordless cartridge gun 600 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- Drop free mechanism
- Stepless controllable feed
- Carbon brushes interchangeable
- Lithium ion high performance rechargeable battery
- Processing quantity per rechargeable battery load at room temparture 20 °C is up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case

Technical data:

Capacity:	10,8 V
Capacity of the unit:	600 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		kg	
515.3579	560.0	138.0	245.0	515.3596	515.3592	0	0	4.10	
515.3580	560.0	138.0	245.0	515.3596	515.3592	1	1	2.20	
515.3581	560.0	138.0	245.0	515.3596	515.3592	2	1	5.20	

DEBURRING

Quick deburrer

- For pipe cutter 103.5000 + 103.5050
- For tubes, sheets and profil s
- Blade is not replaceable
- Soft grip handle
- Special steel

	L mm	D mm	g	
103.5005	88.0	12.0	20	

Quick deburrer for stainless steel

- For pipe cutter 103.5000i + 103.5050i
- For tubes, sheets and profil s
- Blade is not replaceable
- Soft grip handle
- Special steel

	L mm	D mm	g	
103.5007	90.0	15.0	20	

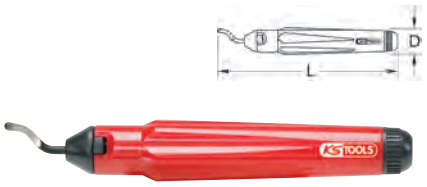
Universal quick deburrer

- For tubes, sheets and profil s
- Non interchangeable blade E100
- With anodized aluminum handle
- Special steel
- Comes with E-100 HSS

	L mm	D mm	g
205.2020	140.0	21.0	60

Universal quick deburrer

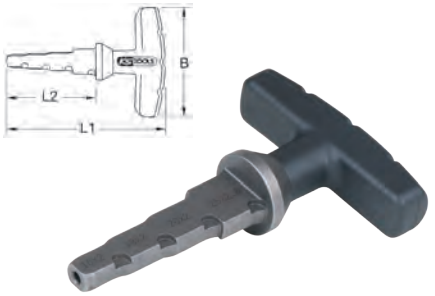
- For tubes, sheets and profil s
- With blade storage
- Interchangeable blades
- With soft grip handle
- Special steel



	L mm	D mm	g
205.2500	150.0	21.0	50

Internal deburrer

- Step dimensions in mm: 16x2 - 18x2 - 20x2 - 25x2.5
- 4 cutting sizes for clean deburring
- For copper, aluminium and soft steel piping
- With T-handle made from plastic
- Special steel



	L1 mm	L2 mm	B mm	g
105.1001	125.0	72.0	82.0	170

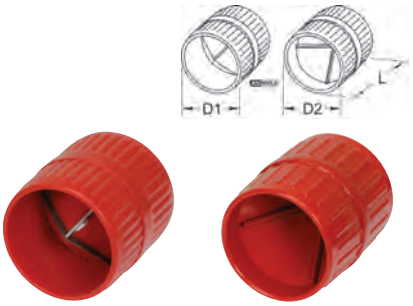
Internal and external deburrer

- 3 cutting edges for clean deburring
- Reversible
- For copper, aluminum and soft steel piping
- Plastic body
- Special steel

	Material	mm	mm	L mm	g
105.3015	HSS	3-12	4-14	125.0	175

Internal and external deburrer

- 3 cutting edges for clean deburring
- For copper, aluminum and soft steel piping
- Plastic or metal body
- Special steel



	Material	D1 mm	D2 mm	L mm	g
105.1000	metal	3,0 - 40,0	6,0 - 40,0	57.0	240
105.2000	plastic	3,0 - 42,0	6,0 - 42,0	50.0	240

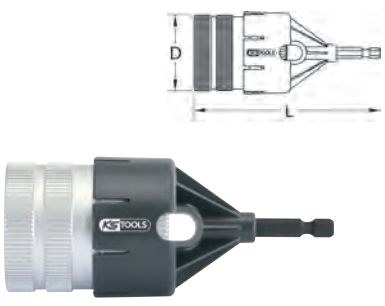
Universal INOX Internal and external deburrer

- 3 cutting edges for clean deburring
- For copper, aluminum, steel, stainless steel and plastic pipes
- Polished aluminium body
- Special steel

	D1 mm	D2 mm	L mm	g
105.3000	10,0 - 54,0	10,0 - 54,0	85.0	350
105.3001	10,0 - 35,0	10,0 - 35,0	61.0	190

Adaptor for pipe deburrer

- For deburrer 105.3001
- 1/4" Hexagon drive
- Suitable for drills and cordless screwdrivers



	D mm	L mm	g
105.3005	50.0	90.0	30

Replacement blade for deburring

- Special steel
- Can be used in deburring 205.2500

		Material	g
205.2011	A	HSS E 100	30
205.2012	B	HSS E 200	30
205.2013	C	HSS E 300	30

COPPER PIPE BRUSH

Cleaning pad set

- Metal free
- For fast, groove cleaning of solder joints in copper pipes
- Reduction of corrosion damage
- Flexible
- Wet and dry usage
- 10 pcs pack

	B mm	L mm	g
201.3000	75.0	130.0	70

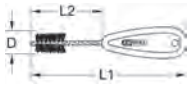
Copper pipe external brush

- For copper and brass pipes
- Housing out of durable plastic

	D1 mm	D2 mm	H mm	g
201.2212	25.0	12.0	17.0	20
201.2215	30.0	15.0	23.0	30
201.2218	38.0	18.0	28.0	40
201.2222	45.0	22.0	33.0	50
201.2228	58.0	28.0	43.0	60

Copper pipe internal brush

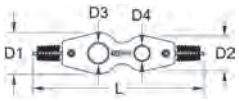
- With hanging hole
- With plastic handle
- For surface preparation
- Steel wire



	D mm	L1 mm	L2 mm	g	
201.1208	8.0	160.0	75.0	40	
201.1210	10.0	160.0	75.0	40	
201.1212	12.0	160.0	75.0	40	
201.1215	15.0	160.0	75.0	40	
201.1216	16.0	160.0	75.0	50	
201.1218	18.0	160.0	75.0	50	
201.1222	22.0	160.0	75.0	50	
201.1228	28.0	160.0	75.0	50	
201.1235	35.0	160.0	75.0	50	

Copper pipe brush 2 in 1

- For inside and outside cleaning
- With plastic body
- For surface preparation
- Steel wire

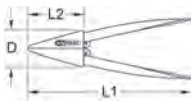


	D1 mm	D2 mm	D3 mm	D4 mm	L mm	g	
201.2250	16.0	14.0	16.0	14.0	130.0	50	

PIPE EXPANDING

Lead pipe expanding pliers

- For the widening of lead pipes up to max. Ø 1.1/2"
- Powder coated
- Body made of sheet steel tongs



	Ø mm	Ø	L1 mm	L2 mm	g	
116.7000	38,1	1.1/2"	240.0	60.0	360	

Expander set 12.0 - 22.0 mm

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

			kg	
202.1100	5 pcs	Expander set 12.0 - 22.0 mm	2.89	

consists of:

		g	
202.1000R	Pipe expander, 380mm	1000	
202.1212	Expander head, 12mm	100	
202.1215	Expander head, 15mm	110	
202.1218	Expander head, 18mm	120	
202.1222	Expander head, 22mm	150	

Expander set 12.0 - 22.0 mm

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

			kg	
202.1102	5 pcs	Expander set 12.0 - 22.0 mm	2.89	

consists of:

		g	
202.1000R	Pipe expander, 380mm	1000	
202.1212	Expander head, 12mm	100	
202.1215	Expander head, 15mm	110	
202.1216	Expander head, 16mm	120	
202.1222	Expander head, 22mm	150	

Expander set 12.0 - 28.0 mm

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

			kg	
202.1101	6 pcs	Expander set 12.0 - 28.0 mm	3.34	

consists of:

		g	
202.1000R	Pipe expander, 380mm	1000	
202.1212	Expander head, 12mm	100	
202.1215	Expander head, 15mm	110	
202.1218	Expander head, 18mm	120	
202.1222	Expander head, 22mm	150	
202.1228	Expander head, 28mm	180	

Expander set 12.0 - 22.0 mm

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

			kg	
202.1103	6 pcs	Expander set 12.0 - 22.0 mm	3.20	

consists of:

		g	
202.1000R	Pipe expander, 380mm	1000	
202.1212	Expander head, 12mm	100	
202.1214	Expander head, 14mm	110	
202.1216	Expander head, 16mm	120	
202.1218	Expander head, 18mm	120	
202.1222	Expander head, 22mm	150	

Expander set 3/8“ - 1.1/8“

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

			kg	
202.1104	6 pcs	Expander set 3/8“ - 1.1/8“	4.20	

consists of:

		g	
202.1000R	Pipe expander, 380mm	1000	
202.1201	Expander head, 3/8“	110	
202.1204	Expander head, 3/4“	130	
202.1205	Expander head, 7/8“	140	
202.1206	Expander head, 1“	150	
202.1236	Expander head, 1 1/8“	160	

Expander set 3/8“ - 1.1/8“

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

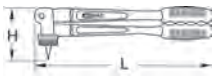
			kg	
202.1107	7 pcs	Expander set 3/8“ - 1.1/8“	2.90	

consists of:

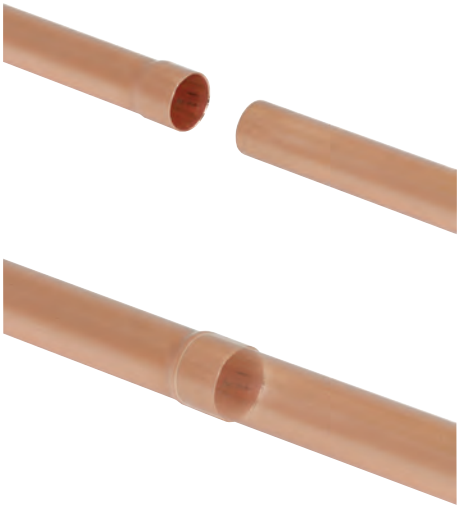
		g	
202.1000R	Pipe expander, 380mm	1000	
202.1201	Expander head, 3/8“	110	
202.1202	Expander head, 1/2“	110	
202.1203	Expander head, 5/8“	120	
202.1204	Expander head, 3/4“	130	
202.1205	Expander head, 7/8“	140	
202.1236	Expander head, 1 1/8“	160	

Expander pliers with automatic mandrel withdrawal

- Base unit for receiving the expander heads
- Special steel



	L mm	H mm	kg	
202.1000R	380.0	120.0	1.00	



Expander set 3/8“ - 7/8“

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

			kg	
202.1105	6 pcs	Expander set 3/8“ - 7/8“	2.74	

consists of:

		g	
202.1000R	Pipe expander, 380mm	1000	
202.1201	Expander head, 3/8“	110	
202.1202	Expander head, 1/2“	110	
202.1203	Expander head, 5/8“	120	
202.1204	Expander head, 3/4“	130	
202.1205	Expander head, 7/8“	140	

Expander set 12.0 - 28.0mm

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel
- In durable plastic storage case

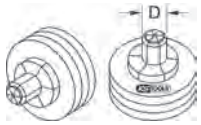
			kg	
202.1108	7 pcs	Expander set 12.0 - 28.0mm	3.50	

consists of:

		g	
202.1000R	Pipe expander, 380mm	1000	
202.1212	Expander head, 12mm	100	
202.1214	Expander head, 14mm	110	
202.1216	Expander head, 16mm	120	
202.1218	Expander head, 18mm	120	
202.1222	Expander head, 22mm	150	
202.1228	Expander head, 28mm	180	

Expander head, rivet free

- To produce standard precision sleeves
- Extra long and chamfered expander head segments
- Positive control ensures perfect centering
- Stainless steel



	D mm	D	g	
202.1210	10.0	-	100	
202.1212	12.0	-	100	
202.1214	14.0	-	110	
202.1215	15.0	-	110	
202.1216	16.0	-	120	
202.1218	18.0	-	120	
202.1222	22.0	-	150	
202.1228	28.0	-	180	
202.1232	32.0	-	170	
202.1235	35.0	-	430	
202.1242	42.0	-	500	
202.1201		3/8“	110	
202.1202		1/2“	110	
202.1203		5/8“	120	
202.1204		3/4“	130	
202.1205		7/8“	140	
202.1206		1“	150	
202.1236		1.1/8“	160	
202.1207		1.1/4“	180	
202.1237		1.5/8“	480	

Flanger set 12.0 - 22.0 mm

- For production of T-exits on pipes
- For fi tings without solder pipe installation
- Dimensionally accurate drilling
- Suitable for pipes up to max. 2.5 mm wall thickness
- Special steel
- In durable plastic storage case

			kg	
202.2100	7 pcs	Flanger set 12.0 - 22.0 mm	2.95	

consists of:

		g	
202.2001	Ratcheting 265 mm for fla ger	340	
202.2002	Automatic drills, 10 - 42 mm	450	
202.2003	Cam pliers	120	
202.2012	Flanger, 12mm	100	
202.2015	Flanger, 15mm	150	
202.2018	Flanger, 18mm	190	
202.2022	Flanger, 22mm	260	

Flanger set 12.0 - 28.0 mm

- The production of T exits on pipes
- For fi tings without solder pipe installation
- Dimensionally accurate drilling
- Suitable for pipes up to max. 2,5 mm wall thickness
- Special steel
- In durable plastic storage case

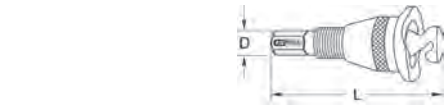
			kg	
202.2101	8 pcs	Flanger set 12.0 - 28.0 mm	3.00	

consists of:

		g	
202.2001	Ratcheting 265 mm for fla ger	340	
202.2002	Automatic drills, 10 - 42 mm	450	
202.2003	Cam pliers	120	
202.2012	Flanger, 12mm	100	
202.2015	Flanger, 15mm	150	
202.2018	Flanger, 18mm	190	
202.2022	Flanger, 22mm	260	
202.2028	Flanger, 28mm	300	

Flanger

- The production of T exits on pipes
- For fi tings without solder pipe installation
- Dimensionally accurate drilling
- Suitable for pipes up to max. 2.5 mm wall thickness
- Special steel



	D mm	L mm	g	
202.2010	10.0	70.0	70	
202.2012	12.0	75.0	100	
202.2014	14.0	75.0	140	
202.2015	15.0	80.0	150	
202.2016	16.0	80.0	150	
202.2018	18.0	90.0	190	
202.2022	22.0	95.0	260	
202.2028	28.0	100.0	300	
202.2035	35.0	110.0	500	
202.2042	42.0	120.0	660	

BENDING

Copper pipe external bending spring

- For hand bending of soft copper tubing
- Angled Cone
- Optimum spring form prevents buckling in the bending radius
- Special steel

	D mm	D	L mm	g	
203.0008	8.0	-	290.0	80	
203.0010	10.0	-	290.0	80	
203.0012	12.0	-	290.0	110	
203.0014	14.0	-	290.0	170	
203.0015	15.0	-	290.0	200	
203.0016	16.0	-	290.0	220	
203.0018	18.0	-	290.0	280	
203.0022	22.0	-	290.0	440	
203.0001		1/4"	290.0	60	
203.0002		5/16"	290.0	80	
203.0003		3/8"	290.0	100	
203.0004		1/2"	290.0	160	
203.0005		5/8"	290.0	220	
203.0006		3/4"	290.0	280	

Copper pipe internal bending spring for coated copper tubes

- For hand bending of soft copper tubing
- Optimum spring form prevents buckling in the bending radius
- Special steel

	D mm	L mm	g	
203.0310	10 x 12	910.0	260	
203.0312	12 x 14	915.0	280	
203.0320	20 x 22	910.0	700	

Copper pipe external bending spring

- For hand bending of soft copper tubing
- Optimum spring form prevents buckling in the bending radius
- Special steel

	D mm	L mm	g	
203.0110	10.0	245.0	140	
203.0112	12.0	245.0	200	
203.0114	14.0	260.0	300	
203.0116	16.0	270.0	320	
203.0118	18.0	285.0	450	
203.0120	20.0	305.0	480	
203.0122	22.0	320.0	550	

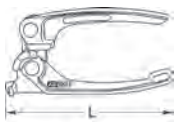
Internal bending spring for PE plastic pipes

- For hand bending of PE plastic pipes
- Optimum spring form prevents buckling in the bending radius
- Special steel

	D mm	L mm	g	
203.0210	10.0	86.0	220	
203.0213	13.0	88.0	400	
203.0216	16.0	90.0	490	
203.0220	20.0	95.0	680	

3 in 1 Mini bender

- For exact two handed bending up to 90°
- For copper, aluminum, brass and soft steel piping
- For 3 dimensions without exchange of bending segments
- Undersize and bend radius on the bending form
- Special steel



	Ø mm	Ø	L mm	g	
120.1050	3,0 + 4,75 + 6,0	1/8" + 3/16" + 1/4"	140.0	150	

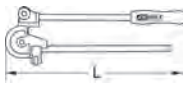
3 in 1 Mini Bender

- For exact two handed bending up to 180°
- For copper, aluminum, brass and soft steel piping
- For 3 dimensions without exchange of bending segments
- Undersize and bend radius on the bending form
- Special steel

	Ø mm	Ø	L mm	g	
120.1000	6,0 + 8,0 + 10,0	-	270.0	420	
120.1001	-	1/4" + 5/16" + 3/8"	240.0	420	

Standard two handed bender

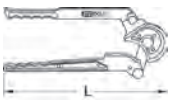
- For exact two handed bending up to 180°
- For soft copper, aluminum, brass and soft steel piping
- Clamping device for a better gripping of the tube
- Fatigue free operation due to lightweight construction
- Special steel

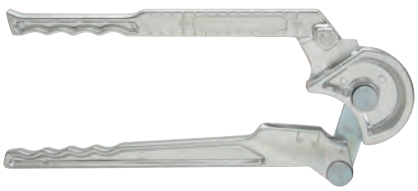


	Ø mm	Ø	L mm	g	
122.1006	6,0	-	285.0	530	
122.1008	8,0	-	330.0	650	
122.1010	10,0	-	350.0	920	
122.1012	12,0	-	310.0	920	
122.1014	14,0	-	425.0	1330	
122.1015	15,0	-	440.0	1330	
122.1016	16,0	-	440.0	1330	
122.1017	-	1/4"	285.0	500	
122.1018	-	5/16"	330.0	650	
122.1019	-	3/8"	350.0	950	
122.1020	-	1/2"	310.0	1300	
122.1021	-	5/8"	440.0	1300	

Copper pipe two handed bender

- For exact two handed bending up to 180°
- For soft, semi hard and coated copper tube
- Precise bending due to bending radius formers
- Fatigue free operation due to lightweight construction
- Aluminium





	Ø mm	L mm	kg	
122.0010	10,0	260.0	0.35	
122.0012	12,0	310.0	0.65	
122.0014	14,0	370.0	1.00	
122.0015	15,0	420.0	1.45	
122.0016	16,0	420.0	1.50	

Ratchet single handed bending set 10.0 - 22.0 mm

- Bend radius 90°
- Production of bends against, floo s and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special steel
- In durable plastic storage case

			kg	
203.1200	9 pcs	Ratchet single handed bending set 10.0 - 22.0 mm	2.76	

consists of:

		g	
203.1208	Basic unit for single handed ratcheting bender	2000	
203.1210	Bending form f.203.1200/01/02, Ø 10mm	70	
203.1212	Bending form f.203.1200/01/02, Ø 12mm	70	
203.1214	Bending form f.203.1200/01/02, Ø 14mm	70	
203.1215	Bending form f.203.1200/01/02, Ø 15mm	70	
203.1216	Bending form f.203.1200/01/02, Ø 16mm	70	
203.1218	Bending form f.203.1200/01/02, Ø 18mm	70	
203.1220	Bending form f.203.1200/01/02, Ø 20mm	70	
203.1222	Bending form f.203.1200/01/02, Ø 22mm	70	

Ratchet single handed bending set 10.0 - 22.0 mm

- Bend radius 90°
- Production of bends against, floo s and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special steel
- In durable plastic storage case

			kg	
203.1201	7 pcs	Ratchet single handed bending set 10.0 - 22.0 mm	2.62	

consists of:

		g	
203.1208	Basic unit for single handed ratcheting bender	2000	
203.1210	Bending form f.203.1200/01/02, Ø 10mm	70	
203.1212	Bending form f.203.1200/01/02, Ø 12mm	70	
203.1214	Bending form f.203.1200/01/02, Ø 14mm	70	
203.1216	Bending form f.203.1200/01/02, Ø 16mm	70	
203.1218	Bending form f.203.1200/01/02, Ø 18mm	70	
203.1222	Bending form f.203.1200/01/02, Ø 22mm	70	

Ratchet single handed bending set 3/8" - 7/8"

- Bend radius 90°
- Production of bends against, floo s and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special steel
- In durable plastic storage case

			kg	
203.1202	6 pcs	Ratchet single handed bending set 3/8" - 7/8"	2.69	

consists of:

		g	
203.1208	Basic unit for single handed ratcheting bender	2000	
203.1230	Bending form f.203.1200/01/02, Ø 3/8"	80	
203.1231	Bending form f.203.1200/01/02, Ø 1/2"	80	
203.1232	Bending form f.203.1200/01/02, Ø 5/8"	80	
203.1233	Bending form f.203.1200/01/02, Ø 3/4"	100	
203.1234	Bending form f.203.1200/01/02, Ø 7/8"	150	

Aluminium bending formers

- Bend radius 90°
- Production of bends against, floo s and connection arcs
- Aluminium

	Ø mm	Ø	Bend radius mm	g	
203.1210	10,0	-	42.0	70	
203.1212	12,0	-	43.0	70	
203.1214	14,0	-	46.0	70	
203.1215	15,0	-	50.0	70	
203.1216	16,0	-	55.0	70	
203.1218	18,0	-	66.0	70	
203.1220	20,0	-	73.0	70	
203.1222	22,0	-	78.0	70	
203.1230	-	3/8"	35.0	80	
203.1231	-	1/2"	48.0	80	
203.1232	-	5/8"	58.0	80	
203.1233	-	3/4"	69.0	100	
203.1234	-	7/8"	88.0	150	

Ratchet single handed bending set 10.0 - 22.0 mm

- Bend radius 90°
- Production of bends against, floo s and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special steel
- In durable plastic storage case

			kg
203.1400	13 pcs	Ratchet single handed bending set 10.0 - 22.0 mm	3.00

consists of:

		kg
203.1401	Bending form, 10mm, aluminium	50
203.1402	Bending form, 12mm, aluminium	50
203.1403	Bending form, 14mm, aluminium	50
203.1404	Bending form, 15mm, aluminium	60
203.1405	Bending form, 16mm, aluminium	80
203.1406	Bending form, 18mm, aluminium	100
203.1407	Bending form, 20mm, aluminium	110
203.1408	Bending form, 22mm, aluminium	120
203.1409	Main body	1600
203.1410	Fixed plate 3 holes	300
203.1411	Fixed plate 5 holes	300
203.1412	Quick release adapter base	50
203.1413	Fixed plate adapter base	50

Hydraulic pipe bending set 12 t, 3/8“ - 2“

- Bend radius 90°
- For continuous bending of tubes
- Hydraulic action by pressing hand pump
- Loosening by fin ly adjustable drain valve
- Special steel
- In durable transport storage case

			kg
902.1100	8 pcs	3/8" - 1/2" - 3/4" - 1" - 1.1/4" - 1.1/2" - 2"	77.00

Hydraulic pipe bending set 8 t, 3/8“ - 1 1/4“

- Bend radius 90°
- For continuous bending of tubes
- Hydraulic action by pressing hand pump
- Loosening by fin ly adjustable drain valve
- Special steelIn durable transport storage case

			kg
902.1101	6 pcs	3/8" - 1/2" - 3/4" - 1" - 1.1/4"	47.00

Electric Hydraulic Pipe Bending Set 8 t, 3/8“ - 1 1/4“

- Bend radius 90°
- For continuous bending of tubes
- Hydraulic action by pressing hand pump
- Loosening by fin ly adjustable drain valve
- Special steel
- In durable transport storage case

			kg
902.1120	6 pcs	3/8" - 1/2" - 3/4" - 1" - 1.1/4"	67.00

FLANGING

Air cooling fla ing and sleeve set 1/8“ - 3/4“

- To produce straight forward bending 45 ° and capillary sockets on copper, brass, aluminum and thin walled steel tube
- For crimping and expansion of refrigeration and air conditioning lines
- In durable plastic storage case

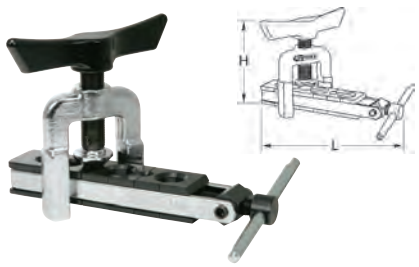
			kg	
122.1100	10 pcs	Air cooling fla ing and sleeve set 1/8“ - 3/4“	2.30	

consists of:

		g	
122.1104	Adaptor for fla ing tool set 1/8“-3/16“-1/4“	20	
122.1105	Adaptor for fla ing tool set 5/16“	15	
122.1106	Adaptor for fla ing tool set 3/8“-7/16“	25	
122.1107	Adaptor for fla ing tool set 1/2“	35	
122.1108	Adaptor for fla ing tool set 5/8“	60	
122.1109	Adaptor for fla ing tool set 3/4“	65	
122.1110	Yoke for fla ing tool	490	
122.1111	Bar for fla ing tool		
122.1112	Bar for fla ing tool	500	
103.1500	Telescopic pipe cutter, 4-28mm	250	

Flange tool metric with quick clamping device

- Flange guides for 6, 8, 10, 12, 15 + 16 mm
- For the manufacture of conical fla ing 45°
- Very precise crimp due to fla ge cone with special geometry
- For mobile use
- Special steel



	H mm	L mm	g	
122.0500	100.0	160.0	900	

Flanging tool imperial with quick clamping device

- Flange guides for 3/16“, 1/4", 5/16“, 3/8“, 1/2" + 5/8“
- For the manufacture of conical fla ing 45 °
- Very precise crimp due to fla ge cone with special geometry
- For mobile use
- Special steel

	H mm	L mm	g	
122.0501	100.0	160.0	940	

Universal fla ger imperial + metric with quick clamping device

- For pipe 4-16mm + 3/16"-5/8"
- For the manufacture of conical fla ing 45 °
- Very precise crimp due to fla ge cone with special geometry
- Self centering clamping
- For mobile use
- Special steel

	H mm	L mm	g	
122.0525	100.0	110.0	900	

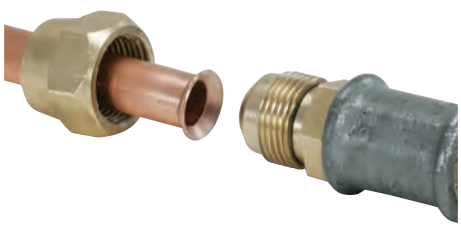
Flanger set 1/8“ - 3/4“ and 6.0 - 19.0 mm

- To produce easy bending 45° on copper pipes
- Self centering punching tool
- 3/8" square drive in thumb screw for use with a ratchet
- In durable plastic storage case

			kg	
122.0810	6 pcs	Flanger set 1/8“ - 3/4“ and 6.0 - 19.0 mm	3.21	

consists of:

		g	
122.0811	Metric bar	630	
122.0812	Tube-Cutter for Set 122.0810	240	
122.0813	Inch Bar for Set 122.0810	630	
122.0815	Yoke for Set 122.0810	900	
122.0816	3/8“ Bit for Set 122.0810	25	
105.2000	Internal+external deburrer, 3-42mm	240	



Flanging tool, metric

- Flange guides for 6, 8, 10, 12, 14, 16 + 18 mm
- For the manufacture of easy fla ing 45°
- Self centering plate
- Includes 3/8" adapter for Screwdrivers
- For mobile use
- Special steel

	H mm	L mm	kg	
122.0808	135.0	210.0	1.60	

Flanging tool, imperial

- Flange guides for 1/8“, 3/16“, 1/4", 5/16“, 3/8“, 1/2", 5/8“ + 3/4"
- For the manufacture of easy fla ing 45°
- Self centering plate
- Includes 3/8" adapter for Screwdrivers
- For mobile use
- Special steel

	H mm	L mm	kg	
122.0821	140.0	190.0	1.60	

Flanger set Ø 10.0 - 22.0 mm

- To produce easy bending 45° on copper pipes
- In durable plastic storage case

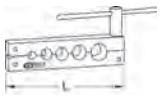
			kg	
122.2201	6 pcs	Flanger set Ø 10.0 - 22.0 mm	3.00	

consists of:

		g	
122.2200	Flange guides, 10-22mm	1100	
122.1460	Flange cone, 6-14mm	270	

Flange guides for 6.0 - 14.0 mm

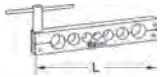
- Flange guides for 6 - 8 - 10 - 12 + 14 mm
- For the manufacture of conical fla ing 45°
- For mobile use
- Special steel



	L mm	g	
122.1400	130.0	470	

Flange guides for 10.0 - 22.0 mm

- Flange guides for 10 - 12 - 14 - 16 - 18 - 20 - 22 mm
- For the manufacture of conical fla ing 45°
- For mobile use
- Special steel



	L mm	kg	
122.2200	225.0	1.10	

Flange cones

- For fla ge guides for 6.0 - 22.0 mm
- For the manufacture of conical fla ing
- For mobile use
- Special steel

	Ø mm		L mm	g	
122.1460	6,0 - 14,0	60°	108.0	270	
122.2260	6,0 - 22,0	60°	124.0	285	
122.2290	6,0 - 22,0	90°	130.0	325	

THREADING TOOLS

Manual pipe threading tool kit 3/8" - 1.1/4"

- With cutting edge for thread BSPT right hand according to DIN 2999
- Compact construction
- Light work in inaccessible places
- Handy to switch the direction of the ratchet
- Easy change of cutting heads
- Special steel

			kg	
903.3300	8 pcs	Manual pipe threading tool kit 3/8" - 1.1/4"	6.20	

consists of:

		g	
903.3301	Die head, 3/8"	585	
903.3302	Die head, 1/2"	620	
903.3303	Die head, 3/4"	665	
903.3304	Die head, Ø 1"	700	
903.3305	Die head, Ø 1.1/4"	720	
903.3307	Handle	500	
903.3308	Extension	480	
903.3309	Reversing ratchet	290	

Die head

- With cutting edge for thread BSPT right hand according to DIN 2999
- Compact construction
- Light work in inaccessible places
- Special steel

	Ø	D mm	H mm	Replacement jaws	g	
903.3301	3/8"	56.0	66.5	903.3311	585	
903.3302	1/2"	61.0	67.0	903.3312	620	
903.3303	3/4"	67.0	68.0	903.3313	665	
903.3304	1"	80.0	73.0	903.3314	700	
903.3305	1.1/4"	89.0	75.0	903.3315	720	

Plumbing tool set

- With cutting edge for thread BSPT right hand according to DIN 2999
- The complete steel processing
- Light work in inaccessible places
- Handy to switch the direction of the ratchet
- Easy change of cutting heads
- Special steel

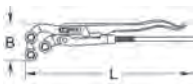
			kg	
987.0600	8 pcs	Plumbing tool set	14.72	

consists of:

		g	
110.1000	Steel pipe cutter, 1/8"-2"	2500	
113.1500	Swed.pattern pipe wrench 45° angled,1.1/2"	1400	
115.2000	Water pump pliers, 1.1/4"	310	
903.3300	Threading tool kit, 8pcs, 3/8"-1.1/4"	6200	
850.0505	Tool box, plastic, 475x245x240mm	1700	

Thread roughing pliers

- For roughening of the thread after thread cutting
- Uniform roughening over the entire circumference
- Special tool steel

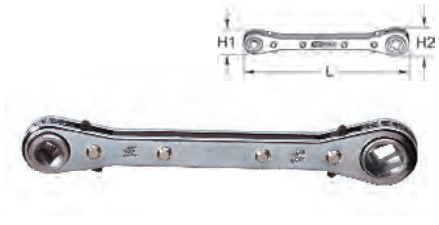


	Ø mm	Ø	B mm	L mm	kg	
995.6500	12,7 - 50,8	1/2" - 2"	100.0	335.0	1.77	

AIR CONDITIONING SPANNER

4in1 Air conditioning ratchet spanner, reversing

- For 3/16", 1/4", 5/16" + 3/8"
- Clockwise and anticlockwise switch
- Special steel



	H1 mm	H2 mm	L mm	g	
130.0122	22.0	22.0	140.0	120	

Air conditioning toolkit 10-100 N•m

- Set contents ideal for air conditioning and refrigeration engineers
- With snap lock retangular tool holder for 14x18 range of end tools
- Supplied in a metal carrying case with the tools clearly organised

14x18 mm | 1/2"

			kg	
516.1225	8 pcs	Air conditioning toolkit 10-100 N•m	3.40	
1 x		10 - 100 N•m		
6 x		17 - 22 - 24 - 26 - 27 - 29 mm		
1 x		1/2"		

SEALS

Lead seal pliers 8 mm

- For Lead seals 8 mm
- Special steel

	L mm	Replacement stamp A-Z / 1-9	g	
122.9990	130.0	122.9993	230	

Lead seals 8 mm

- Pack of 250 g
- Special steel

	Ø mm	g	
122.9991	8,0	250	

Seal wire

- Gauge 0.5 mm
- Pack of 100 m
- Special steel

	L m	g	
122.9992	100.0	290	

STEP KEY

Ratchet

- Ratchet with 1/2" square drive
- E.g. for tuning the engine crank alignment tool

1/2"

	L mm	g	
130.1000	270.0	500	

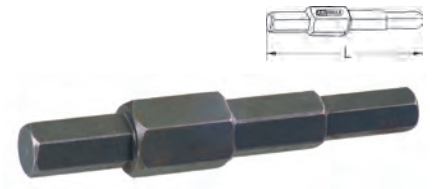
1/2" Push through square

- Serviceable from both sides
- Special steel

	Total length mm	g	
130.1001	38.0	50	

Step key 4 stages

- 4 stages 10, 12, 13 + 17 mm
- Special steel



	L mm	g	
130.6005	100.0	120	

Universal step key

- 5 stages: 1/4"-5/16"-3/8"-1/2"-5/8"
- Special steel

	L1 mm	L2 mm	B mm	g	
130.2031	153.2	85.2	22.0	228	

Universal step key

- 5 stages: 8-10-12-14-16 mm
- Special steel

	L1 mm	L2 mm	B mm	g	
130.2032	142.0	84.5	20.2	224	

Universal step key

- 6 stages: 3/16"-1/4"-5/16"-3/8"-1/2"-5/8"
- Special steel

	L mm	B mm	g	
130.2033	133.5	19.5	146	

Universal step key

- 3-stage: 3/8"-1/2"-3/4"
- For use with reversing ratchet 3/4"
- For radiator screw connections
- Special steel

3/4"

	L1 mm	L2 mm	g	
130.2034	125.9	104.0	1166	

Universal step key

- 5-stage: 3/8"-1/2"-3/4"-1"-1 1/4"
- For use with reversing ratchet 3/4"
- For radiator screw connections
- Special steel

3/4"

	L1 mm	L2 mm	g	
118.2038	195.0	170.0	340	

Universal step key

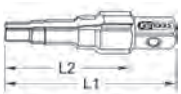
- 6-stage: 9.5-9.8-11.8-12.8-13.8-17 mm
- Inches: 3/8"-1/2"-3/4"
- For use with reversing ratchet 130.1000
- Special steel

1/2"

	L1 mm	L2 mm	g	
130.2036	87.3	67.0	96	

Universal step key

- 4 stages: 3/8"-1/2"-3/4"-1"
- For use with reversing ratchet 130.1000
- Special steel



1/2"

	L2 mm	L1 mm	g	
130.2000	70.0	90.0	130	

Step key, 8 steps, with screwdriver blade

- 8 stages 7/8", 27/32", 3/4", 35/65", 1/2", 15/32", 7/16" + 3/8"
- With screwdriver blade
- For use with reversing ratchet 130.1000
- Special steel

1/2"

	L mm	g	
130.2001	110.0	110	

Gas step key, 3 steps

- 3 stages 1/2", 3/4" + 1"
- For use with reversible ratchet 130.1000
- Special steel

1/2"

	L mm	g	
130.2010	90.0	150	

Universal step key set 3/8" - 1"

- Step key 4 stages 3/8", 1/2", 3/4" + 1"
- Special steel

			g	
130.3000	2 pcs	Universal step key set 3/8" - 1"	610	

consists of:

130.1000	1/2" Ratchet	500	
130.2000	Universal step key, 4 steps, 3/8" - 1/2" - 3/4" - 1"	130	

Universal step key set 7/8" - 3/8"

- Step key 8 stages 7/8", 27/32", 3/4", 35/65", 1/2", 15/32", 7/16" + 3/8"
- Step key with a screwdriver tip 9,0 x 1,5 mm
- Special steel

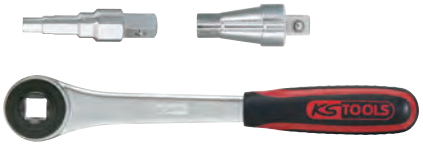
			g	
130.3020	2 pcs	Universal step key set 7/8" - 3/8"	630	

consists of:

130.1000	1/2" Ratchet	500	
130.2001	1/2"Step key,screwdriver blade,8steps	110	

Gas step key set 3/8" - 1"

- Step key 4 stages 3/8", 1/2", 3/4" + 1"
- Gas step key 3 stages 3/8", 1/2", 3/4" + 1"
- Special steel



			g	
130.3500	3 pcs	Gas step key set 3/8" - 1"	760	

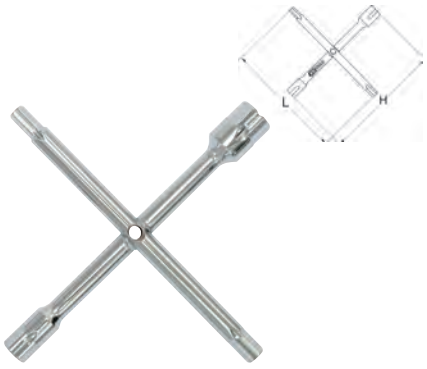
consists of:

130.1000	1/2" Ratchet	500	
130.2000	Universal step key, 4 steps, 3/8" - 1/2" - 3/4" - 1"	130	
130.2010	1/2" Gas step key, 3 steps, 1/2" - 1"	150	

CROSS WRENCH

Plumbing cross joint wrench

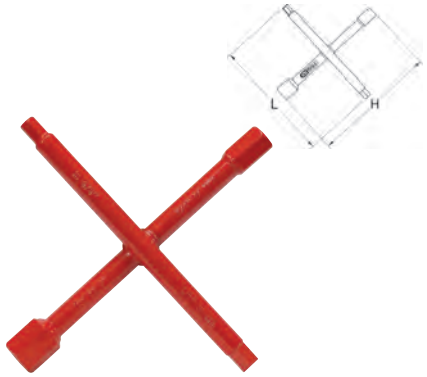
- 10 Function
- 4 x external hexagon 3/8", 1/2", 3/4" + 1" on and dismounting of radiator valves and lockshields
- 4 x internal thread for hanger bolts M6, M8, M10 + M12 for installation and removal of vanity fix ures
- 2 x inner square tube plugs for 3/8" + 1/2"
- Special steel



	L mm	H mm	g	
116.6200	220.0	200.0	500	

Plumbing cross joint wrench

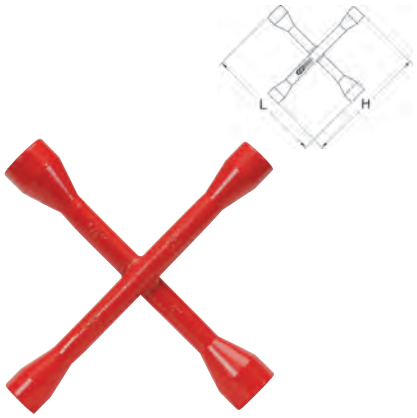
- 7 Function
- 4 x external hexagon 3/8", 1/2", 3/4" + 1" on and dismounting of radiator valves and lockshields
- 3 x internal thread for hanger bolts, M8, M10 +, M12 for vanity fix ures
- Powder coating
- Special steel



	L mm	H mm	g	
116.6000	200.0	200.0	500	

Gas pipe step key

- 4 Function
- On and boring of tube plugs 3/8", 1/2", 3/4" + 1"
- Powder coating
- Special steel



	L mm	H mm	g
116.6100	200.0	220.0	780

GENERAL PLUMBING INSTALLATION

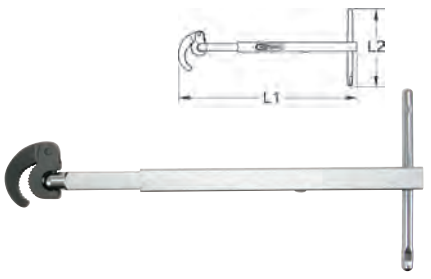
Standard tap nut wrench Ø 10 - 32 mm

- Pivoting T-handle provides optimum power transfer
- Clockwise and anticlockwise action with swivel lever
- For use in plumbing installation
- Includes attachment on the floor y screwing bolts M10
- Special steel

	Ø mm	L1 mm	L2 mm	g
125.1000	10,0 - 32,0	275.0	120.0	500

Telescopic standard tap wrench

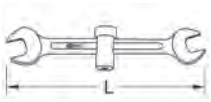
- Pivoting T-handle provides optimum power transfer
- Clockwise and anticlockwise action with swivel lever
- For use in plumbing installation
- Pull out 3 stage telescopic adjustment
- Chrome plated
- Special steel



	Ø mm	L1 mm	L2 mm	g
126.1000	10,0 - 32,0	275,0 - 455,0	150.0	670
126.2000	32,0 - 63,0	275,0 - 455,0	155.0	830

Plumbing special spanner, 17 x 19 mm

- Ideal for inaccessible areas
- For use in plumbing installation
- Quick mounting of fix ures and vanity angle valves
- Includes attachment for screwing bolts M10 on the floor in he middle section
- A longer lever arm by sliding the middle piece of the wrench
- Special steel



	mm		L mm	g
116.5000	17x19	M10	220.0	250

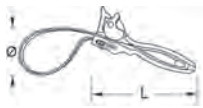
Plumbing special spanner, 17 x 19 mm

- Ideal for inaccessible areas
- For use in plumbing installation
- Jaw size 19 mm, straight
- Ring ratchet size 17 mm, slightly offset, and reversible
- Includes attachment for screwing bolts M10 on the floor of middle section with integrated ball seat for easy release of the hanger bolt
- Special steel

	mm		L mm	g
116.5010	17x19	M10	250.0	390

Strap pipe pliers

- For hard to reach places
- Especially suited for plastic pipes
- Glass fib e reinforced handle
- Belt made of reinforced, non slip rubber



	Ø mm	L mm	g
114.0150	110,0	190.0	180

Strap pipe pliers

- With metal grip
- For hard to reach places
- Especially suited for plastic pipes
- Belt made of reinforced, non-slip rubber
- Chrome vanadium

	Ø mm	L mm	kg
114.0160	160,0	250.0	1.00

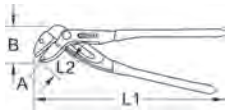
Strap wrench

- With metal handle
- For hard to reach places
- Especially suited for plastic pipes
- Belt made of reinforced, non-slip webbing
- Chrome plated
- Chrome vanadium

	mm	Ø mm	Ø	L mm	Replacement band	g
114.0170	20.0	140,0	9/64"	220.0	114.0170-1	278
114.0171	25.0	200,0	13/64"	280.0	114.0171-1	600

Fitters pliers

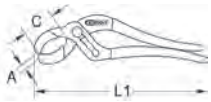
- With accurate industrial adjustment
- With safety clamping protection
- With setting scale
- Smooth, polished head area
- Optimum power transfer
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	g
115.8510	53.0	50.0	250.0	60.0	350

Siphon pliers

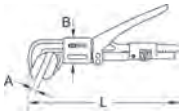
- With 4 adjustable steps
- Insulated foot for chrome fi tings
- For screw fi tings up to max. Ø 65 mm
- With PVC dipped handle
- For loosening pipe fi tings
- Interchangeable jaw protector
- For hard to reach places
- Chrome plated and mirror polished
- Chrome vanadium

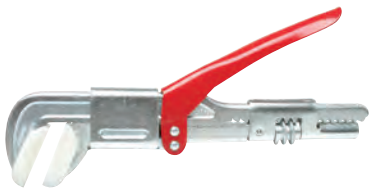


	A mm	C mm	L mm	Replacement jaws	g	
116.1200	20,0 - 65,0	45.0	225.0	116.1201	320	

Fitters wrench

- Interchangeable jaw protector
- For screw fi tings up to max. Ø 60 mm
- Smooth, parallel adjustment jaws
- For mild assembly
- Infini ely variable
- Matt chrome
- Chrome vanadium

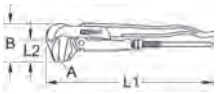




	A mm	B mm	L mm	Replacement jaws	g	
116.1002	60.0	47.0	265.0	116.1003	550	

Fitters pliers, angled

- 90° Jaw position
- Interchangeable jaw protector
- For pipe up to max. Ø 35 mm
- For mild assembly
- Infini ely variable
- Red powder coating
- Chrome vanadium



	A	A mm	B mm	L1 mm	L2 mm	Replacement jaws	g	
116.1000	1"	25.4	81.0	315.0	54.0	116.1001	790	

WC plumbing combination kit

- Special confi aration for the disassembly and assembly of toilet seats
- In durable plastic storage case

			kg	
116.2095	3 pcs	WC plumbing combination kit	0.81	

consists of:

		g	
116.2096	Standard tap key, 155mm, 13mm	130	
116.2097	Key for toilet set fi ting, 10mm (hex)	60	
911.2470	Ratchet bit driver, 1/4"	380	

WC plumbing combination kit

- Special confi aration for the disassembly and assembly of toilet seats
- In durable plastic storage case

			kg	
116.2080	6 pcs	WC plumbing combination kit	1.30	

consists of:

		g	
116.2096	Standard tap key, 155mm, 13mm	130	
116.2097	Key for toilet set fi ting, 10mm (hex)	60	
116.2081	1/2" Handle,fl x,180° swivel uni joint	150	
116.2086	Stud driver, special adaptor, M8, 1/2"	70	
116.2087	Stud driver, special adaptor, M10, 1/2"	100	
514.1135	Special adaptor, magnetic, 72mm	60	

Washbasin mouting set

- Optimum working for disassembly and assembly of washbasins and wall fix ures
- Ideal for confined spa es
- Handy, multifunctional power tool
- In durable plastic storage case

			kg	
116.2050	6 pcs	Washbasin mouting set	1.40	

consists of:

		g	
116.2051	Stock screw key drive tool,M8/M10	320	
116.2055	Assembly tool f.drain valves,9mm,L=185mm	100	
116.2056	Assembly tool f.drain valves,10mm,L=185mm	110	
116.2059	Assembly tool f.drain valves,13mm,L=185mm	130	
116.2060	Fitting tool for drain valves, 92mm	150	
116.2065	Mounting attachment f.eccentric fi tings,40mm	300	

Plumbing cutting combination kit

- Easy entry and unscrewing from 1/2" Hahn extensions in plumbing assembly
- Wall-mounted models are milled valve extensions
- Connection valves also in inaccessible areas and with a thread
- In durable plastic storage case

			kg	
116.2030	4 pcs	Plumbing cutting combination kit	0.88	

consists of:

		g	
116.2031	Valve extension mills	156	
116.2032	Angle valve screw in device	143	
116.2081	1/2" Handle,fl x,180° swivel uni joint	150	
918.1662	CHROME+ hex bit socket, long, 1/2", 12mm	150	

Plumbing installation set

- Optimum working for disassembly and assembly of washbasins and wall fix ures
- Ideal for confined spa es
- Handy, multifunctional power tool
- In durable plastic storage case

			kg	
116.2015	10 pcs	Plumbing installation set	2.76	

consists of:

		g	
116.2036	1/2" Valve extension mills,SDS	170	
116.2051	Stock screw key drive tool,M8/M10	320	
116.2054	Assembly tool f.drain valves,11mm,L=185mm	120	
116.2055	Assembly tool f.drain valves,9mm,L=185mm	100	
116.2056	Assembly tool f.drain valves,10mm,L=185mm	110	
116.2057	Assembly tool f.drain valves,12mm,L=185mm	130	
116.2059	Assembly tool f.drain valves,13mm,L=185mm	130	
116.2060	Fitting tool for drain valves, 92mm	150	
116.2065	Mounting attachment f.eccentric fi tings,40mm	300	
503.4565	GEAR+Double ring spanner 10x19-13x17mm,4 in 1,rev.	196	

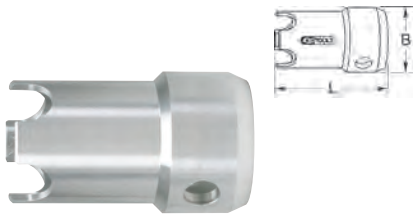
Valve fi

- Holder and boring tools for the eccentric and standard flush valves
- Can be used from above and below
- Quick and easy work for the assembly of bathtubs, sinks and washbasins
- Special steel

	B mm	L mm	g	
116.2000	35.0	161.0	300	

Bath adapter for valve fi

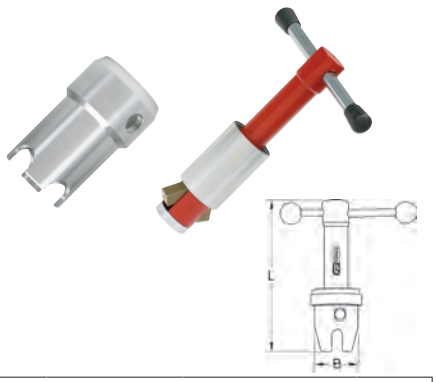
- For use on bath tub valves to valve fix 11 .2000
- Special steel



	L mm	B mm	g	
116.2001	53.0	45.0	110	

Valve fix and b th adaptors

- Holder and boring tools for the eccentric and standard flush valves
- Quick and easy work for the assembly of bathtubs, sinks and washbasins
- Special steel



	B mm	L mm	g	
116.2002	50.0	120.0	410	

Mounting attachment for eccentric wrench (S-connection)

- Shaped in the key core then wedged in and then releasing on the thread and push it in so doing
- Special steel

	mm	Imperial tube Ø inch	mm	B mm	L mm	g	
116.2065	10.0	3/4"	26,5	40.0	40.0	300	

Mounting attachment for eccentric wrench (S-connection)

- Shaped in the key core then wedged in and then releasing on the thread and push it in so doing
- Special steel

1/2"

	■	mm	Imperial tube Ø inch	mm	mm	L mm	g	
116.2066	1/2"	36.0	3/4"	42,0	26,5	43.0	300	

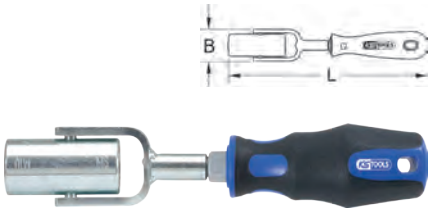
Assembly tool for drain valves

- Work on damage drain valves

	mm	B mm	L mm	g	
116.2060	10,0	35.0	92.0	150	

Universal stock screw key drive tool

- M8 / M10
- Swivelling head double ended key for turning screw studs
- Special steel



	B mm	L mm	g	
116.2051	35.0	220.0	320	

Handle, fl xible

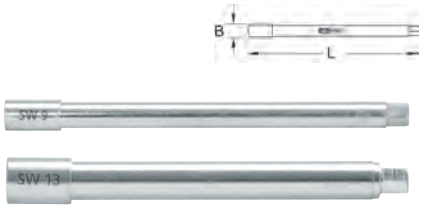
- With external square drive to DIN 3120 / ISO 1174
- 180° Swivel universal joint
- Special steel

1/2"

	L mm	g
116.2081	165.0	150

Assembly tool for drain valves

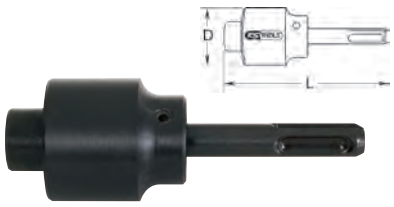
- Work on damage drain valves



	Ø mm	mm	■	B mm	L mm	g
116.2054	11,0	10,0		10.5	185.0	120
116.2055	9,0	10,0		10.5	185.0	100
116.2056	10,0	10,0		14.0	185.0	110
116.2057	12,0	10,0		15.0	185.0	130
116.2059	13,0	10,0		15.0	185.0	130
116.2089	9,0	10,0		10.5	165.0	60
116.2090	10,0	10,0		10.5	165.0	70
116.2092	12,0	10,0		15.0	165.0	120
116.2093	13,0	10,0		15.0	165.0	120
116.2096		10,0	1/4"	14.2	155.0	130

Valve extension mills

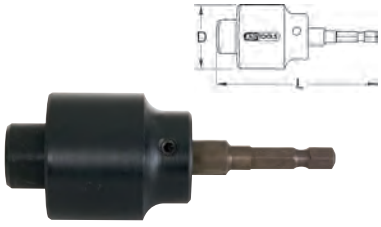
- With SDS adaptor
- With swarf catcher
- Wall mounted models for milling of valve extensions
- With special carbide tipped cutting edge
- Optimized centering of the cylindrical tower in front of the cutter
- Special steel



	D mm	L mm	g
116.2036	36.0	100.0	170

Tap extension cutter

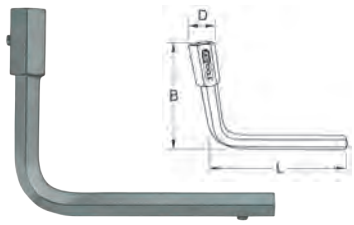
- With 1/4" 6 point adaptor
- With swarf catcher
- Wall mounted models for milling of valve extensions
- With special carbide tipped cutting edge
- Optimized centering of the cylindrical tower in front of the cutter
- Special steel



	D mm	L mm	g
116.2037	36.0	91.5	170

Special tap extension bit

- Special steel



3/8"

	mm	L mm	B mm	D mm	g
116.2073	12,0	128.0	100.0	17.5	220

Special tap extension bit

- Special steel

1/2"

	mm	L mm	g
116.2039	12,0	150.0	150

Radiator nipple wrench

- Tools for mounting of radiators for nipples 1" and 1.1/4", with 18 mm square drive
- Special steel

	Ø	■ mm	L mm	kg
131.0500	1"	18.0	500.0	0.75
131.0800	1"	18.0	800.0	1.10
131.1000	1"	18.0	1000.0	1.45
132.0500	1.1/4"	18.0	500.0	1.30
132.0800	1.1/4"	18.0	750.0	1.50

Radiator tap wrench

- Tools for mounting of radiators for nipples 1" and 1.1/4", with 18 mm square drive
- Soft grip handle
- Special steel

	□ mm	L mm	kg
131.0001	18,0	500.0	1.67

Tap wrench

- Tools for mounting of radiators for nipples 1" and 1.1/4", with 18 mm square drive
- Soft grip handle
- Special steel

	□ mm	L mm	kg
131.0002	18,0	500.0	1.67

SUCTION PADS

Mini vacuum suction cup

- For lifting, carrying and holding
- For fl t and non porous surfaces
- Max. 15 kg carrying capacity - perpendicular to sucker
- Suitable for adjusting and insertion of shower trays
- Solid rubber

	Suction cup Ø mm	Load capacity kg	g
140.1004	80.0	15	100

One handed mini suction cup

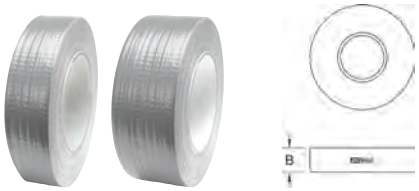
- Convenient one handed operation by lever
- Lifting, carrying and holding
- Special plastic

	Suction cup Ø mm	Load capacity kg	H mm	L mm	g
140.1015	70.0	8.0	92.0	115.0	168

FABRIC ADHESIVE TAPE

Fabric adhesive tape, silver

- Fabric adhesive tape
- Laminated polyester/cotton fabric
- Sturdy, heat resistant and water repellent
- Rubber based adhesive

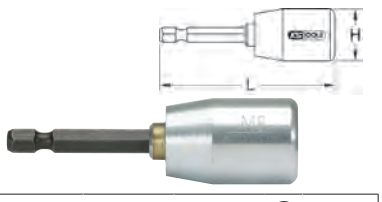


	B mm	L m	g
141.5001	40.0	50.00	305
141.5000	50.0	50.00	410

SOCKET SCREWDRIVER

Stud screwdriver, magnetic

- Magnetic stud screwdriver with 1/4" bit holder for screwdriver
- For a damage free entry and boring of the stud
- Special steel



1/4"

		L mm	H mm	g
122.3006	M6	88.0	21.0	80
122.3008	M8	80.0	24.0	100
122.3010	M10	88.0	26.0	120
122.3012	M12	76.0	26.0	140

Stud screw key with SDS adaptor

- Stud screw key for machinery with SDS adaptor
- For a damage free entry and boring of the stud
- Special steel

		L mm	H mm	g
122.3016	M6	76.0	21.0	90
122.3018	M8	81.0	23.0	120
122.3020	M10	99.0	26.0	150
122.3022	M12	101.0	29.0	180

Stud screwdriver

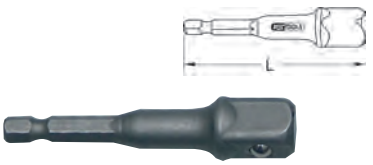
- Stud screwdriver with 1/2" square drive for special adaptor
- For a damage free entry and boring of the stud
- Special steel

1/2"

	□		L mm	g
116.2086	1/2"	M8	35.0	70
116.2087	1/2"	M10	43.0	100
116.2088	1/2"	M12	48.0	130

Special adaptor, magnetic

- Magnetic 1/2" special adaptor for stud screwdriver with 1/4" bit holder for screwdrivers
- Special steel

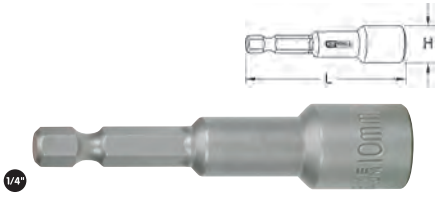


1/2"

	L mm	g
514.1135	72.0	60

CLASSIC drive socket, magnetic

- Magnetic
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- For a damage free inserting boring and unscrewing bolts
- Ideally suited for fi tings in trade and industry
- Sand blasted
- Special steel

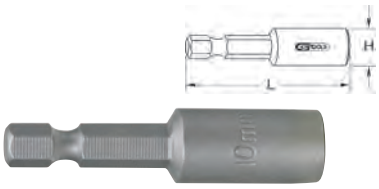


1/4"

	mm	L mm	H mm	g
122.2101	7,0	60.0	11.0	30
122.2102	8,0	60.0	12.0	30
122.2103	10,0	60.0	15.0	40
122.2104	13,0	60.0	18.0	50

CLASSIC stud screwdriver

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- For a damage free inserting and unscrewing bolts from floo
- Ideally suited for fi tings in trade and industry
- Sand blasted
- Special steel

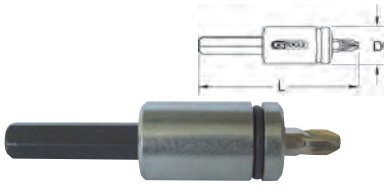


1/4"

		L mm	H mm	g
122.2105	M6	50.0	12.0	20
122.2106	M8	50.0	12.0	20
122.2107	M10	50.0	12.0	20
122.2108	M12	50.0	14.0	20

Pipe clamp fi ting tool

- Holder for stud screws M8 and 1/4" bits
- Ideal for gas, water and electrical installation
- No screw bit changing
- 6 point 1/4" adaptor can be mounted in the chuck
- Special steel



	D mm	L mm	g
116.2012	20.0	70.0	100

CLASSIC bit and drive socket set

- Ideal set of compilation for plumbing heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting borin and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Sand blasted
- Special steel
- In durable plastic storage case

1/4"

			g
122.2100	31 pcs	CLASSIC bit and drive socket set	670
4 x		7 - 8 - 10 - 13 mm	
4 x		M6 - M8 - M10 - M12	
1 x		50 mm	
5 x		PH1 - 3 x PH2 - PH3	
5 x		PZ1 - 3 x PZ2 - PZ3	
2 x		5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

CLASSIC bit and drive socket display

- Ideal set of compilation for plumbing heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with and electric screwdriver
- Ideally suited for fi tings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting boring and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Special steel
- Supplied in counter sales display

1/4"

			kg
122.2100D	10 pcs	10 x 122.2100	7.00

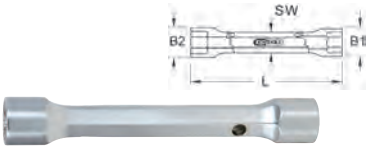
ULTIMATE*plus* Double box head spanner set

- FlankTraction profile 12 point)
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Can use a ring spanner to drive
- Matt finis
- Chrome vanadium

			kg
518.0405	10 pcs	ULTIMATE*plus* Double box head spanner set	1.16
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	
2 x		#1 100 mm + #2 170 mm	

ULTIMATE*plus* Double box spanner

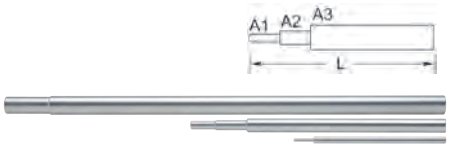
- FlankTraction profile 12 point)
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Can use a combination spanner to drive
- Matt finis
- Chrome vanadium



	mm	B1 mm	B2 mm	dim mm	L mm		g
518.0406	6x7	9.0	10.0	8,0	100.0	1	27
518.0408	8x9	11.5	12.5	9,0	110.0	1	43
518.0410	10x11	14.0	15.0	11,0	120.0	1	63
518.0412	12x13	16.5	17.5	13,0	130.0	2	96
518.0414	14x15	19.5	20.0	14,0	140.0	2	132
518.0416	16x17	21.0	22.0	16,0	150.0	2	155
518.0418	18x19	23.0	24.0	18,0	160.0	2	187
518.0420	20x22	26.0	28.0	20,0	170.0	2	275
518.0421	21x23	27.0	29.0	21,0	180.0	2	310
518.0424	24x26	30.0	32.0	24,0	190.0	3	365
518.0425	25x28	31.0	34.0	25,0	200.0	3	410
518.0427	27x29	34.0	36.0	27,0	210.0	3	540
518.0430	30x32	37.0	39.0	30,0	220.0	3	610

Tommy bar for double box spanner

- Hardened
- Matt finis
- Chrome vanadium



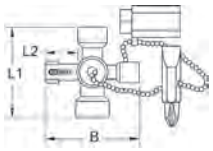
	mm	A1 mm	A2 mm	A3 mm	L mm	#	g
518.0450	6x7-10x11	2.6	5.0	5.0	100.0	1	10
518.0455	12x13-21x23	5.9	7.0	9.3	170.0	2	80
518.0460	24x26-30x32	11.6	12.5	12.5	290.0	3	280

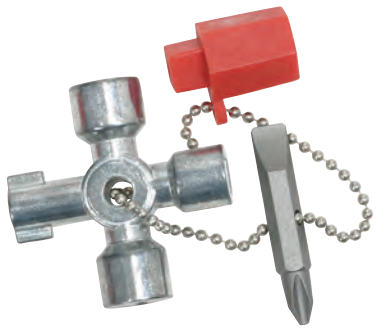
UNIVERSAL ENCLOSURE KEYS

Mini universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
●	3 - 5 mm
⊕	PH 2
⊖	7 mm



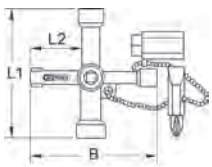


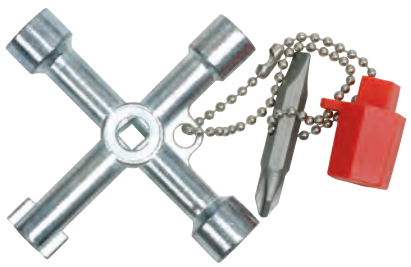
	B mm	L1 mm	L2 mm	g
130.1010	42.0	42.0	18.0	100

Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
●	3 - 5 mm
⊕	PH 2
⊖	7 mm



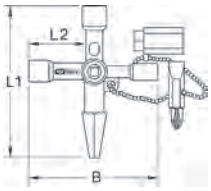


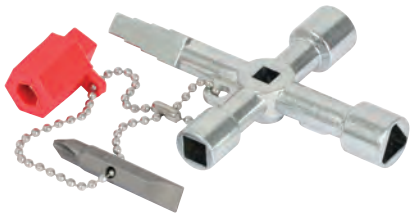
	B mm	L1 mm	L2 mm	g
130.1015	71.0	71.0	33.0	200

Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

■	5 mm
■	7 mm
■	8 mm
■■■	4 - 10 mm
▲	9 - 10 mm
⊕	PH 2
⊖	7 mm



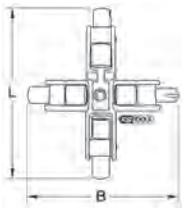


	B mm	L1 mm	L2 mm	g
130.1020	61.0	90.0	27.0	200

Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Fourfold pivot mechanism
- Die cast zinc

■	6 mm
■	7 mm
■	8 mm
▲	7 mm
▲	8 - 9 mm
●	3 - 5 mm
↻	
◠	6 mm

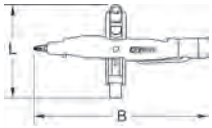


	B mm	L mm	g
130.1046	100.0	113.5	200

Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Double pivot mechanism
- Die cast zinc

■	5 mm
■	6 mm
■	7 - 8 mm
▲	9 mm
●	3 - 5 mm
⊕	PH 2

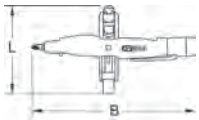


	B mm	L mm	g
130.1040	140.0	100.0	120

Universal enclosure key with voltage finder 50 - 600

- Contactless and optical recognition of alternating current
- On / off switch
- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Includes two batteries 1,5 V LR44 button cell 11,6 x 5,4 mm
- Double pivot mechanism
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
●	3 - 5 mm
⊕	PH 2



Technical data:

Readout:	1 LED
Voltage range:	50 - 600 V
Duty cycle:	permanent
Frequency range:	50 - 60 Hz
Protection class:	EN 61010

	B mm	L mm	g
130.1045	155.0	95.0	120

TOOL ASSORTMENTS

Air conditioning combination tool set

- For optimal use in refrigeration and air conditioning installation
- Supplied in durable ABS storage case

			kg	
116.0175	129 pcs	Air conditioning combination tool set	14.41	

consists of:

		g	
101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
105.2000	Internal+external deburrer, 3-42mm	240	
117.0550	ERGO VDE screwdriver set, 8pcs, PH+slot	430	
117.1100	ERGO VDE pliers set, 4pcs, 150-250mm	1440	
117.1114	ERGO VDE wire stripper, 150mm	210	
118.0065	Kevlar scissors, 140mm	130	
122.0500	Flaring tool clamping device, 6-16mm	900	
130.0122	4in1 air con ratchet, 3/16"-3/8"	120	
141.6010	PVC insulation tape set, 8 pcs	150	
142.1320	Fitter's hammer, hickory handle, 200g	283	
151.2180	CLASSIC key wrench set hex, XL, 8pcs 2	440	
156.0150	Punch set, 6pcs	520	
159.1001	ERGOTORQUE+ screwdriver slot,short,6mm	40	
159.1026	ERGOTORQUE+ screwdriver short, PH2	40	
159.1046	ERGO+ stubby screwdriver, POZIDRIV®, PZ2	40	
203.0010	Pipe bending spring, external, 10mm	80	
203.0012	Pipe bending spring, external, 12mm	110	
203.0016	Pipe bending spring, external, 16mm	220	
300.0131	PRECISION+ steel tape measure, 3mx16mm	100	
518.0607	CHROME+ combination spanner, 7mm	25	
518.0608	CHROME+ combination spanner, 8mm	32	
518.0609	CHROME+ combination spanner, 9mm	46	
518.0610	CHROME+ combination spanner, 10mm	48	
518.0613	CHROME+ combination spanner, 13mm	71	
518.0617	CHROME+ combination spanner, 17mm	159	
518.0619	CHROME+ combination spanner, 19mm	176	
518.0701	CHROME+ open end spanner, 6x7mm	27	
518.0702	CHROME+ open end spanner, 8x9mm	32	
518.0704	CHROME+ open end spanner, 10x11mm	58	
518.0707	CHROME+ open end spanner, 12x13mm	93	
518.0709	CHROME+ open end spanner, 14x15mm	122	
518.0710	CHROME+ open end spanner, 16x17mm	170	
518.0712	CHROME+ open end spanner, 18x19mm	212	
518.0715	CHROME+ open end spanner, 21x23mm	277	
518.0716	CHROME+ open end spanner, 24x27mm	410	
518.0718	CHROME+ open end spanner, 30x32mm	693	
577.0200	CLASSIC adjustable wrench, 200mm	250	
577.0250	CLASSIC adjustable wrench, 250mm	450	
577.0300	CLASSIC adjustable wrench, 300mm	690	
907.2184	Cable knife, Ø 8-28mm	100	
911.0646	Socket set, 46pcs, 1/4"	1100	
997.1216	Saw blade, 12 pack	40	
997.1217	Small hacksaw frame, 150mm	100	
850.0560	ABS rigid tool case, 460x310x180mm	4500	

Premium plumbing tool set

- For optimal use in plumbing installation
- Supplied in multi pocket tool case

			kg	
116.0190	126 pcs	Premium plumbing tool set	15.88	

consists of:

		g	
101.5022	Mini pipe cutter, 3-22mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45°angled,1"	820	
115.1004	ERGO pliers set, 4pcs, 160-240mm	1440	
116.1000	Fitters pliers, 1"	790	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.5000	Special sanitary spanner, 17x19xM10	250	
118.0052	Tin snips, right, 240mm	400	
122.2100	CLASSIC Sanitary bit set, 31pcs, 1/4"	670	
125.1000	Tap nut wrench, 275mm	500	
130.3000	Step key set, 2pcs, 3/8"-1"	610	
141.5000	Fabric adhesive tape, silver,50mm x 50m	410	
142.1330	Fitter's hammer, hickory handle, 300g	350	
142.5151	Club hammer, fiber las handle, 1500g	1650	
151.2180	CLASSIC key wrench set hex, XL, 8pcs 2	440	
156.0175	Centre punch, 120mm	60	
156.0531	Flat chisel, 16x250mm	380	
204.5500	Spirit level, aluminium, 500mm	390	
300.0060	Folding wood rule, metric, yellow, 2m	100	
300.0133	PRECISION+ steel tape measure, 5mx25mm	150	
500.7165	Precision screwdriver set, 7pcs	100	
517.0123	CLASSIC double OE spanner set, 11pcs	1600	
577.0200	CLASSIC adjustable wrench, 200mm	250	
850.0300	SMARTBAG tool case,	2250	
907.2100	Hacksaw frame, 300mm	270	
907.2165	Utility knife, snap off blade, 140mm	90	
907.2264	Decorator's scraper, stainless, 63x225mm	70	
911.1198	ERGO bit driver, 1/4" f.bits, 200mm	90	
911.2060	CLASSIC bit box, belt clip, 32pcs, 1/4"	300	
911.2120	ERGO screwdriver set, 6pcs, slot+PZ	630	
911.2188	Electrical screwdriver, 150-250V	14	
997.1215	Small handsaw,150mm	100	
999.2034	Gypsum cup, 0,75 litre	60	

Basic plumbing tool set

- For optimal use in the plumbing sector
- In durable leather tool case

			kg	
116.0185	34 pcs	Basic plumbing tool set	11.21	

consists of:

		g	
101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45°angled,1"	820	
113.1500	Swed.pattern pipe wrench 45° angled,1.1/2"	1400	
115.1012	ERGO diagonal side cutter, 160mm	260	
115.2000	Water pump pliers, 1.1/4"	310	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.5000	Special sanitary spanner, 17x19xM10	250	
125.1000	Tap nut wrench, 275mm	500	
130.3000	Step key set, 2pcs, 3/8"-1"	610	
142.1330	Fitter's hammer, hickory handle, 300g	350	
151.2100	CLASSIC key wrench set hex, long, 8pcs	330	
156.0532	Flat chisel, 16x300mm	440	
158.3520	CHROME+ key wrench set hex,8pcs,2.5-10mm	440	
159.1002	ERGOTORQUE+ screwdriver slot,3mm,L=155mm	40	
159.1004	ERGOTORQUE+ screwdriver slot,4mm,L=180mm	50	
159.1006	ERGO+ screwdriver, slot, 5.5mm	50	
159.1009	ERGO+ screwdriver, slot, 6.5mm	90	
159.1020	ERGO+ screwdriver, PHILLIPS®, PH1	40	
159.1021	ERGO+ screwdriver, PHILLIPS®, PH2	70	
201.2305	Wire brush steel, 3 rows, 290mm	120	
300.0060	Folding wood rule, metric, yellow, 2m	100	
517.0148	CLASSIC double OE spanner set, 8pcs	810	
907.2187	Electricians pen knife,1 straight blade	60	
907.2188	Pen knife, straight+narrow pointed blade	60	
997.1215	Small handsaw,150mm	100	
850.0310	Tool case, leather, 420x150x250mm	2600	

Basic plumbing tool set

- For optimal use in the plumbing sector
- In durable metal tool box

			kg	
116.0186	34 pcs	Basic plumbing tool set	12.16	

consists of:

		g	
101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45°angled,1"	820	
113.1500	Swed.pattern pipe wrench 45° angled,1.1/2"	1400	
115.1012	ERGO diagonal side cutter, 160mm	260	
115.2001	Water pump pliers, 36mm	350	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.1002	Fitting wrench, 60mm	550	
116.5000	Special sanitary spanner, 17x19xM10	250	
125.1000	Tap nut wrench, 275mm	500	
130.3000	Step key set, 2pcs, 3/8"-1"	610	
142.1330	Fitter's hammer, hickory handle, 300g	350	
151.2100	CLASSIC key wrench set hex, long, 8pcs	330	
156.0532	Flat chisel, 16x300mm	440	
158.3520	CHROME+ key wrench set hex,8pcs,2.5-10mm	440	
159.1002	ERGOTORQUE+ screwdriver slot,3mm,L=155mm	40	
159.1004	ERGOTORQUE+ screwdriver slot,4mm,L=180mm	50	
159.1006	ERGO+ screwdriver, slot, 5.5mm	50	
159.1009	ERGO+ screwdriver, slot, 6.5mm	90	
159.1020	ERGO+ screwdriver, PHILLIPS®, PH1	40	
159.1021	ERGO+ screwdriver, PHILLIPS®, PH2	70	
201.2305	Wire brush steel, 3 rows, 290mm	120	
300.0060	Folding wood rule, metric, yellow, 2m	100	
517.0123	CLASSIC double OE spanner set, 11pcs	1600	
907.2188	Pen knife, straight+narrow pointed blade	60	
997.1215	Small handsaw,150mm	100	
999.0120	Tool box metal	3450	

Premium plumbing tool set

- For optimal use in plumbing for sanitary assembly
- In durable leather tool case

			kg	
116.0195	116 pcs	Premium plumbing tool set	16.40	

consists of:

		g	
101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45°angled,1“	820	
115.1021	ERGO combination pliers, 180mm	300	
115.1024	ERGO long nose pliers serrated cutter	230	
115.2000	Water pump pliers, 1.1/4“	310	
116.1000	Fitters pliers, 1“	790	
116.1002	Fitting wrench, 60mm	550	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.5000	Special sanitary spanner, 17x19xM10	250	
118.0052	Tin snips, right, 240mm	400	
122.2100	CLASSIC Sanitary bit set, 31pcs, 1/4“	670	
125.1000	Tap nut wrench, 275mm	500	
130.3000	Step key set, 2pcs, 3/8“-1“	610	
142.1350	Fitter's hammer, hickory handle, 500g	590	
142.5125	Club hammer, ash handle, 1250g	1360	
151.2100	CLASSIC key wrench set hex, long, 8pcs	330	
156.0406	Centre punch, round, burnished, 6mm	60	
156.0512	Pointed chisel, 16x300mm	400	
156.0531	Flat chisel, 16x250mm	380	
159.1004	ERGOTORQUE+ screwdriver slot,4mm,L=180mm	50	
159.1007	ERGO+ screwdriver, slot, 5.5mm	60	
159.1009	ERGO+ screwdriver, slot, 6.5mm	90	
159.1020	ERGO+ screwdriver, PHILLIPS®, PH1	40	
159.1021	ERGO+ screwdriver, PHILLIPS®, PH2	70	
159.1024	ERGOTORQUE+ screwdriver PH3,L=265mm	130	
204.5400	Spirit level, aluminium, 400mm	320	
300.0062	Folding wood rule, metric, white, 2m	110	
300.0133	PRECISION+ steel tape measure, 5mx25mm	150	
500.7160	Precision screwdriver set,TX,7pcs,T6-T20	100	
517.0123	CLASSIC double OE spanner set, 11pcs	1600	
577.0250	CLASSIC adjustable wrench, 250mm	450	
907.2100	Hacksaw frame, 300mm	270	
907.2165	Utility knife, snap off blade, 140mm	90	
907.2265	Decorator's scraper, stainless, 75x225mm	80	
911.2060	CLASSIC bit box, belt clip, 32pcs, 1/4“	300	
911.2188	Electrical screwdriver, 150-250V	14	
997.1215	Small handsaw,150mm	100	
999.2034	Gypsum cup, 0,75 litre	60	
850.0315	Tool case, leather, 405x185x280mm	3600	

Premium plumbing tool set

- For optimal use in plumbing for sanitary assembly
- In durable metal tool box

			kg	
116.0196	116 pcs	Premium plumbing tool set	18.40	

consists of:

		g	
101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45°angled,1“	820	
115.1021	ERGO combination pliers, 180mm	300	
115.1024	ERGO long nose pliers serrated cutter	230	
115.2000	Water pump pliers, 1.1/4“	310	
116.1000	Fitters pliers, 1“	790	
116.1002	Fitting wrench, 60mm	550	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.5000	Special sanitary spanner, 17x19xM10	250	
118.0052	Tin snips, right, 240mm	400	
122.2100	CLASSIC Sanitary bit set, 31pcs, 1/4“	670	
125.1000	Tap nut wrench, 275mm	500	
130.3000	Step key set, 2pcs, 3/8“-1“	610	
142.1350	Fitter's hammer, hickory handle, 500g	590	
142.5150	Club hammer, ash handle, 1500g	1600	
151.2100	CLASSIC key wrench set hex, long, 8pcs	330	
156.0511	Pointed chisel, 16x250mm	390	
156.0531	Flat chisel, 16x250mm	380	
159.1004	ERGOTORQUE+ screwdriver slot,4mm,L=180mm	50	
159.1007	ERGO+ screwdriver, slot, 5.5mm	60	
159.1009	ERGO+ screwdriver, slot, 6.5mm	90	
159.1020	ERGO+ screwdriver, PHILLIPS®, PH1	40	
159.1021	ERGO+ screwdriver, PHILLIPS®, PH2	70	
159.1024	ERGOTORQUE+ screwdriver PH3,L=265mm	130	
159.1198	ERGO+ 1/4“ bit driver, magnetic, 205mm	90	
204.5400	Spirit level, aluminium, 400mm	320	
300.0060	Folding wood rule, metric, yellow, 2m	100	
300.0133	PRECISION+ steel tape measure, 5mx25mm	150	
500.7160	Precision screwdriver set,TX,7pcs,T6-T20	100	
517.0123	CLASSIC double OE spanner set, 11pcs	1600	
577.0300	CLASSIC adjustable wrench, 300mm	690	
907.2100	Hacksaw frame, 300mm	270	
907.2165	Utility knife, snap off blade, 140mm	90	
907.2262	Decorator's scraper, stainless, 38x225mm	70	
911.2060	CLASSIC bit box, belt clip, 32pcs, 1/4“	300	
911.2188	Electrical screwdriver, 150-250V	14	
997.1215	Small handsaw,150mm	100	
999.2034	Gypsum cup, 0,75 litre	60	
999.0125	Tool box metal	5600	

PIPELINE VIDEOSCOPE

ULTIMATE*vision* MASTER videoscope set with sensor drum

- Probe with dimensionally stable pushrod
- Flexible probe head for optimum bend fl xibility
- 8 dimmable white mini LED lamps
- Mobile and network independent system
- Abrasion resistant, spring sheathed probe head shaft
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- 1.5 times digital zoom function
- Horizontal picture refle tion function
- Picture reception in JPEG format
- Video records in MPEG4-format
- View on large monitor with AV cable
- Data transfer directly through USB cable possible
- SD port for SD card
- Multi lingual menu (14 languages)
- Wide range of applications in pipes and shafts
- 2 Component housing protects against light impacts
- In durable plastic storage case

Contents:
Sensor drum with pushrod + camera head
Basic unit ULTIMATE*vision* MASTER
2 GB SD card

Technical data hand held unit:

Weight:	340g
Screen:	3,5” (TFT LCD QVGA)
Output format:	NTSC and PAL
Picture storage format:	JPEG (640 x 480)
Compression format:	MPEG4
Storage medium:	SD card up to a max. 2 GB
Rechargeable battery:	Li-Polymer 3,7 V (AC 100-240V / 50-60Hz)
Power requirement:	DC 5,5 - 1,8 A
Operating time:	ca. 4 h rechargeable battery
Protection class:	IP 68
Operating temperature:	-10°C to +60°C
Language manual:	DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG
Length:	24,3 mm
Ø:	28,0 mm

Technical data probe head:

Aperture angle:	diagonal 150.8°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of fi ld:	10 ~ ∞ mm
AV Magnifi ation:	is up to 15” over cinch
Light source:	8 dimmable white mini LED lamps
Brightness:	33 Lux
Operating temperature:	-10°C to +60°C
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Bend radius:	max. 30 mm
Application:	40-100mm - 90°bend fl xibility above Ø50mm

Technical data drum with pushrod:

Length:	22.00 m
Ø:	6 mm
Bend radius:	min. 150 mm
Operating temperature:	-10°C up tp +70°C
Protection class:	IP 65
Drum Ø:	300 mm

			kg	
550.7221	3 pcs	ULTIMATE*vision* MASTER videoscope set with sensor drum	10.60	

Brush for videoscope

- Suitable for use with videoscopes
- For centric use of the camera

	DN	L mm	g	
550.7228	100	150.0	64	
550.7227	150	150.0	151	

Aluminium adaptor for videoscope

- Suitable for use with videoscopes

	Ø mm	L mm	g	
550.7229	50,0	36.0	61	

Alcohol cleaning set

- Suitable for all ULTIMATE*vision* Videoscopes

		g	
550.7998	Alcohol cleaning set	50	

GROUTING TOOLS

Sealfix s t

- For building sealants and expansion joints with silicone, acrylic, polyurethane, etc.
- Optimum working result without tedious masking
- Through working without a release agent optimum durability and adhesion of the joints
- Plastic
- In durable plastic storage case

			g	
116.1010	3 pcs	Sealfix s t	100	

Sealfix a vanced set

- For building sealants and expansion joints with silicone, acrylic, polyurethane, etc.
- Optimum working result without tedious masking
- Through working without a release agent optimum durability and adhesion of the joints
- Tip slides allow easy traverse ready produced seams
- Plastic
- In durable plastic storage case

			g	
116.1020	7 pcs	Sealfix a vanced set	150	

FUGENFIX silicone scraper and wiper set

- For building sealants and expansion joints with silicone, acrylic, polyurethane, etc.
- Optimum working result without tedious masking
- With 5 different radius adapters
- For dressing silicone
- Optimum adhesion and durability of the joints due to the absence of a parting agent
- Plastic

			g	
116.1050	7 pcs	FUGENFIX silicone scraper and wiper set	115	

accessories:

		g	
116.1040	Silicone scraper f. replaceable attachments	300	
116.1030	Silicone scraper	220	
116.1040-03R	Attachment f. silicone scraper 03 R, pack of 5	14	
116.1040-06R	Attachment f. silicone scraper 06 R, pack of 5	14	
116.1040-10R	Attachment f. silicone scraper 10 R, pack of 5	15	
116.1040-13R	Attachment f. silicone scraper 13 R, pack of 5	16	
116.1040-17R	Attachment f. silicone scraper 17 R, pack of 5	16	

MILLING CUTTERS AND PUNCHES

Tap seating milling set 3/8“ - 1“

- For accurate milling when the valve seats cause leaking taps
- Adjustable via spring milling head and regulation screw
- Fits all standard threaded fi tings by graded cylindrical which is included
- Interchangeable cutter
- In durable metal storage case

			g	
136.1100	5 pcs	Tap seating milling set 3/8“ - 1“	870	

consists of:

		g	
136.1000	TAP RES. HANDLE ONLY (in bulk)w/o milling-cutter	190	
136.1003	Mill, 3/8“ x 14 mm OD	20	
136.1004	Mill, 1/2“ x 17 mm OD	20	
136.1005	Mill, 3/4“ x 24 mm OD	20	
136.1006	Mill, 1“ x 28 mm OD	20	

Tap seating milling set 1/4“ - 1“

- For accurate milling when the valve seats cause leaking taps
- Adjustable via spring milling head and regulation screw
- Fits all standard threaded fi tings by graded cylindrical which is included
- Interchangeable cutter
- In durable plastic storage case

			g	
136.1105	6 pcs	Tap seating milling set 1/4“ - 1“	870	

consists of:

		g	
136.1000	TAP RES. HANDLE ONLY (in bulk)w/o milling-cutter	190	
136.1002	Mill, 1/4“ x 12 mm	20	
136.1003	Mill, 3/8“ x 14 mm OD	20	
136.1004	Mill, 1/2“ x 17 mm OD	20	
136.1005	Mill, 3/4“ x 24 mm OD	20	
136.1006	Mill, 1“ x 28 mm OD	20	

Screw hole punch

- 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For diffi ult to access areas
- Burnished surface
- Special tool steel

Ideally usably in V2A sheet to 1.5 mm, aluminum, copper, steel as well as stainless steel and plastics. The sheet metal thicknesses can be exceeded at the expense of screw. Especially suited for burr free, clean, effortless and fast punching.

	D mm	Standard	Replacement tension screw	Tension srew	Tapping hole	Content	g
129.0012	12.5	ISO 12	129.0001	MF 8 x 1 x 55,0	9	1	72
129.0013	12.7	PG7	129.0001	MF 8 x 1 x 55,0	9	1	73
129.0015	15.2	PG9	129.0001	MF 8 x 1 x 55,0	9	1	94
129.0016	16.0	ISO 16	129.0001	MF 8 x 1 x 55,0	9	1	96
129.0018	18.6	PG11	129.0001	MF 8 x 1 x 55,0	9	1	112
129.0020	20.4	PG13	129.0002	MF 12 X 1,5 X 55	13	1	160
129.0021	20.5	ISO 20	129.0002	MF 12 X 1,5 X 55	13	1	161
129.0022	22.5	PG16	129.0002	MF 12 X 1,5 X 65	13	1	164
129.0025	25.4	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	185
129.0026	25.5	ISO 25	129.0002	MF 12 X 1,5 X 65	13	1	186
129.0028	28.3	PG21	129.0002	MF 12 X 1,5 X 65	13	1	212
129.0030	30.5	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	250
129.0032	32.5	ISO 32	129.0002	MF 12 X 1,5 X 65	13	1	252
129.0035	35.0	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	378
129.0037	37.0	PG29	129.0002	MF 12 X 1,5 X 65	13	1	380
129.0038	38.0	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	394
129.0040	40.5	ISO 40	129.0002	MF 12 X 1,5 X 65	13	1	398
129.0047	47.0	PG36	129.0003	MF 16 x 1,5 x 75,0	18	1	834
129.0050	50.5	ISO 50	129.0003	MF 16 x 1,5 x 75,0	18	1	768
129.0054	54.0	PG42	129.0003	MF 16 x 1,5 x 75,0	18	1	964

Screw hole punch with chip break

- With 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For diffi ult to access areas
- Burnished surface
- Special tool steel

Ideally usably in V2A sheet
up to 1.5 mm aluminium, copper
sheet metal and iron sheet metal to 2.0 mm
as well as stainless steel and plastics.
The sheet metal thicknesses can be
exceeded at the expense of screw.
Especially suited for burr free
clean, effortless and fast
punching.

	D mm	Standard	Replacement tension screw	Tapping hole	g
129.0204	16.5	ISO 16	129.0001	9	125
129.0205	18.6	PG 11	129.0001	9	145
129.0206	20.4	PG 13	129.0002	13	170
129.0207	20.5	ISO 20	129.0002	13	170
129.0208	22.5	PG 16	129.0002	13	190
129.0209	25.4	ISO 12	129.0002	13	200
129.0210	25.5	ISO 25	129.0002	13	200
129.0211	28.3	PG 21	129.0002	13	310
129.0212	30.5	ISO 12	129.0002	13	340
129.0213	32.5	ISO 32	129.0002	13	345
129.0214	35.0	ISO 35	129.0002	13	480

TEST PUMPS

Pressure test pump

- Operating pressure max. 20 bar
- Tank capacity 12 litre's
- 2 lock valves
- Low lying pressure gauge with protective cover
- Pump lever with a locking chain
- Inclusive 1.5 m high pressure hose with steel mesh reinforcement and 1/2" connector
- Red powder coating
- Monobloc version
- Piston made of plastic

	B mm	H mm	L mm	kg
902.1004	195.0	222.0	505.0	6.20

Stainless steel pressure test pump

- Operating pressure max. 20 bar
- Tank capacity 12 litre's
- 2 lock valves
- Low lying pressure gauge with protective cover
- Pump lever with a locking chain
- Inclusive 1.5 m high pressure hose with steel mesh reinforcement and 1/2" connector
- Monobloc version
- Piston made of plastic

	B mm	H mm	L mm	kg
902.2004	195.0	222.0	505.0	6.70

Electric pressure test pump

- Operating pressure max. 20 bar
- Tank capacity 12 litre's
- Flow rate: 13.5 l/ min
- Power 600W
- Rotational speed 1,400 rpm
- 220V power supply
- For using to test closed fluid ystems
- Inclusive 1,5 m high pressure hose with 1/2" connector
- Red powder coating
- Brass piston pumps
- Tank made of galvanized steel

	B mm	H mm	L mm	kg
902.3004	190.0	410.0	500.0	17.40

Auxillary gauge

- Max. 12 bar
- By using the auxillary gauge can be used to pressure test pump for further tests
- 1/2" Internal and external threaded connector
- Special steel

	B mm	L mm	g
902.1005	63.0	226.0	600

RADIATOR TRANSPORT TROLLEY

Radiator transport trolley

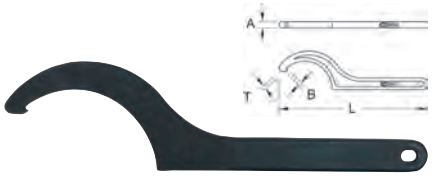
- Practical transport trlley to transport radiators
- With automatic brake
- Max. payload: 150 kg
- Max. height 370 mm
- Special steel

	B mm	H mm	SL mm	SB mm	kg
160.0230	610.0	980,0	420.0	195.0	30.00

HOOK WRENCH

Fixed hook wrench with nose

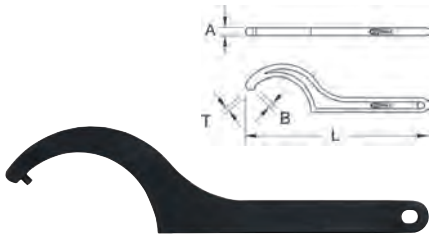
- In accordance to DIN 1810 Form A
- With hanging hole
- For slotted nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1370	12 - 14	2.5	2.0	109.5	1.5	22
517.1371	16 - 20	2.5	2.0	109.5	1.5	22
517.1372	25 - 28	4.0	2.5	135.9	2.0	36
517.1373	30 - 32	4.0	2.5	135.9	2.0	36
517.1374	34 - 36	5.0	3.0	170.2	2.0	82
517.1375	40 - 42	5.0	3.0	170.3	2.0	76
517.1376	45 - 50	6.0	3.5	195.0	2.0	132
517.1377	52 - 55	7.0	3.5	220.0	2.5	176
517.1378	58 - 62	7.0	4.0	240.0	2.5	224
517.1379	68 - 75	7.6	4.0	260.0	3.0	280
517.1380	80 - 90	8.0	5.0	280.0	3.5	368
517.1381	92 - 100	8.0	5.0	280.0	3.5	394
517.1382	110 - 115	9.5	5.0	334.9	4.0	590
517.1383	120 - 130	9.5	5.0	334.9	4.0	540

Fixed hook wrench with pin

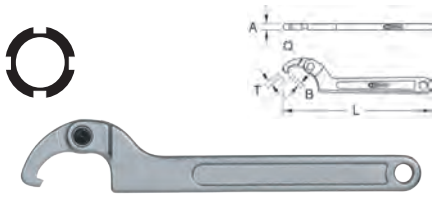
- In accordance to DIN 1810 Form B
- With hanging hole
- For pin type round nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	kg
517.1471	12 - 14	3.0	2.0	110.0	2.0	0.03
517.1472	16 - 18	3.0	2.5	110.0	2.5	0.03
517.1473	20 - 22	3.0	2.5	110.0	2.5	0.03
517.1474	25 - 28	4.0	3.0	136.0	3.0	0.06
517.1488	30 - 32	5.0	4.0	136.0	3.0	0.06
517.1476	34 - 36	5.0	4.0	170.0	3.5	0.10
517.1477	40 - 42	5.0	4.0	170.0	3.5	0.10
517.1478	45 - 50	6.0	5.0	206.0	4.0	0.17
517.1479	52 - 55	6.0	5.0	206.0	4.0	0.17
517.1480	58 - 62	7.0	5.0	240.0	5.0	0.27
517.1481	68 - 75	7.0	6.0	240.0	5.0	0.27
517.1482	80 - 90	8.0	6.0	280.0	6.0	0.41
517.1483	95 - 100	8.0	8.0	280.0	6.0	0.41
517.1484	110 - 115	8.0	8.0	335.0	8.0	0.61
517.1485	120 - 130	8.0	8.0	335.0	8.0	0.61
517.1486	135 - 145	8.0	8.0	380.0	8.0	0.79
517.1487	155 - 165	8.0	8.0	380.0	8.0	0.79

Hook wrench with nose

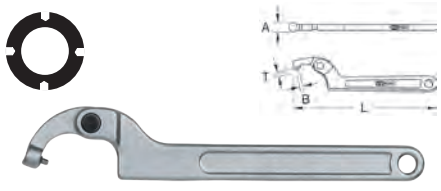
- In accordance to DIN 1810 Form A
- With fl xible head
- With hanging hole
- For slotted nuts
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1316	13 - 35	5.2	3.2	175.0	3.2	96
517.1317	35 - 50	5.9	4.0	202.0	4.2	186
517.1318	50 - 80	7.5	4.9	280.0	5.2	392
517.1319	80 - 120	8.2	5.3	345.0	5.8	656
517.1320	120 - 180	10.8	8.9	465.0	7.8	1286

Flexible hook wrench with pin

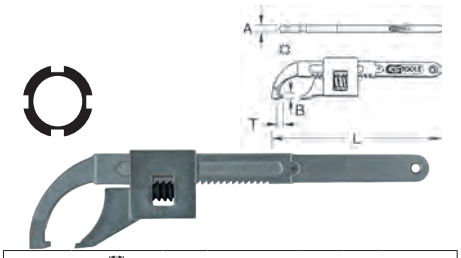
- In accordance to DIN 1810 Form B
- With fl xible head
- With hanging hole
- For pin type round nuts
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1323	15 - 35	9.8	2.8	177.0	2.8	96
517.1324	35 - 50	10.7	3.8	202.0	3.6	186
517.1325	50 - 80	14.0	4.8	280.0	5.0	380
517.1326	80 - 120	17.2	5.8	345.0	7.0	652
517.1327	120 - 180	19.2	7.8	465.0	9.0	1318

Hook wrench with nose

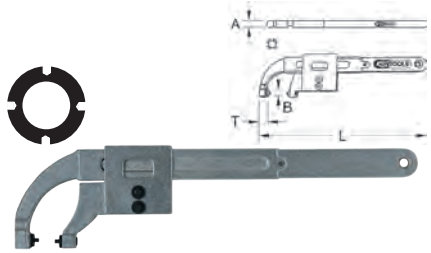
- In accordance to DIN 1810 Form A
- With fl xible head
- With hanging hole
- For slotted nuts
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1397	10 - 50	7.6	4.2	210.0	4.5	380
517.1398	20 - 100	8.2	6.8	360.0	5.5	840
517.1399	30 - 200	10.6	9.4	570.0	7.0	2250

Flexible hook wrench with pin

- In accordance to DIN 1810 Form B
- With fl xible head
- With hanging hole
- For pin type round nuts
- Matt finis
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1328	10-50	8.3	2.6	210.0	2.5	380
517.1329	20-100	12.3	4.0	360.0	4.5	840
517.1330	30-200	17.3	5.8	570.0	4.8	2250

VICES

Pipe vice

- Hinged
- Special steel

	Clamping range mm	Clamping range	kg
914.0010	10,0 - 60,0	1/8" - 2"	6.88
914.0011	10,0 - 89,0	1/8" - 3"	6.88

Chain pipe vice

- Hinged
- V shaped pipe rest with teeth
- Interchangeable jaws
- Special steel

	Clamping range mm	Clamping range	kg
914.0012	10,0 - 76,0	1/8" - 2.1/2"	1.90
914.0014	10,0 - 114,0	1/8" - 4"	4.50
914.0016	10,0 - 165,0	1/8" - 6"	8.50

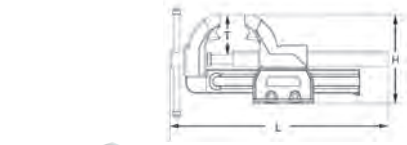
Bench vice

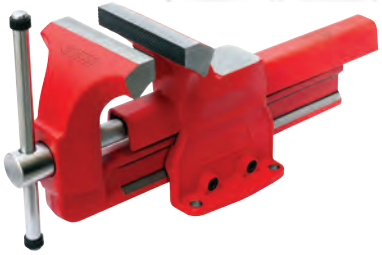
- Swivel base
- Interchangeable jaws
- Includes pipe vice attachment
- Absolutely parallel with adjustable centric drive
- Extra high possible clamping jaws shaped by large embossed casting
- Large anvil for straightening and compression work
- Induction hardened jaws and anvil
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel

	Jaw length	Jaw length mm	Clamping range mm	kg
914.0003	3"	75.0	100,0	7.50
914.0004	4"	100.0	120,0	8.70
914.0005	5"	130.0	140,0	11.00
914.0006	6"	150.0	170,0	14.50
914.0008	8"	200.0	200,0	20.50

Bench vice

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel

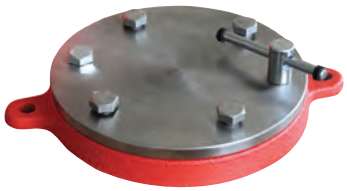




	Jaw length mm	Clamping range mm	T mm	H mm	L mm	Cudgel ø mm	kg
914.0026	100.0	125,0	70,0	140.0	320.0	12.0	5.00
914.0031	125.0	155,0	80,0	180.0	395.0	14.0	11.00
914.0036	150.0	180,0	98,0	220.0	485.0	16.0	20.00
914.0041	175.0	205,0	110,0	240.0	550.0	18.0	29.00

Turntable for bench vice

- Ideal supplement for KS-vices 914.0027 - 914.0041
- Enables accurate positioning of the workpiece
- 360° freely rotatable
- Safe and quick locking via handle
- Flat and stable construction
- Inclusive fastening screws for vice



		Ø mm	kg	
914.0027	914.0026	100,0	1.40	

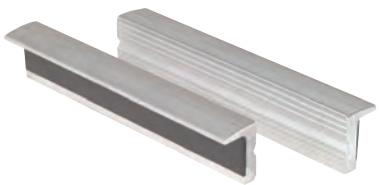
Bench vice with turntable

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel

		Jaw length mm	kg	
914.0030	2 pcs	125.0	13.80	
914.0035	2 pcs	150.0	23.75	
914.0040	2 pcs	175.0	33.85	

Aluminium bench vice protective jaws with textured surface

- Suitable for all bench vices
- The profil is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For coarse to medium fin work pieces
- Fine textured
- Aluminium



	Protective jaws mm	g	
914.0080	100.0	170	
914.0081	120.0	210	
914.0082	140.0	240	
914.0083	160.0	270	
914.0084	175.0	290	

Aluminium bench vice protective jaws with trapezoid notches

- Suitable for all bench vices
- The profil is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For different shaped materials
- For trapezoid use
- Aluminium

	Protective jaws mm	g	
914.0085	100.0	140	
914.0086	120.0	190	
914.0087	140.0	210	
914.0088	160.0	240	
914.0089	175.0	260	

Aluminium bench vice protective jaws with rubber insert

- Suitable for all bench vices
- The profil is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For thin walled wood and plastic parts
- Smooth
- Aluminium / rubber

	Protective jaws mm	g	
914.0090	100.0	160	
914.0091	120.0	200	
914.0092	140.0	240	
914.0093	140.0	260	
914.0094	175.0	290	

Soldering vice

- Special steel

	B mm	L mm	kg	
914.0020	255.0	990.0	13.20	

Spirit levels can be found in the Measuring and testing tools section.

PLASTIC PIPE PROCESSING

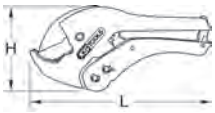
Plastic pipe cutter

- For PE, PP and PVDF pipes
- Stainless steel blade
- Die cast body

	Ø mm	H mm	L mm		g	
222.0001	0 - 32,0	70.0	200.0	222.0011	290	
222.0002	0 - 42,0	95.0	220.0	222.0012	430	
222.0003	0 - 63,0	135.0	430.0	222.0013	1200	
222.0004	0 - 75,0	175.0	480.0	222.0014	1600	

Automatic plastic pipe cutter 0 - 42 mm

- For PE, PP and PVDF pipes
- Stainless steel blade
- Die cast body



	Ø mm	H mm	L mm		g	
222.0005	0 - 42,0	105.0	230.0	222.0015	600	

Hose cutter

- Teflo coated blade
- Aluminium die cast body

	Ø mm	H mm	L mm		g	
222.2051	0 - 37,0	95.0	210.0	222.2052	80	

Hose cutter

- Aluminium die cast body

	Ø mm	H mm	L mm		g
222.2060	6,0 - 25,0	50.0	185.0	222.2061	300
222.2062	6,0 - 35,0	52.0	250.0	222.2061	420

Plastic pipe cutter Ø 0 - 32 mm

- Teflo coated cutting blades
- Aluminium die cast body

	Ø mm	H mm	L mm		g
222.1001M	0 - 32,0	71.0	205.0	222.1011M	320

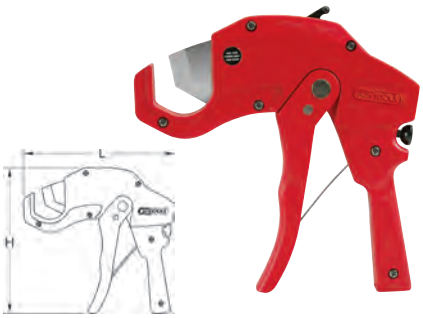
Plastic pipe cutting pistol Ø 6 - 35 mm

- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body

	Ø mm	H mm	L mm		g
222.1100	6,0 - 35,0	160.0	190.0	222.1101	630

Plastic pipe cutting pistol Ø 6 - 42 mm

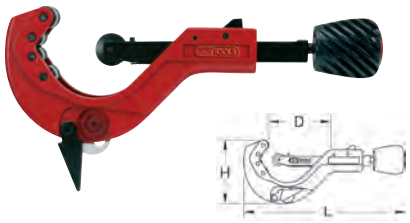
- Two stage cutting range 6 to 26 mm + 6 - 42 mm
- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body



	Ø mm	H mm	L mm		g
222.3100	6,0 - 42,0	220.0	210.0	222.3101	750

Automatic ratchet pipe cutter for plastic pipe

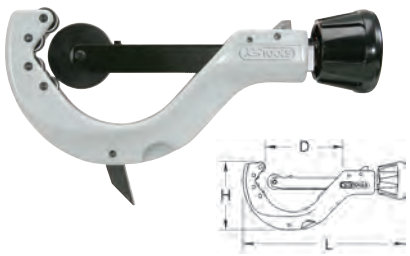
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- Cutting depth max. 5 mm
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel



	L mm	D mm	H mm	Metal	V²A	Plastic	g
222.0660	225.0	6,0 - 64,0	90.0	222.0665	-	222.0666	500

Automatic ratchet pipe cutter for copper pipe

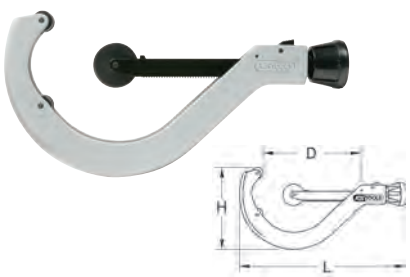
- With folding internal deburrer
- Quick through ratchet telescopic guide with automatic spring return
- Plastic cutter can be retrofi ted
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special steel



	D mm	H mm	L mm	Metal	V²A	Plastic	g
222.0750	15,0 - 80,0	100.0	250.0	222.0752	-	222.0751	800

Automatic ratchet pipe cutter for plastic pipe

- Quick through ratchet telescopic guide with automatic spring return
- Metal cutter can be retrofi ted
- Cutting depth max. 19 mm
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special steel



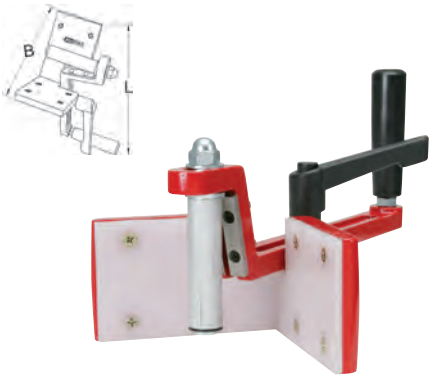
	D mm	H mm	L mm	Metal	kg
222.1250	50,0 - 140,0	150.0	350.0	222.0752	1.54
222.1680	100,0 - 168,0	190.0	385.0	-	1.60

replacement blade

		g
222.0011	222.0001	60
222.0012	222.0002	70
222.0013	222.0003	150
222.0014	222.0004	200
222.0015	222.0005	50
222.1011M	222.1001M	30
222.1101	222.1100	60
222.2052	222.2051	40
222.2061	222.2060	60
222.3101	222.3100	50

Plastic pipe chamfering device Ø 25 - 168 mm

- 15° Chamfering angle
- Flexible application
- Pipe wall thickness continuously adjustable during cutting application
- Special steel



	Ø mm	B mm	L mm	Replacement blades	g
222.5050	25,0 - 120,0	140.0	176.0	222.5051	850

Cutting and chamfering basic units CK 110

- For cutting thin and thick walled plastic pipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- Includes cutter plate 900.5029

		kg
222.5000	Cutting and chamfering basic units CK 110	3.25

Cutting and chamfering kit CK110

- For cutting thin and thick walled plastic pipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- In durable plastic storage case

			kg	
222.5100	7 pcs	Cutting and chamfering kit CK110	4.60	

consists of:

		g	
205.2020	Deburring tool, 140x21mm	60	
222.5000	Separation and chamfer tool CK110, without accessories	3250	
222.5003	Reducing jaws f.222.5100, 2pcs, Ø 50mm	240	
222.5007	Reducing jaws f.222.5100, 2pcs, Ø 75mm	240	
850.0505	Tool box, plastic, 475x245x240mm	1700	

Cutting and chamfering kit

- For cutting downpipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- In durable plastic storage case

			kg	
222.5110	6 pcs	Cutting and chamfering kit	4.91	

consists of:

		g	
222.5000	Separation and chamfer tool CK110, without accessories	3250	
222.5009	Reducing jaws f.222.5100, 2pcs, Ø 80mm	240	
222.5011	Reducing jaws f.222.5100, 2pcs, Ø 100mm	240	
222.5106	Cutting tool shank, 80mm	100	
850.0505	Tool box, plastic, 475x245x240mm	1700	

Cutting and chamfering kit CK160

- For cutting thick walled plastic pipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- In durable plastic storage case

			kg	
222.5200	7 pcs	Cutting and chamfering kit CK160	5.80	

consists of:

		g	
205.2020	Deburring tool, 140x21mm	60	
222.5220	Separation and chamfer tools, 160 mm	3600	
222.5210	Reducing jaws f.CK-160, 2pcs, Ø 110mm	200	
222.5211	Reducing jaws f.CK-160, 2pcs, Ø 125mm	200	
850.0505	Tool box, plastic, 475x245x240mm	1700	

Bench clamp for chamfering kit CK110

- Special steel

	H mm	g	
222.5102	200.0	380	

Bench clamp for chamfering kit CK160

- With 2 clamping arms
- Special steel

	B mm	H mm	kg	
222.5202	210.0	170.0	1.10	

Reducing jaw set for chamfering kit CK110

- Plastic jaws

	Ø mm	B mm	L mm	g	
222.5001	32,0	56.0	108.0	240	
222.5002	40,0	56.0	108.0	240	
222.5003	50,0	56.0	108.0	240	
222.5004	56,0	57.0	110.0	240	
222.5005	58,0	57.0	110.0	240	
222.5006	63,0	57.0	110.0	240	
222.5007	75,0	73.0	110.0	240	
222.5008	78,0	56.0	110.0	240	
222.5009	80,0	56.0	110.0	240	
222.5010	90,0	56.0	110.0	240	
222.5011	100,0	56.0	110.0	240	
222.5012	52,0	56.0	110.0	240	
222.5014	87,0	56.0	110.0	240	

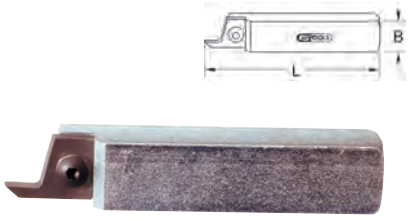
Reducing jaw set for chamfering kit CK160

- Plastic jaws

	Ø mm	B mm	L mm	g	
222.5210	110,0	56.0	160.0	200	
222.5211	125,0	56.0	160.0	200	
222.5212	135,0	56.0	160.0	200	
222.5213	140,0	56.0	160.0	200	

Cutting tool shaft includes cutting tool for CK110

- For thin walled plastic pipe
- Special steel



	B mm	L mm	g	
222.5105	19.0	89.0	120	

Replacement carbide cutting blade for CK110 + CK160

- For thin and thick walled plastic pipe
- Cutting depth max. 10mm + 15.5mm
- Special steel

	Cutting depth mm	H mm	L mm	g	
900.5019	15.5	20.3	25.5	20	
900.5029	10.0	14.7	20.2	10	

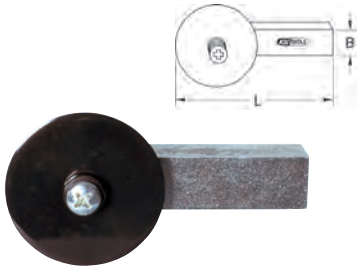
Cutting tool shaft includes replacement cutter for CK110 + CK160

- For thin walled plastic pipes
- Special steel

	B mm	L mm	Metal	VPA	Plastic	g	
222.5106	16.0	80.0	-	-	101.1010	100	

Cutting tool shaft includes replacement cutter for CK110 + CK160

- For thick walled plastic pipes
- Special steel



	B mm	L mm	Metal	VPA	Plastic	g	
222.5104	16.0	90.0	-	-	222.0751	120	

WELDING

Sleeve welding tool set 850 W

- Thermostatic control from 180°C - 280°C
- Increased thermal efficien y
- Optimized welding with new heat sword device
- Teflon oated welding extensions
- Supplied in durable metal storage case

			kg
207.6500	6 pcs	Sleeve welding tool set 850 W	8.60

consists of:

		g
207.6501	Sleeve welding tool, 850 W	2000
206.6511	Bench clamp for sleeve welding tool	495
207.1020	Attachment f.207.6500, 20mm	110
207.1025	Attachment f.207.6500, 25mm	140
207.1032	Attachment f.207.6500, 32mm	190

Sleeve welding tool

- Thermostatic control from 180°C - 280°C
- Increased thermal efficien y
- Optimized welding with new heat sword device
- Includes floor tand

	B mm	L mm	kg
207.6501	85.0	370.0	2.00

Welding attachment for sleeve welding tool

- Teflon oated

	Ø mm	B mm	L mm	g
207.1016	16,0	38.0	61.0	80
207.1020	20,0	43.0	52.0	110
207.1025	25,0	46.0	52.0	140
207.1032	32,0	48.0	59.0	190
207.1040	40,0	57.0	61.0	290
207.1050	50,0	61.0	61.0	410
207.1063	63,0	130.0	78.0	720

Heater element 800 W

- Temperature adjustable from 50°C - 260°C
- For pipe up to max. Ø 180 mm
- For efficient bu t welding of plastic pipes and fi tings
- Optimal temperature distribution
- Includes stand and holding device for machine tools
- 220 V power supply

	D mm	L mm	kg
222.0800	180.0	340.0	4.10

BURNING & SOLDERING

Universal cartridge soldering torch with piezo ignition

- Flame temperature 1700°C
- Operating temperature around 650°C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Use only with standard high performance burner
- Plastic body

	H mm	L mm	g
903.5902	165.0	270.0	890

Universal cartridge soldering torch with piezo ignition

- Flame temperature 1700°C
- Operating temperature around 650°C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Use only with standard high performance burner
- Metal body

	H mm	L mm	g
903.5905	165.0	270.0	640

Universal cartridge soldering torch

- Flame temperature 1700°C
- Operating temperature around 650 ° C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Plastic body

	H mm	L mm	g
903.5901	168.0	255.0	890

Universal cartridge soldering torch

- Flame temperature 1700°C
- Operating temperature around 650°C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Metal body

	H mm	L mm	g
903.5904	158.0	250.0	780

Burner accessories kit

- Burner accessories suitable for 903.5901 + 903.5904
- Special steel

			g
903.5910	3 pcs	Burner accessories kit	300

consists of:

		g
903.5911	Soldering iron tip attachment	100
903.5912	Pipe soldering attachment up to 22 mm	100
903.5913	Flat nozzle 40 mm	100

Magnetic welding mirrors

- Mirror chrome
- Flexible arm
- Special steel

	B mm	L1 mm	L2 mm	g
903.6000	70.0	500.0	80.0	470

Flame proof mats

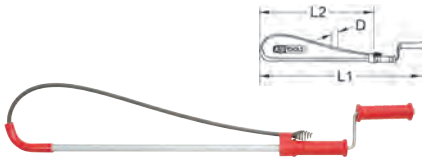
- Asbestos free
- Reduced fi e risk
- Very fl xible
- Good formability

	B mm	L mm	max. °C	g
610.3350	330.0	500.0	700	330
610.3351	460.0	800.0	700	650
610.3399	1500.0	2000.0	600	2110

PIPE CLEANING

Toilet unblocker

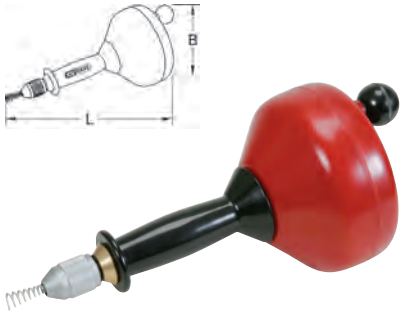
- Flexible use, even in hard to reach places
- No damage to ceramic surfaces due to the plastic coating on the elbow
- With bolbous head
- Crank drive



	D mm	L1 mm	L2 mm	g
900.1996	30.0	1090.0	900.0	200

Pipe and drain cleaner

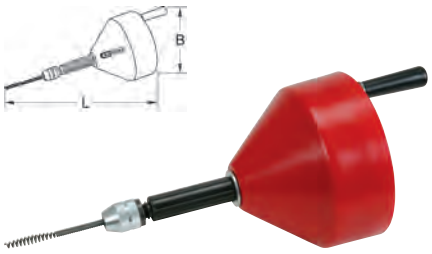
- Pipe cleaning device with funnel spiral and bulbous end for use in very narrow pieces of pipe elbows up to Ø 50 mm without removing the sink sleeves or siphons
- With a hexagonal chuck for clampingmanual drive
- Impact resistant, closed plastic container



	Ø mm	Spiral length m	B mm	L mm	Replacement spiral	kg
900.1990	6,0	4.5	140.0	290.0	900.2522	1.60

Pipe and drain cleaner

- Pipe cleaning device with funnel spiral and bulbous end for use in very narrow pieces of pipe elbows up to Ø 75 mm without removing the sink sleeves or siphons
- With a hexagonal chuck for clamping
- Can be drive either by hand or drilling machine
- Impact resistant, closed plastic container



	Ø mm	Spiral length m	B mm	L mm	Replacement spiral	kg
900.1995	7,6	7.5	208.0	319.0	900.2416	3.40
900.2000	9,6	9.5	208.0	319.0	900.2422	5.10

Channel and pipe cleaning machine KS 600

- Universal applications for both indoors and outdoors
- One man pipe cleaning system
- Practical service unit for mobile use
- Splash proofed
- Spiral electromechanical actuator
- Two sided level of control allows for operation even on inclined surfaces
- Included guide hose so kink free work is guaranteed
- Can work with 16 mm + 22 mm coils without changing the clamping jaws
- For coils with direct fi ting of 16 mm + 22 mm
- Optionally, for 8 mm + 10 mm spirals with adapter magazine
- Including 4 m guide tube for 16 mm + 22 mm spirals
- Motor: 230 V, 0.4 KW - right - left drive
- Speed: 620 rpm
- Operating range: for pipes Ø 20.0 - 150.0 mm
- Working length:

10 m - 8 mm-Spiral
10 m - 10 mm-Spiral
50 m - 16 mm-Spiral
60 m - 22 mm-Spiral

	H mm	L mm	kg
900.2780	380.0	420.0	20.90

Channel and pipe cleaning tool kit Ø 16 mm

- Pipe cleaning tool kit with spiral with a diameter of 16 mm
- Includes Spiral basket for safe keeping of the spiral

			kg
900.1916	13 pcs	Channel and pipe cleaning tool kit Ø 16 mm	9.10

consists of:

		g
900.2100	Springs separation key, f.16mm	20
900.2110	Spiral basket, Ø 450mm, spirale 16mm	1250
900.2121	Guiding glove, left	210
900.2161	Straight head, Ø 16mm, spirale 16mm	60
900.2162	Spring recovery head, Ø35mm, spirale 16mm	40
900.2163	Bulbous head, Ø 28mm, spirale 16mm	70
900.2169	Arrow shaped head, Ø 25mm, spirale 16mm	40
900.2175	Crossed leaf shaped head, Ø 25mm, spirale 16mm	40
900.2431	Drain cleaning spiral, Ø 16mm	1050

Channel and pipe cleaning tool kit Ø 16 mm

- Pipe cleaning tool kit with spiral with an internal diameter of 16 mm
- Includes Spiral basket for safe keeping of the spiral

			kg
900.1917	13 pcs	Channel and pipe cleaning tool kit Ø 16 mm	9.10

consists of:

		g
900.2100	Springs separation key, f.16mm	20
900.2110	Spiral basket, Ø 450mm, spirale 16mm	1250
900.2121	Guiding glove, left	210
900.2161	Straight head, Ø 16mm, spirale 16mm	60
900.2162	Spring recovery head, Ø35mm, spirale 16mm	40
900.2163	Bulbous head, Ø 28mm, spirale 16mm	70
900.2169	Arrow shaped head, Ø 25mm, spirale 16mm	40
900.2175	Crossed leaf shaped head, Ø 25mm, spirale 16mm	40
900.2433	Pipe cleaning spiral with plastic inner tube Ø 16mm	1240

Channel and pipe cleaning tool kit Ø 22 mm

- Pipe cleaning tool kit with spiral with a diameter of 22 mm
- Includes spiral basket for safe keeping of the spiral

			kg
900.1922	14 pcs	Channel and pipe cleaning tool kit Ø 22 mm	22.83

consists of:

		g
900.2101	Springs separation key, f.22 and 32mm	20
900.2112	Spiral basket, Ø 470mm, spirale 22mm	1600
900.2121	Guiding glove, left	210
900.2221	Straight head, Ø 22mm, spirale 22mm	170
900.2222	Funnel shaped head, Ø 55mm, spirale 22mm	280
900.2234	Arrow shaped head, Ø 45mm, spirale 22mm	110
900.2255	Cross leaf drill, Ø 55mm, spirale 22mm	140
900.2203	Spring recovery head, Ø 45mm, spirale 22mm	110
900.2263	Leg drills, Ø 40mm, spirale 22mm	220
900.2441	Drain cleaning spiral, Ø 22mm	4000

Channel and pipe cleaning tool kit Ø 22 mm

- Pipe cleaning tool kit with spiral with an internal diameter of 22 mm
- Includes spiral basket for safe keeping of the spiral

			kg	
900.1923	14 pcs	Channel and pipe cleaning tool kit Ø 22 mm	25.13	

consists of:

		g	
900.2101	Springs separation key, f.22 and 32mm	20	
900.2112	Spiral basket, Ø 470mm, spirale 22mm	1600	
900.2121	Guiding glove, left	210	
900.2221	Straight head, Ø 22mm, spirale 22mm	170	
900.2222	Funnel shaped head, Ø 55mm, spirale 22mm	280	
900.2234	Arrow shaped head, Ø 45mm, spirale 22mm	110	
900.2255	Cross leaf drill, Ø 55mm, spirale 22mm	140	
900.2203	Spring recovery head, Ø 45mm, spirale 22mm	110	
900.2263	Leg drills, Ø 40mm, spirale 22mm	220	
900.2442	Pipe cleaning spiral with plastic inner tube Ø 22mm	4650	

Channel and pipe cleaning tool kit ø 16 mm + 22 mm

- Pipe cleaning tool kit with spiral with a diameter of 16 + 22 mm
- Includes spiral basket for safe keeping of the spiral
- Includes pipe cleaning machine
- Motor: 230 V, 0,4 KW - right left drive
- Speed: 620 rpm
- Operating range: for pipes Ø 20 - 150 mm
- Working length:

10 m - 8 mm-Spiral
10 m - 10 mm-Spiral
50 m - 16 mm-Spiral
60 m - 22 mm-Spiral

			kg	
900.2790	29 pcs	Channel and pipe cleaning tool kit ø 16 mm + 22 mm	29.00	

consists of:

		kg	
900.2100	Springs separation key, f.16mm	0.02	
900.2101	Springs separation key, f.22 and 32mm	0.02	
900.2110	Spiral basket, Ø 450mm, spirale 16mm	1.25	
900.2112	Spiral basket, Ø 470mm, spirale 22mm	1.60	
900.2121	Guiding glove, left	0.21	
900.2161	Straight head, Ø 16mm, spirale 16mm	0.06	
900.2162	Spring recovery head, Ø35mm, spirale 16mm	0.04	
900.2163	Bulbous head, Ø 28mm, spirale 16mm	0.07	
900.2169	Arrow shaped head, Ø 25mm, spirale 16mm	0.04	
900.2175	Crossed leaf shaped head, Ø 25mm, spirale 16mm	0.04	
900.2221	Straight head, Ø 22mm, spirale 22mm	0.17	
900.2222	Funnel shaped head, Ø 55mm, spirale 22mm	0.28	
900.2234	Arrow shaped head, Ø 45mm, spirale 22mm	0.11	
900.2255	Cross leaf drill, Ø 55mm, spirale 22mm	0.14	
900.2263	Leg drills, Ø 40mm, spirale 22mm	0.22	
900.2431	Drain cleaning spiral, Ø 16mm	1.05	
900.2441	Drain cleaning spiral, Ø 22mm	4.00	
900.2780	Channel and pipe cleaning machine	20.90	
900.2788	Magazine adapter for pipe cleaning machine, Ø 8mm	1.80	

Channel and pipe cleaning tool kit ø 16 mm + 22 mm

- Pipe cleaning tool kit with spiral with an internal diameter of 16 + 22 mm
- Includes spiral basket for safe keeping of the spiral
- Includes pipe cleaning machine
- Motor: 230 V, 0.4 KW - right left drive
- Speed: 620 rpm
- Operating range: for pipes Ø 20.0 - 150.0 mm
- Working length:

10 m - 8 mm-Spiral
10 m - 10 mm-Spiral
50 m - 16 mm-Spiral
60 m - 22 mm-Spiral

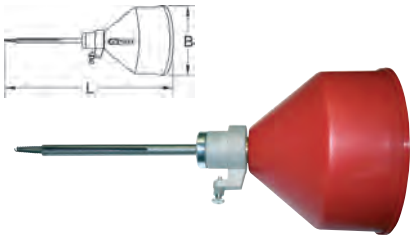
			kg	
900.2791	29 pcs	Channel and pipe cleaning tool kit ø 16 mm + 22 mm	29.65	

consists of:

		kg	
900.2100	Springs separation key, f.16mm	0.02	
900.2101	Springs separation key, f.22 and 32mm	0.02	
900.2110	Spiral basket, Ø 450mm, spirale 16mm	1.25	
900.2112	Spiral basket, Ø 470mm, spirale 22mm	1.60	
900.2121	Guiding glove, left	0.21	
900.2161	Straight head, Ø 16mm, spirale 16mm	0.06	
900.2162	Spring recovery head, Ø35mm, spirale 16mm	0.04	
900.2163	Bulbous head, Ø 28mm, spirale 16mm	0.07	
900.2169	Arrow shaped head, Ø 25mm, spirale 16mm	0.04	
900.2175	Crossed leaf shaped head, Ø 25mm, spirale 16mm	0.04	
900.2221	Straight head, Ø 22mm, spirale 22mm	0.17	
900.2222	Funnel shaped head, Ø 55mm, spirale 22mm	0.28	
900.2234	Arrow shaped head, Ø 45mm, spirale 22mm	0.11	
900.2255	Cross leaf drill, Ø 55mm, spirale 22mm	0.14	
900.2263	Leg drills, Ø 40mm, spirale 22mm	0.22	
900.2780	Channel and pipe cleaning machine	20.90	
900.2788	Magazine adapter for pipe cleaning machine, Ø 8mm	1.80	

Magazine adapter for pipe cleaning machine KS 600

- For use with pipe cleaner 900.2780
- Adapter magazine included spiral with leg drills
- Spiral length 10 m
- Through the use of the adapter magazine for even very small tube diameters available



	Ø mm	B mm	L mm	kg	
900.2788	8,0	200.0	470.0	1.80	
900.2799	10,0	200.0	470.0	1.80	

Guide hose for pipe cleaning machine KS 600

- For use with pipe cleaner 900.2780
- Through the use of the guide tube that is provided this guarantees kink free working of the spiral
- Helps prevent pollution and damage
- 4 m long

	Ø mm	L m	kg	
900.2787	16,0 - 22,0	4.00	0.50	

Drain cleaning spiral

- Very fl xible spiral
- For universal pipe cleaning applications
- Perfectly suited for tight bends
- With attachment for special tools
- Special steel

	Ø mm	L m	kg	
900.2431	16,0	2.30	1.05	
900.2441	22,0	4.50	4.00	
900.2451	32,0	4.50	6.50	

Pipe cleaning spiral with plastic inner tube

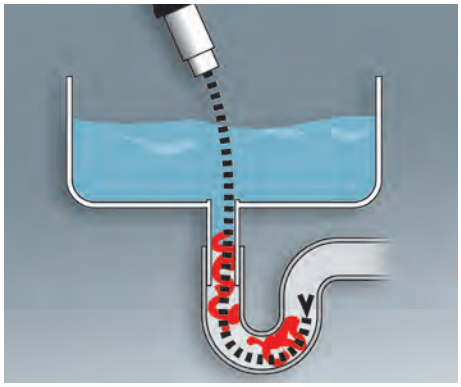
- For working with large spiral lengths
- For removing stubborn pipe deposits
- High stability due to plastic inner tube
- Perfectly suited for tight bends
- Plastic inner core is temperature and weather resistant
- With attachment for special tools
- Special steel

	Ø mm	L m	kg	
900.2433	16,0	2.30	1.24	
900.2442	22,0	4.50	4.65	
900.2452	32,0	4.50	7.65	

Arrow drill

- For cleaning greasy or very muddy pipes
- With riveting to the adaptor
- Hardened and high strength spring steel

	Ø mm	For spiral mm	Operation range mm	g	
900.2169	25,0	16,0	38,0 - 50,0	40	
900.2170	35,0	16,0	50,0 - 75,0	50	
900.2171	45,0	16,0	60,0 - 100,0	70	
900.2172	55,0	16,0	75,0 - 125,0	80	
900.2233	35,0	22,0	50,0 - 100,0	100	
900.2234	45,0	22,0	60,0 - 125,0	110	
900.2254	65,0	22,0	75,0 - 125,0	300	
900.2256	80,0	22,0	100,0 - 150,0	340	
900.2257	90,0	22,0	100,0 - 150,0	350	
900.2260	55,0	22,0	60,0 - 125,0	130	
900.2335	35,0	32,0	50,0 - 100,0	140	
900.2336	45,0	32,0	75,0 - 100,0	170	
900.2337	55,0	32,0	75,0 - 100,0	180	
900.2338	65,0	32,0	100,0 - 150,0	300	
900.2361	90,0	32,0	125,0 - 200,0	360	
900.2390	80,0	32,0	100,0 - 150,0	340	



Cross leaf drill

- Can be used in textiles blocakages. clogging, sludge deposits, pipe incrustations etc.
- With riveting to the adaptor
- High stability and long life
- Hardened and high strength spring steel

	Ø mm	For spiral mm	Operation range mm	g	
900.2175	25,0	16,0	38,0 - 50,0	40	
900.2176	35,0	16,0	50,0 - 75,0	60	
900.2177	45,0	16,0	60,0 - 100,0	80	
900.2178	55,0	16,0	75,0 - 125,0	90	
900.2235	35,0	22,0	50,0 - 100,0	110	
900.2255	55,0	22,0	60,0 - 125,0	140	
900.2275	45,0	22,0	75,0 - 100,0	120	
900.2276	65,0	22,0	100,0 - 150,0	330	
900.2277	80,0	22,0	100,0 - 200,0	370	
900.2279	90,0	22,0	100,0 - 200,0	500	
900.2280	115,0	22,0	100,0 - 250,0	560	
900.2345	35,0	32,0	50,0 - 100,0	140	
900.2346	55,0	32,0	60,0 - 125,0	210	
900.2349	80,0	32,0	100,0 - 150,0	410	
900.2371	65,0	32,0	100,0 - 125,0	350	
900.2372	45,0	32,0	60,0 - 125,0	170	
900.2379	90,0	32,0	125,0 - 200,0	510	
900.2380	115,0	32,0	150,0 - 250,0	580	

Forked cutting head

- Can be used in light to heavy contamination of the drainage pipe
- High stability and long life
- Hardened and high strength spring steel

	Ø mm	For spiral mm	Operation range mm	g	
900.2164	40,0	16,0	40,0 - 75,0	20	
900.2154	30,0	16,0	50,0 - 75,0	30	

Notched forked cutting head

- Can be used with silting and deeply rooted pipes
- Cutting head front and rear dovetailed
- High stability and long life
- Hardened and high strength spring steel

	Ø mm	For spiral mm	Operation range mm	g	
900.2250	65,0	22,0	75,0 - 100,0	220	
900.2251	90,0	22,0	100,0 - 150,0	260	
900.2252	125,0	22,0	125,0 - 200,0	290	
900.2253	150,0	22,0	200,0 - 300,0	300	
900.2350	65,0	32,0	75,0 - 100,0	260	
900.2351	90,0	32,0	100,0 - 150,0	290	
900.2352	125,0	32,0	125,0 - 200,0	330	
900.2353	150,0	32,0	200,0 - 300,0	340	

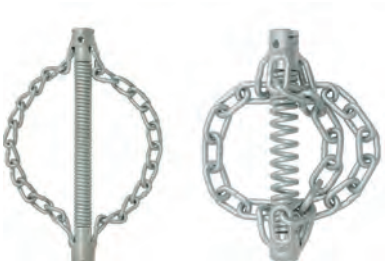
Root cutter

- Can be used with pipes that are rooted
- High stability and long life
- Hardened and high strength spring steel

	Ø mm	For spiral mm	Operation range mm	g	
900.2265	65,0	22,0	75,0 - 100,0	350	
900.2266	90,0	22,0	125,0 - 200,0	490	
900.2267	125,0	22,0	200,0 - 300,0	770	
900.2365	65,0	32,0	75,0 - 100,0	390	
900.2366	90,0	32,0	125,0 - 200,0	590	
900.2367	125,0	32,0	200,0 - 300,0	810	

Chain spinning head with a smooth chain

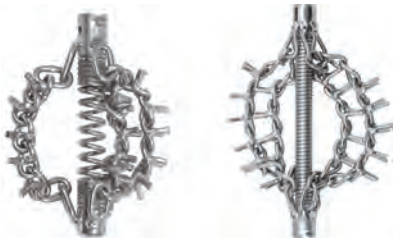
- Can be used in blocked and encrusted pipes
- Flexible design suitable for tight bends
- Optimum setting to pipe diameter due to centrifugal force
- Pipe protecting removal of impurities
- For cleaning of stoneware and plastic pipes
- Special steel



	Ø mm		For spiral mm	Operation range mm	L mm	g	
900.2183	30,0	3 chains	16,0	50,0 - 125,0	160.0	210	
900.2185	30,0	2 chains	16,0	50,0 - 125,0	160.0	170	
900.2187	30,0	4 chains	16,0	50,0 - 125,0	160.0	240	
900.2283	45,0	2 chains	22,0	60,0 - 125,0	160.0	440	
900.2284	45,0	3 chains	22,0	60,0 - 125,0	160.0	530	
900.2289	45,0	4 chains	22,0	60,0 - 125,0	160.0	630	
900.2382	50,0	2 chains	32,0	70,0 - 130,0	210.0	970	
900.2383	50,0	4 chains	32,0	70,0 - 130,0	210.0	1200	

Chain spinning head with a spiked chain

- Can be used in blocked and encrusted pipes
- For intensive cleaning of concrete pipe and cast iron pipes
- Flexible design suitable for tight bends
- Optimum setting to pipe diameter due to centrifugal force
- Pipe protecting removal of impurities
- Thorough cleaning reduces the possibilty of new blockages
- Special steel



	Ø mm		For spiral mm	Operation range mm	L mm	g	
900.2184	30,0	3 chains	16,0	50,0 - 125,0	160.0	230	
900.2186	30,0	2 chains	16,0	50,0 - 125,0	160.0	210	
900.2188	30,0	4 chains	16,0	50,0 - 125,0	160.0	270	
900.2278	45,0	2 chains	22,0	60,0 - 125,0	160.0	490	
900.2288	45,0	3 chains	22,0	60,0 - 125,0	160.0	630	
900.2299	45,0	4 chains	22,0	60,0 - 125,0	160.0	670	
900.2347	50,0	2 chains	32,0	70,0 - 130,0	210.0	1070	
900.2348	50,0	4 chains	32,0	70,0 - 130,0	210.0	1440	

Straight head

- Standard tool for exploring the type of blockage
- For use in textiles or cellulose blockages
- To take samples to determine appropriate follow up tool
- Special steel

	Ø mm	For spiral mm	Operation range mm	L mm	g	
900.2161	16,0	16,0	25,0 - 75,0	110.0	60	
900.2221	22,0	22,0	50,0 - 100,0	180.0	170	
900.2321	32,0	32,0	75,0 - 250,0	190.0	350	

Funnel shaped head

- For specific use in extiles or cellulose blockages
- Wide coverage by funnel shaped
- Can also be used to retrieve from spirals remaining in the pipe
- Special steel

	Ø mm	For spiral mm	Operation range mm	L mm	g	
900.2165	32,0	16,0	65,0 - 100,0	110.0	80	
900.2222	55,0	22,0	75,0 - 150,0	180.0	280	
900.2322	60,0	32,0	125,0 - 250,0	190.0	500	

Leg drills

- For specific use on l ght textile or cellulose blockages
- Ideal for close and several consecutive elbows
- Special steel

	Ø mm	For spiral mm	Operation range mm	L mm	g	
900.2163	28,0	16,0	38,0 - 75,0	110.0	70	
900.2263	40,0	22,0	75,0 - 100,0	180.0	220	
900.2363	50,0	32,0	75,0 - 250,0	190.0	490	

Double leg drills

- Suitable for diffi ult to access trunking systems
- Double leg facilitate the penetration into narrow pipe bend
- Special steel

	Ø mm	For spiral mm	Operation range mm	L mm	g	
900.2158	35,0	16,0	38,0 - 75,0	130.0	90	

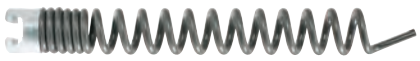
Jointed bolbous head

- Ideal for narrow pipe with a small pipe diameters
- Flexible due to joint
- Special steel

	Ø mm	For spiral mm	Operation range mm	L mm	g	
900.2159	24,0	16,0	38,0 - 75,0	83.0	60	

Spring recovery head

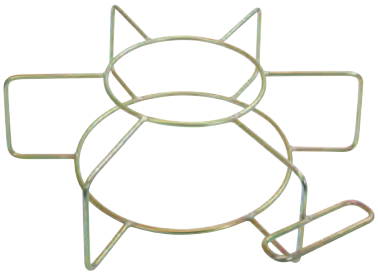
- Not suitable for drilling
- To retrieve from spirals remaining in the pipe
- With fla ed tentacle to grasp spiral
- Special steel



	Ø mm	For spiral mm	Operation range mm	L mm	g	
900.2162	35,0	16,0	25,0 - 75,0	50.0	40	
900.2203	45,0	22,0	50,0 - 100,0	90.0	110	
900.2325	65,0	32,0	75,0 - 250,0	100.0	240	

Spiral basket

- For the safe storage and easy transport
- Ideal for cleaning and maintenance of the spirals
- Special steel



	Ø mm	For spiral mm	H mm	No. spirals	Max spiral length m	kg	
900.2110	450,0	16,0	140.0	15	34,5	1.25	
900.2112	470,0	22,0	170.0	5	22,5	1.60	
900.2113	520,0	22,0 / 32,0	190.0	5 / 4	22,5 / 18,0	2.30	

Guiding glove

- Strong robustness
- Optimum protection during use of the spiral
- With inner glove and a long cuff
- Riveting stocking on the palm side and partly on the back
- Made from high quality leather

	Form	g	
900.2121	left	210	
900.2120	right	210	

Spiral safety separation key

- For safety whilst uncoupling the spiral
- Injuries are avoided with this safety key rather than using pins

	For spiral mm	Ø mm	L mm	g	
900.2100	16,0	4,0	100.0	20	
900.2101	22,0 / 32,0	5,0	105.0	20	

Replacement spirals for pipe cleaning device

- For pipe cleaning device 6, 8 + 10
- Especially suitable for light blockage by textiles and cellulose materials
- With integrated bolbous head
- Special steel

	Ø mm	L m	kg	
900.2415	8,0	4.50	1.05	
900.2416	8,0	7.50	1.80	
900.2417	8,0	9.50	1.60	
900.2422	10,0	9.50	3.50	
900.2522	6,0	4.50	0.90	
900.2523	6,0	6.00	1.20	

Replacement spiral with steel inner core for pipe cleaners

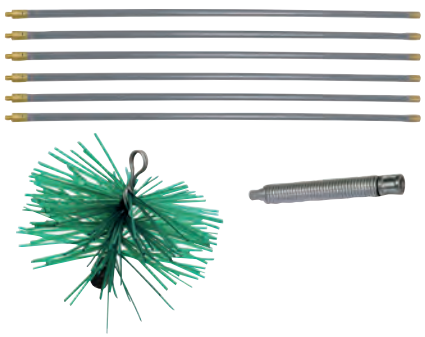
- For pipe cleaning device 8 + 10
- Very stable for the most severe pollution
- With integrated steel inner tube
- Particularly suitable for devices with automatic feed
- Special steel

	Ø mm	L m	kg	
900.9975	8,0	7.50	2.25	
900.9978	8,0	10.00	2.90	

CHIMNEY SWEEP TOOLS

Boiler cleaning tool kit

- Ideal for regular cleaning of small to medium fi eplaces
- Optional extentions
- Includes 5 durable extension rods
- Polypropylene rods
- Hard plastic brush



			kg	
900.6000	8 pcs	Boiler cleaning tool kit	2.95	

consists of:

		g	
900.6016	Screw extensions, Ø20mm,L=1,5m	458	
900.6231	Brush, round, Ø 200mm	210	
900.6030	Pulling spring	112	

Hand crank for screw extensions

- With a patented screw cap
- Special steel

	Ø mm	L mm	Colour code	g
900.6025	12,0	175.0	●	275

Screw extensions for boiler cleaning tool

- Adaptor M12 threaded
- Polypropylene

	Ø mm	L m	Colour code	g
900.6010	18,0	1.0	●	247
900.6011	18,0	1.5	●	337
900.6012	18,0	2.0	●	386
900.6015	20,0	1.0	●	334
900.6016	20,0	1.5	●	458
900.6017	20,0	2.0	●	578

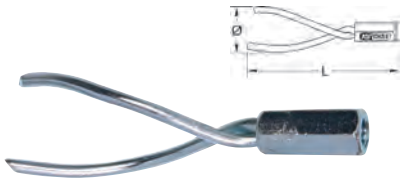
Screw extensions for chimney sweep tools

- Adaptor M12 threaded
- With a patented screw cap
- Polypropylene

	Ø mm	L m	Colour code	g
900.6020	18,0	1.0	●	225
900.6021	18,0	1.5	●	345
900.6022	18,0	2.0	●	395

Fork screw

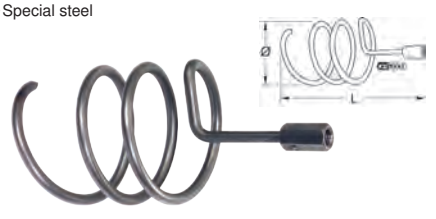
- With internal thread M12
- Special steel



	Ø mm	L mm	g
900.6035	40,0	130.0	97

Worm screw

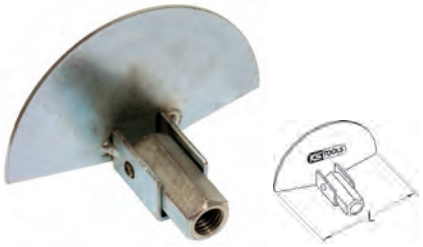
- With internal thread M12
- Special steel



	Ø mm	L mm	g
900.6036	100,0	240.0	430

Crescent scraper

- With internal thread M12
- Special steel



	Ø mm	L mm	g
900.6040	100,0	100.0	130

Cast iron ball

- With cast steel hooks
- 3 kg
- Special steel

	Ø mm	L mm	kg
900.6050	80,0	140.0	3.00

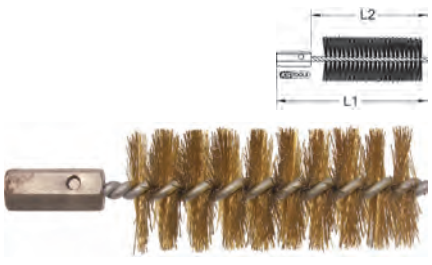
Bottle cleaning brush

- With internal thread M12
- Special steel

	Ø mm	L mm	g
900.6055	50,0	50.0	154

Boiler brush

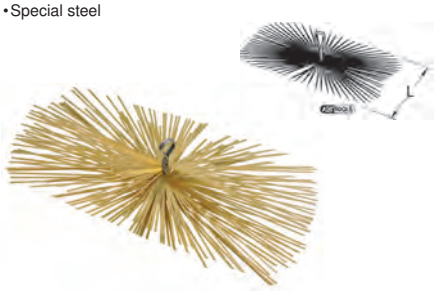
- With internal thread M12
- Special steel



	Ø mm	L1 mm	L2 mm	g
900.6060	50,0	200.0	120.0	141
900.6061	60,0	200.0	120.0	152
900.6062	70,0	200.0	120.0	165
900.6063	80,0	200.0	120.0	173

Steel cleaning brush

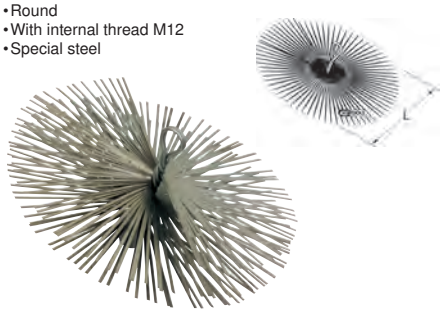
- Rectangular
- With internal thread M12
- Special steel



	Ø mm	L mm	g
900.6222	200,0 x 400,0	130.0	498

Steel cleaning brush

- Round
- With internal thread M12
- Special steel



	Ø mm	L mm	g
900.6205	200,0	130.0	257
900.6206	250,0	130.0	290

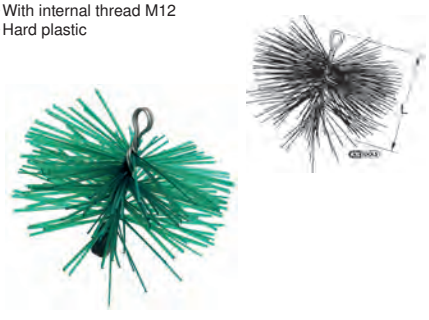
Steel cleaning brush

- Square
- With internal thread M12
- Special steel

	Ø mm	L mm	g
900.6210	200,0 x 200,0	130.0	279
900.6211	250,0 x 250,0	130.0	412
900.6212	300,0 x 300,0	130.0	475

Synthetic cleaning brush

- Round
- With internal thread M12
- Hard plastic



	Ø mm	L mm	g
900.6230	150,0	130.0	192
900.6231	200,0	130.0	210
900.6232	250,0	130.0	240
900.6233	300,0	130.0	252

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CONSTRUCTION TOOLS

KSTOOLS®

Innovation is our mission!

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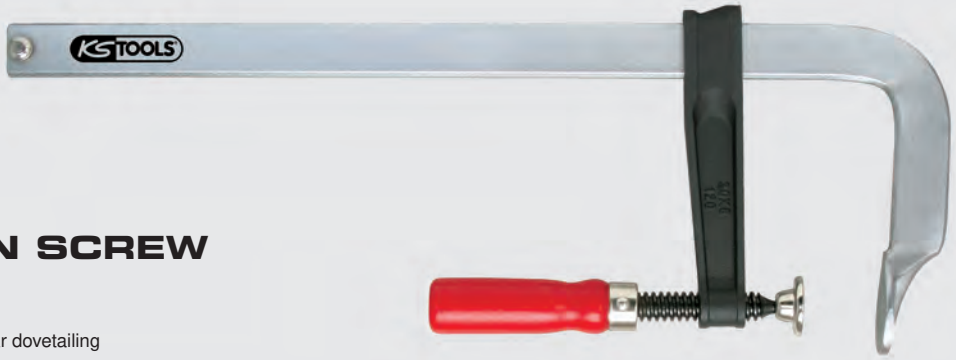
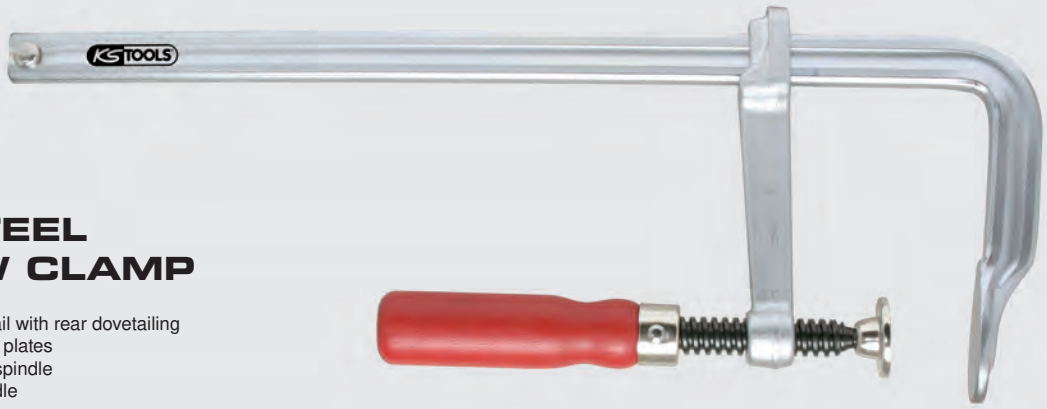
CONSTRUCTION TOOLS

ALL STEEL SCREW CLAMP



CAST IRON SCREW CLAMP

- Double T profile ail with rear dovetailing
- Movable clamping plates
- Extremely robust spindle
- With wooden handle
- Steel profile ail



ALL STEEL SCREW CLAMP

- Double T profile ail with rear dovetailing
- Movable clamping plates
- Extremely robust spindle
- With wooden handle
- Steel profile ail
- Forged fi ed and moveable heads

ALL STEEL SCREW CLAMP WITH SLIDE BAR LOCKING HANDLE

- Double T profile ail with rear dovetailing
- Movable clamping plates
- Extremely robust spindle
- Steel profile ail
- With sliding bar through locking handle
- Forged fi ed and moveable heads

CONSTRUCTION TOOLS

STEEL SCREW LEVER CLAMP WITH QUICK RELEASE ACTION

ALL STEEL QUICK RELEASE LEVER SCREW CLAMP

- Double T profile ail with rear dovetailing
- Movable clamping plates
- Quick relase lever with ratchet function
- Steel profile ail
- For positive and strong clamping by hand operation
- Forged fi ed and moveable heads

BRICK TROWEL

Brick trowel

- Blades made out of hardened carbon steel with wooden handle

Brick trowel

- Blades made out of hardened carbon steel with dual component soft handle

Stainless steel brick trowel

- Blade made from polished stainless steel with dual component soft handle

Float

- With aluminum back plate, high quality foam rubber support plate

PRY BAR

- Quenched and tempered
- Forged
- Special steel

SCRAPERS & TROWELS

Plastering trowel

- Round
- With wooden handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0110	140.0	83.0	130	
144.0111	160.0	115.0	260	
144.0112	180.0	116.0	270	
144.0113	200.0	118.0	310	
144.0114	220.0	125.0	310	
144.0115	240.0	133.0	330	

Plastering trowel

- Square edged
- With wooden handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0122	180.0	115.0	310	
144.0123	200.0	115.0	310	
144.0124	220.0	125.0	310	
144.0125	240.0	130.0	310	

Gauging trowel

- With wooden handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0133	160.0	52.0	310	

Plastering trowel

- With wooden handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0135	160.0	80.0	310	

Plastering trowel

- Round
- With two component handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0210	140.0	83.0	150	
144.0211	160.0	103.0	220	
144.0212	180.0	110.0	270	
144.0213	200.0	120.0	310	
144.0214	220.0	125.0	310	
144.0215	240.0	133.0	310	

Plastering trowel

- Square edged
- With two component handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0222	180.0	116.0	270	
144.0223	200.0	120.0	310	
144.0224	220.0	125.0	310	
144.0225	240.0	130.0	310	

Gauging trowel

- With two component handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0232	140.0	49.0	130	
144.0233	160.0	54.0	130	

Plastering trowel

- With two component handle
- Ground
- Spot welded
- Hardened
- Steel

	L mm	B mm	g	
144.0235	160.0	80.0	130	

Jointing trowel

- With two component handle
- Ground
- Spot welded
- Hardened
- Steel

	B mm	L mm	g	
144.0238	12.0	175.0	130	

Stainless steel plastering trowel

- Round
- With two component handle
- Polished
- Spot welded
- Stainless steel

	L mm	B mm	g	
144.0313	200.0	125.0	310	

Stainless steel plastering trowel

- Square edged
- With two component handle
- Polished
- Spot welded
- Stainless steel

	L mm	B mm	g	
144.0323	200.0	127.0	270	

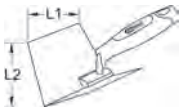
Stainless steel gauging trowel

- With two component handle
- Polished
- Spot welded
- Stainless steel

	L mm	B mm	g	
144.0333	160.0	54.0	130	

Stainless steel internal corner trowel

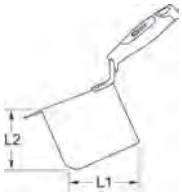
- Flexible stainless steel blade
- 130° to 90°
- Flexible
- With two component handle
- Polished
- Spot welded
- Stainless steel



	L1 mm	L2 mm	g	
144.0240	100.0	125.0	310	

Stainless steel external corner trowel

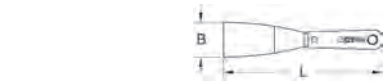
- Flexible stainless steel blade
- 130° to 90°
- Flexible
- With two component handle
- Polished
- Spot welded
- Stainless steel



	L1 mm	L2 mm	g	
144.0242	100.0	125.0	310	

Stainless steel scraper

- With wooden handle
- Ground
- Polished
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100 °C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	B mm	g	
907.2261	225.0	25.0	70	
907.2262	225.0	38.0	70	
907.2263	225.0	50.0	70	
907.2264	225.0	63.0	70	
907.2265	225.0	75.0	80	

Stainless steel scraper

- With two component handle
- Ground
- Polished
- Stainless steel

	L mm	B mm	g	
144.0622	225.0	30.0	72	
144.0624	225.0	40.0	73	
144.0625	225.0	50.0	75	
144.0626	225.0	60.0	84	
144.0628	225.0	80.0	85	

Stainless floo ing trowel

- With two component handle
- Ground
- Polished
- Riveted and welded
- Stainless steel

	L mm	B mm	H mm	g	
144.0461	455.0	110.0	90.0	420	

Stainless steel plastering trowel

- With two component handle
- Ground
- Polished
- Riveted and welded
- Stainless steel

	L mm	B mm	H mm	g	
144.0458	280.0	130.0	90.0	310	

Plastering trowel

- With wooden handle
- Ground
- Hardened
- Riveted and welded
- Steel

	L mm	B mm	H mm	g	
144.0158	280.0	130.0	90.0	310	

Plastering trowel

- Square serrations
- With wooden handle
- Ground
- Hardened
- Riveted and welded
- Steel

	Toothing mm	L mm	B mm	H mm	g	
144.0350	6x6	280.0	114.0	90.0	290	
144.0351	10x10	280.0	130.0	90.0	310	

FLOATS

Sponge rubber flo t

- With soft grip handle
- High quality red sponge rubber surface
- Aluminium mounting plate

	L mm	B mm	H mm	D mm	g	
144.0505	240.0	100.0	80.0	19,0	360	

Rubber flo t with additional high quality rubber surface

- With soft grip handle
- High quality sponge rubber surface
- Protected by an additional protective rubber plate
- Aluminium mounting plate

	L mm	B mm	H mm	D mm	g	
144.0507	240.0	100.0	80.0	19,0	420	

Wooden flo t

- Rectangular
- Cellular area
- With plastic handle
- Wood

	L mm	B mm	H mm	g	
144.0580	270.0	180.0	70.0	310	
144.0581	330.0	260.0	75.0	660	
144.0582	400.0	280.0	70.0	760	

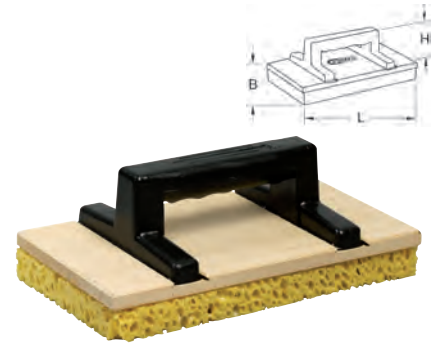
Wooden flo t

- Edge
- Cellular area
- With plastic handle
- Wood

	L mm	B mm	H mm	g	
144.0583	270.0	180.0	70.0	245	

Wooden flo t

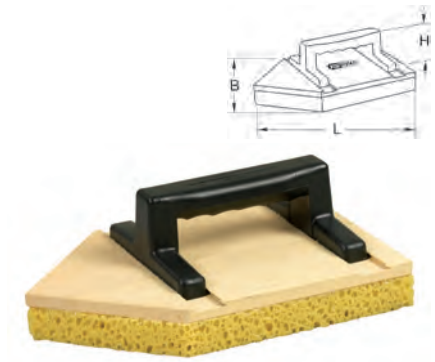
- Rectangular
- Cellular area
- With foam rubber sponge
- With plastic handle
- Wood



	L mm	B mm	H mm	g	
144.0592	250.0	140.0	100.0	265	
144.0593	330.0	180.0	100.0	370	

Wooden flo t

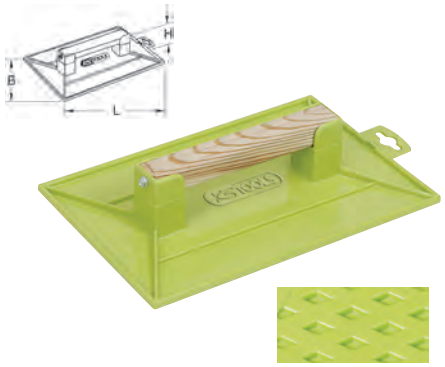
- Edge
- Cellular area
- With foam rubber sponge
- With plastic handle
- Wood



	L mm	B mm	H mm	g	
144.0591	240.0	140.0	100.0	220	
144.0590	270.0	180.0	100.0	290	

ABS flo t

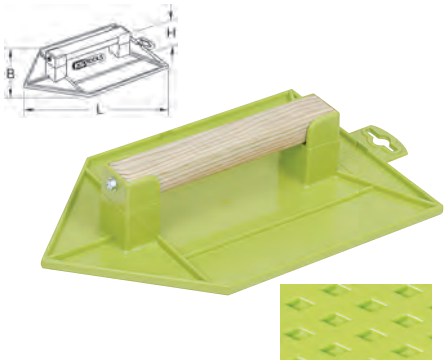
- Rectangular
- Cellular area
- Very good durability
- With wooden handle
- Green ABS mounting plate



	L mm	B mm	H mm	g
144.0546	200.0	120.0	60.0	190
144.0545	350.0	270.0	65.0	560
144.0540	420.0	260.0	70.0	590

ABS flo t

- Edge
- Cellular area With wooden handle
- Very good durability
- Green ABS mounting plate



	L mm	B mm	H mm	g
144.0552	200.0	130.0	50.0	150
144.0550	270.0	180.0	60.0	280

Float

- Rectangular
- Cellular area
- With wooden handle
- Plate made from impact proof PS plastic

	L mm	B mm	H mm	g
144.0526	200.0	120.0	65.0	290
144.0521	270.0	180.0	65.0	175
144.0525	350.0	270.0	70.0	510
144.0520	420.0	260.0	70.0	530

Float

- Edge
- Cellular area
- With wooden handle
- Plate made from impact proof PS plastic

	L mm	B mm	H mm	g
144.0531	140.0	80.0	40.0	70
144.0532	200.0	130.0	55.0	140
144.0530	270.0	180.0	60.0	360

Sponge rubber flo t

- Sponge rubber surface
- With wooden handle
- plate made from impact proof black PS plastic

	L mm	B mm	H mm	D mm	g
144.0510	210.0	130.0	90.0	30,0	160
144.0511	270.0	180.0	90.0	30,0	275

Float

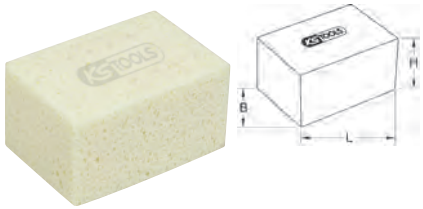
- Angularly
- Hard plastic

	L mm	B mm	g
144.0512	270.0	150.0	40

JOINTING

Jointing sponge

- Sponge rubber

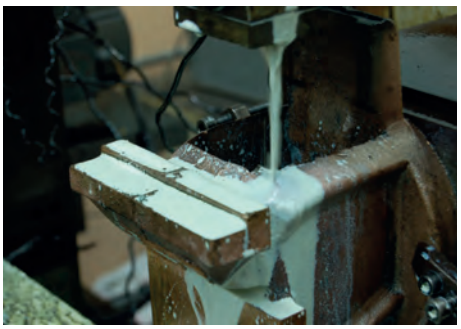


	B mm	H mm	L mm	g
144.0514	100.0	80.0	150.0	60

Jointing rubber

- Out of one piece
- Plastic

	H mm	L mm	g
144.0570	90.0	135.0	65



SAND SIEVE

Sand sieve

- Round
- Ground out of iron wire

	Material	Mesh dimensions mm	D mm	H mm	g
144.0564	wood	1.90	420.0	100.0	890
144.0563	wood	2.30	420.0	100.0	900
144.0565	wood	2.80	420.0	100.0	940
144.0566	wood	3.93	420.0	100.0	910

CONTAINERS

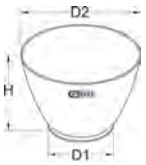
Mixing tray

- Black
- Resistant to cold
- Environmentally friendly

	Material	l	B mm	H mm	L mm	g
140.0040	plastic	3	210.0	70.0	310.0	135
140.0041	plastic	13	320.0	150.0	460.0	600
140.0042	plastic	25	400.0	160.0	600.0	970
140.0043	rubber	13	320.0	150.0	460.0	640
140.0044	rubber	25	400.0	160.0	600.0	1370
140.0045	solid rubber	40	500.0	195.0	685.0	7170

Plaster bowl

- Conical arched form
- Extremely fl xible
- Solid rubber



	l	D1 mm	D2 mm	H mm	g
999.2034	0.65	70.0	125.0	88.0	60

Plastic bucket

- Black
- With scale marking
- Resistant to cold
- Environmentally friendly
- With steel handle Ø 5.3 mm
- Plastic

	l	D1 mm	D2 mm	H mm	g
140.0036	11	220.0	300.0	240.0	520

Plastic bucket

- Black
- With scale marking
- Resistant to cold
- Environmentally friendly
- With steel handle Ø 6.3 mm
- With reinforced handle eyelets
- Plastic

	l	D1 mm	D2 mm	H mm	g
140.0035	11	220.0	300.0	240.0	520

Plastic bucket

- Black
- With scale marking
- Flexible
- Resistant to cold
- Environmentally friendly
- With steel handle Ø 6.3 mm
- Soft plastic

	l	D1 mm	D2 mm	H mm	g
140.0037	11	220.0	300.0	240.0	640

Solid rubber bucket

- Black
- Extremely fl xible
- Resistant to cold
- With steel handle Ø 6.3 mm
- Solid rubber

	l	D1 mm	D2 mm	H mm	kg
140.0038	12	205.0	300.0	265.0	1.76

PLUMB LINE

Marking cord

- Ideal for marking - to use also as a plumb line
- 25 m chalk line
- With cranked handle
- Includes 150 g marking chalk
- Stable plastic housing

		g
300.0080	300.0082	280

Bricklayers chalk line

- Red powder coating
- Special steel

	D mm	L mm	g
300.0092	50.0	60.0	600
300.0094	55.0	65.0	800
300.0095	60.0	70.0	1000

SCREW CLAMPS

Cast iron screw clamp

- Ideally for steel and general construction
- With pivoting clamping head
- High standing stability
- Extremely robust spindle
- With wooden handle
- Steel profile ail
- Cast iron fi ed and moveable heads
- Zinc coated

	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0101	80.0	160.0	3300	0.73
145.0109	100.0	250.0	4000	1.40
145.0112	140.0	300.0	4000	1.60
145.0117	120.0	400.0	4500	1.76
145.0119	120.0	600.0	3600	2.12
145.0126	120.0	1000.0	4500	3.70
145.0132	120.0	1500.0	4500	4.89

Cast iron screw clamp

- Ideally for steel and general construction
- Double-T-profile ail with rear dovetailing
- With pivoting clamping head
- High standing stability
- Extremely robust spindle
- With wooden handle
- Steel profile ail
- Forged fi ed and moveable heads
- Zinc coated

	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0201	50.0	100.0	2200	0.18
145.0209	80.0	160.0	3000	0.50
145.0212	140.0	300.0	6700	1.70
145.0219	120.0	250.0	5500	1.23
145.0228	120.0	400.0	7500	1.91
145.0230	120.0	600.0	7500	2.33
145.0232	120.0	1000.0	10000	3.75

Steel screw clamp with T-handle

- Ideally for steel and general construction
- Double-T-profile ail with rear dovetailing
- With pivoting clamping head
- With sliding bar through locking handle
- High standing stability
- Extremely robust spindle
- Steel profile ail
- Forged fi ed and moveable heads
- Zinc coated

	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0301	80.0	160.0	3000	0.50
145.0311	120.0	250.0	5500	1.23
145.0312	120.0	300.0	6700	1.70
145.0320	120.0	400.0	7500	1.91
145.0322	120.0	600.0	7500	2.33
145.0324	120.0	1000.0	10000	3.75

Steel lever clamp with quick release

- Ideally for steel and general construction
- For positive and strong clamping by hand operation
- Double-T-profile ail with rear dovetailing
- With sliding bar through locking handle
- High standing stability
- Extremely robust spindle
- Steel profile ail
- Forged fi ed and moveable heads
- Zinc coated

	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0402	80.0	160.0	3000	0.53
145.0412	120.0	250.0	4000	1.50
145.0415	140.0	300.0	5000	1.90
145.0418	120.0	400.0	5500	2.40
145.0420	120.0	600.0	5500	2.83
145.0421	120.0	800.0	6000	3.64
145.0422	120.0	1000.0	3000	4.20

U screw clamp

- Ideally for steel and general construction
- Double-T-profile ail with rear dovetailing
- With pivoting clamping head
- With sliding bar through locking handle
- High standing stability
- Extremely robust spindle
- Steel profile ail
- Forged fi ed and moveable heads
- Zinc coated

	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0430	140.0	300.0	3000	2.46
145.0431	140.0	300.0	3000	3.74
145.0432	175.0	300.0	3000	8.30

Power screw clamp

- Ideally for steel and general construction
- Double-T-profile ail with rear dovetailing
- With pivoting clamping head
- With sliding bar through locking handle
- High standing stability
- Extremely robust spindle
- Steel profile ail
- Forged fi ed and moveable heads
- Zinc coated

	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0435	175.0	300.0	2200	5.44
145.0436	175.0	500.0	2200	6.56
145.0437	175.0	1000.0	2200	9.34

PENCILS

Carpenters pencil

- Flat oval form

	Colour code	Lead	L mm	g
300.0070		HB	250.0	10

Mason pencil

- Flat oval form

	Colour code	Lead	L mm	g
300.0071		H	250.0	10

Pencil

- For the marking of damp surfaces
- Flat oval form

	Colour code	Lead	L mm	g
300.0072		HB	250.0	10

SANDING BLOCK

Sanding block with sponge rubber backing

- Accepts emery and sandpaper etc
- Moulded handle ensures a comfortable grip
- Ideally suited for working on surfaces
- Clamping clips made from stainless steel
- Special plastic

	L mm	B mm	g
515.3095	210.0	105.0	330

All chisels can be found in the Chisels and Punches section.

FLATTENERS

Tapware assembly and dismantling set

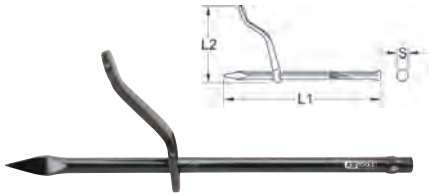
- 8-point
- Quenched and tempered
- Special steel

	L mm	S mm	g
156.0770	170.0	16.0	480

CONCRETE HOOKS & PRY BARS

Plasterers hook

- Round
- For clamping of floo boards
- Quenched and tempered
- Black lacquer
- Special steel



	L1 mm	L2 mm	S mm		g	
156.0560	250.0	125.0	10.0	-	250	
156.0561	300.0	130.0	10.0	-	270	

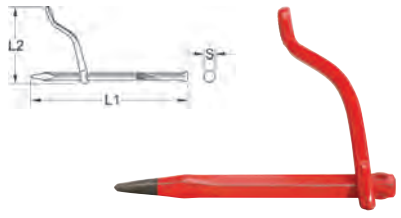
Plasterers hook

- 8-point
- For clamping of floo boards
- Quenched and tempered
- Black lacquer
- Special steel

	L1 mm	L2 mm	S mm		g	
156.0562	250.0	125.0	10.0	-	270	
156.0563	300.0	125.0	10.0	-	300	

Plasterers hook

- 4 point
- For clamping of floo boards
- Quenched and tempered
- Red lacquer
- Special steel



	L1 mm	L2 mm	S mm		g	
156.0568	250.0	125.0	10.0	-	250	
156.0569	300.0	125.0	10.0	-	270	

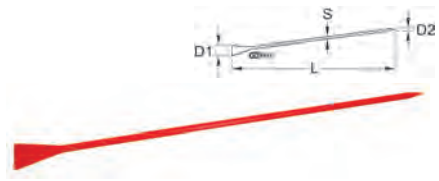
Crow bar

- 8-point
- Quenched and tempered
- Red powder coating
- Special steel

	D mm	L m	S mm		kg	
156.0595	50.0	1.50	25.0	-	4.84	
156.0596	50.0	1.80	25.0	-	5.89	
156.0597	50.0	1.25	25.0	-	7.07	

Crow bar

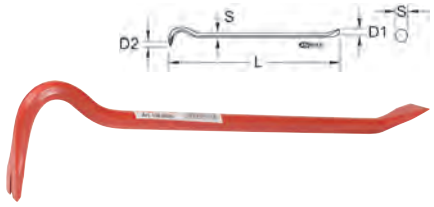
- 8-point
- Quenched and tempered
- Red powder coating
- Special steel



	D1 mm	D2 mm	L m	S mm		kg	
156.0575	105.0	25.0	1.60	25.0	-	6.21	
156.0576	105.0	25.0	1.80	25.0	-	7.94	

Crow bar

- 6 point
- Quenched and tempered
- Red powder coating
- Forged
- Special steel



	D1 mm	D2 mm	L m	S mm		kg	
156.0590	30.0	37.0	0.45	19.0	-	1.16	
156.0591	32.0	40.0	0.60	19.0	-	1.30	
156.0592	37.0	40.0	0.70	19.0	-	1.56	
156.0593	38.0	45.0	0.80	19.0	-	1.95	
156.0594	38.0	45.0	1.00	19.0	-	3.27	

Pry bar

- Best suited for and breakdown and installation work
- Single component handle
- Hardened
- Chrome molybdenum

	D mm	L1 mm	L2 mm	g	
911.8101	11.0	200.0	115.0	130	
911.8102	15.0	300.0	185.0	220	
911.8103	18.0	450.0	320.0	420	
911.8104	18.0	600.0	470.0	560	

Pry bar sets

- Best suited for and breakdown and installation work
- Single component handle
- Hardened
- Chrome molybdenum

			kg	
911.8100	4 pcs	11 x 115 mm - 15 x 185 mm - 18 x 320 mm - 18 x 470 mm	1.33	

Lever bar

- 4 point
- Quenched and tempered
- Black lacquer
- Special steel

	D1 mm	D2 mm	L m	S mm		kg	
156.0598	22.0	35.0	1.80	37.0	-	8.00	

Steel reinforcement pry bar

- Round
- For bending and aligning of steel reinforcement and armouring rod
- Quenched and tempered
- Special steel

	D1 mm	D2 mm	L mm	S mm		kg	
118.3120	6.0	8.0	375.0	11.0	-	0.32	
118.3121	8.0	10.0	465.0	12.0	-	0.55	
118.3122	10.0	12.0	560.0	14.0	-	0.79	
118.3123	12.0	14.0	650.0	16.0	-	1.02	

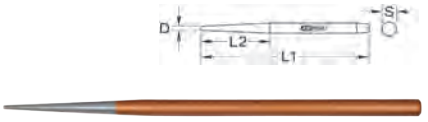
Bending iron/pry bar

- round
- Quenched and tempered
- Forged
- Special steel

	D1 mm	D2 mm	L mm	S mm	kg	
129.2219	22.0	5.0	605.0	19.0	1.30	

Pry bar

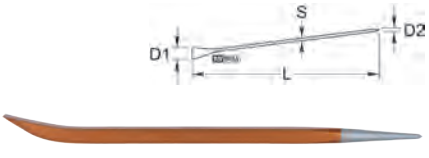
- round
- Quenched and tempered
- Forged
- Cone polished
- Special steel



	D mm	L1 mm	L2 mm	S mm	g	
129.2220	5.5	500.0	170.0	20.0	970	

Bending iron/pry bar

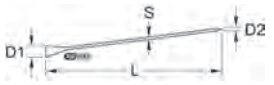
- 4-point
- Quenched and tempered
- Forged
- Cone polished
- Special steel



	D1 mm	D2 mm	L mm	S mm	g	
129.2221	14.0	1.0	400.0	14.0	500	

Bending iron/pry bar

- 6-point
- Quenched and tempered
- Forged
- Cone polished
- Special steel



	D1 mm	D2 mm	L mm	S mm	g	
129.2222	22.0	5.0	405.0	16.0	650	

Special crow bar

- flat
- Quenched and tempered
- Red powder coating
- Forged
- Special steel

	D1 mm	D2 mm	L mm	kg	
129.2223	35.0	37.0	500.0	1.35	
129.2224	35.0	37.0	600.0	1.80	
129.2225	35.0	37.0	800.0	2.30	

Mechanics pry bar

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Dual component handle
- Massive execution especially for commercial vehicles
- Special steel

	Bend radius	L mm	kg	
911.8411	0°	900.0	1.70	
911.8412	45°	900.0	1.75	
911.8413	75°	600.0	1.17	
911.8414	90°	600.0	1.20	
911.8415	45°	1120.0	4.75	

Mechanics pry bar set

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Dual component handle
- Massive execution specially for commercial vehicles
- Special steel
- In durable plastic storage case

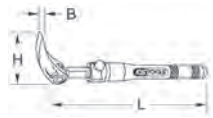
			kg	
911.8410	4 pcs	Mechanics pry bar set	8.70	

consists of:

		kg	
911.8411	Mechanics pry bar, straight 900 mm	1.70	
911.8412	Mechanics pry bar 45°, angled head 900 mm	1.75	
911.8413	Mechanics pry bar 75°, angled head 600 mm	1.17	
911.8414	Mechanics pry bar 90°, angled head 600 mm	1.20	

Roller head telescopic pry bar

- Lever extension with push-button in steps
- Roller head adjustable in steps
- Extra narrow, with recessed push button
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Ideally suitable for passenger cars to commercial vehicles
- Special steel

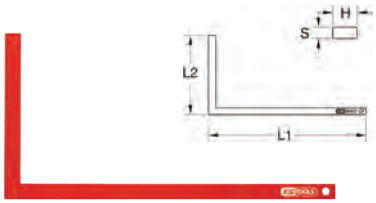


	L mm	H mm	B mm	g	
911.8186	325-460	90.0	12.0	780	
911.8187	600-915	120.0	20.0	1900	

CARPENTERS SQUARE

Carpenters square

- Hanging hole
- Without head stock
- Red powder coating
- Quenched and tempered
- Special steel



	L1 mm	L2 mm	H mm	S mm	kg	
300.0250	500.0	260.0	35.0	5.0	0.84	
300.0251	600.0	280.0	35.0	5.0	1.07	
300.0252	800.0	320.0	35.0	5.0	1.37	
300.0253	1000.0	380.0	35.0	5.0	1.70	

SHOVEL & BROOM

Shovel

- Round
- With swan neck
- Supplied without handle
- Special steel

	L mm	B mm	Handle	kg	
144.0801	270.0	270.0	144.0860	1.06	
144.0802	290.0	290.0	144.0860	1.17	
144.0803	310.0	310.0	144.0860	1.30	

Shovel

- Alsatian form
- With high edges
- Supplied without handle
- Special steel

	L mm	B mm	Handle	kg	
144.0811	280.0	280.0	144.0861	1.13	

Shovel

- Square
- With swan neck
- Supplied without handle
- Special steel

	L mm	B mm	Handle	kg	
144.0806	250.0	250.0	144.0860	1.26	

Pick axe

- Round
- Supplied without handle
- Special steel

	B mm	L mm	Handle	kg	
144.0901	55.0	570.0	144.0960	2.50	

Pick axe

- Beveled
- Supplied without handle
- Special steel

	B mm	L mm	Handle	kg	
144.0905	57.0	570.0	144.0961	2.50	

Rake

- Forged
- Red epoxy coating
- Supplied without handle
- Special steel

	Tooth	H mm	L mm	Handle	g	
144.0711	14	100.0	400.0	144.0781	715	
144.0712	16	100.0	460.0	144.0781	800	

Rake with scraper iron for concrete and bitumen

- Forged
- Red epoxy coating
- Supplied without handle
- Special steel

	Tooth	H mm	L mm	Handle	kg	
144.0715	16	120.0	460.0	144.0781	1.07	

Shop floor b oom

- With red plastic bristles
- Best suited for yard and street
- Also in for use in the wet and snow
- Supplied without wooden handle

	D mm	L mm	Handle	g	
146.1030	22.0	300.0	146.0012	420	
146.1040	22.0	400.0	146.0012	440	
146.1050	22.0	500.0	146.0012	470	
146.1060	22.0	600.0	146.0012	520	

Shop floor b oom

- With coco bristles
- Best suited for dry areas
- For inside and outside
- Supplied without wooden handle

	D mm	L mm	Handle	g	
146.2080	24.0	290.0	146.0014	300	
146.2030	24.0	300.0	146.0014	580	
146.2040	24.0	400.0	146.0014	630	
146.2050	24.0	500.0	146.0014	670	
146.2070	24.0	1000.0	144.0781	1250	

Handbrush

- With wooden handle
- Best suited for dry areas
- For inside and outside
- Coco bristles

	L1 mm	L2 mm	Handle	g	
146.3005	285.0	150.0	-	145	

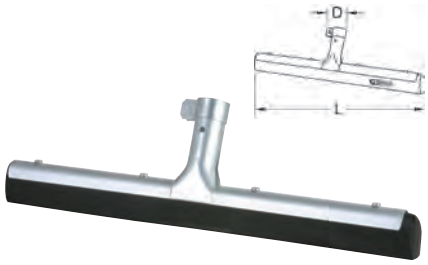
Dustpan

- White powder coating
- Material strength 1 mm
- Special steel

	L mm	B mm	Handle	g	
146.3000	228	224.0	-	270	

Floor squeegee

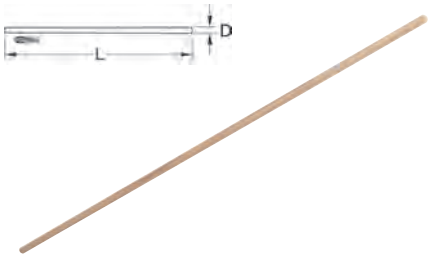
- With black foam rubber
- Zinc coated
- Supplied without wooden handle



	D mm	L mm	Handle	g	
146.3033	22.0	330.0	146.0012	160	
146.3043	24.0	450.0	146.0014	190	
146.3055	24.0	550.0	146.0014	220	
146.3075	24.0	750.0	146.0014	350	

Wooden handle

- For shovels and brooms
- Wood



	D mm	L mm	Form	g	
146.0012	22,9	1500.0	round	420	
146.0014	24	1500.0	round	650	
144.0781	28	1500.0	round	680	
144.0860	40	1100.0	round	800	
144.0861	40	1350.0	round	2200	
144.0961	60/40	900.0	oval	750	
144.0960	50	900.0	round	750	

KS TOOLS

Innovation is our mission!

CONSTRUCTION TOOLS

INDUSTRIAL SAFETY / WORKWEAR

KS TOOLS®

Innovation is our mission!

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WORKWEAR / INDUSTRIAL SAFETY

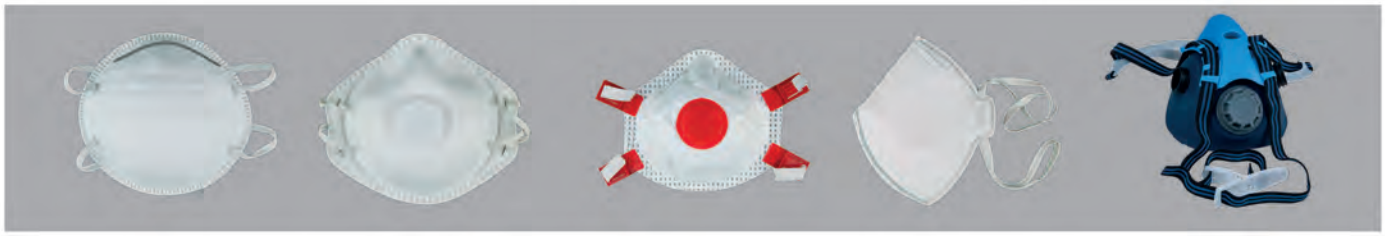
Head protection

Eye protection

Hearing protection

Welding protection

Respiratory protection



Hand protection

Foot protection

Work garments

Perfect grip - perfect protection

Univesal gloves for occupation and leisure, particularly suitably for working in technical area, excellent comfot for working with small parts, dirt and humidity resistant material.

Vent holes in the fi ger area

Inner hand surfaces from hard-wearing synthetic leather and, in addition, with vibration damping gel inserts

Hidden hem seam, prevents fraying

Back of the hand made from special material, prevents pulling out of threads

Elastic wrist band with velcro fastening for safe grip

HEAD PROTECTION

Baseball cap - red-black

- One size - adjustable
- With buckle
- With embroidered patch racing logo

Material:
100 % Cotton

		g
985.0003	Baseball cap - red-black	75

Baseball cap - red

- One size - adjustable
- With hook and loop fastener
- Embroidered logo

Material:
100 % Cotton

		g
985.0012	Baseball cap - red	75

Baseball cap - black

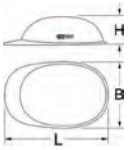
- One size - adjustable
- With hook and loop fastener
- Embroidered logo

Material:
100% Cotton

		g
985.0013	Baseball cap - black	75

Work protective hardhat

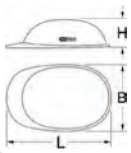
- DE EN397
- PP case
- 4-point suspension
- Buckle adjustment
- Lateral space for accessories
- Shock absorption (<5kn)
- Extremely flammabl (>5 s)
- Temperature resistant (> -10 < 50)



	Colour code	L mm	B mm	H mm	g
985.0021		265.0	225.0	160.0	344

Work protective hardhat

- DIN EN 397
- Special plastic



	Colour code	L mm	B mm	H mm	g
117.1608		290.0	225.0	175.0	370
117.1609		290.0	225.0	175.0	370
117.1610		290.0	225.0	175.0	370

Carrying bag for work helmet

- Made out of red leather
- With carrying strap

	B mm	H mm	g
117.1612	500.0	480.0	500

EYE PROTECTION

Visor

- DE EN166
- Frame made from aluminium
- Visor material: PC
- Suitable for standard safety helmets
- Frame made from aluminium
- Size adjustment takes place using spring strip

	Total depth mm	g
985.0024	200.0	280

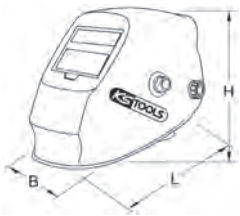
Electrician's face shield

- DIN EN 166
- Fault arc tested to DGUV GS-ET-29, test level W(LBP) = 318 kJ (corresponds to prospective test short-circuit current 7 kA/0.5 s) EN 166
- Personal eye protection equipment
- Also fault arc tested to ASTM F2178, ATPV: 7.0 cal/cm²
- Natural rendering of colours thanks to transparent, non-tinted visor
- Colour rendering index > 90%
- Light transmission > 70%
- Suitable for standard electrician's hardhat
- Anti-mist protective gel supplied

	Arc fault		g
117.1796	class 2	1000V	475

Welders protective helmet

- Turns fully automatically from bright after dark as soon as the light arch is ignited
- Due to high quality solar cells battery replacement is no longer require
- Equiped with a sensitivityand delaying switch for switching between dark and light to prevent welders blindness when welding at high amp capacity
- Quick switching is possible when changing from seam to spot welding
- Selection switch for reaction time
- Robust multi positional head band
- Complete neck protection
- Face protection to EN 175 / eye protection to EN379 1/2/1



Technical data:

Switching timed:	1/25,000 s
	0.6 s delay
Window:	98 x 40 mm (3.7/8" x 1.5/8")
Cassette size:	110 x 90 x 9 mm (4.3/8" x 3.1/2" x 0,35")
Power requirement:	litium battery + solar cells
UV / IR protection:	according to EN169 / to DIN 16
Colour selection:	varible adjustment from DIN 9-13
	standard light adjustment DIN 3 (4)
Working temperature:	-5° to +55°C
Storage temperature:	-20° up tp +70°C

	L mm	B mm	H mm	g
310.0180	330.0	200.0	200.0	480

Glasses - blue

- Blue shading for comfortable and relaxed viewing
- Suitable for long duration usage
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in maching operations
- Optimal design
- Polycarbonate lens

		g	
310.0160	Glasses - blue	30	

Glasses - yellow

- Yellow shading to increase contrast
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in maching operations
- Optimal design
- Polycarbonate lens

		g	
310.0165	Glasses - yellow	30	

Glasses - black

- Glasses grey tinted
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in maching operations
- Optimal design
- Polycarbonate lens

		g	
310.0170	Glasses - black	30	

Glasses - transparent

- Glasses clear
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in maching operations
- Optimal design
- Polycarbonate lens

		g	
310.0175	Glasses - transparent	30	

Glasses - transparent

- EN 166
- Practical for spectacle wearers
- With ventilation holes for clear visibility
- With firm f ame
- With ear clip
- Polycarbonate lens

		g	
310.0110	Glasses - transparent	45	

Goggles with elastic headband - transparent

- EN 166
- Practical for spectacle wearers
- With ventilation holes for clear visibility
- With adjustable headband
- With soft PVC frame
- Polycarbonate lens

		g	
310.0120	Goggles with elastic headband - transparent	75	

Goggles with elastic headband - transparent with ventilation

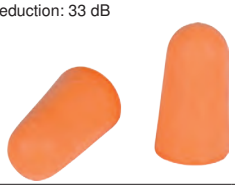
- CE EN 166
- With 4 vent holes
- Practical for spectacle wearers
- With ventilation holes for clear visibility
- Adjustable elastic band
- With soft PVC frame
- Polycarbonate lens

		g	
310.0112	Goggles with elastic headband - transparent with ventilation	75	

EAR PROTECTION

Ear plugs PU, without cord

- 20 pairs
- CE / EN 352-2
- Made from 100% PU
- Without cord
- Sound level reduction: 33 dB



	Content	g	
985.7050	20 pairs	200	

Ear plugs PU, with cord

- 20 pairs
- CE / EN 352-2
- Made from 100% PU
- With cord
- Sound level reduction: 33 dB

	Content	g	
985.7051	20 pairs	200	

Ear plugs PU, with cord and mushroom head

- 20 pairs
- CE / EN 352-2
- Made from 100% PU
- With cord
- With mushroom head
- Sound level reduction: 33 dB

	Content	g	
985.7055	20 pairs	200	

Padded ear defenders with headband - red

- CE / EN 352-1
- With adjustable and padded ear shells for comfortable wear
- Ear shells with stepless fast adjustment
- Sound level reduction: 19 dB

		g	
310.0130	Padded ear defenders with headband - red	200	

Padded ear defenders with headband - blue

- CE / EN 352-1
- With adjustable and padded ear shells for comfortable wear
- Ear shells with stepless fast adjustment
- Sound level reduction: 25 dB

		g	
310.0131	Padded ear defenders with headband - blue	200	

Electronic padded ear protection with headband - black

- With integrated microphone
- Protects against duration noise and impulse sounds over 85 dB
- Perception of warning signals through microphone possible
- Volumes regulation through adjusting button

		g
310.0135	Electronic padded ear protection with headband - black	250

WELDING PROTECTION

Welding coat

- Double leather closure, front
- With hook and loop fastener
- Adjustable cuffs
- Lined collar and with hook and loop fastener for additional protection
- Inner pocket

	Size mm	kg
985.7000	L	1.80
985.7001	XL	1.80
985.7002	XXL	1.82
985.7003	XXXL	1.82

Welding apron

- Made from leather
- Adjustable in length
- Size of the waist adjustable
- Breast pocket

	Size mm	L mm	g
985.7019	L	910.0	775
985.7020	XL	1080.0	775

Leather sleeves

- Dark brown
- Made from leather
- Ends with elastic band

	L mm	Content	g
985.7021	400.0	2	320

Leather sleeves

- Light brown
- Made from leather
- Ends with elastic band

	L mm	Content	g
985.7022	400.0	2	335

Welding leather gloves

- Made from leather
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves

	Size mm	g
985.7034	M	365
985.7035	L	365
985.7036	XL	365
985.7037	XXL	365

Welding leather gloves, long

- Made from leather
- Extra long
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves

	Size mm	g
985.7038	M	495
985.7039	L	495
985.7040	XL	495
985.7041	XXL	495

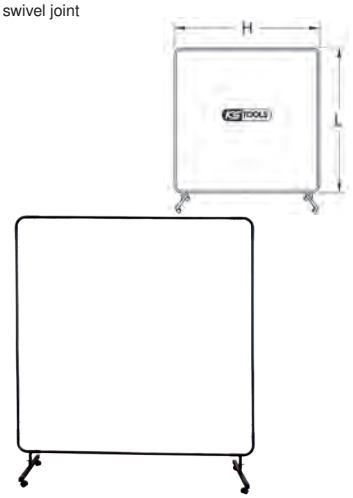
Flame proof mats

- Asbestos free
- Reduced fi e risk
- Very fl xible
- Good formability

	B mm	L mm	max. °C	g
610.3350	330.0	500.0	700	330
610.3351	460.0	800.0	700	650
610.3399	1500.0	2000.0	600	2110

Frame for welding protection screen

- Very stable frame made from steel tubing
- With direct rolls
- With 360° swivel joint



	L mm	H mm	kg
985.7026	1780.0	1780.0	4.50

Welding protection awning

- Resistant against UV rays, flam s and wear
- Edges with eyelets at 30cm intervals
- Without frame

	Colour code	L mm	H mm	kg
985.7027		1740.0	1740.0	1.72
985.7028		1740.0	1740.0	1.72
985.7029		1740.0	1740.0	1.72

RESPIRATORY PROTECTION

Particle fil er type	Retention capacity (half/quarter mask)	Material group
P 1 FFP1 R oder **NR**	Low (up to 4 times the general limit value*)	**Fine dusts, fumes and aerosols on a water and oil basis** Against non-toxic powders, e.g. aluminium oxide, bauxite, borax, brick dust, cellulose, pulp, cement, coal dust, plaster, limestone, pollen, sugar.
P 2 FFP2 R oder **NR**	Medium (up to 10 times the general limit value*)	**Against harmful and cancer causing dusts on a water and oil basis** As for FFP1 but up to a higher concentration, plus brake dust, calcium oxide, concrete dust, cotton dust, granite, hay, lead dust and fumes, welding fumes, silicon, sodium, wood dust, zinc oxide fumes.
P 3 FFP3 R oder **NR**	High (up to 30 times the general limit value*)	**Against harmful and cancer causing dusts on a water and oil basis** As for FFP2 but up to a higher concentration, plus ceramic fib es, chromate, chromium, cobalt, nickel, micro-organisms, radioactive and biochemically active aerosols.

FFP = **F**iltering **f**ace **p**iece **MNS** = **M**outh and **n**ose protection **AGW** = General limit value

Mouth protection mask FFP1 without valve

- FFP1
- Without valve
- Made from cotton

	Class	Content	g	
985.1110	FFP1	20	190	

Fine dust fil er mask FFP1 with valve

- FFP1
- With valve
- Made from cotton

	Class	Content	g	
985.1114	FFP1	20	300	

Fold fl t dust mask FFP1 without valve

- FFP1
- Without valve
- Made from cotton

	Class	Content	g	
985.1112	FFP1	20	350	

Fine dust fil er mask FFP1 without valve

- FFP1
- Without valve
- Made from cotton

	Class	Content	g	
985.1113	FFP1	20	300	

Fine dust fil er mask FFP2 with valve

- FFP2
- With valve
- Made from cotton

	Class	Content	g	
985.1115	FFP2	20	400	

Half mask

- Double cartridges
- Breathing resistance: 0.5 mbar at 30l/min and 1.3 mbar at 95l/min
- Gas: A1; B1; E1; K1; A1E1; ABEK1
- Material: Silicon
- Supplied without gas and combination fil er

	Replacement filter	g	
985.1117	985.1118 - 985.1123	120	

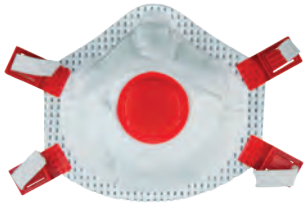
Mouth protection mask FFP1 with valve

- FFP1
- With valve
- Made from cotton

	Class	Content	g	
985.1111	FFP1	20	200	

Fine dust fil er mask FFP3 with valve

- FFP3
- With valve
- Made from cotton



	Class	Content	g	
985.1116	FFP3	20	400	

Filter pair for half mask

- Filter pair for half mask 985.1117
- Gas: A1; B1; E1; K1; A1E1; ABEK1
- Gas and combination fil er
- Breathing resistance: 1 mbar at 15l/min

	Class	Content	g	
985.1118	A1	2	60	
985.1119	B1	2	60	
985.1120	E1	2	60	
985.1121	K1	2	60	
985.1122	A1E1	2	60	
985.1123	ABEK1	2	60	

Specifi ations and rules for hand protection

In order to find he correct protective glove safely and quickly which is suitable for your work area, our products are divided into categories.
This means you can find he glove that meets your requirements reliably:

I - low risk of injury
basic, mechanical protection again welding, fi gerprints, etc.

II - specific isk of injury
excellent protection against mechanical exposure

III - irreversible damage and risk to life
highest protection against chemical, bacterial, thermal and static exposure

Fully adequate chemical protection (EN 374)

Protection against the cold (EN 511)

Protection from heat and fire (EN 407)

Protection from ionising radiation (EN 421)

Protection from radioactive contamination (EN 421)

Bear the information brochure in mind (EN 420)

Suitable for processing foodstuffs

Basic chemical protection (EN 374)
for waterproof gloves with low protection against chemical substances

Protection against mechanical dangers (EN 388)
applies for the following physical and mechanical exposure:

- **Wear resistance**
  number of cycles required for the glove to wear through
- **Cut resistance**
  number of cycles required to cut through the glove
- **Tear resistance**
  force required to rip through the glove
- **Penetration resistance**
  force required to puncture the glove

Vinyl single-use glove, transparent

- Only for use with minimal risks
- Made from vinyl
- Without powder coating
- Very comfortable design and fi
- Supple and comfortable
- Can be used for applications with foodstuffs, in hospitals and in laboratories

	Size mm	Content	kg	
310.0485	S	100 pcs	0.80	
310.0486	M	100 pcs	0.90	
310.0487	L	100 pcs	1.00	
310.0488	XL	100 pcs	1.10	

Vinyl single-use gloves, blue

- Only for use with minimal risks
- Made from vinyl
- With powder coating
- Very comfortable design and fi
- Supple and comfortable
- Can be used for applications with foodstuffs, in hospitals and in laboratories

	Size mm	Content	kg	
310.0465	S	100 pcs	0.80	
310.0466	M	100 pcs	0.90	
310.0467	L	100 pcs	1.00	
310.0468	XL	100 pcs	1.10	

Micro fine oven gloves - white

- CE / EN 388 [1131]
- Very comfortable design and fi
- Especially breathe able fabric
- With PU reinforced gripping palm
- Ideal for working with small parts
- Printed logo

	Size mm	Content	g	
310.0450	L	12 pair	385	
310.0455	XL	12 pair	435	
310.0460	XXL	12 pair	482	

Micro fine oven gloves - black

- CE / EN 388 [1131]
- Very comfortable design and fi
- Especially breatheable fabric
- With PU reinforced gripping palm
- Ideal for working with small parts
- Printed logo

	Size mm	Content	g	
310.0470	L	12 pair	420	
310.0475	XL	12 pair	430	
310.0480	XXL	12 pair	445	

Anti-slip gloves

- CE / EN 388 [4142] / EN 1149-5
- With PU coating
- Very comfortable design and fi
- Ideal for working with small parts
- Especially slip-proof
- With elasticated wrist band

	Size mm	g	
310.0426	M	40	
310.0427	L	45	
310.0428	XL	50	

Chemical protection gloves

- CE / EN 388 [4232] / EN 374 GKL
- Made from nitrile
- Lined with jersey
- Can be used for heavy and dangerous work
- Suitable for work with chemicals, oils and greases
- With open sleeves

	Size mm	g	
310.0421	M	140	
310.0422	L	155	
310.0423	XL	165	

Gloves

- CE / EN 388 [3142]
- Glove exterior surface made from polyester
- Glove interior made from nitrile
- Very comfortable design and fi
- Especially breathable fabric
- Good to wear

	Size mm	g	
310.0416	M	60	
310.0417	L	65	
310.0418	XL	70	

Gloves, cut resistant

- CE / EN 388 [4343]
- With PU coating
- Especially cut resistant
- Ideal for working with small parts
- Very comfortable design and fi
- With elasticated wrist band
- With hook and loop fastener

	Size mm	g	
310.0441	M	60	
310.0442	L	65	
310.0443	XL	70	

Winter gloves

- CE / EN 388 [2142] / EN 511 12X
- Made from latex and synthetic material
- Very comfortable design and fi
- Especially breathable fabric
- Good to wear
- Ideal for the winter
- Ideal for working with cold
- With hook and loop fastener

	Size mm	g	
310.0411	M	110	
310.0412	L	120	
310.0413	XL	135	

Gloves

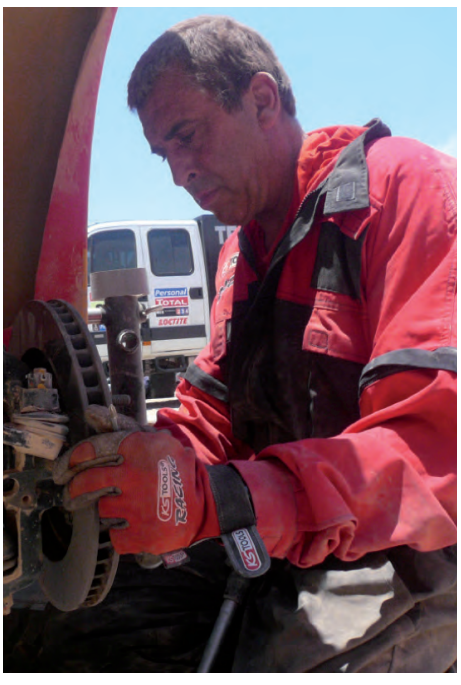
- CE / EN 388 [2142]
- Made from nitrile
- With silicone gel padding in the palm area
- Good to wear
- With elasticated wrist band

	Size mm	g	
310.0431	M	60	
310.0432	L	65	
310.0433	XL	70	

Gloves, extremely cut resistant

- CE / EN 388 [3542]
- Glove exterior with PU coating
- Glove interior made from glass fib e
- Extremely cut resistant
- Ideal for working with small parts
- Very comfortable design and fi
- Good to wear
- With elasticated wrist band

	Size mm	g	
310.0446	M	100	
310.0447	L	110	
310.0448	XL	125	



Welding leather gloves

- Made from leather
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves

	Size mm	g	
985.7034	M	365	
985.7035	L	365	
985.7036	XL	365	
985.7037	XXL	365	

Leather mechanic gloves displays

- CE / EN 388 [2112]
- Universal use for work and leisure
- Ideal for working with small parts secure grip
- With anti-vibration protection
- With elasticated wrists
- With hook and loop fastener

	Content L	Content XL	Content XXL	kg	
310.0250D	20			2.67	
310.0255D		20		2.72	
310.0260D			20	2.73	
310.0240D	10	10	10	3.99	

Insulated electrician's protective gloves made from natural latex

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fi
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

Attention: Over-gloves are necessary for mechanical protection!

	Thickness mm	Size mm	Electrosoft Class	L mm		g	
117.1762	2,0	10	0	410.0	1000V	470	

Welding leather gloves, long

- Made from leather
- Extra long
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves

	Size mm	g	
985.7038	M	495	
985.7039	L	495	
985.7040	XL	495	
985.7041	XXL	495	

Mechanic gloves

- CE / EN 388 [2112]
- Universal use for work and leisure
- Ideal for working with small parts secure grip
- With silicone gel padding in the palm area
- With elasticated wrists
- With hook and loop fastener

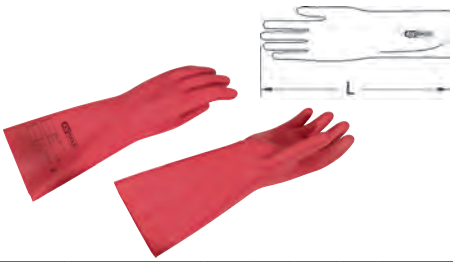
	Size mm	g	
310.0350	L	85	
310.0355	XL	90	
310.0360	XXL	95	

Insulated electrician's protective gloves made from natural latex

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fi
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

Attention: Over-gloves are necessary for mechanical protection!



	Thickness mm	Size mm	Electrosoft Class	L mm		g	
117.1756	1,0	9	00	410.0	500V	196	
117.1757	1,0	10	00	410.0	500V	196	

Leather mechanic glove

- CE / EN 388 [2112]
- Universal use for work and leisure
- Ideal for working with small parts secure grip
- Inner palm - synthetic material leather
- With anti-vibration protection
- With elasticated wrists
- With hook and loop fastener

	Size mm	g	
310.0250	L	95	
310.0255	XL	95	
310.0260	XXL	100	

Mechanic gloves displays

- CE / EN 388 [2112]
- Universal use for work and leisure
- Ideal for working with small parts secure grip
- With silicone gel padding in the palm area
- With elasticated wrists
- With hook and loop fastener

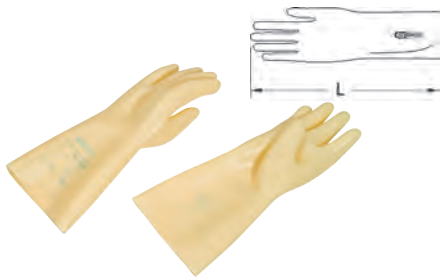
	Content L	Content XL	Content XXL	kg	
310.0350D	20			2.49	
310.0355D		20		2.36	
310.0360D			20	2.64	
310.0340D	10	10	10	3.73	

Insulated electrician's protective gloves made from natural latex

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fi
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

Attention: Over-gloves are necessary for mechanical protection!



	Thickness mm	Size mm	Electrosoft Class	L mm		g	
117.1132	2,0	10	1	360.0	7500V	250	
117.1133	2,0	10	3	410.0	26500V	690	
117.1134	2,5	10	4	410.0	36000V	890	

FOOT PROTECTION

Symbol	Properties	S1	S1P	S2	S3	S4
	Toe protection cap made from steel or plastic	✔	✔	✔	✔	✔
	Oil, hydrocarbon and solvent resistant sole	✔	✔	✔	✔	✔
	Anti-static shoe	✔	✔	✔	✔	✔
	Energy absorption in the heel area	✔	✔	✔	✔	✔
	Anti slip safety sole	X	X	X	✔	X
	Constancy against through arch repeated > 60.000	✔	✔	✔	✔	✔
	Resistant against water	X	✔	✔	✔	✔
	Insole and through sole insert	X	✔	X	✔	X

Declaration and construction of the EN safety classes

EN	20345	S1	CI
Europe standard	Standard no.	Safety class (see table)	• Additional designation: • CI (cold insulation) • HRO (resistance against heat) • P (perforation protection)

EN 20345 safety boots, energy absorption of the toe protection cap 200 joules

Comfort foot bed inlay

- To maintain the anatomical bone position
- For correction of the body plumb line
- Comfortable, support and weight distributing
- Edgeless cushion, anatomically formed
- Made from materials used in orthopaedic shoe technology
- Active basis of the ligamentous and support apparatus of the whole body
- Impact absorbing function

Material:
Cotton mixed fabric (perspiration-absorbing, anti-bacterial, washable)

	Size mm	g
310.1500	37	38
310.1505	38	38
310.1510	39	40
310.1515	40	40
310.1520	41	42
310.1525	42	45
310.1530	43	50
310.1535	44	50
310.1540	45	50
310.1545	46	50
310.1550	47	52

Safety shoes

- DIN EN ISO20345:2004 S1P + SRC-09
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000

	Size mm	kg
310.0500	37	1.14
310.0505	38	1.19
310.0510	39	1.24
310.0515	40	1.30
310.0520	41	1.36
310.0525	42	1.42
310.0530	43	1.48
310.0535	44	1.54
310.0540	45	1.60
310.0545	46	1.66
310.0550	47	1.72

Safety shoes

- DIN EN ISO20345:2011 S1P + SRC Class 2
- Extremely breathable
- Very light
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg
310.1400	37	1.15
310.1405	38	1.19
310.1410	39	1.24
310.1415	40	1.27
310.1420	41	1.30
310.1425	42	1.35
310.1430	43	1.41
310.1435	44	1.48
310.1440	45	1.54
310.1445	46	1.54
310.1450	47	1.60

Safety boots, blue

- DIN EN ISO20345:2011 S1P + SRC Class 2
- Very modern style
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.2000	37	1.15	
310.2005	38	1.19	
310.2010	39	1.24	
310.2015	40	1.27	
310.2020	41	1.30	
310.2025	42	1.35	
310.2030	43	1.41	
310.2035	44	1.48	
310.2040	45	1.54	
310.2045	46	1.54	
310.2050	47	1.60	

Safety shoes

- DIN EN ISO20345:2011 S1P + SRC Class 2
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.0800	37	1.42	
310.0805	38	1.55	
310.0810	39	1.46	
310.0815	40	1.57	
310.0820	41	1.58	
310.0825	42	1.58	
310.0830	43	1.58	
310.0835	44	1.85	
310.0840	45	1.88	
310.0845	46	1.85	
310.0850	47	1.88	

Safety boots with air cushions, white

- DIN EN ISO20345:2011 S1P + SRC Class 2
- With air cushions
- Very sporty style
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.1900	37	1.15	
310.1905	38	1.19	
310.1910	39	1.24	
310.1915	40	1.27	
310.1920	41	1.30	
310.1925	42	1.35	
310.1930	43	1.41	
310.1935	44	1.48	
310.1940	45	1.54	
310.1945	46	1.54	
310.1950	47	1.60	

Safety boots, beige

- DIN EN ISO20345:2011 S1P + SRC Class 2
- Very modern style
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.2100	37	1.15	
310.2105	38	1.19	
310.2110	39	1.24	
310.2115	40	1.27	
310.2120	41	1.30	
310.2125	42	1.35	
310.2130	43	1.41	
310.2135	44	1.48	
310.2140	45	1.54	
310.2145	46	1.54	
310.2150	47	1.60	

Safety boots with air cushions, blue

- DIN EN ISO20345:2011 S1P + SRC Class 2
- With air cushions
- Very sporty style
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.1200	37	1.15	
310.1205	38	1.19	
310.1210	39	1.24	
310.1215	40	1.27	
310.1220	41	1.30	
310.1225	42	1.35	
310.1230	43	1.41	
310.1235	44	1.48	
310.1240	45	1.54	
310.1245	46	1.54	
310.1250	47	1.60	

Safety boots with air cushions, red

- DIN EN ISO20345:2011 S1P + SRC Class 2
- With air cushions
- Very sporty style
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.1600	37	1.15	
310.1605	38	1.19	
310.1610	39	1.24	
310.1615	40	1.27	
310.1620	41	1.30	
310.1625	42	1.35	
310.1630	43	1.41	
310.1635	44	1.48	
310.1640	45	1.54	
310.1645	46	1.54	
310.1650	47	1.60	

Safety boots

- DIN EN ISO20345: 2011 S3 + SRC Class 2
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.1300	37	1.15	
310.1305	38	1.19	
310.1310	39	1.24	
310.1315	40	1.27	
310.1320	41	1.30	
310.1325	42	1.35	
310.1330	43	1.41	
310.1335	44	1.48	
310.1340	45	1.54	
310.1345	46	1.54	
310.1350	47	1.60	

Safety boots

- DIN EN ISO20345: 2011 S1P + SRC Class 2
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- With replacement shoelaces

	Size mm	kg	
310.0900	37	1.42	
310.0905	38	1.55	
310.0910	39	1.42	
310.0915	40	1.55	
310.0920	41	1.85	
310.0925	42	1.88	
310.0930	43	1.85	
310.0935	44	1.88	
310.0940	45	1.88	
310.0945	46	1.88	
310.0950	47	1.88	

KS Tools safety boot

- Safety boot S3 with steel toe cap
- Resitant against water and moisture
- In addition with steel inserted sole
- For use in dangerous areas stops sharp objects entering the sole

	Size mm	kg	
310.0700	37	1.52	
310.0705	38	1.58	
310.0710	39	1.64	
310.0715	40	1.70	
310.0720	41	1.76	
310.0725	42	1.82	
310.0730	43	1.88	
310.0735	44	1.94	
310.0740	45	2.00	
310.0745	46	2.06	
310.0750	47	2.12	

Safety shoe - ankle type

- DIN EN ISO20345:2004 S1P + SRC-09
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Anti-slip safty sole
- Constancy against through arch repeated > 60.000
- Resistant against water

	Size mm	kg	
310.0600	37	1.49	
310.0605	38	1.55	
310.0610	39	1.61	
310.0615	40	1.66	
310.0620	41	1.72	
310.0625	42	1.78	
310.0630	43	1.84	
310.0635	44	1.90	
310.0640	45	1.96	
310.0645	46	2.02	
310.0650	47	2.08	

Safety boots S3

- DIN EN ISO20345: 2011S3 + SRC Class 2
- Rubber safety sole
- Safety steel toe cap
- Energy absorption in the heel area
- Anti-static shoe
- Oil, hydrocarbon and solvent resistant sole
- Constancy against through arch repeated > 60.000
- Resistant against water
- With replacement shoelaces

	Size mm	kg	
310.2200	37	1.60	
310.2205	38	1.15	
310.2210	39	1.19	
310.2215	40	1.24	
310.2220	41	1.27	
310.2225	42	1.30	
310.2230	43	1.35	
310.2235	44	1.41	
310.2240	45	1.48	
310.2245	46	1.54	
310.2250	47	1.54	

Insulated safety rubber boots

- For working enviroment of voltages AC 1000 V and DC 1500 V
- In accordance with new standard EN 50321
- With steel bar

	Size mm		kg	
117.1613	39	1000V	3.00	
117.1614	40	1000V	3.00	
117.1615	41	1000V	3.00	
117.1616	42	1000V	3.00	
117.1617	43	1000V	3.00	
117.1618	44	1000V	3.00	
117.1619	45	1000V	3.00	
117.1620	46	1000V	3.00	
117.1621	47	1000V	3.00	

T-SHIRTS

T-Shirt

- With strech collar
- Printed logo
- Washable up to 30°

Material:
100% Cotton

	Size mm	g	
985.0172	M	200	
985.0173	L	210	
985.0174	XL	225	
985.0175	XXL	230	

T-Shirt

- With strech collar
- Embroidered logo
- Washable up to 35°

Material:
100 % Cotton

	Size mm	g	
986.0011	S	200	
986.0012	M	210	
986.0013	L	225	
986.0014	XL	240	
986.0015	XXL	255	

T-Shirt

- With strech collar
- Embroidered logo
- Washable up to 35°

Material:
100 % Cotton

	Size mm	g	
986.0021	S	195	
986.0022	M	210	
986.0023	L	225	
986.0024	XL	240	
986.0025	XXL	255	

T-Shirt, red-black

- With strech collar
- Embroidered logo
- Washable up to 35°

Material:
100 % Cotton

	Size mm	g	
986.0131	S	210	
986.0132	M	225	
986.0133	L	240	
986.0134	XL	250	
986.0135	XXL	260	

T-Shirt, white-black

- With strech collar
- Embroidered logo
- Washable up to 35°

Material:
100 % Cotton

	Size mm	g	
986.0141	S	210	
986.0142	M	225	
986.0143	L	240	
986.0144	XL	250	
986.0145	XXL	260	

POLO SHIRTS

Polo shirt

- With 3 button fastening
- Reinforced double seams
- Embroidered logo
- Washable up to 35°

Material:
100 % Cotton

	Size mm	g	
986.0031	S	210	
986.0032	M	230	
986.0033	L	245	
986.0034	XL	260	
986.0035	XXL	275	

Polo shirt

- With 3 button fastening
- Reinforced double seams
- Embroidered logo
- Washable up to 35°

Material:
100 % Cotton

	Size mm	g	
986.0041	S	215	
986.0042	M	235	
986.0043	L	255	
986.0044	XL	270	
986.0045	XXL	285	

SHIRTS

Business shirt

- Non iron
- With spread collar
- With breast pocket
- Long sleeve
- Embroidered logo
- Washable up to 45°

Material: 100% Cotton

	Size mm	g	
986.0051	S	280	
986.0052	M	290	
986.0053	L	300	
986.0054	XL	310	
986.0055	XXL	320	

SOFTSHELLJACKETS

Softshellvest

- With antipilling fabric
- With zip fastener
- Embroidered logo
- Washable up to 45°

Material: 100% Polyester

	Size mm	g	
986.0091	S	730	
986.0092	M	750	
986.0093	L	770	
986.0094	XL	790	
986.0095	XXL	810	

SWEATSHIRTS/SWEATERS

Sweatshirt

- With elastic cuffs
- Embroidered logo
- Washable up to 35°

Material:
80% Cotton
20% Polyester

	Size mm	g	
986.0071	S	490	
986.0072	M	515	
986.0073	L	530	
986.0074	XL	550	
986.0075	XXL	570	

Sport shirt

- Non iron
- With spread collar
- With breast pocket
- Long sleeve
- Embroidered logo
- Washable up to 45°

Material: 100% Cotton

	Size mm	g	
986.0061	S	280	
986.0062	M	290	
986.0063	L	300	
986.0064	XL	310	
986.0065	XXL	320	

Softshellvest

- With antipilling fabric
- With zip fastener
- Two full sized pockets with double seam
- Embroidered logo
- Washable up to 45°

Material: 100% Polyester

	Size mm	g	
986.0101	S	620	
986.0102	M	640	
986.0103	L	660	
986.0104	XL	680	
986.0105	XXL	700	

Sweatshirt

- With elastic cuffs
- Embroidered logo
- Washable up to 35°

Material:
80% Cotton
20% Polyester

	Size mm	g	
986.0081	S	490	
986.0082	M	515	
986.0083	L	530	
986.0084	XL	550	
986.0085	XXL	570	

Unisex Ultimate Precision shirt, black

- Easy care fabric
- Long sleeve
- Logo stitched and ironed
- Washable up to 30°

Material:
100% Cotton

	Size mm	g	
985.0751	S	290	
985.0752	M	300	
985.0753	L	310	
985.0754	XL	320	
985.0755	XXL	330	

FLEECE JACKETS

Fleece jacket

- With antipilling fabric
- With zip fastener
- Two full sized pockets with double seam
- Embroidered logo
- Washable up to 35°

Material: 100% Polyester

	Size mm	g	
986.0111	S	525	
986.0112	M	550	
986.0113	L	570	
986.0114	XL	590	
986.0115	XXL	610	

Fleece jacket

- With antipilling fabric
- With zip fastener
- Two full sized pockets with double seam
- Embroidered logo
- Washable up to 35°

Material: 100% Polyester

	Size mm	g	
986.0121	S	525	
986.0122	M	550	
986.0123	L	570	
986.0124	XL	590	
986.0125	XXL	610	

TROUSERS

Work shorts

- With various universal pockets
- Embroidered logo
- Washable up to 60°

Material:
65% cotton
35% polyester

	Size mm	g	
985.0660	48	380	
985.0661	50	405	
985.0662	52	435	
985.0663	56	470	
985.0664	60	500	

Work trousers

- With elasticated waistband inserts
- With hammer loop
- With various universal pockets
- Embroidered logo

Material:
65% cotton
35% polyester

	Size mm	g	
985.0670	48	660	
985.0671	50	685	
985.0672	52	705	
985.0673	56	703	
985.0674	60	750	

Work dungarees

- With various universal pockets
- Adjustable strap with clip closures
- Adjustable drawstring on the leg
- Embroidered logo

Material:
65% cotton
35% polyester

	Size mm	g	
985.0650	48	880	
985.0651	50	900	
985.0652	52	915	
985.0653	56	935	
985.0654	60	955	

WORK COAT

Smock - red-black

- With button fasteners
- With various universal pockets
- Embroidered logo
- Washable up to 60°

Material:
100% Diagonal-Cotton

	Size mm	g	
985.0741	L	600	
985.0742	XL	640	
985.0743	XXL	680	

OVERALL

Overall - red-black

- With zip fastener
- With various universal pockets
- With padding
- Embroidered logo
- Washable up to 30°

Material:
35% Cotton
65% Polyester

	Size mm	kg	
100391	M	1.03	
100392	L	1.07	
100393	XL	1.10	
100394	XXL	1.16	

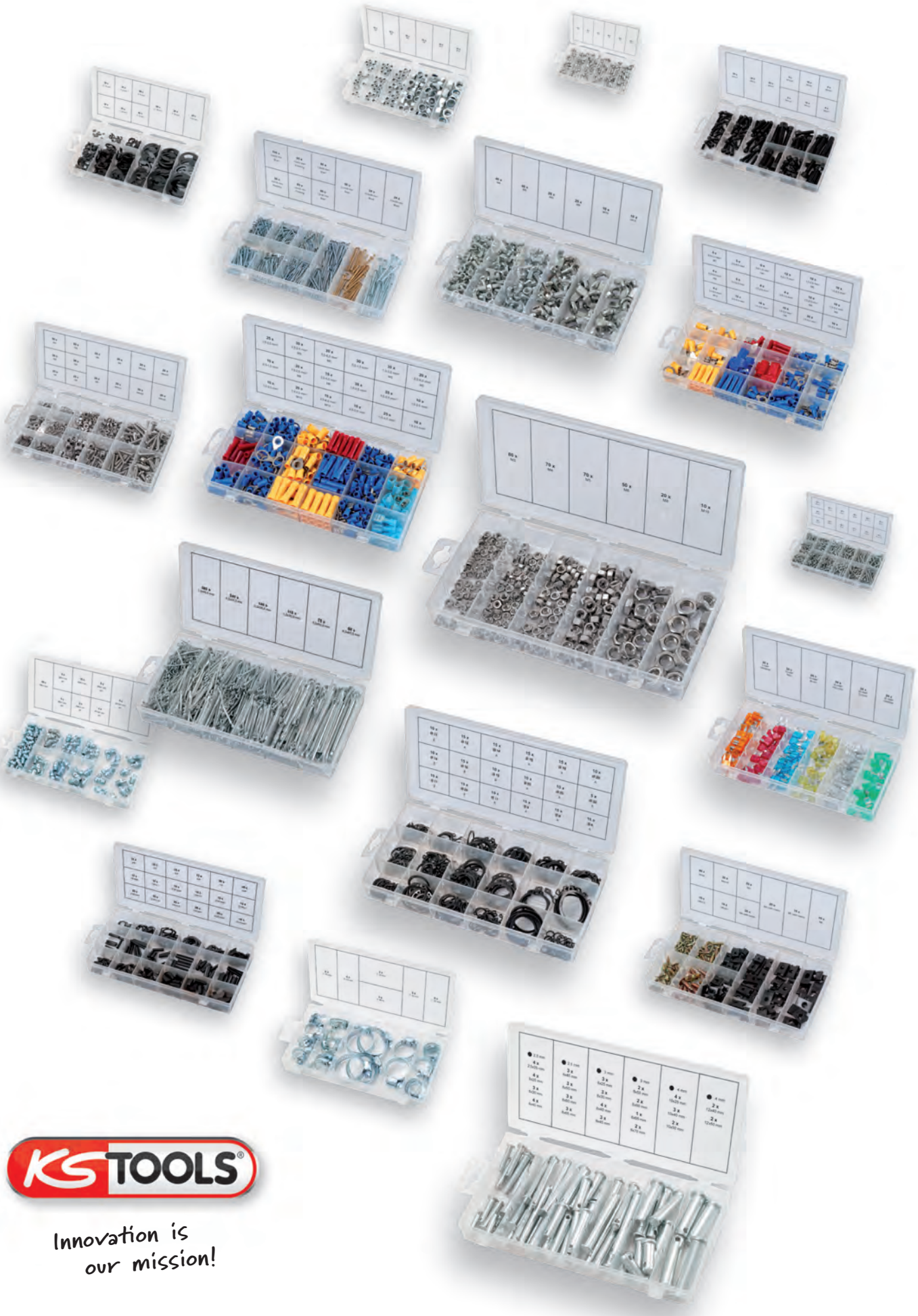
KS TOOLS

Innovation is our mission!

INDUSRIAL SAFETY/ WORKWEAR

- Head protection
- Eye protection
- Hearing protection
- Welding protection
- Respiratory protection
- Hand protection
- Foot protection

DIN AND STANDARD PARTS RANGES



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DIN AND VARIOUS CONSUMABLE ASSORTMENTS

Advantages

- Very extensive range (from screws to O rings)
- For industry, automotive and plumbing
- Quick amortisation, as no looking for a long time in the event of a repair
- The range is determined based on the products most often required

Mini fuses

Automotive fuses

Glass fuses

Crimp connectors

Crimp connectors

Shrink tubing

Lockrings, internal

Lockrings, external

Lockrings, internal and external

Electric circlips

Electric circlips SAE

Hose clamp

Grease nipples

Grease nipples, imperial

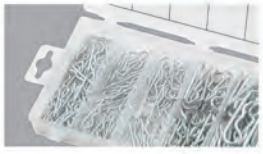
Split pins

Split pins

Hollow roll pin

Safety bolts

Spring split pins



Roll pin / Seeger ring / feather keys / electric circlips

Springs

Nuts, metric

Stainless steel nuts, metric

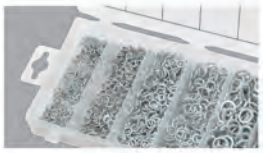
Self-locking nuts

UNC self-tightening nuts

UNF self-tightening nuts

Lock and ring washers

Spring rings



Stainless steel cap nuts

O-rings

Wing nuts

Headless screw, metric

Hexagon screws

Ball head machine screws

O-rings SAE

Blind rivets

Rubber grommets

Bodywork nuts + screws

Self-tapping, wooden and machine screws

Metal and wooden screws

Ball head Parker screws

Wood screws

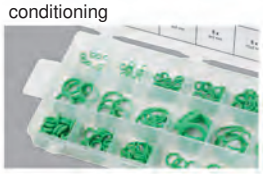
Clip bolts and eyebolts

Copper washers

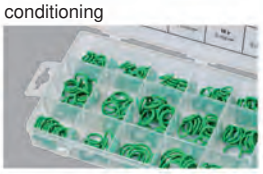
Nails

O-rings

O-rings for HNBR air conditioning



O-rings for HNBR air conditioning



Aluminium washers

Copper washers

Oil pan screws and washers

Plumbing washers

Workshop assortment

DIN / ISO

FUSES

Automotive mini fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case

970.0280	120 pcs	Automotive mini fuses assortment	140 g
20 x		5 A / ISO 8820-3	
20 x		10 A / ISO 8820-3	
20 x		15 A / ISO 8820-3	
20 x		20 A / ISO 8820-3	
20 x		25 A / ISO 8820-3	
20 x		30 A / ISO 8820-3	

Automotive fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case

970.0250	120 pcs	Automotive fuses assortment	210 g
20 x		5 A / ISO 8820-3	
20 x		10 A / ISO 8820-3	
20 x		15 A / ISO 8820-3	
20 x		20 A / ISO 8820-3	
20 x		25 A / ISO 8820-3	
20 x		30 A / ISO 8820-3	

Glass fuses assortment

- Trigger characteristics: Idle
- In plastic storage case

970.0270	120 pcs	Glass fuses assortment	220 g
20 x		5 A	
20 x		10 A	
20 x		15 A	
20 x		20 A	
20 x		25 A	
20 x		30 A	

CABLE SPLICES

Crimp connectors assortment

- Suitable for wire cross sections: Red 0.5-1.5 mm², blue 1.5-2.5 mm², yellow 2.5-6.0 mm²
- In plastic storage case

970.0290	160 pcs	Crimp connectors assortment	240 g
12 x		0,5-1,5 mm²	
18 x		1,5-2,5 mm²	
20 x		1,5-2,5 mm²	
12 x		2,5-6,0 mm²	
8 x		0,5-1,5 mm² M4	
10 x		1,5-2,5 mm² M4	
10 x		1,5-2,5 mm² M5	
10 x		1,5-2,5 mm² M6	
4 x		2,5-6,0 mm² M5	
4 x		2,5-6,0 mm² M8	
4 x		2,5-6,0 mm² M10	
10 x		1,5-2,5 mm²	
5 x		2,5-6,0 mm²	
10 x		1,5-2,5 mm²	
5 x		2,5-6,0 mm²	
10 x		1,5-2,5 mm² M4	
4 x		0,5-1,5 mm²	
4 x		1,5-2,5 mm²	

Crimp connectors assortment

- Suitable for wire cross sections: Red 0.5-1.5 mm², blue 1.5-2.5 mm², yellow 2.5-6.0 mm²
- In plastic storage case

970.0300	360 pcs	Crimp connectors assortment	440 g
10 x		0,5-1,5 mm²	
30 x		0,5-1,5 mm²	
30 x		1,5-2,5 mm²	
10 x		1,5-2,5 mm²	
15 x		2,5-6,0 mm²	
30 x		1,5-2,5 mm² M5	
20 x		1,5-2,5 mm² M6	
20 x		1,5-2,5 mm² M10	
20 x		2,5-6,0 mm² M5	
15 x		2,5-6,0 mm² M6	
15 x		2,5-6,0 mm² M10	
25 x		1,5-2,5 mm²	
25 x		1,5-2,5 mm²	
30 x		1,5-2,5 mm² M5	
20 x		2,5-6,0 mm² M5	
25 x		1,5-2,5 mm²	
10 x		1,5-2,5 mm²	
10 x		1,5-2,5 mm²	

Branch connectors assortment

- Suitable for wire cross sections: Red 0.5-1.5 mm², blue 1.5-2.5 mm²
- In plastic storage case

970.0570	50 pcs	Branch connectors assortment	140
25 x		0,5-1,5 mm²	
25 x		1,5-2,5 mm²	

SHRINK TUBING

Shrink-on tubes assortment

- Shrinkage ratio 2:1
- In plastic storage case

970.0230	127 pcs	Shrink-on tubes assortment	100
30 x		2,0x40 mm	
25 x		2,5x40 mm	
20 x		3,5x40 mm	
20 x		5,0x40 mm	
16 x		7,0x80 mm	
8 x		10,0x80 mm	
8 x		13,0x85 mm	

Shrink tubing assortment

- Shrinkage ratio 2:1
- In plastic storage case

970.0540	100 pcs	Shrink tubing assortment	100
30 x		1,5x100 mm	
30 x		2,5x100 mm	
20 x		4,0x100 mm	
10 x		6,0x100 mm	
6 x		10,0x100 mm	
4 x		13,0x100 mm	

SNAP RINGS

Snap rings assortment, internal

- in accordance with DIN 472
- In plastic storage case

970.0090	180 pcs	Snap rings assortment, internal	180
15 x		Ø 3 mm / DIN 472	
10 x		Ø 4 mm / DIN 472	
10 x		Ø 5 mm / DIN 472	
15 x		Ø 6 mm / DIN 472	
10 x		Ø 8 mm / DIN 472	
15 x		Ø 10 mm / DIN 472	
10 x		Ø 11 mm / DIN 472	
10 x		Ø 12 mm / DIN 472	
10 x		Ø 13 mm / DIN 472	
10 x		Ø 14 mm / DIN 472	
10 x		Ø 16 mm / DIN 472	
10 x		Ø 19 mm / DIN 472	
10 x		Ø 20 mm / DIN 472	
8 x		Ø 22 mm / DIN 472	
8 x		Ø 25 mm / DIN 472	
8 x		Ø 26 mm / DIN 472	
6 x		Ø 28 mm / DIN 472	
5 x		Ø 32 mm / DIN 472	

Snap rings assortment, external

- in accordance with DIN 471
- In plastic storage case

970.0100	300 pcs	Snap rings assortment, external	290
20 x		Ø 3 mm / DIN 471	
10 x		Ø 4 mm / DIN 471	
15 x		Ø 5 mm / DIN 471	
25 x		Ø 6 mm / DIN 471	
15 x		Ø 8 mm / DIN 471	
20 x		Ø 9 mm / DIN 471	
15 x		Ø 11 mm / DIN 471	
15 x		Ø 12 mm / DIN 471	
25 x		Ø 13 mm / DIN 471	
15 x		Ø 14 mm / DIN 471	
20 x		Ø 16 mm / DIN 471	
25 x		Ø 19 mm / DIN 471	
15 x		Ø 20 mm / DIN 471	
20 x		Ø 22 mm / DIN 471	
15 x		Ø 25 mm / DIN 471	
15 x		Ø 26 mm / DIN 471	
10 x		Ø 28 mm / DIN 471	
5 x		Ø 32 mm / DIN 471	

Snap rings assortment, external & internal

- In accordance with DIN 471/472
- In plastic storage case

970.0310	225 pcs	Snap rings assortment, external & internal	250	
15 x		Ø 6 mm / DIN 471		
15 x		Ø 8 mm / DIN 471		
15 x		Ø 9 mm / DIN 471		
15 x		Ø 11 mm / DIN 471		
15 x		Ø 13 mm / DIN 471		
15 x		Ø 14 mm / DIN 471		
15 x		Ø 16 mm / DIN 471		
15 x		Ø 19 mm / DIN 471		
10 x		Ø 20 mm / DIN 471		
10 x		Ø 22 mm / DIN 471		
10 x		Ø 25 mm / DIN 471		
5 x		Ø 32 mm / DIN 471		
15 x		Ø 11 mm / DIN 472		
10 x		Ø 13 mm / DIN 472		
10 x		Ø 14 mm / DIN 472		
15 x		Ø 16 mm / DIN 472		
10 x		Ø 19 mm / DIN 472		
10 x		Ø 20 mm / DIN 472		

E-RING CIRCLIPS

E-Ring circlips assortment

- in accordance with DIN 6799
- In plastic storage case

970.0110	300 pcs	E-Ring circlips assortment	460
30 x		Ø 1,5 mm / DIN 6399	
30 x		Ø 3,0 mm / DIN 6399	
40 x		Ø 5,0 mm / DIN 6399	
50 x		Ø 6,0 mm / DIN 6399	
50 x		Ø 10,0 mm / DIN 6399	
40 x		Ø 12,0 mm / DIN 6399	
20 x		Ø 15,0 mm / DIN 6399	
20 x		Ø 19,0 mm / DIN 6399	
20 x		Ø 22,0 mm / DIN 6399	

SAE E-Ring circlips assortment

- in accordance with DIN 6799
- In plastic storage case

970.0320	300 pcs	SAE E-Ring circlips assortment	530
30 x		1/16“ / DIN 6799	
30 x		1/8“ / DIN 6799	
40 x		3/16“ / DIN 6799	
50 x		1/4“ / DIN 6799	
50 x		3/8“ / DIN 6799	
40 x		1/2“ / DIN 6799	
20 x		5/8“ / DIN 6799	
20 x		3/4“ / DIN 6799	
20 x		7/8“ / DIN 6799	

HOSE CLAMPS

Hose clamp assortment

- Suitable for tube diameters 16-40mm
- In plastic storage case

970.0070	26 pcs	Hose clamp assortment	300
8 x		Ø 16 mm	
6 x		Ø 22 mm	
4 x		Ø 25 mm	
2 x		Ø 28 mm	
2 x		Ø 35 mm	
4 x		Ø 40 mm	

GREASE NIPPLES

Grease nipple assortment

- in accordance with DIN 71412
- In plastic storage case

970.0030	110 pcs	Grease nipple assortment	500
60 x		M6 x1 mm / DIN 71412	
10 x		M8 x1 mm / DIN 71412	
10 x		M10x1 mm / DIN 71412	
5 x		M6 x1 mm/45° / DIN 71412	
5 x		M8 x1 mm/45° / DIN 71412	
5 x		M10x1 mm/45° / DIN 71412	
5 x		M6 x1 mm/90° / DIN 71412	
5 x		M8 x1 mm/90° / DIN 71412	
5 x		M10x1 mm/90° / DIN 71412	

Greasing nipples assortment, metric & imperial

- In plastic storage case

970.0360	70 pcs	Greasing nipples assortment, metric & imperial	410

10 x	1/8"x27,0 mm	/ DIN 71412
20 x	1/4"x28,0 mm	/ DIN 71412
10 x	6x 1,0 mm	/ DIN 71412
5 x	8x 1,0 mm	/ DIN 71412
5 x	10x 1,0 mm	/ DIN 71412
5 x	1/8"x27,0 mm/45°	/ DIN 71412
5 x	1/4"x28,0 mm/45°	/ DIN 71412
5 x	1/8"x27,0 mm/90°	/ DIN 71412
5 x	1/4"x28,0 mm/90°	/ DIN 71412

SAFETY ELEMENTS

Split pins assortment

- in accordance with DIN 94
- Straight design
- In plastic storage case

970.0080	555 pcs	Split pins assortment	700

150 x	1,6x25 mm / DIN 94
150 x	2,4x25 mm / DIN 94
100 x	2,4x38 mm / DIN 94
75 x	3,2x32 mm / DIN 94
50 x	3,2x50 mm / DIN 94
30 x	4,0x64 mm / DIN 94

Split pins assortment

- in accordance with DIN 94
- Straight design
- In plastic storage case

970.0330	1000 pcs	Split pins assortment	1.00

380 x	1,5x25 mm / DIN 94
240 x	2,5x25 mm / DIN 94
140 x	2,5x38 mm / DIN 94
115 x	3,0x30 mm / DIN 94
75 x	3,0x50 mm / DIN 94
50 x	4,0x60 mm / DIN 94

Roll pins assortment

- in accordance with DIN 1481
- Ideally suited for the automotive sector
- In plastic storage case

970.0020	315 pcs	Roll pins assortment	810

10 x	1,5x 5,0 mm / DIN 1481
10 x	1,5x 8,0 mm / DIN 1481
10 x	1,5x20,0 mm / DIN 1481
10 x	2,0x 6,0 mm / DIN 1481
10 x	2,0x12,0 mm / DIN 1481
10 x	2,0x25,0 mm / DIN 1481
10 x	2,5x16,0 mm / DIN 1481
10 x	2,5x25,0 mm / DIN 1481
10 x	2,5x30,0 mm / DIN 1481
15 x	3,0x16,0 mm / DIN 1481
15 x	3,0x25,0 mm / DIN 1481
15 x	3,0x30,0 mm / DIN 1481
10 x	4,0x16,0 mm / DIN 1481
10 x	4,0x25,0 mm / DIN 1481
10 x	4,0x40,0 mm / DIN 1481
15 x	5,0x16,0 mm / DIN 1481
15 x	5,0x25,0 mm / DIN 1481
15 x	5,0x30,0 mm / DIN 1481
10 x	5,5x16,0 mm / DIN 1481
10 x	5,5x30,0 mm / DIN 1481
10 x	5,5x45,0 mm / DIN 1481
10 x	6,0x16,0 mm / DIN 1481
10 x	6,0x30,0 mm / DIN 1481
10 x	6,0x45,0 mm / DIN 1481
10 x	8,0x20,0 mm / DIN 1481
10 x	8,0x40,0 mm / DIN 1481
10 x	8,0x50,0 mm / DIN 1481
5 x	10,0x20,0 mm / DIN 1481
5 x	10,0x40,0 mm / DIN 1481
5 x	10,0x50,0 mm / DIN 1481

Security bolts assortment

- Split pin mounting 2.5 - 3 - 4mm
- In plastic storage case

				g
970.0210	60 pcs	Security bolts assortment		1050
4 x		2,5 mm	5,0x25 mm	
4 x		2,5 mm	6,0x25 mm	
3 x		2,5 mm	6,0x30 mm	
4 x		2,5 mm	6,0x40 mm	
3 x		2,5 mm	6,0x45 mm	
3 x		2,5 mm	6,0x50 mm	
3 x		2,5 mm	6,0x60 mm	
3 x		2,5 mm	6,0x65 mm	
3 x		3,0 mm	8,0x25 mm	
3 x		3,0 mm	8,0x30 mm	
4 x		3,0 mm	8,0x40 mm	
3 x		3,0 mm	8,0x45 mm	
2 x		3,0 mm	8,0x50 mm	
2 x		3,0 mm	8,0x60 mm	
1 x		3,0 mm	8,0x65 mm	
2 x		3,0 mm	8,0x70 mm	
4 x		4,0 mm	10x25 mm	
3 x		4,0 mm	10x40 mm	
2 x		4,0 mm	10x50 mm	
2 x		4,0 mm	12x40 mm	
2 x		4,0 mm	12x50 mm	

Lynch pins assortment

- For securing to agricultural and construction machines
- In plastic storage case

			kg
970.0550	50 pcs	Lynch pins assortment	1.40
16 x		Ø 4,5x36 mm	
18 x		Ø 6,0x45 mm	
6 x		Ø 8,0x45 mm	
10 x		Ø 11,0x45 mm	

Spring split pins assortment

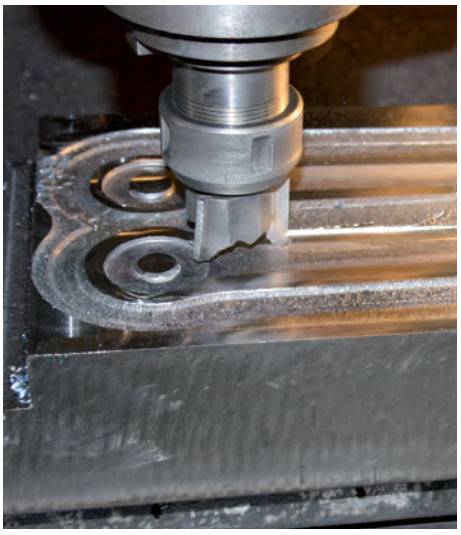
- In accordance with DIN 11024
- Fuse element in machine and vehicle construction
- In plastic storage case

			g
970.0060	150 pcs	Spring split pins assortment	520
30 x		2,0x33 mm / DIN 11024	
25 x		2,0x40 mm / DIN 11024	
42 x		2,4x31 mm / DIN 11024	
25 x		2,8x42 mm / DIN 11024	
20 x		3,5x45 mm / DIN 11024	
8 x		4,0x75 mm / DIN 11024	

Roll pins/Seeger rings/ feather keys/E-Ring circlips assortment

- In accordance with DIN 471
- According to ISO 3912/13337
- In plastic storage case

				g
970.0520	295 pcs	Roll pins/Seeger rings/ feather keys/E-Ring circlips assortment		440
12 x			3/8“ / DIN 471	
12 x			1/2“ / DIN 471	
12 x			5/8“ / DIN 471	
12 x			3/4“ / DIN 471	
20 x			1/4“	
20 x			3/8“	
12 x			1/8“x5/8“ / ISO 13337	
12 x			1/8“x 1“ / ISO 13337	
12 x			5/32“x5/8“ / ISO 13337	
12 x			5/32“x 1“ / ISO 13337	
12 x			3/16“x5/8“ / ISO 13337	
12 x			3/16“x 1“ / ISO 13337	
25 x			3/32“x3/8“ / ISO ISO3912	
25 x			3/32“x1/2“ / ISO ISO3912	
25 x			1/8“x1/2“ / ISO ISO3912	
25 x			1/8“x5/8“ / ISO ISO3912	
25 x			5/32“x5/8“ / ISO ISO3912	
10 x			3/16“x3/4“ / ISO ISO3912	



Feather keys assortment

- For securing of shafts
- In plastic storage case

970.0560	80 pcs	Feather keys assortment	320

10 x		3x5,0x13 mm
10 x		3x6,5x16 mm
10 x		4x5,0x13 mm
10 x		4x6,5x16 mm
10 x		4x7,5x19 mm
10 x		5x7,5x19 mm
10 x		5x9,0x22 mm
10 x		6x9,0x22 mm

Springs assortment

- Range of compression and tension springs
- In plastic storage case

970.0010	200 pcs	Springs assortment	370

12 x		4,0x79,5 mm
8 x		4,5x44,5 mm
10 x		5,0x20,5 mm
10 x		5,5x25,5 mm
10 x		6,5x22,0 mm
10 x		7,0x38,0 mm
12 x		7,0x51,0 mm
8 x		8,0x28,5 mm
10 x		8,0x31,5 mm
12 x		8,0x44,5 mm
10 x		8,5x36,5 mm
12 x		8,5x47,0 mm
10 x		5,5x17,0 mm
10 x		5,5x38,0 mm
10 x		6,5x10,0 mm
10 x		7,0x12,5 mm
10 x		7,0x19,0 mm
8 x		9,0x35,0 mm
6 x		9,5x16,0 mm
12 x		9,5x19,0 mm

NAILS

Nails assortment

- ideal for hobbies and workshops
- In plastic storage case

970.0370	550 pcs	Nails assortment	400

100 x		1,3x22 mm
80 x		1,4x25 mm
80 x		1,6x30 mm
50 x		2,0x38 mm
20 x		2,5x50 mm
80 x		1,6x25 mm
80 x		1,6x31 mm
30 x		2,0x38 mm
30 x		2,5x30 mm

SCREWS/NUTS/RING WASHERS

Metal & wooden screws assortment, self-tapping

- According to ISO 7049/7050
- In plastic storage case

970.0410	240 pcs	Metal & wooden screws assortment, self-tapping	360

20 x		#4x1/2" / ISO 7049
20 x		#6x1/2" / ISO 7049
20 x		#6x5/8" / ISO 7049
20 x		#6x3/4" / ISO 7049
20 x		#8x5/8" / ISO 7049
20 x		#8x 1" / ISO 7049
20 x		#6x1/2" / ISO 7050
20 x		#6x3/4" / ISO 7050
20 x		#8x1/2" / ISO 7050
20 x		#8x5/8" / ISO 7050
20 x		#8x3/4" / ISO 7050
20 x		#10x 1" / ISO 7050

Ball head Parker screws assortment

- In accordance with ISO 7049
- In plastic storage case

970.0420	550 pcs	Ball head Parker screws assortment	720

65 x		#4x 1/2" / ISO 7049
55 x		#4x 5/8" / ISO 7049
60 x		#6x 3/8" / ISO 7049

65 x		#6x 1/2“ / ISO 7049
60 x		#6x 5/8“ / ISO 7049
45 x		#6x 3/4“ / ISO 7049
50 x		#8x 1/2“ / ISO 7049
40 x		#8x 5/8“ / ISO 7049
30 x		#8x 1“ / ISO 7049
20 x		#8x1.1/4“ / ISO 7049
25 x		#10x 3/4“ / ISO 7049
20 x		#10x 1“ / ISO 7049
15 x		#10x1.1/4“ / ISO 7049

Wooden screws assortment

- In accordance with ISO 7050
- In plastic storage case

970.0430	550 pcs	Wooden screws assortment		640
65 x		#4x 1/2“ / ISO 7050		
55 x		#4x 5/8“ / ISO 7050		
60 x		#6x 3/8“ / ISO 7050		
65 x		#6x 1/2“ / ISO 7050		
60 x		#6x 5/8“ / ISO 7050		
45 x		#6x 3/4“ / ISO 7050		
50 x		#8x 1/2“ / ISO 7050		
40 x		#8x 5/8“ / ISO 7050		
30 x		#8x 1“ / ISO 7050		
20 x		#8x1.1/4“ / ISO 7050		
25 x		#10x 3/4“ / ISO 7050		
20 x		#10x 1“ / ISO 7050		
15 x		#10x1.1/4“ / ISO 7050		

Self-tapping/wooden/machine screws assortment

- In accordance with DIN 7985/126/555/7981/7982
- In plastic storage case

970.0500	347 pcs	Self-tapping/wooden/machine screws assortment		480
32 x		M3,5x12,0 mm / DIN 7981		
26 x		M3,5x20,0 mm / DIN 7981		
13 x		M5 x25,0 mm / DIN 7981		
24 x		M5 x20,0 mm / DIN 7985		
19 x		M5 x25,0 mm / DIN 7985		
10 x		M6 x20,0 mm / DIN 7985		
43 x		M3 x12,0 mm / DIN 7982		
32 x		M3,5x20,0 mm / DIN 7982		
10 x		M4 x25,0 mm / DIN 7982		
59 x		M5	/ DIN 126	
19 x		M6	/ DIN126	
49 x		M5	/ DIN 555	
11 x		M6	/ DIN 555	

Nuts assortment, metric

- In accordance with DIN 934
- In plastic storage case

970.0440	300 pcs	Nuts assortment, metric		420
80 x		M3	/ DIN 934	
70 x		M4	/ DIN 934	
70 x		M5	/ DIN 934	
50 x		M6	/ DIN 934	
20 x		M8	/ DIN 934	
10 x		M10	/ DIN 934	

Stainless steel nuts assortment, metric

- In accordance with DIN 934
- In plastic storage case

970.0450	300 pcs	Stainless steel nuts assortment, metric		460
80 x		M3	/ DIN 934	
70 x		M4	/ DIN 934	
70 x		M5	/ DIN 934	
50 x		M6	/ DIN 934	
20 x		M8	/ DIN 934	
10 x		M10	/ DIN 934	

Self locking nuts assortment

- In accordance with DIN 985
- In plastic storage case

970.0120	146 pcs	Self locking nuts assortment		560
35 x		M4	/ DIN 985	
35 x		M5	/ DIN 985	
25 x		M6	/ DIN 985	
25 x		M8	/ DIN 985	
16 x		M10	/ DIN 985	
10 x		M12	/ DIN 985	

UNC self-tightening nuts assortment

- In accordance with ISO 7040
- In plastic storage case

970.0480	100 pcs	UNC self-tightening nuts assortment	600
25 x		#10x24 mm / ISO 7040	
25 x		1/4"x20 mm / ISO 7040	
20 x		5/16"x18 mm / ISO 7040	
20 x		3/8"x16 mm / ISO 7040	
5 x		7/16"x14 mm / ISO 7040	
5 x		1/2"x13 mm / ISO 7040	

UNF self-tightening nuts assortment

- In accordance with ISO 7040
- In plastic storage case

970.0490	100 pcs	UNF self-tightening nuts assortment	600
25 x		#10x32 mm / ISO 7040	
25 x		1/4"x28 mm / ISO 7040	
20 x		5/16"x24 mm / ISO 7040	
20 x		3/8"x24 mm / ISO 7040	
5 x		7/16"x20 mm / ISO 7040	
5 x		1/2"x20 mm / ISO 7040	

Toothed and standard washers assortment

- In accordance with DIN 127
- In plastic storage case

970.0240	720 pcs	Toothed and standard washers assortment	270
50 x		M3 / DIN 127	
50 x		M4 / DIN 127	
50 x		M5 / DIN 127	
40 x		M6 / DIN 127	
30 x		M8 / DIN 127	
20 x		M10 / DIN 127	
50 x		M3 / DIN 127	
50 x		M4 / DIN 127	
50 x		M5 / DIN 127	
40 x		M6 / DIN 127	
30 x		M8 / DIN 127	
20 x		M10 / DIN 127	
50 x		M3 / DIN 127	
50 x		M4 / DIN 127	
50 x		M5 / DIN 127	
40 x		M6 / DIN 127	
30 x		M8 / DIN 127	
20 x		M10 / DIN 127	

Spring washers assortment

- In accordance with DIN 127
- In plastic storage case

970.0220	1200 pcs	Spring washers assortment	480
300 x		M3 / DIN 127	
300 x		M4 / DIN 127	
300 x		M5 / DIN 127	
150 x		M6 / DIN 127	
100 x		M8 / DIN 127	
50 x		M10 / DIN 127	

Clip bolts & eyebolts assortment

- Open and closed
- In plastic storage case

970.0380	151 pcs	Clip bolts & eyebolts assortment	580
60 x		15/16"	
12 x		1.13/16"	
12 x		1.15/16"	
50 x		1.5/8"	
12 x		2.1/2"	
5 x		3.3/8"	

SPECIAL NUTS & SCREWS

Stainless steel nuts assortment, metric

- In accordance with DIN 1587
- In plastic storage case

970.0460	150 pcs	Stainless steel nuts assortment, metric	660

30 x		M3 / DIN 1587
30 x		M4 / DIN 1587
30 x		M5 / DIN 1587
30 x		M6 / DIN 1587
20 x		M8 / DIN 1587
10 x		M10 / DIN 1587

Wing nuts assortment

- In accordance with DIN 315
- In plastic storage case

970.0470	150 pcs	Wing nuts assortment	800

40 x		M4 / DIN 315
40 x		M5 / DIN 315
25 x		M6 / DIN 315
25 x		M8 / DIN 315
20 x		M10 / DIN 315

Headless screws assortment

- In accordance with DIN 913
- In plastic storage case

970.0400	160 pcs	Headless screws assortment	360

15 x		3x 5 mm / DIN 913
15 x		4x 5 mm / DIN 913
10 x		5x 6 mm / DIN 913
20 x		6x 6 mm / DIN 913
10 x		6x10 mm / DIN 913
20 x		8x10 mm / DIN 913
10 x		8x12 mm / DIN 913
10 x		10x10 mm / DIN 913
10 x		10x12 mm / DIN 913
15 x		6x 6 mmF / DIN 913
15 x		8x10 mmF / DIN 913
10 x		10x10 mmF / DIN 913

Hexagon screws assortment, metric

- In accordance with DIN 912
- In plastic storage case

970.0390	106 pcs	Hexagon screws assortment, metric	640

25 x		M4 x12 mm / DIN 912
25 x		M5 x12 mm / DIN 912
20 x		M5 x25 mm / DIN 912
10 x		M6 x12 mm / DIN 912
10 x		M6 x25 mm / DIN 912
5 x		M8 x25 mm / DIN 912
5 x		M8 x40 mm / DIN 912
3 x		M10x25 mm / DIN 912
3 x		M10x40 mm / DIN 912

Ball head machine screws assortment, metric

- In accordance with DIN 7985/126/127/555
- In plastic storage case

970.0510	475 pcs	Ball head machine screws assortment, metric	540

20 x		M4x16,0 mm / DIN 7985
20 x		M4x25,0 mm / DIN 7985
20 x		M5x20,0 mm / DIN 7985
20 x		M5x25,0 mm / DIN 7985
20 x		M6x20,0 mm / DIN 7985
50 x		M4 / DIN 127
50 x		M5 / DIN 127
25 x		M6 / DIN 127
50 x		M4 / DIN 126
50 x		M5 / DIN 126
25 x		M6 / DIN 126
50 x		M4 / DIN 555
50 x		M5 / DIN 555
25 x		M6 / DIN 555

BLIND RIVETS

Blind rivets assortment

- Breakable pin made from steel
- In plastic storage case

970.0150	400 pcs	Blind rivets assortment	250
100 x		2,4 mm	
100 x		3,2 mm	
100 x		4,0 mm	
100 x		4,8 mm	

GROMMETS

Rubber grommets assortment

- For secure guiding of cables into bore holes
- In plastic storage case

970.0050	110 pcs	Rubber grommets assortment	180
25 x		Ø 8,3 mm	
20 x		Ø 10,3 mm	
20 x		Ø 13,5 mm	
20 x		Ø 15,0 mm	
10 x		Ø 15,4 mm	
5 x		Ø 20,2 mm	
5 x		Ø 27,0 mm	
5 x		Ø 32,5 mm	

BODYWORK ELEMENTS

Bodywork nuts & screws assortment

- Wing clamps / bodywork nuts in various sizes and forms
- In plastic storage case

970.0530	170 pcs	Bodywork nuts & screws assortment	320
20 x		M3	
20 x		M4	
15 x		M5	
20 x		M3	
10 x		M6	
40 x		M3x 8	
20 x		M4x16	
15 x		M5x12	
10 x		M6x20	

O-RINGS/WASHERS

O-rings assortment, internal

- In accordance with DIN 3771
- In plastic storage case

970.0180	225 pcs	O-rings assortment, internal	120
20 x		3,0x 5,0x1,0 mm / DIN 3771	
20 x		4,0x 6,0x1,0 mm / DIN 3771	
20 x		4,5x 8,5x2,0 mm / DIN 3771	
20 x		5,0x 9,0x2,0 mm / DIN 3771	
20 x		6,0x10,0x2,0 mm / DIN 3771	
20 x		6,0x11,0x2,5 mm / DIN 3771	
20 x		6,0x12,0x3,0 mm / DIN 3771	
20 x		7,0x11,0x2,0 mm / DIN 3771	
20 x		8,0x12,0x2,0 mm / DIN 3771	
5 x		9,0x12,5x2,0 mm / DIN 3771	
5 x		10,0x14,0x2,0 mm / DIN 3771	
5 x		12,0x18,0x3,0 mm / DIN 3771	
5 x		13,0x19,0x3,0 mm / DIN 3771	
5 x		14,0x19,0x2,5 mm / DIN 3771	
5 x		17,0x22,0x2,5 mm / DIN 3771	
5 x		18,0x26,0x4,0 mm / DIN 3771	
5 x		20,0x24,0x2,0 mm / DIN 3771	
5 x		22,0x26,0x2,0 mm / DIN 3771	

O-rings assortment

- In accordance with DIN 3771
- In plastic storage case

970.0130	419 pcs	O-rings assortment	630
20 x		R01 Ø 3,0 mm / DIN 3771	
20 x		R02 Ø 4,4 mm / DIN 3771	
18 x		R03 Ø 5,0 mm / DIN 3771	
23 x		R04 Ø 7,0 mm / DIN 3771	
23 x		R05 Ø 10,0 mm / DIN 3771	
23 x		R06 Ø 13,0 mm / DIN 3771	
14 x		R07 Ø 10,0 mm / DIN 3771	
13 x		R08 Ø 11,0 mm / DIN 3771	
14 x		R09 Ø 13,0 mm / DIN 3771	
13 x		R10 Ø 14,0 mm / DIN 3771	
14 x		R11 Ø 16,0 mm / DIN 3771	
14 x		R12 Ø 18,0 mm / DIN 3771	
13 x		R13 Ø 19,0 mm / DIN 3771	
14 x		R14 Ø 21,0 mm / DIN 3771	
13 x		R15 Ø 22,0 mm / DIN 3771	
10 x		R16 Ø 18,0 mm / DIN 3771	
10 x		R17 Ø 20,0 mm / DIN 3771	
10 x		R18 Ø 22,0 mm / DIN 3771	
10 x		R19 Ø 23,5 mm / DIN 3771	
10 x		R20 Ø 25,0 mm / DIN 3771	
10 x		R21 Ø 26,5 mm / DIN 3771	
10 x		R22 Ø 28,0 mm / DIN 3771	
10 x		R23 Ø 30,0 mm / DIN 3771	
10 x		R24 Ø 31,0 mm / DIN 3771	
10 x		R25 Ø 33,0 mm / DIN 3771	
10 x		R26 Ø 34,5 mm / DIN 3771	
10 x		R27 Ø 36,0 mm / DIN 3771	
10 x		R28 Ø 38,0 mm / DIN 3771	
10 x		R29 Ø 41,0 mm / DIN 3771	
10 x		R30 Ø 44,0 mm / DIN 3771	
10 x		R31 Ø 47,0 mm / DIN 3771	
10 x		R32 Ø 50,0 mm / DIN 3771	

SAE O-rings assortment

- ideal for hobbies and workshops
- In plastic storage case

970.0350	407 pcs	SAE O-rings assortment	580
20 x		R01 Ø 1/8"	
20 x		R02 Ø 3/16"	
20 x		R03 Ø 1/4"	
20 x		R04 Ø 5/16"	
20 x		R05 Ø 3/8"	
20 x		R06 Ø 1/2"	
13 x		R07 Ø 3/8"	
13 x		R08 Ø 7/16"	
13 x		R09 Ø 1/2"	
13 x		R10 Ø 9/16"	
13 x		R11 Ø 5/8"	
13 x		R12 Ø 1 1/16"	
13 x		R13 Ø 3/4"	
13 x		R14 Ø 13/16"	
13 x		R15 Ø 7/8"	
10 x		R16 Ø 3/4"	
10 x		R17 Ø 13/16"	
10 x		R18 Ø 7/8"	
10 x		R19 Ø 15/16"	
10 x		R20 Ø 1"	
10 x		R21 Ø 1.1/16"	
10 x		R22 Ø 1.1/8"	
10 x		R23 Ø 1.3/16"	
10 x		R24 Ø 1.1/4"	
10 x		R25 Ø 1.5/16"	
10 x		R26 Ø 1.3/8"	
10 x		R27 Ø 1.7/16"	
10 x		R28 Ø 1.1/2"	
10 x		R29 Ø 1.5/8"	
10 x		R30 Ø 1.3/4"	
10 x		R31 Ø 1.7/8"	
10 x		R32 Ø 2"	

O-rings assortment for HNBR air-conditioning

- In accordance with DIN 3771
- Made from HNBR: Specially for use on air conditioning lines
- In plastic storage case

970.0260	225 pcs	O-rings assortment for HNBR air-conditioning	120
20 x		3,0x1,0 mm / DIN 3771	
20 x		4,0x1,0 mm / DIN 3771	
20 x		4,5x2,0 mm / DIN 3771	
20 x		5,0x2,0 mm / DIN 3771	
20 x		6,0x2,0 mm / DIN 3771	
20 x		6,0x2,5 mm / DIN 3771	
20 x		6,0x3,0 mm / DIN 3771	
20 x		7,0x2,0 mm / DIN 3771	
20 x		8,0x2,0 mm / DIN 3771	
5 x		9,0x2,0 mm / DIN 3771	
5 x		10,0x2,0 mm / DIN 3771	
5 x		12,0x3,0 mm / DIN 3771	
5 x		13,0x3,0 mm / DIN 3771	
5 x		14,0x2,5 mm / DIN 3771	
5 x		17,0x2,5 mm / DIN 3771	
5 x		18,0x4,0 mm / DIN 3771	
5 x		20,0x2,0 mm / DIN 3771	
5 x		22,0x2,0 mm / DIN 3771	

O-rings assortment for HNBR air conditioning

- Made from HNBR: Specially for use in air conditioning lines
- In plastic storage case

970.0340	270 pcs	Range of O-rings for HNBR air conditioning	140
20 x		5,29x1,78 mm	
20 x		6,07x1,78 mm	
20 x		6,80x1,90 mm	
20 x		7,65x1,78 mm	
40 x		7,80x1,90 mm	
20 x		8,80x1,90 mm	
20 x		10,00x2,00 mm	
15 x		10,70x2,62 mm	
15 x		11,00x2,00 mm	
15 x		11,00x1,78 mm	
15 x		12,90x2,00 mm	
10 x		13,90x1,78 mm	
10 x		14,00x2,00 mm	
10 x		17,00x1,78 mm	
10 x		17,00x2,00 mm	
10 x		17,00x3,53 mm	

Copper sealing rings assortment

- In accordance with DIN 93
- In plastic storage case

970.0140	300 pcs	Copper sealing rings assortment	790
10 x		5x 9,0x1,0 mm / DIN 93	
10 x		6x10,0x1,0 mm / DIN 93	
10 x		6x12,0x1,0 mm / DIN 93	
10 x		8x12,0x1,0 mm / DIN 93	
10 x		8x14,0x1,0 mm / DIN 93	
10 x		8x14,0x1,5 mm / DIN 93	
10 x		9x14,0x1,0 mm / DIN 93	
10 x		10x14,0x1,0 mm / DIN 93	
10 x		10x14,0x1,5 mm / DIN 93	
10 x		10x16,0x1,0 mm / DIN 93	
10 x		12x16,0x1,0 mm / DIN 93	
10 x		12x16,0x1,5 mm / DIN 93	
10 x		12x18,0x1,5 mm / DIN 93	
10 x		13x18,0x1,0 mm / DIN 93	
10 x		14x18,0x1,5 mm / DIN 93	
10 x		14x20,0x1,5 mm / DIN 93	
10 x		14x20,0x2,0 mm / DIN 93	
10 x		16x20,0x1,5 mm / DIN 93	
10 x		16x22,0x1,5 mm / DIN 93	
10 x		18x22,0x1,5 mm / DIN 93	
10 x		18x24,0x1,5 mm / DIN 93	
10 x		19x26,0x2,0 mm / DIN 93	
10 x		20x24,5x1,5 mm / DIN 93	
10 x		20x24,5x0,8 mm / DIN 93	
10 x		22x27,0x1,0 mm / DIN 93	
10 x		22x29,0x1,5 mm / DIN 93	
10 x		24x29,0x1,5 mm / DIN 93	
10 x		24x32,0x2,0 mm / DIN 93	
10 x		26x34,0x2,0 mm / DIN 93	
10 x		28x36,0x2,0 mm / DIN 93	

Copper sealing rings assortment

- In accordance with DIN 93
- In plastic storage case

970.0040	150 pcs	Copper sealing rings assortment	320
10 x		5,0x10x1,0 mm / DIN 93	
10 x		6,0x10x1,0 mm / DIN 93	
10 x		7,0x10x1,0 mm / DIN 93	
10 x		8,0x12x1,0 mm / DIN 93	
10 x		10,0x16x1,0 mm / DIN 93	
10 x		10,5x17x1,5 mm / DIN 93	
10 x		11,0x17x1,5 mm / DIN 93	
10 x		12,0x20x1,5 mm / DIN 93	
10 x		12,5x20x1,5 mm / DIN 93	
10 x		14,0x18x1,0 mm / DIN 93	
10 x		14,0x20x1,5 mm / DIN 93	
10 x		15,0x20x2,0 mm / DIN 93	
10 x		16,0x22x2,0 mm / DIN 93	
10 x		16,5x24x2,0 mm / DIN 93	
10 x		17,5x24x2,0 mm / DIN 93	

Aluminium sealing rings assortment

- In accordance with DIN 93
- In plastic storage case

970.0160	300 pcs	Aluminium sealing rings assortment	430
10 x		5x 9,0x1,0 mm / DIN 93	
10 x		6x10,0x1,0 mm / DIN 93	
10 x		6x12,0x1,0 mm / DIN 93	
10 x		8x12,0x1,0 mm / DIN 93	
10 x		8x14,0x1,0 mm / DIN 93	
10 x		8x14,0x1,5 mm / DIN 93	
10 x		9x14,0x1,0 mm / DIN 93	
10 x		10x14,0x1,0 mm / DIN 93	
10 x		10x14,0x1,5 mm / DIN 93	
10 x		10x16,0x1,0 mm / DIN 93	
10 x		12x16,0x1,0 mm / DIN 93	
10 x		12x16,0x1,5 mm / DIN 93	
10 x		12x18,0x1,5 mm / DIN 93	
10 x		13x18,0x1,0 mm / DIN 93	
10 x		14x18,0x1,5 mm / DIN 93	
10 x		14x20,0x1,5 mm / DIN 93	
10 x		14x20,0x2,0 mm / DIN 93	
10 x		16x20,0x1,5 mm / DIN 93	
10 x		16x22,0x1,5 mm / DIN 93	
10 x		18x22,0x1,5 mm / DIN 93	
10 x		18x24,0x1,5 mm / DIN 93	
10 x		19x26,0x2,0 mm / DIN 93	
10 x		20x24,5x0,8 mm / DIN 93	
10 x		20x24,5x1,5 mm / DIN 93	
10 x		22x27,0x1,0 mm / DIN 93	
10 x		22x29,0x1,5 mm / DIN 93	
10 x		24x29,0x1,5 mm / DIN 93	
10 x		24x32,0x2,0 mm / DIN 93	
10 x		26x34,0x2,0 mm / DIN 93	
10 x		28x36,0x2,0 mm / DIN 93	

Sealing rings assortment, plumbing

- In accordance with DIN 7337
- In plastic storage case

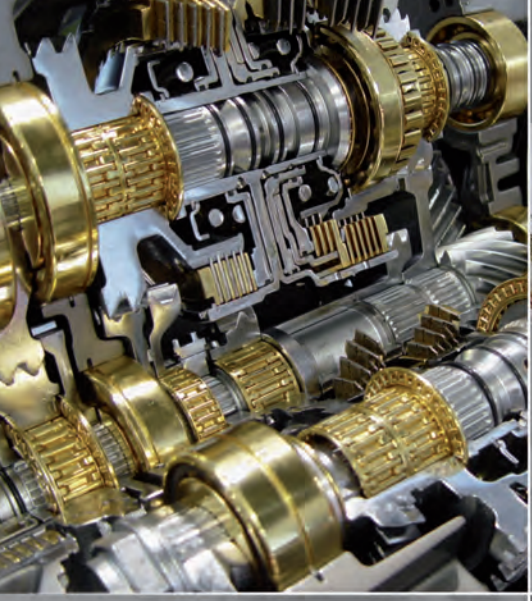
970.0190	141 pcs	Sealing rings assortment, plumbing	150
5 x		3/8“ / 8,0x18,0x4,0 mm / DIN 7337	
5 x		3/8“ / 10,5x14,0x4,0 mm / DIN 7337	
10 x		1/2“ / 4,0x16,0x4,0mm / DIN 7337	
10 x		1/2“ / 4,0x17,0x4,0 mm / DIN 7337	
5 x		1/2“ / 8,0x14,0x4,0 mm / DIN 7337	
10 x		1/2“ / 8,0x18,0x4,0 mm / DIN 7337	
10 x		3/4“ / 12,0x24,0x2,0mm / DIN 7337	
5 x		3/4“ / 15,0x24,0x3,0mm / DIN 7337	
10 x		3/8“ / 10,0x13,5x2,0 mm / DIN 7337	
10 x		3/8“ / 12,0x17,5x1,5 mm / DIN 7337	
10 x		1/2“ / 17,0x21,0x1,5 mm / DIN 7337	
10 x		1/2“ / 17,0x24,0x1,5 mm / DIN 7337	
10 x		3/4“ / 20,5x25,0x1,5 mm / DIN 7337	
5 x		1“ / 27,0x33,0x1,5 mm / DIN 7337	
10 x		1/2“ / 12,0x17,5x1,0 mm / DIN 7337	
10 x		3/4“ / 17,0x24,0x2,0 mm / DIN 7337	
3 x		1.1/4“ / 30,0x39,0x1,0 mm / DIN 7337	
3 x		1.1/2“ / 27,0x38,0x2,0 mm / DIN 7337	

OIL REDUCTION SCREWS & WASHERS

Oil sump screws and gaskets assortment

- Screws M10 - M20
- Washers 6 - 20 mm
- In plastic storage case

970.0200	534 pcs	Oil sump screws and gaskets assortment	2000
50 x		6 mm	
50 x		8 mm	
50 x		10 mm	
50 x		12 mm	
50 x		13 mm	
50 x		14 mm	
50 x		15 mm	
50 x		16 mm	
50 x		18 mm	
50 x		20 mm	
5 x		M10	
5 x		M12	
5 x		M13	
5 x		M14	
5 x		M15	
3 x		M16	
3 x		M18	
3 x		M20	



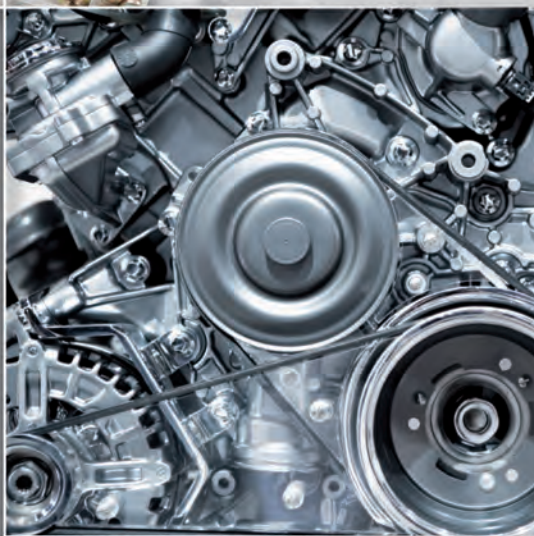
KS TOOLS®

Innovation is our mission!

DIN AND VARIOUS CONSUMABLE ASSORTMENTS

- Very extensive range
  (from screws to O rings)
- For industry, automotive and plumbing
- Quick amortisation,
  as no looking for a long time in the event of a repair
- The range is determined
  based on the products most often required

Workshop assortment



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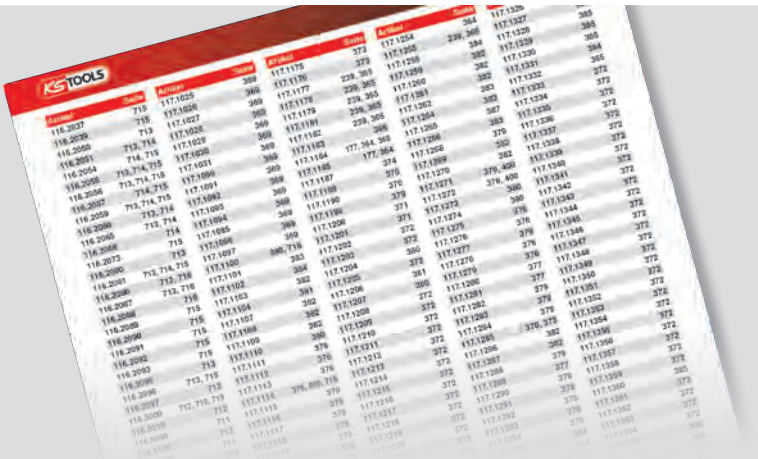

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999.0125	553, 719
999.2034	718, 719, 740

PRE-TENSIONING FORCE AND TIGHTENING VALUES FOR REGULAR TYPE SCREW HEADS

M (screws ma:)	S1(6 pt.)	S2 (Ø screw head)	fine hreads	stress area	friction coeffi-cient	quality of setscrews (headless screws) metric standard threads											
						4.8		5.8		6.8		8.8		10.9		12.9	
						pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque
	mm	mm	mm	mm˝		N	Nm	N	Nm	N	Nm	N	Nm	N	Nm	N	Nm
M2	1,5	4	0,40	2,07	0,10	488,0	0,15	610,6	0,19	732,7	0,23	976,9	0,31	1373,8	0,43	1648,6	0,52
					0,14	449,5	0,19	561,9	0,23	674,3	0,28	899,0	0,37	1264,3	0,52	1517,1	0,63
M2,5	2	5	0,45	3,39	0,10	813,5	0,31	1016,9	0,39	1220,2	0,47	1627,0	0,63	2288,0	0,88	2745,6	1,06
					0,14	749,9	0,38	937,4	0,48	1124,9	0,58	1499,8	0,77	2109,1	1,08	2531,0	1,30
M3	2,5	5,5	0,50	5,03	0,10	1219,9	0,54	1524,9	0,68	1829,9	0,82	2439,9	1,09	3431,0	1,53	4117,2	1,84
					0,14	1125,9	0,60	1407,4	0,83	1688,9	1,00	2251,9	1,34	3166,7	1,88	3800,0	2,26
M3,5	-	6	0,60	6,78	0,10	1638,2	0,84	2047,8	1,05	2457,3	1,26	3276,4	1,68	4607,5	2,36	5528,9	2,84
					0,14	1511,3	1,03	1889,2	1,28	2267,0	1,54	3022,6	2,05	4250,6	2,89	5100,7	3,47
M4	3	7	0,70	8,78	0,10	2115,4	1,25	2644,3	1,56	3173,1	1,88	4230,8	2,50	5949,6	3,52	7139,5	
					0,14	1950,9	1,53	2438,7	1,91	2926,4	2,29	3901,9	3,06	5487,0	4,30	6584,4	
M5	4	8	0,80	14,2	0,10	3461,6	2,46	4327,0	3,08	5192,3	3,70	6923,1	4,93	9735,7	6,93	11682,8	8,32
					0,14	3196,8	3,02	3996,0	3,78	4795,2	4,53	6393,7	6,04	8991,1	8,50	10789,3	10,20
M6	5	10	1	20,1	0,10	4874,7	4,24	6093,4	5.30	7312,1	6,35	9749,4	8,47	13710,1	11,92	16452,2	14,30
					0,14	4499,1	5,19	5623,9	6.48	6748,6	7,78	8998,2	10.37	12653,7	14,59	15184,4	17,51
M7	-	11	1	28,9	0,10	7134,5	6,97	8918,2	8,71	10701,8	10,45	14269,1	13,94	20065,9	19,60	24079,1	23,52
					0,14	6599,6	8,60	8249,5	10,76	9899,4	12,90	13199,2	17,21	18561,4	24,20	22273,6	29,04
M8	6	13	1,25	36,6	0,10	89447,1	10,20	11183,9	12,75	13420,7	15,30	17894,2	20,41	25163,7	28,70	30196,5	34,44
					0,14	8265,6	12,54	10332,0	15,67	12398,4	18,80	16531,2	25,07	23247,0	35,26	27896,5	42,31
M10	8	16	1,50	58	0,10	14244,5	20,11	17805,6	25,14	21366,8	30,16	28489,0	40,22	40062,7	56,56	48075,3	67,87
					0,14	13167,4	24,76	16459,2	30,95	19751,1	37,14	26334,8	49,52	37033,3	69,64	44439,9	83,56
M12	10	18	1,75	84,2	0,10	20766,6	34,43	25958,3	43,03	31149,9	51,64	41533,2	68,86	58406,1	96,83	70087,3	116,20
					0,14	19204,0	42,42	24005,0	53,03	28806,0	63,63	38408,0	84,84	54011,2	119,31	64813,5	143,17
M14	12	21	2	115	0,10	28389,9	54,77	35487,4	68,46	42584,9	82,15	56779,8	109,53	79846,6	154,03	95816,0	184,84
					0,14	26261,2	67,56	32826,5	84,45	39391,8	101,34	52522,4	135,13	73859,6	190,02	88631,5	228,03
M16	14	24	2	157	0,10	39242,1	85,14	49052,7	106,43	58863,2	127,72	78484,3	170,29	110368,5	239,47	132442,2	287,36
					0,14	36364,2	105,80	45455,3	132,26	54546,3	158,71	72728,5	211,61	102274,4	297,58	122723,3	357,09
M18	14	27	2,50	192	0,10	47533,0	117,48	59416,3	146,85	71299,6	176,22	95066,1	234,96	133686,7	330,41	160424,1	396,49
					0,14	43986,1	145,16	54982,7	181,45	65979,2	217,74	87972,3	290,32	123711,0	402,26	148453,2	489,92
M20	17	30	2,50	245	0,10	61238,0	166,08	76547,5	207,61	91857,0	249,13	122476,0	332,17	172231,9	467,11	206678,2	560,54
					0,14	56747,1	206,39	70933,9	257,98	85120,6	309,58	113494,2	412,78	156601,2	580,47	191521,5	696,56
M22	17	34	2,50	303	0,10	76305,2	227,22	95381,5	284,02	114457,8	340,82	152610,4	454,43	214608,3	639,05	257530,0	766,85
					0,14	70791,9	283,79	88489,8	354,74	106187,8	425,69	141583,7	567,58	199102,1	798,16	238922,5	957,80
M24	19	36	3	353	0,10	88232,4	287,16	110290,5	358,94	132348,6	430,73	176464,9	574,31	248153,7	807,63	297784,4	969,15
					0,14	81761,8	356,84	102202,2	446,05	122642,7	535,26	163523,6	713,68	229955,1	1003,61	275946,1	1204,33
M27	19	41	3	459	0,10	115778,8	420,04	144723,5	525,05	173668,2	630,06	231557,6	840,08	325627,9	1181,36	390753,4	1417,63
					0,14	107441,5	525,08	134301,9	656,35	161162,2	787,62	214883,0	1050,16	302179,2	1476,79	362615,0	1772,15
M30	22	46	3,50	561	0,10	140999,5	572,83	176249,4	716,03	211499,3	859,24	281999,0	1145,65	396561,1	1611,08	475873,4	1933,29
					0,14	130770,6	714,49	163463,3	893,11	196155,9	1071,73	261541,2	1428,97	367792,3	2009,49	441350,8	2411,39
M33	24	50	3,50	694	0,10	175618,1	774,65	219522,6	968,32	263427,1	1161,98	351236,2	15549,31	493925,8	2178,72	592711	2614,46
					0,14	163058,0	970,43	203822,5	1213,03	244587,0	1455,64	326115,9	1940,86	458600,5	2729,33	550320,6	3275,19
M36	27	55	4	817	0,10	206081,7	998,60	257602,2	1248,25	309122,6	1497,89	412163,5	1997,19	579604,8	2808,55	695525,8	3370,26
					0,14	191241,8	1248,41	239052,3	1560,51	286862,7	1872,61	382483,6	2496,81	537867,6	3511,14	645441,1	4213,37
M39	-	60	4	976	0,10	247520,0	1291,81	309400,0	1614,77	371279,9	1937,72	495039,9	2583,63	696149,8	3633,23	835379,8	4359,88
					0,14	229902,6	1620,96	287378,3	2026,20	344853,9	2431,44	459805,2	3241,92	646601,0	4558,96	775921,3	5470,75
M42	32	65	4,5	1120	0,10	283225,0	1601,25	354031,2	2001,57	424837,4	2401,88	566449,9	3202,51	796570,1	4503,53	955884,2	5404,23
					0,14	262939,0	2005,46	328673,8	2506,83	394408,5	3008,20	525878,0	4010,93	739516,0	5640,37	887419,2	6768,44
M45	-	70	4,5	1310	0,10	332751,5	2005,51	415939,4	2506,89	499127,3	3008,26	665503,0	4011,02	935863,6	5640,50	1123036,0	6768,60
					0,14	309151,8	2519,55	386439,7	3149,43	463727,7	3779,32	618303,6	5039,09	869489,3	7086,23	1043387,0	8503,47
M48	36	75	5	1470	0,10	372429,3	2406,51	465536,6	3008,14	558644,0	3609,77	744858,6	4813,03	1047457,0	6768,32	1256949,0	8121,98
					0,14	345862,9	3018,11	432328,7	3772,64	518794,4	4527,17	691725,8	6036,23	972739,4	8488,45	1167287,0	10186,14
M52	-	80	5	1760	0,10	448108,9	3099,96	560136,1	3874,95	672163,4	4649,93	896217,8	6199,91	1260306,0	8718,63	1512368,0	10462,36
					0,14	416499,0	3900,52	520623,8	4875,65	624748,5	5850,78	832998,0	7801,04	1171404,0	10970,21	1405684,0	13164,25
M56	41	85	5,5	2030	0,10	516202,9	3838,14	645253,6	4797,68	774304,4	5757,21	1032406,0	7676,29	1451821,0	10794,78	1742185,0	12953,73
					0,14	479683,4	4824,40	599604,2	6030,50	719525,1	7236,60	959366,8	9648,80	1349110,0	13568,63	1618931,0	16282,36
M60	-	90	5,5	36,6	0,10	602498,5	4754,64	753123,1	5943,30	903747,8	7131,96	1204997,0	9509,28	1694527,0	13372,43	2033432,0	1604691
					0,14	560267,5	5992,71	700334,4	7490,88	840401,2	8989,06	1120535,0	11985,42	1575752,0	16854,49	1890903,0	16282,36
M64	46	95	6	2680	0,10	683339,5	5746,71	854174,4	7182,71	1025009,0	8619,25	1366679,0	11492,34	1921892,0	16161,10	2306271,0	19393,32
					0,14	635299,9	7235,13	794124,9	9043,92	952949,8	10852,70	1270600,0	14470,27	1786781,0	20348,82	2144137,0	24418,58
M68	-	100	6	3060	0,10	782799,9	6939,64	978499,8	8674,55	1174200,0	10409,46	1565600,0	13879,28	2201625,0	19517,74	2641950,0	23421,29
					0,14	728201,8	8758,24	910252,2	10947,80	1092303,0	13137,36	1456404,0	17516,48	2048068,0	24632,55	2457681,0	29559,06

PRE-TENSIONING FORCE AND TIGHTENING VALUES FOR FINE THREADS

M (screws ma·)	S1(6 pt.)	S2 (Ø screw head)	fine threads	stress area	friction coeffi-cient	quality of setscrews (headless screws) metric fine threads											
						4.8		5.8		6.8		8.8		10.9		12.9	
						pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque	pre-tensioning force	torque
	mm	mm	mm	mm		N	Nm	N	Nm	N	Nm	N	Nm	N	Nm	N	Nm
M8	6	13	1	39,2	0,10	9798,1	10,87	12247,6	13,59	14697,1	16,31	19596,1	21,75	27557,1	30,58	33068,5	36,70
					0,14	9079,5	13,53	11349,4	16,91	13619,3	20,29	18159,1	27,05	25536,2	38,04	30643,4	45,65
M10	8	16	1,25	61,2	0,10	15296,9	21,13	12247,6	26,41	22945,3	31,69	30593,8	42,25	43022,5	59,42	51627,0	71,30
					0,14	14175,0	26,27	11349,4	32.84	21262,6	39,41	28350,1	52,55	39867,3	73,89	47840,8	88,67
M10	8	16	1	64,5	0,10	16383,6	22,12	20479,5	27,66	24575,4	33,19	32767,2	44,25	46078,8	62,23	55294,6	74,67
					0,14	15221,6	27,80	19027,0	34,75	22832,5	41,70	30443,3	55,61	42810,8	78,20	51373,0	93,84
M12	10	18	1,50	88,1	0,10	22020,7	35,83	27525,9	44,79	33031,0	53,75	44041,4	71,67	61933,2	100,78	74319,8	120,94
					0,14	20405,8	44,53	25507,2	55,66	30608,7	66,79	40811,6	89,06	57391,3	125,24	68869,5	150,29
M12	10	18	1,25	92,1	0,10	23333,7	37,26	29167,1	46,57	35000,6	55,88	46667,4	74,51	65626,1	104,78	78751,3	125,74
					0,14	21669,2	46,70	27086,5	58,38	32503,8	70,06	43338,4	93,41	60944,6	131,36	73133,5	157,63
M14	10	21	1,50	125	0,10	31610,0	59,04	39512,5	73,80	47415,0	88,57	63220,0	118,09	88903,1	166,06	106683,7	199,27
					0,14	29345,9	73,92	36682,4	92,40	44018,9	110,89	58691,9	147,85	82535,4	207,91	99042,5	249,49
M16	14	24	1,50	167	0,10	42581,3	89,78	53226,6	112,33	63871,9	134,67	85162,5	179,56	119759,8	252,51	143711,8	303,02
					0,14	39587,8	113,06	49484,7	141,32	59381,6	169,59	79175,5	226,12	111340,6	317,98	133608,7	381,57
M18	14	27	2	204	0,10	51457,2	124,03	64321,5	155,03	77185,8	186,04	102914,4	248,06	144723,3	348,83	173668,0	418,59
					0,14	47751,7	155,02	59689,6	193,78	71627,5	232,53	95503,3	310,05	134301,6	436,00	161161,9	523,20
M18	14	27	1,50	216	0,10	55415,1	130,17	69268,9	162,72	83122,7	195,26	110830,3	260,35	155855,1	366,12	187026,1	439,34
					0,14	51577,6	164,67	64472,0	205,84	77366,4	247,01	103155,2	329,35	145062,1	463,15	174074,5	555,77
M20	17	30	2	258	0,10	65534,1	173,72	81917,7	217,16	98301,2	260,59	131068,3	347,45	184314,8	488,60	221177,8	586,32
					0,14	60886,2	218,17	76107,8	272,71	91329,3	327,26	121772,4	436,34	171242,5	613,61	205491,0	736,33
M20	17	30	1,50	272	0,10	70114,7	181,58	87643,3	226,97	105172,0	272,36	140229,3	363,15	197197,5	510,68	236637,0	612,82
					0,14	65319,1	230,55	81648,4	288,19	97978,6	345,82	130638,1	461,10	183709,9	648,42	220451,9	788,10
M22	17	34	2	318	0,10	81220,8	236,88	101526,0	307,53	121831,2	369,04	162441,5	492,05	228433,4	691,94	274120,1	830,33
					0,14	75533,9	298,75	94417,4	391,76	113300,9	470,11	151067,8	626,82	212439,1	881,46	254927,0	1057,75
M22	17	34	1,50	333	0,10	86164,2	246,02	107705,3	385,70	129246,4	462,84	172328,5	617,12	277075,0	867,83	290804,3	1041,40
					0,14	80331,8	313,41	100414,7	487,92	120497,7	585,50	160663,6	780,67	225933,2	1097,82	271119,8	1371,38
M24	19	36	2	384	0,10	98515,6	308,56	123144,5	399,52	147773,4	479,43	197031,1	639,23	277075,0	898,92	332490,0	1078,71
					0,14	91693,3	390,33	114616,6	510,15	137539,9	612,18	183386,5	816,24	257887,3	1147,84	309464,8	1377,41
M24	-	36	1,50	401	0,10	104079,4	319,62	130099,2	399,52	156119,0	479,43	208158,7	639,23	292723,2	898,92	351267,9	1078,71
					0,14	97096,0	408,12	121370,1	510,15	145644,1	612,18	194192,1	816,24	273082,6	1147,84	327699,1	1377,41
M27	19	41	2	496	0,10	127922,3	448,43	159902,9	560,54	191883,5	672,65	255844,7	896,87	359781,6	1261,22	431737,9	1513,46
					0,14	119185,0	569,67	148981,3	712,09	178777,5	854,51	238370,1	1139,34	335207,9	1602,20	402249,5	1922,64
M30	22	46	2	621	0,10	160817,5	623,80	201021,8	779,75	214226,2	935,70	321635,0	1247,60	452299,2	1754,43	542759,0	2105,32
					0,14	149957,0	795,14	187446,3	993,93	224935,5	1192,72	299914,0	15092,29	421754,2	2236,34	506105,0	2683,61
M33	24	50	2	761	0,10	197716,9	835,81	247146,1	1044,76	296575,4	1253,75	395433,8	1671,62	556078,8	2350,72	667294,5	2820,87
					0,14	184490,1	1068,24	230612,6	1335,30	276735,1	1602,36	368980,2	2136,49	518878,4	3004,43	622654,0	3605,32
M36	27	55	3	865	0,10	221916,8	1048,15	277396,0	1310,18	332875,1	1572,22	443833,5	2096,29	624140,9	2947,91	748969,0	3537,49
					0,14	206548,9	1326,13	258186,2	1657,55	309823,4	1989,19	413097,9	2652,26	580918,9	3729,74	697102,7	4475,68
M39	-	60	3	1030	0,10	265219,6	1351,70	331524,5	1689,63	397829,5	2027,56	530439,3	2703,41	745930,2	3801,67	895116,2	4562,00
					0,14	247027,0	1715,15	308783,8	2143,94	370540,4	2572,72	494054,1	3430,30	694763,5	4823,86	833716,1	5788,63
M42	32	65	3	1210	0,10	312529,3	1709,52	390661,6	2136,90	468793,9	2564,28	625058,5	3419,04	878988,6	4808,02	1054786,0	5769,62
					0,14	291268,7	2174,59	364085,9	2718,24	436903,1	3261,89	582537,4	4349,18	819193,3	6116,04	983031,9	7339,24
M45	-	70	3	1400	0,10	362551,7	2118,52	453189,7	2648,14	543827,6	3177,77	725103,5	4237,03	1019677,0	5958,33	1223612,0	7149,99
					0,14	338067,8	2700,72	422584,7	3375,90	507101,7	4051,08	676135,5	5401,43	950815,6	7595,77	1140979,0	9114,92
M48	25	75	3	1600	0,10	415279,0	2581,68	519098,7	3227,11	622918,5	3872,53	830558,0	5163,37	1167972,0	7260,99	1401567,0	8713,18
					0,14	387415,3	3297,46	484269,2	4121,83	581123,0	4946,20	774830,6	6594,93	1089606,0	9274,12	1307527,0	11128,94
M52	-	80	3	1900	0,10	494405,2	3299,14	618006,5	4123,92	741607,8	4948,71	988810,4	6598,28	1390515,5	9278,83	1668618,0	11134,60
					0,14	461482,7	4222,62	576853,3	5278,28	692224,0	6333,94	922965,3	8445,25	1297920,0	11876,13	1557504,0	14251,36
M56	41	85	4	2140	0,10	552738,4	4008,26	690923,0	5010,32	829107,5	6012,39	1105477,0	8016,51	1554577,0	11273,22	1865492,0	13527,87
					0,14	515137,2	5097,95	643921,5	6372,43	772705,8	7646,92	1030274,0	10195,89	1448823,0	14337,98	1738588,0	17205,57
M60	-	90	4	2480	0,10	642235,1	4950,24	802793,9	6187,80	963352,7	7425,36	1284470,0	9900,49	1806286,0	13922,56	2167544,0	16707,07
					0,14	598863,8	6309,01	748579,8	7886,27	898295,7	9463,52	1197728,0	12618,02	1684304,0	17744,10	2021165,0	21292,92
M64	46	95	4	2850	0,10	739716.3	6039,07	924645,4	7548,84	1109574,0	9058,60	1479433,0	12078,14	2080452,0	16984,88	2496543,0	20381,86
					0,14	690084,3	7710,76	862605,3	9638,45	1035126,0	11566,14	1380169,0	15421,52	1940862,0	21686,51	2329034,0	26023,81
M68	-	100	4	3240	0,10	842588,5	7263,31	1053236,0	9079,14	1263883,0	10894,97	1685177,0	14526,62	2369780,0	20428,06	2843736,0	24513,68
					0,14	786380,1	9288,98	982975,1	11611,23	1179570,0	13933,47	1572760,0	18577,96	2211694,0	26125,26	2654033,0	31350,31

COMPARATIVE TABLE METRIC, AMERICAN AND BRITISH DIMENSIONS

metric dimensions										
key widths				thread						
				metric dimensions to DIN ISO 272				ISO R272 1968		french standard
specified s ze = order size (mm)	minimum size (mm) to DIN 475/2 / ISO 691	maximum size (mm) to DIN 475/2, series 1	maximum size (mm) to DIN 475/2, series 2	standard hexagon	large hexagon	screw with fla ge	nut with fla ge	standard hexagon	small hexagon	NFE27-111-1930
1,5										
2,0	2,02	2,08								
2,5	2,52	2,58								
3	3,02	3,08		1,0						
3,2	3,22	3,28		1,6				1,6		
3,5	3,52	3,60								
4	4,02	4,12		2				2		2,5
4,5	4,52	4,62								
5	5,02	5,12		2,5				2,5		3
5,5	5,52	5,62		3				3		
6	6,03	6,15								3,5
7	7,03	7,15		4		5		4		4+4,5
8	8,03	8,15	8,18	5		6	5	5		5
9	9,03	9,15	9,18							5,5
10	10,04	10,19	10,24	6		8	6	6		6
11	11,04	11,19	11,24	7				7		
12	12,04	12,24	12,30						8	7
13	13,04	13,24	13,30	8		10	8	8		
14	14,05	14,27	14,35						10	8
15	15,05	15,27	15,35			12	10			
16	16,05	16,27	16,35	10						9
17	17,05	17,30	17,40	10				10	12	10
18	18,05	18,30	18,40	12	ZK:	14	12			
					M12					
19	19,06	19,36	19,46					12	14	11
20	20,06	20,36	20,46							
20,8	20,86	21,16	21,26							
21	21,06	21,36	21,46	14	12	16	14			12
22	22,06	22,36	22,46					14	16	
23	23,06	23,36	23,46							14
24	24,06	24,36	24,46	16	14		16	16	18	
25	25,06	25,36	20,46							
26	26,08	26,48	26,58		ZK: M18					16
27	27,08	27,48	27,58	18	16	20		18	20	
28	28,08	28,48	28,58							
29	29,08	29,48	29,58							18
30	30,08	30,48	30,58	20	18		20	20	22	
32	32,08	32,48	32,58					22	24	20
33	33,08	33,48	33,58							
34	34,10	34,6	34,70	22	20					
35	35,10	35,60	35,70							22
36	36,10	36,60	36,70	24	22			24	27	
38	38,10	38,60	38,70							24
41	41,10	41,60	41,70	27	24			27	30	
42	42,10	42,60	42,70							27
46	46,10	46,60	46,70	30	27			30	33	30
50	50,10	50,60	50,70	33	30			33	36	33
54	54,10	54,60	54,70							36
55	55,10	55,72	55,92	36	33			36	39	
58	58,12	58,72	58,92							
60	60,12	60,72	60,92	39	36			39		
63	63,12	63,72	63,92							42
65	65,12	65,72	65,92	42	39			42		
67	67,12	67,72	67,92							45

COMPARATIVE TABLE METRIC, AMERICAN AND BRITISH DIMENSIONS

american dimensions													english dimensions			
key widths			thread										thread		key widths	
			ISO R272 1962		United Standard		American Standard 18.2.1972									
							nuts			bolts + screws						
specified size = order size AF"	decimal - inch	decimal - metric	bolts	nuts	normal series BS 176B	heavy series BS 176B	finished hick series	heavy series	regular square series	finished and egular bolt series	hexagon head cap screws	finished and h avy bolt series	specified s ze = order size	BS 916, BS 1082	decimal - inch	decimal - metric
1/16	.0625	1,59														
5/64	.0781	1,98														
3/32	.0938	2,38														
7/64	.1094	2,78											10BA		.117	2,97
1/8	.1250	3,18	Nr.2										9BA		.131	3,33
9/64	.1406	3,57														
5/32	.1563	3,97		Nr. 0, 1									8BA		.152	3,86
3/16	.1875	4,76	Nr. 3, 4, 5	Nr. 2, 3									7BA		.172	4,37
13/64	.2031	5,16											6BA		.193	4,90
7/32	.2188	5,56											5BA		.220	5,59
15/64	.2344	5,95								Nr. 10			4BA		.248	6,30
1/4	.2500	6,35	Nr. 6, 8	Nr. 4									1/16	3/32	.256	6,50
17/64	.2656	6,75														
9/32	.2813	7,14								Nr. 10			3BA		.282	7,16
5/16	.3125	7,94	Nr. 10, 12	Nr. 5, 6									3/32	1/8	.297	7,54
													2BA		.324	8,23
11/32	.3438	8,73		Nr.8									1/8	3/16	.340	8,64
													1BA		.365	9,27
3/8	.3750	9,52		Nr.10												
13/32	.4062	10,32											0BA	1/4	.413	10,49
7/16	.4375	11,11	1/4	Nr.12 1/4	1/4		1/4	1/4		1/4			3/16	1/4	.445	11,30
1/2	.5000	12,70	5/16	5/16	5/16		5/16		1/4	5/16			1/4	5/16	.525	13,33
17/32	.5313	13,49														
9/16	.5625	14,29	3/8	3/8	3/8		3/8	5/16	5/16	3/8						
19/32	.5938	15,08											5/16	3/8	.600	15,24
5/8	.6250	15,87	7/16		7/16			3/8		7/16						
21/32	.6563	16,67														
11/16	.6875	17,46		7/16			7/16		3/8							
													3/8	7/16	.710	18,03
3/4	.7500	19,05	1/2	1/2	1/2		1/2	7/16	7/16	1/2						
25/32	.7813	19,84														
13/16	.8125	20,64	9/16		9/16			1/2		9/16			7/16	1/2	.820	20,83
7/8	.8750	22,22		9/16		1/2	9/16	9/16	1/2			1/2				
													1/2	9/16	.920	23,37
15/16	.9375	23,81	5/8	5/8	5/8		5/8		9/16	5/8						
31/32	.9688	24,61														
1	1.0000	25,40						5/8								
													9/16	5/8	1.010	25,65
1.1/16	1.0625	26,99				5/8			5/8			5/8				
													5/8	11/16	1.100	27,94
1.1/8	1.1250	28,57	3/4	3/4	3/4		3/4	3/4		3/4						
1.3/16	1.875	30,16											11/16	3/4	1.200	30,48
1.1/4	1.2500	31,75				3/4			3/4			3/4				
1.5/16	1.3125	33,34	7/8	7/8	7/8		7/8	7/8		7/8			3/4	7/8	1.300	33,02
1.3/8	1.3750	34,92											13/16	15/16	1.390	35,31
1.7/16	1.4375	36,51				7/8			7/8			7/8				
1.1/2	1.5000	38,10	1	1	1		1	1		1			7/8	1	1.480	37,59
1.9/16	1.5625	39,69														
1.5/8	1.6250	41,28				1			1			1				
1.11/16	1.6875	42,86	1.1/8	1.1/8	1.1/8		1.1/8	1.1/8		1.1/8			1		1.670	42,42
1.3/4	1.7500	44,45														
1.13/16	1.8125	46,04				1.1/8			1.1/8			1.1/8	1.1/8	1.1/4	1.860	47,24
1.7/8	1.8750	47,62	1.1/4	1.1/4	1.1/4		1.1/4	1.1/4		1.1/4						
1.15/16	1.9375	49,21														
2	2.0000	50,80				1.1/4										
2.1/16	2.0625	52,39	1.3/8	1.3/8	1.3/8		1.3/8	1.3/8		1.3/8			1.1/4	1.3/8	2.050	52,07
2.1/8	2.1250	53,98														
2.3/16	2.1875	55,56					1.3/8		1.3/8			1.3/8				
2.5/16	2.3125	58,74														
2.3/8	2.3750	60,32				1.1/2			1.1/2			1.1/2				
2.7/16	2.4375	61,91					1.5/8	1.5/8		1.5/8			1.1/2	1.5/8	2.410	61,21
2.1/2	2.5000	63,50														

COMPARATIVE TABLE METRIC, AMERICAN AND BRITISH DIMENSIONS

metric dimensions										
key widths				thread						
				metric dimensions to DIN ISO 272				ISO R272 1968		french standard
specified s ze = order size	minimum size (mm) to DIN 475/2 / ISO 691	maximum size (mm) to DIN 475/2, series 1	maximum size (mm) to DIN 475/2, series 2	standard hexagon	large hexagon	screw with fla ge	nut with fla ge	standard hexagon	small hexagon	NFE27-111-1930
70	70,12	70,72	70,92	45				45		
71	71,12	71,72	71,92							48
75	75,15	75,85	76,15	48				48		
77	77,15	77,85	78,15							52
80	80,15	80,85	81,15	52				52		56
82	82,15	82,85	82,15							
85	85,15	85,85	86,15	56				56		
88	88,15	88,85	88,15							60
90	90,15	90,85	91,15	60				60		
94	94,15	94,85	94,15							64
95	95,15	95,85	96,15	64				64		
100	100,15	100,85	101,15	68				68		68
105	105,20	106,00	106,40	72				72		72
110	110,20	111,00	111,40	76				76		76
115	115,20	116,00	116,40	80				80		
116	116,20	117,00	117,40							80
120	120,20	121,00	121,40	85				85		
125	125,20	126,00	126,40							
130	130,20	131,00	131,40	90				90		
135	135,20	136,00	136,40	95				95		
140	140,20	141,00	141,40							
145	145,20	146,00	146,40	100				100		
150	150,25	151,25		105				105		
155	155,25	156,25		110				110		
160	160,25	161,25								
165	165,25	166,25						115		
170	170,25	171,25								
175	175,25	176,25						120		
180	180,25	181,25						125		

PROFILE DIMENSION TABLE FOR TX-SCREWS

dimensions for internal TX-screws and internal safety TX-screws with pin	
TX / TXB	mm
TX / TXB 5	1,42
TX / TXB 6	1,67
TX / TXB 7	1,99
TX / TXB 8	2,31
TX / TXB 9	2,50
TX / TXB 10	2,74
TX / TXB 15	3,27
TX / TXB 20	3,86
TX / TXB 25	4,43
TX / TXB 27	4,99
TX / TXB 30	5,52
TX / TXB 40	6,65
TX / TXB 45	7,82
TX / TXB 50	8,83
TX / TXB 55	11,22
TX / TXB 60	13,25
TX / TXB 70	15,42

dimensions for external TX-screws	
E / TXE	mm
E / TXE 4	3,86
E / TXE 5	4,75
E / TXE 6	5,74
E / TXE 7	6,22
E / TXE 8	7,52
E / TXE 10	9,42
E / TXE 11	9,98
E / TXE 12	11,17
E / TXE 14	12,90
E / TXE 16	14,76
E / TXE 18	16,70
E / TXE 20	18,49
E / TXE 24	22,16

COMPARATIVE TABLE METRIC, AMERICAN AND BRITISH DIMENSIONS

american dimensions													english dimensions			
key widths			thread										thread		key widths	
			ISO R272 1962		United Standard		American Standard 18.2.1972									
							nuts			bolts + screws						
specified size = order size AF"	decimal - inch	decimal - metric	bolts	nuts	normal series BS 176B	heavy series BS 176B	finished hick series	heavy series	regular square series	finished and egular bolt series	hexagon head cap screws	finished and h avy bolt series	specified s ze = order size	BS 916, BS 1082	decimal - inch	decimal - metric
2.9/16	2.5625	65,09							1.5/8			1.5/8	1.5/8	1.3/4	2.580	65,53
2.5/8	2.6250	66,67	1.3/4	1.3/4	1.3/4		1.3/4	1.3/4		1.3/4						
2.3/4	2.7500	69,85				1.3/4			1.3/4			1.3/4	1.3/4	2	2.760	70,1
2.13/16	2.8125	71,44					1.7/8	1.7/8		1.7/8						
2.7/8	2.8750	73,03														
2.15/16	2.9375	74,61							1.7/8			1.7/8				
3	3.0000	76,20	2	2	2		2	2		2						
3.1/8	3.1250	79,37				2			2			2	2	2.1/4	3.150	80,01
3.1/4	3.2500	82,55														
3. 3/8	3.3750	85,72					2.1/4	2.1/4		2.1/4						
3.1/2	3.5000	88,90							2.1/4			2.1/4		2.1/2	3.550	90,17
3.5/8	3.6250	92,08														
3.3/4	3.7500	95,25					2.1/2	2.1/2		2.1/2				2.3/4	3.890	98,80
3.7/8	3.8750	98,42							2.1/2			2.1/2				
4	4.0000	101,60														
4.1/8	4.1250	104,77					2.3/4	2.3/4		2.3/4				3	4.180	106,17
4.1/4	4.2500	107,95							2.3/4			2.3/4				
4.1/2	4.5000	114,30					3	3		3				3.1/4	4.530	115,06
4.5/8	4.6250	117,47							3			3				
4.7/8	4.8750	123,82								3.1/4				3.1/2	4.850	123,19
5	5.0000	127,00							3.1/4							
5.1/4	5.2500	133,35							3.1/2	3.1/2				3.3/4	5.180	131,57
5.3/8	5.3750	136,52							3.1/2							
														4	5.550	140,97
5.5/8	5.6250	142,87							3.3/4	3.3/4						
5.3/4	5.7500	146,05							3.3/4							
6	6.0000	152,40							4	4						
									4					4.1/2	6.380	162,05
														5	7.300	185,42

CONVERSION TABLES FOR TORQUE WRENCHES

conversion factors								
	SI unit			metric unit		USA / GB unit		
unit	cNm	dNm	Nm	cmkg	mkg	ft.lb.	in.lb	in.oz
1 cNm	1,0000	0,1000	0,0100	0,1020	0,0010	0,0074	0,0885	1,4161
1 dNm	10,0000	1,0000	0,1000	1,0197	0,0102	0,0738	0,8851	14,1612
1 Nm	100,0000	10,0000	1,0000	10,1972	0,1020	0,7376	8,8508	141,6123
1 cmkg	9,8067	0,9807	0,0981	1,0000	0,0100	0,0723	0,8680	13,8874
1 mkg	980,6650	98,0665	9,8067	100,0000	1,0000	7,2330	86,7964	1388,7422
1 ft.lb	135,5818	13,5581	1,3558	13,8255	0,1383	1,0000	12,0000	192,0000
1 in.lb	11,2985	1,1298	0,1130	1,1521	0,0115	0,0833	1,0000	16,0000
1 in.oz	0,7062	0,0706	0,0071	0,0720	0,0007	0,0052	0,0625	1,0000

conversion Nm to mkg						1 Nm = 0,10197 mkg				
Nm	0	1	2	3	4	5	6	7	8	9
0	0,00	0,10	0,20	0,31	0,41	0,51	0,61	0,71	0,82	0,92
10	1,02	1,12	1,22	1,33	1,43	1,53	1,63	1,73	1,84	1,94
20	2,04	2,14	2,24	2,35	2,45	2,55	2,65	2,75	2,86	2,96
30	3,06	3,16	3,26	3,37	3,47	3,57	3,67	3,77	3,87	3,98
40	4,08	4,18	4,28	4,38	4,49	4,59	4,69	4,79	4,89	5.00
50	5,10	5,20	5,30	5,40	5,51	5,61	5,71	5,81	5,91	6,02
60	6,12	6,22	6,32	6,42	6,53	6,63	6,73	6,83	6,93	7,04
70	7,14	7,24	7,34	7,44	7,55	7,65	7,75	7,85	7,95	8,06
80	8,16	8,26	8,36	8,46	8,57	8,67	8,77	8,87	8,97	9,08
90	9,18	9,28	9,38	9,48	9,59	9,69	9,79	9,89	9,99	10,10
100	10,2	10,3	10,4	10,5	10,6	10,71	10,81	10,91	11,01	11,11

conversion mkg to Nm						1 mkg = 9,80665 Nm				
mkg	0	1	2	3	4	5	6	7	8	9
0	0	9,81	19,61	29,42	39,23	49,03	58,84	68,65	78,45	88,26
10	98,07	107,87	117,68	127,49	137,29	147,10	156,91	166,71	176,52	186,33
20	196,13	205,94	215,75	225,55	235,36	245,17	254,97	264,78	274,59	284,39
30	294,2	304,01	313,81	323,62	333,43	343,23	353,04	362,85	372,65	382,46
40	392,27	402,07	411,88	421,69	431,49	441,30	451,11	460,91	470,72	480,53
50	490,33	500,14	509,95	519,75	529,56	539,37	549,17	558,98	568,79	578,59
60	588,4	598,21	608,01	617,82	627,63	637,43	647,24	657,05	666,85	676,66
70	686,47	696,27	706,08	715,89	725,69	735,50	745,31	755,11	764,92	774,73
80	784,53	794,34	804,15	813,95	823,76	833,57	843,37	853,18	862,99	872,79
90	882,6	892,41	902,21	912,02	921,83	931,63	941,44	951,25	961,05	970,86
100	980,67	990,47	1000,28	1010,08	1019,89	1029,70	1039,50	1059,12	1059,12	1068,92

conversion Nm to ft.lb.						1 Nm = 0,73756 ft.lb.				
Nm	0	1	2	3	4	5	6	7	8	9
0	0,00	0,74	1,48	2,21	2,95	3,69	4,43	5,16	5,90	6,64
10	7,38	8,11	8,85	9,59	10,33	11,06	11,80	12,54	13,28	14,01
20	14,75	15,49	16,23	16,96	17,7	18,44	19,18	19,91	20,65	21,39
30	22,13	22,86	23,60	24,34	25,08	25,81	26,55	27,29	28,03	28,76
40	29,50	30,24	30,98	31,72	32,45	33,19	33,93	34,67	35,40	36,14
50	36,88	37,62	38,35	39,09	39,83	40,57	41,3	42,04	42,78	43,52
60	44,25	44,99	45,73	46,47	47,2	47,94	48,68	49,42	50,15	50,89
70	51,63	52,37	53,10	53,84	54,58	55,32	56,05	56,79	57,53	58,27
80	59,00	59,74	60,48	61,22	61,96	62,69	63,43	64,17	64,91	65,64
90	66,38	67,12	67,86	68,59	69,33	70,07	70,81	71,54	72,28	73,02
100	73,76	74,49	75,23	75,97	76,71	77,44	78,18	78,92	79,66	80,39

conversion ft.lb. to Nm						1 ft.lb. -> 1,35581 Nm				
ft.lb.	0	1	2	3	4	5	6	7	8	9
0	0,00	1,36	2,71	4,07	5,42	6,78	8,13	9,49	10,85	12,20
10	13,56	14,91	16,27	17,63	18,98	20,34	21,69	23,05	24,40	25,76
20	27,12	28,47	29,83	31,18	32,54	33,90	35,25	36,61	37,96	39,32
30	40,67	42,03	43,39	44,74	46,10	47,45	48,81	50,16	51,52	52,88
40	54,23	55,59	56,94	58,30	59,66	61,01	62,37	63,72	65,08	66,43
50	67,79	69,15	70,50	71,86	73,21	74,57	75,93	77,28	78,64	79,99
60	81,35	82,70	84,06	85,42	86,77	88,13	89,48	90,84	92,20	93,55
70	94,91	96,26	97,62	98,97	00,33	101,69	103,04	104,40	105,75	07,11
80	108,46	109,82	111,18	12,53	13,89	115,24	116,60	117,96	119,31	20,67
90	122,02	123,38	124,73	26,09	27,45	128,80	130,16	131,51	132,87	34,23
100	135,58	136,94	138,29	39,65	41,00	142,36	143,72	145 07	146,43	47 78

CONVERSION TABLES FOR TORQUE WRENCHES

conversion in.lb. to Nm						1 Nm = 8,85077 in.lb.				
Nm	0	1	2	3	4	5	6	7	8	9
0	0,00	8,85	17,70	26,55	35,40	44,25	53,10	61,96	70,81	79,66
10	88,51	97,36	106,21	115,06	123,91	132,76	141,61	150,46	159,31	168,16
20	177,02	185,87	194,72	203,57	212,42	221,27	230,12	238,97	247,82	256,67
30	265,52	274,37	283,22	292,08	300,93	309,78	318,63	327,48	336,33	345,18
40	354,03	362,88	371,73	380,58	389,43	398,28	407,14	415,99	424,84	433,69
50	442,54	451,39	460,24	469,09	477,94	486,79	495,64	504,49	513,34	522,20
60	531,05	539,90	548,75	557,60	566,45	575,30	584,15	593,00	601,85	610,70
70	619,55	628,40	637,26	646,11	654,96	663,81	672,66	681,51	690,36	699,21
80	708,06	716,91	725,76	734,61	743,46	752,32	761,17	770,02	778,87	787,72
90	796,57	805,42	814,27	823,12	831,97	840,82	849,67	858,52	867,38	876,23
100	885,08	893,93	902,78	911,63	920,48	929,33	938,18	947,03	955,88	964,73

conversion Nm to in.lb.						1 in.lb. -> 0,11298 Nm				
in.lb.	0	1	2	3	4	5	6	7	8	9
0	0,00	0,11	0,23	0,34	0,45	0,56	0,68	0,79	0,90	1,02
10	1,13	1,24	1,36	1,47	1,58	1,69	1,81	1,92	2,03	2,15
20	2,26	2,37	2,49	2,60	2,71	2,82	2,94	3,05	3,16	3,28
30	3,39	3,50	3,62	3,73	3,84	3,95	4,07	4,18	4,29	4,41
40	4,52	4,63	4,75	4,86	4,97	5,08	5,20	5,31	5,42	5,54
50	5,65	5,76	5,87	5,99	6,10	6,21	6,33	6,44	6,55	6,67
60	6,78	6,89	7,00	7,12	7,23	7,34	7,46	7,57	7,68	7,80
70	7,91	8,02	8,13	8,25	8,36	8,47	8,59	8,70	8,81	8,93
80	9,04	9,15	9,26	9,38	9,49	9,60	9,72	9,83	9,94	10,06
90	10,17	10,28	10,39	10,51	10,62	10,73	10,85	10,96	11,07	11,19
100	11,30	11,41	11,52	11,64	11,75	11,86	11,98	12,09	12,20	12,31

Tightening forces and fastening torque values
for metric screws

Reference values for thread friction coefficient μ smallest values)

screw thread / nut thread				steel				
				blackened or coated with zinc phosphate				
				press rolled	cut by turning	ground	cadmium plated 6 µm	galvanised 6 µm
steel	rolled		lightly oiled	0,14	0,10	0,16	0,10	0,10
	ground			0,16	0,10	0,16	0,10	0,10
	rolled and ground	zinc phosphate		0,14		0,10		
	cut by turning			0,10				
	cut by turning			0,10		0,10	0,10	0,10
	cadmium plated						0,14	
	galvanised							0,10
	cadmium plated		dry	0,10		0,10	0,14	
	galvanised			0,10		0,10		0,14

Reference values for under head friction coefficient μ smallest values)

screw head or nut caps / work-piece with sealing run				steel				
				blackened or coated with zinc phosphate				
				pressed	turned	ground	cadmium plated 6 µm	galvanised 6 µm
steel	planed milled turned		lightly oiled	0,10		0,10	0,10	0,10
	planed milled turned	zinc phos-phate		0,10				
	ground			0,14		0,10		
	ground			0,16	0,10	0,16	0,10	0,10
	cadmium plated			0,10	0,10	0,10	0,14	
	galvanised	6 µm	dry	0,10	0,10	0,10		0,16
	cadmium plated			0,10		0,10	0,16	
	galvanised		lightly oiled	0,10		0,10		
	planed milled turned			0,10		0,10	0,10	0,10
	ground			0,16	0,10	0,16	0,10	0,10

Tightening forces and fastening torque values
Tightening forces Fsp and fastening torque values Msp for screws having standard metric threads in accordance with DIN 13, page 43 (M1.6-M2.5-M3 to M39) or page 1 (M1.7-M2-M2.3-M2.6) and head cap dimensions such as DIN 912, 931, 934, 6912, 7984, 7990.

The tabulated values Fsp and Msp are based on the SI unit N (Newton).

1N=0,102 kp, 1 Ncm = 0,102 kpcm,
1Nm = 0,102 kpm, 1 kp = 9,81 N,
1kpcm = 9,81 Ncm, 1 kpm = 9,81 Nm.

The tightening forces, Fsp, given in the table on the left, yield a 90% utilisation of the screw yield strength σ0,2 (DIN 267) with the comparative tension σ red depending on the respective thread friction coefficient μ. he tightening force table can be used to see the screw and its quality that is required for a certain thread friction in order to apply a specific orce of assembly, FM (Fsp≥FM). The fastening torque values, Msp, are calculated from the tightening forces, Fsp, assuming that μ=μK=μges. The fastening torque, Msp, for 90% utilisation of the yield strength for a screw having specific dimensions and quali y, is determined using the table given on the right side depending on the underhead friction (μK), without taking any value of thread friction into consideration that is different from that given here. In order to arrive at the nominal torque value, half the dispersion value of the torque wrench under consideration must be subtracted from the fastening torque, Msp, found in the table. The calculation of values in the table and notes on their use are in accordance with VDI 2230.

thread friction coeffi cient μ	tightening force Fsp [N]				thread	under head friction coeffic - ent μK	fastening torque Msp [N•cm]			
	6,9	8,8	10,9	12,9			6,9	8,8	10,9	12,9
0,10 0,14 0,16	475 440 420	565 520 495	795 730 700	955 875 840	M 1,6	0,10 0,14 0,16	12,5 15 16	14,5 18 19	21 25 27	25 30 32
0,10 0,14 0,16	560 520 495	665 610 585	935 860 825	1120 1030 990	M 1,7	0,10 0,14 0,16	15,5 19 20	18,5 22 24	26 31 34	31 38 40
0,10 0,14 0,16	790 730 700	940 865 825	1320 1210 1160	1590 1460 1400	M 2	0,10 0,14 0,16	26 31 34	30 37 40	43 52 56	51 62 67
0,10 0,14 0,16	1140 1050 1010	1350 1250 1190	1900 1750 1680	2280 2100 2020	M 2,3	0,10 0,14 0,16	41 51 54	49 60 65	69 84 91	83 101 109
0,10 0,14 0,16	1320 1220 1170	1570 1450 1380	2210 2030 1950	2650 2440 2340	M 2,5	0,10 0,14 0,16	52 64 69	62 76 82	88 107 115	105 128 138
0,10 0,14 0,16	1460 1350 1290	1730 1600 1530	2440 2250 2150	2930 2700 2580	M 2,6	0,10 0,14 0,16	59 73 78	70 86 93	99 121 130	119 145 156
0,10 0,14 0,16	2020 1860 1790	2390 2210 2120	3370 3110 2980	4040 3730 3580	M 3	0,10 0,14 0,16	92 113 122	109 134 145	154 189 205	184 225 245
0,10 0,14 0,16	2710 2500 2400	3210 2960 2840	4520 4170 4000	5420 5000 4790	M 3,5	0,10 0,14 0,16	142 173 187	168 205 220	235 290 310	285 345 375
0,10 0,14 0,16	3500 3230 3100	4150 3830 3670	5830 5380 5160	7000 6460 6190	M 4	0,10 0,14 0,16	210 260 280	250 305 330	350 430 465	425 515 555
0,10 0,14 0,16	5720 5280 5070	6780 6260 6010	9540 8810 8450	11450 10550 10150	M 5	0,10 0,14 0,16	415 510 550	490 605 650	690 850 915	830 1020 1100
							fastening torque Msp [N•cm]			
0,10 0,14 0,16	8080 7450 7150	9570 8830 8470	13450 12400 11900	16150 14900 14300	M 6	0,10 0,14 0,16	7,1 8,7 9,4	8,5 10,5 11,0	12,0 14,5 15,5	14,5 17,5 19,0
0,10 0,14 0,16	11800 10900 10450	14000 12950 12400	19650 18200 17450	23600 21800 20900	M 7	0,10 0,14 0,16	11,5 14,5 15,5	14,0 17,0 18,5	19,5 24,0 26,0	23,0 29,0 31,0
0,10 0,14 0,16	14800 13700 13150	17550 16200 15550	24700 22800 21900	29600 27400 26300	M 8	0,10 0,14 0,16	17,0 21,0 23,0	20,0 25,0 27,0	29,0 35,0 38,0	34,0 42,0 46,0
0,10 0,14 0,16	23600 21800 20900	27900 25800 24800	39300 36300 34900	47200 43600 41800	M 10	0,10 0,14 0,16	34,0 42,0 46,0	41,0 50,0 54,0	57,0 71,0 76,0	69,0 85,0 92,0
0,10 0,14 0,16	34400 31800 30500	40700 37700 36100	57300 53000 50800	68700 63500 61000	M 12	0,10 0,14 0,16	59,0 73,0 79,0	70,0 87,0 94,0	99 122 132	119 147 159
0,10 0,14 0,16	47200 43600 41900	55900 51700 49600	78600 72700 69800	94300 87300 83800	M 14	0,10 0,14 0,16	94 117 126	112 138 150	157 195 210	189 235 250
0,10 0,14 0,16	64800 60100 57700	76800 71200 68400	108000 100000 96100	129500 120000 115500	M 16	0,10 0,14 0,16	144 179 194	170 210 230	240 300 325	285 360 385
0,10 0,14 0,16	78900 73000 70100	93500 86500 83000	131500 121500 117000	157500 146000 140000	M 18	0,10 0,14 0,16	199 245 265	235 290 315	330 410 445	395 490 530
0,10 0,14 0,16	101500 93900 90100	120000 111000 107000	169000 156500 150000	202500 187500 180500	M 20	0,10 0,14 0,16	280 350 375	330 410 445	465 580 625	560 695 755
0,10 0,14 0,16	126500 117500 112500	150000 139000 133500	211000 195500 188000	253000 235000 225000	M 22	0,10 0,14 0,16	375 470 510	445 555 605	625 785 850	755 940 1020
0,10 0,14 0,16	146000 135000 130000	173000 160000 154000	243000 225000 216000	292000 270000 260000	M 24	0,10 0,14 0,16	480 560 650	570 710 770	800 1000 1080	965 1200 1300
0,10 0,14 0,16	192000 178000 171000	227000 211000 203000	320000 297000 285000	384000 356000 342000	M 27	0,10 0,14 0,16	710 890 965	840 1050 1140	1180 1480 1610	1420 1780 1930
0,10 0,14 0,16	233000 216000 208000	276000 256000 246000	389000 361000 346000	466000 433000 416000	M 30	0,10 0,14 0,16	965 1200 1310	1140 1430 1550	1610 2010 2180	1930 2410 2610
0,10 0,14 0,16	291000 270000 259000	344000 320000 307000	484000 450000 432000	581000 539000 518000	M 33	0,10 0,14 0,16	1300 1630 1770	1540 1940 2100	2170 2720 2950	2600 3270 3540
0,10 0,14 0,16	341000 316000 304000	404000 375000 360000	568000 527000 507000	682000 633000 608000	M 36	0,10 0,14 0,16	1680 2100 2300	1990 2490 2700	2790 3500 3790	3350 4200 4550
0,10 0,14 0,16	410000 380000 366000	485000 451000 433000	663000 634000 610000	819000 761000 731000	M 39	0,10 0,14 0,16	2170 2720 2960	2570 3220 3500	3610 4540 4930	4330 5440 5910

Conversion table from inches to millimetres

Conversion example from mm to inches: 69,850 mm = 2.3/4"
Conversion example from inches to mm: 4.1/2" = 114,300 mm

inch	mm	1	2	3	4	5	6	7	8	9
		millimetres								
0	0	25,400	50,800	76,200	101,600	127,000	152,400	177,800	203,200	228,600
1/64	0,397	25,797	51,197	76,597	101,997	127,397	152,797	178,197	203,597	228,997
1/32	0,794	26,194	51,594	76,994	102,394	127,794	153,194	178,594	203,994	229,394
3/64	1,191	26,591	51,991	77,391	102,791	128,191	153,591	178,991	204,391	229,791
1/16	1,588	26,988	52,388	77,788	103,188	128,588	153,988	179,388	204,788	230,188
5/64	1,984	27,384	52,784	78,184	103,584	128,984	154,384	179,784	205,184	230,584
3/32	2,381	27,781	53,181	78,581	103,981	129,381	154,781	180,181	205,581	230,981
7/64	2,778	28,178	53,578	78,978	104,378	129,778	155,178	180,578	205,978	231,378
1/8	3,175	28,575	53,975	79,375	104,775	130,175	155,575	180,975	206,375	231,775
9/64	3,572	28,972	54,372	79,772	105,172	130,572	155,972	181,372	206,772	232,172
5/32	3,969	29,369	54,769	80,169	105,569	130,969	156,369	181,769	207,169	232,569
11/64	4,366	29,766	55,166	80,566	105,966	131,366	156,766	182,166	207,566	232,966
3/16	4,762	30,162	55,562	80,962	106,362	131,762	157,162	182,562	207,962	233,362
13/64	5,159	30,559	55,959	81,359	106,759	132,159	157,559	182,959	208,359	233,759
7/32	5,556	30,956	56,356	81,756	107,156	132,556	157,956	183,356	208,756	234,156
15/64	5,953	31,353	56,753	82,153	107,553	132,953	158,353	183,753	209,153	234,553
1/4	6,35	31,750	57,150	82,550	107,950	133,350	158,750	184,150	209,550	234,950
17/64	6,747	32,147	57,547	82,947	108,347	133,747	159,147	184,547	209,947	235,347
9/32	7,144	32,544	57,944	83,344	108,744	134,144	159,544	184,944	210,344	235,744
19/64	7,541	32,941	58,341	83,741	109,141	134,541	159,941	185,341	210,741	236,141
5/16	7,938	33,338	58,738	84,138	109,538	134,938	160,338	185,738	211,138	236,538
21/64	8,334	33,734	59,134	84,534	109,934	135,334	160,734	186,134	211,534	236,934
11/32	8,731	34,131	59,531	84,931	110,331	135,731	161,131	186,531	211,931	237,331
23/64	9,128	34,528	59,928	85,328	110,728	136,128	161,528	186,928	212,328	237,728
3/8	9,525	34,925	60,325	85,725	111,125	136,525	161,925	187,325	212,725	238,125
25/64	9,922	35,322	60,722	86,122	111,522	136,922	162,322	187,722	213,122	238,522
13/32	10,319	35,719	61,119	86,519	111,919	137,319	162,719	188,119	213,519	238,919
27/64	10,716	36,116	61,516	86,916	112,316	137,716	163,116	188,516	213,916	239,316
7/16	11,112	36,512	61,912	87,312	112,712	138,112	163,512	188,912	214,312	239,712
29/64	11,509	36,909	62,309	87,709	113,109	138,509	163,909	189,309	214,709	240,109
15/32	11,906	37,306	62,706	88,106	113,506	138,906	164,306	189,706	215,106	240,506
31/64	12,303	37,703	63,103	88,503	113,903	139,303	164,703	190,103	215,503	240,903
1/2	12,7	38,100	63,500	88,900	114,300	139,700	165,100	190,500	215,900	241,300
33/64	13,097	38,497	63,897	89,297	114,697	140,097	165,497	190,897	216,297	241,697
17/32	13,494	38,894	64,294	89,694	115,094	140,494	165,894	191,294	216,694	242,094
35/64	13,891	39,291	64,691	90,091	115,491	140,891	166,291	191,691	217,091	242,491
9/16	14,288	39,688	65,088	90,488	115,888	141,288	166,688	192,088	217,488	242,888
37/64	14,684	40,084	65,484	90,884	116,284	141,684	167,084	192,484	217,884	243,284
19/32	15,081	40,481	65,881	91,281	116,681	142,081	167,481	192,881	218,281	243,681
39/64	15,478	40,878	66,278	91,678	117,078	142,478	167,878	193,278	218,678	244,078
5/8	15,875	41,275	66,675	92,075	117,475	142,875	168,275	193,675	219,075	244,475
41/64	16,272	41,672	67,072	92,472	117,872	143,272	168,672	194,072	219,472	244,872
21/32	16,669	42,069	67,469	92,869	118,269	143,669	169,069	194,469	219,869	245,269
43/64	17,066	42,466	67,866	93,266	118,666	144,066	169,466	194,866	220,266	245,666
11/16	17,462	42,862	68,262	93,662	119,062	144,462	169,862	195,262	220,662	246,062
45/64	17,859	43,259	68,659	94,059	119,459	144,859	170,259	195,659	221,059	246,459
23/32	18,256	43,656	69,056	94,456	119,856	145,256	170,656	196,056	221,456	246,856
47/64	18,653	44,053	69,453	94,853	120,253	145,653	171,053	196,453	221,853	247,253
3/4	19,05	44,450	69,850	95,250	120,650	146,050	171,450	196,850	222,250	247,650
49/64	19,447	44,847	70,247	95,647	121,047	146,447	171,847	197,247	222,647	248,047
25/32	19,844	45,244	70,644	96,044	121,444	146,844	172,244	197,644	223,044	248,444
51/64	20,241	45,641	71,041	96,441	121,841	147,241	172,641	198,041	223,441	248,841
13/16	20,638	46,038	71,438	96,838	122,238	147,638	173,038	198,438	223,838	249,238
53/64	21,034	46,434	71,834	97,234	122,634	148,034	173,434	198,834	224,234	249,634
27/23	21,431	46,831	72,231	97,631	123,031	148,431	173,831	199,231	224,631	250,031
55/64	21,828	47,228	72,628	98,028	123,428	148,828	174,228	199,628	225,028	250,428
7/8	22,225	47,625	73,025	98,425	123,825	149,225	174,625	200,025	225,425	250,825
57/64	22,622	48,022	73,422	98,822	124,222	149,622	175,022	200,422	225,822	251,222
29/32	23,019	48,419	73,819	99,219	124,619	150,019	175,419	200,819	226,219	251,619
59/64	23,416	48,816	74,216	99,616	125,016	150,416	175,816	201,216	226,616	252,016
15/16	23,812	49,212	74,612	100,012	125,412	150,812	176,212	201,612	227,012	252,412
61/64	24,209	49,609	75,009	100,409	125,809	151,209	176,609	202,009	227,409	252,809
31/32	24,606	50,006	75,406	100,806	126,206	151,606	177,006	202,406	227,806	253,206
63/64	25,003	50,403	75,803	101,203	126,603	152,003	177,403	202,803	228,203	253,603

Tightening torque values for wheel nuts and screws of passenger cars

manufacturer	type	N•m
Alfa Romeo	Alfa 145	83 - 103
	Alfa 146	83 - 103
	Alfa 147	83 - 103
	Alfa 155	73 - 90
	Alfa 156	98
	Alfa 164	95 - 105
	Alfa 166	86
	Alfa 33	88 - 108
	GTV	83 - 103
	Spider	83 - 103
Audi	100	120
	A2	120
	A3	120
	A4	120
	A5	120
	A6	120
	A8	120
	Audi 200	110
	Audi 80	110
	Audi Quattro	110
	Cabriolet	110
	Coupé	110
	S3	120
	S8	120
	TT	120
	1	120
BMW	3	90 - 110
	5	90 - 110
	7(> 01)	140
	M5	100
	X3	140
	X5	140
	Z3	100 - 110
	Z4	120
Chrysler	Caravan	129
	Jeep Grand Cherokee (97-01)	115 - 150
	Jeep Wrangler (93-96)	102
	Jeep Wrangler (96-02)	109 - 150
	Jepp Cherokee (97-01)	115 - 150
	Neon (94-99)	109 - 150
	Neon (99-02)	115 - 155
	PT Cruiser	115 - 155
	Stratus	109 - 150
	Voyager (01-02)	110 - 135
	Voyager (87-90)	129
Citroên	AX	90
	AX GTI	90
	AX Sport	90
	AX10	90
	AX11	90
	AX14	90
	Berlingo	85
	C15E	70
	C25	180
	C1	100
	C2	80 - 100
	C3	80 - 100
	C4	80 - 100
	C5	80 - 100
	C6	80 - 100
	C8	100
	Dispatch	100
	GT	90
	Saxo	85
	Xiantia	90
	XM	90
	Xsara	85
	ZK	90
Daewoo	Applause	88 - 118
	Charade	89 - 118
	Cuore	88 - 118
	Esoeri	80
	Grand Move	88 - 118
	Hi-Jet	89 - 118
	Korando	80 - 120
	Lanos	80
	Leganza	100
	Matiz	90 - 110
	Move	88 - 118
	Musso	80 - 120
	Nexia	80
	Nubria	80
	Sirion	89 - 118
	Sportrak	90 - 120
	Tacuma	108
Daewoo	Terios	88 - 118
	YRV	88 - 118
Fiat	Coupé	98
	Croma	98
	Ducato	160
	Ducato Maxi	180
	Scudo	100
	Stilo	98
	Talento	160
	remaining models	86
	Ulysee	100
Ford	Cougar	128
	Escort	100

manufacturer	type	N•m
Ford	Estate (95-00)	100
	Explorer	135
	Fiesta (90-93)	70 - 100
	Fiesta (94-02)	85
	Focus (98-02)	85
	Galaxy (01-02)	170
	KA	85
	Maverick (01-02)	133
	Mondeo (96-00)	85
	Probe	88 - 117
	Puma	85
	Scorpio	85
	Sierra	88 - 117
	Transit (02)	200
	Transit 100 (91-00)	75 - 95
	Transit 130	155 - 180
	Transit 150	155 - 180
	Transit 80 (91-00)	75 - 95
Honda	all models	108 - 110
Hyundai	H1	120 - 140
	H200	120 - 140
	Pony (bis 90)	70 - 80
	S-Coupé (90-92)	88 - 108
	Stellar	70 - 80
	remaining models	90 - 110
Jaguar	S-Type	128
	XJ12	88 - 102
	XJ6	65 - 85
	XJ8	66 - 82
	XJR	88 - 102
	XJ-S	66 - 82
	X-Type (01-02)	68 - 92
Kia	Besta	90 - 120
	Carens	88 - 118
	Clarius	88 - 118
	Mentor	88 - 118
	Pride	88 - 118
	Sedona	88 - 108
	Sephia	88 - 118
	Sportage	88 - 108
Lada	Niva	88 - 91
	Riva	70 - 78
	Samara	70 - 78
Lancia	Dedra	98
	Kappa	98
	remaining models	86
Land Rover	Defender	100 - 120
	Discovery (> 98)	140
	Discovery (< 98)	129
	Freelander	115
	Range Rover (> 94)	108
Lexus	all models	103
Mazda	121 (> 95)	85
	323 (> 98)	90 - 117
	626 (> 97)	80 - 115
	Demio	87 - 117
	E-Series	90 - 120
	MPV (> 99)	89 - 117
	MX-5 (> 98)	90 - 117
	MX-6 (> 94)	89 - 117
	Premacy	80 - 117
	Tribute	133
	Xedos (> 94)	89 - 117
	Xedos 9	88 - 127
Mercedes	510	160 - 180
	200GE	190
	230GE	190
	508D	160 - 180
	814 DA	250
	CL (99-02)	150
	MB 100D	140
	M	150
	S (98-02)	150
Mercedes	Sprinter (95-02)	180 +20
	remaining models	110
	V-Klasse (95-02)	175
Mini	Mini Cooper	90 - 110
	Mini One	90 - 110
Mitsubishi	3000 GT (93-01)	120 - 140
	Carisma	98 - 117
	Colt	98
	Eclipse (96-02)	117 - 137
	Galant (97-02)	98
	L200	120 - 140
	Lancer (96-02)	98
	Shogun Pajero	100 - 120
	Shogun Pinin	98
	Space Runner (98-02)	98
	Space Star	98 - 117
	Space Wagon (98-02)	98
Nissan	Almera (02)	98 - 118
	Maxima (00-02)	98 - 118
	Micra (92-02)	98 - 117
	Patrol GR	118 - 147
	Pick-Up	118 - 147
	Serena (96-02)	98 - 118
	Terrano II	118 - 147
	X-Trail	98 - 117

manufacturer	type	N•m
Opel	Agila	85
	Frontera-B (99-02)	120
	remaining models	110
Peugeot	106	85
	206	85
	306	80
	307	90
	406	90
	605	90
	607	90
	806	100
	Boxer	160 - 180
	Estate	85
	Expert	100
Porsche	all models	130
Renault	Clio	90
	Clio Sport	105
	Espace	100
	Kangoo	90
	Laguna	100
	Master	155
	Megane	90
	R5	80
	Safrane	90
	Scenics RX 4	105
	Trafic 00-02)	142
	Twingo	90
Rover	25	110
	45	110
	75 Tourer	125
	MG	110
	MG ZT-T	125
	Mini Cooper	57
Saab	9-3	110
	9-5	120
	900 (93-98)	90 - 110
	9000 (89-97)	105 - 125
Seat	Alhambra	140
	Arosa	110
	Cordoba	110
	Ibiza	110
	Inca	110
	Leon	120
	Toledo (99-02)	120
Skoda	Fabia	120
	Octavia	120
Subaru	all models	78 - 98
Suzuki	Alto	70 - 110
	Baleono	85
	Grand Vitara	95
	Ignes	85
	Jimny	95
	Liana	85
	Super Carry (99-02)	85
	Swift	80
	Vitara	80 - 100
	Wagon R	85
Toyota	4 Runner	103
	Avensis	103
	Camry	103
	Carina	103
	Celica	103
	Corolla	103
	Hi-Ace Power Van (96-02)	102
	Land Cruiser Amazon (98-02)	209
	Land Cruiser Colorado	110
	MR2	103
	Paseo	103
	Picnic	103
	Prado (96-02)	110
	Previa	103
	RAV4	103
	Supra	103
	Yaris	103
Volkswagen	Beetle	120
	Caddy	110
	Golf	110
	LT (96-02)	180
	Lupo	110
	Passat (96-02)	120
	Polo	110
	Sharan (01-02)	170
	Touareg	160
	Touran	120
	Transporter (96-02)	180
Volvo	C70	110
	S40	110
	S60 (02)	140
	S70	110
	S80	140
	V40 (98-02)	110
	V70 (00-02)	140
	V70 (97-02)	110

All information subject to change - please observe the manufacturer's specifi ations for alloy rims!

Fastening torque values for wheel screws of commercial vehicles (LCV + HGV) having standard rims

manufacturer	thread	fastening torque bolt centring	(N•m) hub centring	Trilex
Auwärter	M20 x 1,5	350	450	
	M22 x 1,5	350	600	
Bedford	M22 x 1,5	510 - 580	550 - 600	
	7/8"-11 BSF	510 - 580	550 - 600	
DAF	M18 x 1,5		340 - 400	270 - 300
	M20 x 1,5	280 - 350	450 - 520	320 - 350
	M22 x 1,5		700	
	M22 x 2	380 - 460		
DaimlerChrysler	M14 x 1,5	170	170*	M16:200
	M18 x 1,5	250	250*	M18x2:300
	M20 x 1,5	300	300	M20x2:350
	M22 x 1,5	450	600	
Faun	M18 x 1,5	290 - 320		
	M20 x 1,5	370 - 400		
	M22 x 1,5	430 - 460		
Iveco	M18 x 1,5		335 - 410	
	M20 x 1,5		440 - 540	
	M22 x 1,5	380 - 450	580 - 650	
EVO-Bus, Setra	M18 x 1,5	300		
	M20 x 1,5	400		
	M22 x 1,5		600	
MAN	M18 x 1,5		390	
	M20 x 1,5		475	
	M22 x 1,5		575	
RVI	M22 x 1,5		450 - 550	
Scania	7/8"-11 BSF	450 - 550	540 - 660	
Steyr-Daimler-Puch	M20 x 1,5		450 - 500	
	M22 x 1,5		550 - 600	
Volvo	M20 x 1,5		520 - 580	
	M22 x 1,5		570 - 630	
	7/8"-14 UNF		640 - 700	
VW Transporter T2,T5	M14 x 1,5	180		
VW T4 bis 12/95	M14 x 1,5	160		
VW T4 ab 01/96	M14 x 1,5	180		
VW LT28, 31	M14 x 1,5	200		
VW LT35, 40, 45, 50	M18 x 1,5		320	
trailer	M14 x 1,5	110 - 120		
	M18 x 1,5	270	320	
	M20 x 1,5	350	450	
	M22 x 1,5	450 - 500	630 - 650	
	M22 x 2	430		

*) with spring ring and fl t strip nuts 10 N-m = 1 Kpm

All information subject to change - please observe the manufacturer's specifi ations for alloy rims!

TIGHTENING TORQUE:	THE TIGHTENING TORQUE VALUES SPECIFIED BY THE WHEEL RIM MANUFACTURERS MUST BE OBSERVED.
FASTENING SCREWS:	THE WHEEL NUTS MUST BE TIGHTENED CROSS-WISE.
WHEEL ASSEMBLY:	THE HUBS AND WHEELS OF ALL MOTOR VEHICLES ARE PROTECTED AGAINST RUST WITH THE HELP OF A PRIMER COAT AND PRIMARILY PROVIDED WITH ONE TOP COAT. BASED ON EXPERIENCE, THESE COATS YIELD SOMEWHAT DURING THE FIRST FEW KILOMETRES OF DRIVING. EVEN SCREWS AND NUTS NEED SOME TIME IN ORDER TO SETTLE DOWN. HENCE, IT IS ESSENTIAL TO CHECK THE WHEEL NUTS FOR TIGHTNESS AND TO RETIGHTEN THEM AFTER TIGHTENING THEM WITH A TORQUE WRENCH AND AFTER DRIVING THE FIRST 50 KM.

Tightening torques for normal and fine threads

thread M	NORMAL THREADS									
	pre-tensioning force (kN)					tightening torque (N•m)				
	quality class in accordance with DIN 267									
	4.6	5.6	8.8	10.9	12.9	4.6	5.6	8.8	10.9	12.9
M 4x0,70	1,29	1,71	3,9	5,7	6,7	1,02	1,37	3	4,4	5,1
M 5x0,80	2,1	2,79	6,4	9,3	10,9	2	2,7	5,9	8,7	10
M 6x1,00	2,96	3,94	9	13,2	15,4	3,5	4,6	10	15	18
M 8x1,25	5,42	7,23	16,5	24,2	28,5	8,4	11	25	36	43
M 10x1,50	8,64	11,5	26	38,5	45	17	22	49	72	84
M 12x1,75	12,6	16,8	38,5	56	66	29	39	85	125	145
M 14x2,00	17,3	23,1	53	77	90	46	62	135	200	235
M 16x2,00	23,8	31,7	72	106	124	71	95	210	310	365
M 18x2,50	28,9	38,6	91	129	151	97	130	300	430	500
M 20x2,50	37,2	49,6	117	166	194	138	184	425	610	710
M 22x2,50	46,5	62	146	208	243	186	250	580	830	970
M 24x3,00	53,6	71,4	168	239	280	235	315	730	1050	1220
M 27x3,00	70,6	94,1	221	315	370	350	470	1100	1550	1800
M 30x3,50	85,7	114,5	270	385	450	475	635	1450	2100	2450
M 33x3,50	107	142,5	335	480	560	645	865	2000	2800	3400
M 36x4,00	125,5	167,5	395	560	680	1080	1440	2600	3700	4300
M 39x4,00	151	201	475	670	790	1330	1780	3400	4800	5600

thread M	FINE THREADS					
	pre-tensioning force (kN)			tightening torque (N•m)		
	quality class in accordance with DIN 267					
	8.8	10.9	12.9	8.8	10.9	12.9
M 8 x 1,00	18,1	26,5	31	27	40	47
M 10 x 1,25	28,5	41,5	48,5	54	79	93
M 12 x 1,25	43	64	74	96	140	165
M 12 x 1,50	40,5	60	70	92	135	155
M 14 x 1,50	58	86	100	150	220	260
M 16 x 1,50	79	116	136	230	340	290
M 18 x 1,50	106	152	177	350	490	580
M 20 x 1,50	134	191	224	480	690	800
M 22 x 1,50	166	236	275	640	920	1070
M 24 x 2,00	189	270	315	810	1160	1350
M 27 x 2,00	245	350	410	1190	1700	2000
M 30 x 2,00	309	440	515	1610	2300	2690

INFO:

PRE-TENSIONING FORCES AND TIGHTENING TORQUES FOR SETSCREWS (HEADLESS SCREWS) MADE OF STEEL HAVING BOLT HEAD DIMENSIONS AS SPECIFIED IN DIN 912, 931, 933, 934 / ISO 4762, 4014, 4017, 4032 ...*

THE VALUES GIVEN IN THE TABLE CONSIDER

- A) FRICTION COEFFICIENT GES = 0.14*
- B) UTILISATION OF THE MINIMUM YIELD STRENGTH = 90 %
- C) TORQUE WHILE TIGHTENING

(* THE FRICTION COEFFICIENT VALUE, MGES = 0.14 IS GENERALLY ASSUMED FOR SCREWS AND NUTS IN COMMERCIALLY AVAILABLE DESIGNS.)

*ADDITIONAL LUBRICATION OF THE THREAD CHANGES THE FRICTION COEFFICIENCONSIDERABLY AND LEADS TO UNCERTAIN PULLING CONDITIONS! CALCULATIONS HAVE BEEN MADE IN THE FOLLOWING EXAMPLE USING A FRICTION COEFFICIENT GES = 0.14. THERE ARE DIFFERENT VALUES OF FRICTION COEFFICIENT OR VARIATIONS DEPENDING ON THE PULLING METHOD AND TOOL DEPLOYED. ALL SPECIFICATIONS ARE TENTATIVE REFERENCE VALUES

torque and conversion factors

	mN•m	cN•m	N•m	ozf•in	lbf•in	lbf•ft	gf•cm	kgf•cm (kp•cm)	kgf•m (kp•m)
mN•m	1	0,1	0,001	0,142	0,009	0,0007	10,2	0,01	0,0001
cN•m	10	1	0,01	1,416	0,088	0,007	102	0,102	0,001
N•m	1000	100	1	141,6	8,851	0,7376	10197	10,2	0,102
ozf•in	7,062	0,706	0,007	1	0,0625	0,005	72	0,072	0,0007
lbf•in	113	11,3	0,113	16	1	0,083	1152,1	1,152	0,0115
lbf•ft	1356	135,6	1,3558	192	12	1	13826	13,83	0,138
gf•cm	0,098	0,01	0,0001	0,014	0,0009	0,00007	1	0,001	0,00001
kgf•cm (kp•cm)	98,07	9,807	0,098	13,89	0,868	0,072	1000	1	0,01
kgf•m (kp•m)	9807	980,7	9,807	1389	86,8	7,233	100000	100	1

example:

	mN•m	**cN•m**	**N•m**	**ozf•in**	**lbf•in**	**lbf•ft**	**gf•cm**	**kgf•cm (kp•cm)**	**kgf•m (kp•m)**
mN•m	1	0,1	0,001	0,142	0,009	0,0007	10,2	0,01	0,0001
cN•m	10	1	0,01	1,416	0,088	0,007	102	0,102	0,001
N•m	1000	100	1	141,6	8,851	**0,7376**	10197	10,2	0,102
ozf•in	7,062	0,706	0,007	1	0,0625	0,005	72	0,072	0,0007
lbf•in	113	11,3	0,113	16	1	0,083	1152,1	1,152	0,0115
lbf•ft	1356	135,6	1,3558	192	12	1	13826	13,83	0,138
gf•cm	0,098	0,01	0,0001	0,014	0,0009	0,00007	1	0,001	0,00001
kgf•cm (kp•cm)	98,07	9,807	0,098	13,89	0,868	0,072	1000	1	0,01
kgf•m (kp•m)	9807	980,7	9,807	1389	86,8	7,233	100000	100	1

Conversion of 40 N•m to lbf•ft 40 N•m x 0.7376 = 29.504 lbf•ft

DRILLING / TECHNICAL INFORMATION: GUIDELINES FOR DRILLING SPEEDS, FEED RATE AND COOLING

The table provides approximate values. According to drilling depth and thickness of the material, an increase or reduction in the cutting speed feed rate or cutting fluid ould be reccomended The values for -v- and -s- indicated value apply to drilling depths until 5 x d (d = drilling diameter) In drilling depths over 5 x d until 8 x d then -v- and -s- should be reduced around 20% to 30%. In general in drilling depths over 5 x d the hole should be cleaned!

material grade	cooling	cutting rate of 0 m/min	s=feed rate n=speed			twist drill diameter D [mm]					
				1*	2	5	8	16	25	40	63
				feed rates s		[mm/U] and medium speed n [U/mi]					
non alloyed steel up to 500 N/m²	oil and water emulsion	30-40	s n	hand 11100	0,05 5600	0,12 2200	0,2 1400	0,3 700	0,4 450	0,4 280	0,5 180
non alloyed steel 500-700 N/m²		25-30	s n	hand 8800	0,05 4400	0,12 1750	0,2 1100	0,3 550	0,4 350	0,4 220	0,5 140
non alloyed steel above 700 N/m²		20-25	s n	hand 7200	0,04 3600	0,1 1400	0,15 900	0,25 445	0,3 285	0,3 180	0,4 114
alloyed steel 700-900 N/m²		12-15	s n	hand 4300	0,03 2150	0,08 860	0,12 540	0,2 270	0,25 170	0,32 110	0,36 68
alloyed steel 900-1100 N/m²		8-15	s n	hand 3650	Hand 1840	0,06 735	0,001 455	0,2 230	0,3 145	0,3 90	0,3 60
alloyed steel above 1100 N/m²	cutting oil	5-8	s n	hand 2100	Hand 1050	0,04 415	0,06 260	0,1 130	0,12 83	0,16 52	0,18 33
rust steady, acid steady steels (highly Cr, Ni alloy)		5-10	s n	hand 2400	Hand 1200	0,05 480	0,1 300	0,15 150	0,2 95	0,2 60	0,3 38
high tensile steel (high Co, Cr, Mo, Ni, W alloy)		4-8	s n	hand 1900	0,02 950	0,06 380	0,09 240	0,15 120	0,2 76	0,24 48	0,27 30
sprung steel band (high Si alloy)	cutting oil	3-6	s n	Hand 1430	Hand 720	0,04 285	0,06 180	0,1 90	0,12 57	0,16 36	0,18 23
manganese steel (Mn 10%, C 05%)	without cooling the material must be heated to 300	2-5	s n	Hand 1300	Hand 650	0,05 255	0,08 160	0,1 80	0,15 50	0,2 32	0,2 20
cast steel up to GS-52	oil and water emulsion	20-25	s n	Hand 7200	0,03 3600	0,9 1400	0,14 900	0,24 445	0,3 285	0,38 180	0,43 114
cast steel above GS-52		12-20	s n	Hand 5100	0,03 2550	0,08 1020	0,12 640	0,02 320	0,25 200	0,32 130	0,36 80
cast iron up to GG-26	compressed air	18-25	s n	Hand 6800	0,06 3400	0,16 1350	0,24 860	0,4 430	0,5 275	0,6 170	0,7 110
cast iron above GG-26		5-15	s n	Hand 3200	0,05 1600	0,14 635	0,2 400	0,35 200	0,45 130	0,5 80	0,6 50
malleable cast iron (GTW/GTS)	compressed air (oil and water emulsion)	18-25	s n	Hand 6800	0,07 3400	0,12 1400	0,2 850	0,4 430	0,5 275	0,6 170	0,6 110
refined opper	oil and water emulsion (compressed air)	50-80	s n	Hand 2100	0,005 10500	0,15 4100	0,25 2600	0,4 1300	0,5 830	0,5 520	0,5 330
brass, tough (MS 63)	oil and water emulsion (cutting oil)	40-30	s n	Hand 16000	0,05 8000	0,15 3200	0,25 2000	0,4 1000	0,5 640	0,6 400	0,7 250
brass, alloy (MS 58) Bronze, soft (gun metal, Rg)	cutting oil	20-30	s n	Hand 8000	0,04 4000	0,1 1600	0,15 1000	0,25 500	0,32 320	0,42 200	0,46 125
bronze, hard (Bz; Aternabronze)		10-20	s n	Hand 4800	0,04 2400	0,1 960	0,15 600	0,25 300	0,32 190	0,42 120	0,46 75
copper nickel alloy (e.g. nickel bronze approx. 67% Ni)	cutting oil	5-15	s n	Hand 3200	0,02 1600	0,06 635	0,09 400	0,15 200	0,2 130	0,24 80	0,27 50
Aluminium	oil and water emulsion	50-120	n	Hand 3200	0,02 1600	0,06 635	0,09 400	0,15 200	0,2 130	0,24 80	0,27 50
nickel alloy aluminium (e.g. piston alloy)		20-44	s n	Hand 9600	0,04 4800	0,1 1900	0,15 1200	0,25 600	0,32 380	0,4 240	0,45 150

* when the diameter is below 1 mm the cutting speed should be reduced.

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