GEDORE

Werkzeuge fürs Leben • *Tools for life*

AEROSPACE-AVIATION

CATALOGUE

E & G Tools (M) Sdn Bhd

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AEROSPACE-AVIATION CATALOGUE

GEDORE

www.gedore

CROSS CHECK

RFID technology

1 RFID TAGGED TOOLS
ELECTRONIC CONTROL

2 CHECK-TOOL INSERT
VISUAL CONTROL

Upon request all tool trolleys and tool chests can be equipped with the RFID system

CONTACT:
aerospace@gedore.de

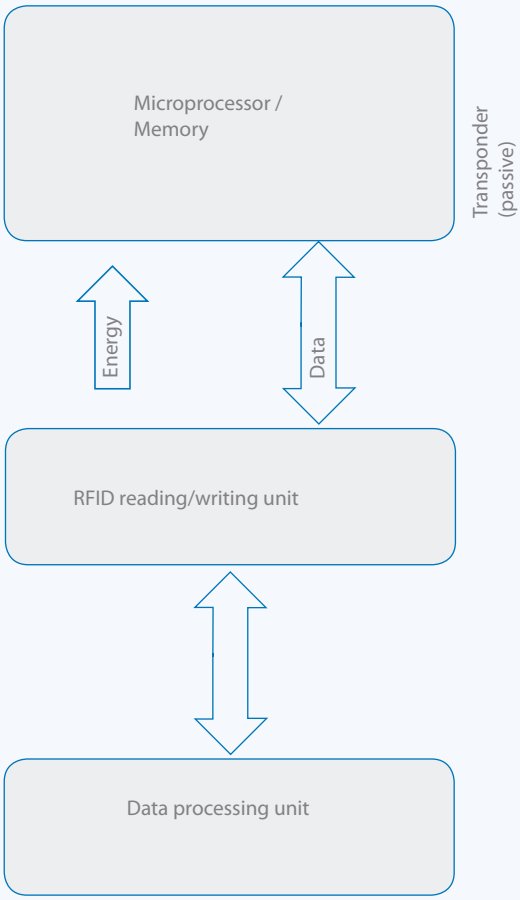
CHECK-TOOL-SYSTEM

The German Aviation Administration requires: "Missing tools must be detected within 3 seconds!"

- 2-colour plastic insert provides easy optical check of completeness
- Ideally suited for use in sensitive areas, where it is essential to ensure that no tools are left behind
- Underlay blue, overlay black. A visible blue pocket indicates a missing tool
- Each tool is securely held in its own pocket, prevented from slipping and protected from damage
- Grip recesses facilitate removal of the tools
- Clearly visible tool contours simplify replacement into the correct pocket
- Resistant to oil and grease

RFID-CHECK-TOOL-SYSTEM

- A complete check via RFID technology (**R**adio **F**requency **Id**entification) and additionally with 2 coloured plastic inlays.
- Particularly suited for work in sensitive areas, in which it must be assured that no tools are left behind.
- Missing tools would be signaled by Bluetooth® or USB (Universal Serial Bus) on a display of your choice. PC, Palm, or Pocket PC are possible.
- Every tool is supplied with a transponder (tag), which via the internal UID number (Unique Identifier) is worldwide clearly identifiable.
- Also the tool trolley / tool box can be clearly identified.
- The passive transponder changes the characteristics of the electromagnetic waves reading unit. Passive transponders do not send out any electromagnetic waves.
- The RFID reading unit registers the identification of the missing tool on the chosen display. Missing tools will be reassigned to the user.
- The system works with 13,56 MHz in short wave range.
- The outreach of the system is limited to a maximum of 10 mm.
- Tools which have been put aside will first be entered when they have been placed in their nest. To interchange or to mix up is therefore impossible.
- Resistant against interference radiation. The tool trolley works like a Faraday cage and shields other electromagnetic radiation.
- Splashproof.
- The area of activity of the transponder is from -20 to +100° C.
- The RFID reader unit is operated with a refill rechargeable accumulator. "Warning for empty battery"



Start screen „Tool-Check-System" with RFID

Guide
Compartment 1
Compartment 2
Compartment 3

GREEN = all tools are in the right place

RED = tool missing

YELLOW = Tool belongs to the case but is in the wrong place

Data on the tag can only be read or changed by authorised users.

Products that are trusted worldwide

We have been making quality tools since 90 years - tools we understand, that are chosen by professional users, and which we back with our good name. This means that our customers can always rely on optimal material properties, perfect ergonomics, maximum safety and long life in GEDORE tools.

People at GEDORE

GEDORE emphasizes quality, expertise, effectiveness and reliability. To maintain this, we invest continuously in production technology and development in our region. But even with leading-edge production technology, nothing at GEDORE takes priority over the care, precision, craftsmanship and experience of well-qualified employees. The quality concept, "Made in Germany", stands above all for the skill, loyalty and commitment of our employees.

Premium quality from a premium company

The modern-day GEDORE Group embraces a large number of specialist tool companies, manufacturing world-renowned branded products. This allows us to supply professional users with a wide product range from a single source. The combined range supplied by the highly specialised manufacturers in our Group amounts to 18000 quality products. Each member of the Group stands for reliable development and production of custom and special tools.

You are the focus of our attention

In addition to the Central Office and Field Service, which act as central contacts for all brands, we also provide a Technical Field Service to assist you with specific issues. Our "Servicemobile" is the ideal way of clarifying user problems locally, together with the specialist retailer. Extensive information about the entire GEDORE Group is available to download on the website. The GEDORE newsletter regularly reports about products and current events from the entire Group.

Subscribe to the
GEDORE Newsletter at

www.gedore.com

Research and development for your safety

With its Research and Development department, the Group is able to react flexibly to changing market requirements. Continuous development of existing products and the development of new, patentable products are driven by targeted product marketing. Jointly with our customers, we develop special tools and design solutions for a range of individual requirements, to ensure safety in the craft trades, in bridge engineering, on oil rigs, in shipping, in the automotive sector and in heavy industry.

Environmental protection for future generations

Maintaining a healthy environment by keeping air, ground and water clean, takes top priority for the GEDORE Group, because we see this as a social obligation. Germany can be secured as a production location in the long term only if we secure the natural resources for future generations. Recirculation systems and recycling water and chemicals in electroplating, together with low-emission powder coating in the paint shop and low-emission forging are just a few points of our comprehensive environment management policy.

AGQS

ZERTIFIKAT

Die AGQS Qualitäts- und Umweltmanagement GmbH bestätigt, dass die Unternehmen

GEDORE

Gedore Werkzeugfabrik Otto Dowidat KG
D-42899 Remscheid, Remscheider Str. 149
D-94065 Waldkirchen, Bahnhofstraße 79

für den Geltungsbereich

Entwicklung und Herstellung von Werkzeugen und Werkstatteinrichtungen

und

Gedore Tool Center KG
D-42899 Remscheid, Remscheider Str. 149

für den Geltungsbereich

Vertrieb und logistische Dienstleistungen für Werkzeuge und Werkstatteinrichtungen

ein Qualitätsmanagementsystem eingeführt haben und anwenden. Nach Prüfung der QM-Dokumentation wurde durch Audits der Nachweis erbracht, dass die Forderungen der

DIN EN ISO 9001:2000

erfüllt sind.

Remscheid, 2008-06-27

IAF

QMS-TGA-ZM-01-53

Audit	QM-014-R00	AGQS Qualitäts- und Umweltmanagement GmbH	Telefon +49 2191 438 24
Zertifikat	QM-014-04-05	Elberfelder Straße 77	Telefax +49 2191 438 26
Gültig bis	2011-06-30	D-42853 Remscheid	www.agqs.de
Erstzertifizierung	1994-01-27		
Erweiterung	2007-08-28		

Do you know about our individual catalogues... ?

- GEDORE — @work, Industrial Catalogue
- OCHSENKOPF — Forestry Tools
- KLANN — Special Automotive Tools
- METEC — Workshop Equipment

WHY THREE DIFFERENT COMBINATION SPANNERS?

g	Weight (total)
kg	Weight (total)
kg	Weight (total)
kg	Weight hammer head
mm	Length (total)
mm	Length (total)
L"	Length (total)
	Length (total)
mm	Length of blade
	Length of blade
mm	Length of shaft / handle
mm	Length of point / blade
∅ mm	Diameter (also dia. of head, of shaft, of points)
∅ "inch	Diameter
∅ "AF	Diameter
mm "inch	Diameter of hole (external)
mm "inch	Diameter of hole (internal)
mm	Width across flats (Nominal Width)
mm	Width across flats (Nominal Width)
"AF	Width across flats (Nominal Width)
mm	Width across flats (Nominal Width)
"AF	Width across flats (Nominal Width)
Whitw.	Width across flats (Nominal Width)
mm	Width across flats (Nominal Width)

mm	Width across flats (Nominal Width)
mm	Width across flats (Nominal Width)
M	Thread size, connection thread
M	Screw dimension (type of thread)
Z-94	Ratchet used
U-2	Ratchet used
U-3	Ratchet used
U-10	Ratchet used
U-20	Ratchet used
6,3 1/4" 10 3/8" 12,5 1/2" 20 3/4" 25 1"	Square drive (external)
6,3 1/4" 10 3/8" 12,5 1/2" 20 3/4" 25 1"	Square drive (internal)
4 6,3 1/4" 8 5/16"	Hexagon drive (external)
4 6,3 1/4" 8 5/16"	Hexagon drive (internal)

	Drive sections
	Slotted
	Cruciforme PH
	Cruciforme PZ
	Internal square
	External hexagon
	External hexagon with tamper proof hole
	Internal single hexagon
	Bi-hexagon
UNIT DRIVE	Unit Drive
UD	Unit Drive
	Internal-TORX®
	Internal tamper proof TORX®
	External-TORX®
	Internal serrations XZN
	Multi-spline RIBE®
	Torq-Set
	Tri-Wing
6-k	Hexagon
12-k	Bi-hexagon
∅mm²	Cutting edge thickness
mm	Jaw width / tape width
mm	Head width

	Type of jaw straight
	Type of jaw half-round
	Type of jaw round
	Cutting edge with bevel
	Cutting edge without bevel
	Straight jaws
	Angled jaws
	Internal retaining rings
	External retaining rings
	ESD, electrostatic discharge
	Electronic
	Pivoting angle
	Angle
	File profile flat
	File profile three-edged
	File profile round
	File profile half-round
	File profile square
	Puller
	Clamping spread
	Clamping reach
	Size of spindle
	Hydraulic spindle

mm	Blade / Cutting edge width
mm	Blade thickness
:	Gear ratio
	Output torque (max. N·m)
	Input torque (max. N·m)
	Scale divisions
	Single square drive
	Double square drive
9×12 14×18 mm	Drive connector
16 22 28	Spigot-end drive
	in cardboard or plastic packaging
	in sheet metal box
	Set in sheet metal or plastic box
mm	Head width
mm	Distance, hole to edge
GS	GS Seal of tested quality
Ω	Magnetic
r = mm	Radius
	Packaging unit
CE	Conformity with EU guidelines
VDE	VDE Test Symbol
1000 V	For working in voltage areas up to 1000 V
1000 V	VDE Test Symbol (protective equipment)

	Throat depth
	Depth of opening /Clamping width / Clamping range
	Weld-on end fitting
	End fitting with hexagon wrench
	Open end fitting
	Flared end fitting
	Ring end fitting
	End fitting with square head
	Bit holder end fitting
	Ratchet end fitting
	Anti-wind-up-ratchet
	Factory certificate
	Visual display digital
RS 232	RS 232 interface
	Bi-directional tightening
5000	Cycles warranty
	Audible reaction (click)
	Mechanical torque multiplier
	Integrated electronic hardware
	Drawer
	Door
	Shelf
P.O.A.	Price on application
SB	Display Card Supplied

GEDORE
Werkzeuge fürs Leben · Tools for life

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MOBILE STORAGE
TOOL CONTROL

overview

- Tool Trolleys
- Tool Assortments
- Mobile Workbenches
- Tool Cabinets
- Workbenches
- Tool Cases

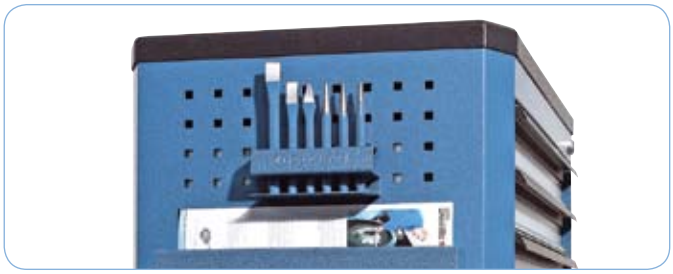

200S
GEDORE

THE GEDORE CHARACTER

Impact protection
- The vertical or horizontal impact protection protects the tool trolley and anything it comes into contact with from damage
- It also protects other equipment in the workshop or vehicles from inadvertent contact

Ball-bearing drawer slides
- The ball-bearing drawer slides ensure safe and easy sliding of the drawers, even when loaded to full capacity
- Full extension improves access

Individual drawer locking (not applicable to 2003)
- In addition to the central locking, each drawer has its own separate latch to prevent unwanted opening, when being moved
- The latch is automatically released by a tilting bar when the drawer is opened
- The single latch automatically engages when the drawer closes



Square perforation
- The square perforation in the side walls enable quick access to frequently used tools
- GEDORE holders and trays are simply clipped in

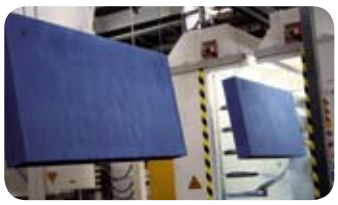
Load capacity
- The load capacity of the drawers is 40 kg
- The combined weight of our two mechanics' tool sets, S 1004 M and S 1007 M, is 40 kg
- **One drawer** could hold the full weight of all 250 tools!

POWDER COATING

- GEDORIT blue and GEDORIT silver are the short names for the two types of powder paint, specially developed for GEDORE
- This coating method guarantees a high level of corrosion protection, combined with tough scratch resistance
- Powder coating is kind on the environment. Unused powder is reclaimed in the plant. No solvent is used

GEDORIT blue

GEDORIT silver

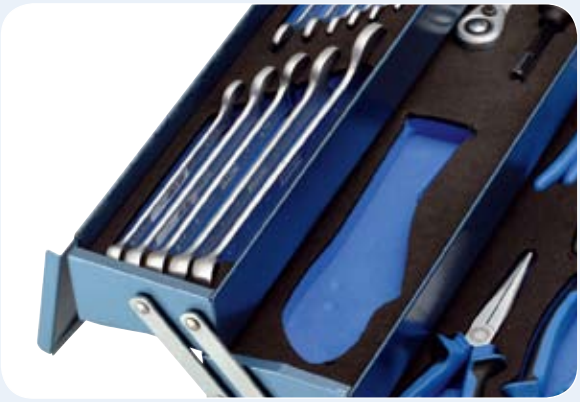


The complete range of GEDORE tool trolleys and workbenches is listed in the GEDORE price catalogue or on our website www.gedore.com

CHECK-TOOL-SYSTEM

The German Aviation Administration requires: "Missing tools must be detected within 3 seconds!"

- 2-colour plastic insert provides easy optical check of completeness
- Ideally suited for use in sensitive areas, where it is essential to ensure that no tools are left behind
- Underlay blue, overlay black. A visible blue pocket indicates a missing tool
- Each tool is securely held in its own pocket, prevented from slipping and protected from damage
- Grip recesses facilitate removal of the tools
- Clearly visible tool contours simplify replacement into the correct pocket
- Resistant to oil and grease



TOOL TROLLEY 2004

A sturdy workshop trolley with smooth running drawers that open and shut one handed

Tool Trolley 2004

Plastic handle + powder-coated aluminium tube

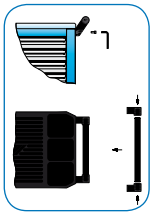
High-performance wheels

Impact protection

Drawers with ball bearings

9 Sturdy working platform in ABS with three compartments for small parts and raised egde, offers additional store-room. Resistant to oil and acid

1 Strong handle, easy action



8 Load capacity per drawer 40 kg

7 Drawer combinations and maximum volumes may be selected individually to suit every workshop. 3 drawer sizes [30% (207 mm), 20% (137 mm) and 10% (67 mm) = Standard drawer height]. Safety lock guarantees that the drawer will not slide open while the trolley is moving.

10 Central locking for padlock

2 With lockable side storage space with drawers for small parts

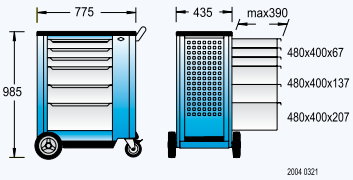
6 Drawers with ball bearings, 100% extendable and all individual partio-nable. Supplied with 10 lengthwise and 2 crosswise dividers

5 Static load capacity up to 500 kg

3 All-round heel and impact protection for your safety

4 GEDORE high-performance wheels, with tyres that adapt to suit different loading

Features

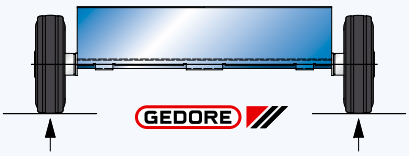


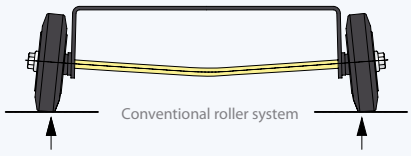
Total brake

- Prevents unwanted movement and turning of the wheel
- Ensures safe parking of the tool trolley or workbench

THE GEDORE CHASSIS (Not applicable to no. 1505)

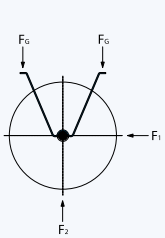
The trapezoidal GEDORE chassis uniformly distributes the applied forces. The axle is mounted on triple bearings and is securely connected to the trapezoid. The third, central bearing prevents the axle bending under load. The special axle design ensures that the GEDORE high-performance rollers **always** roll on the full faces of their treads. Even under full load, the rollers retain their smooth running properties and cannot shed their tyres. Vertical and horizontal forces are absorbed by the positive-fit trapezoidal design.



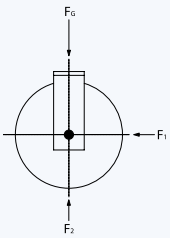


The forces acting on the roller base are uniformly distributed and do not result in any damage to the mobile tool chest or workbench.

The absence of protruding bolts and nuts reduces the risk of injury to a minimum.

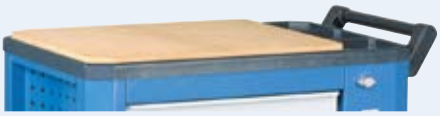


Uniform distribution of forces



Concentrated force distribution on screw-connected roller systems

possible accessories
Tool trolley 2004/2005



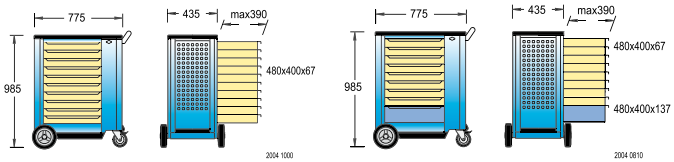
MOBILE HELPERS

2004

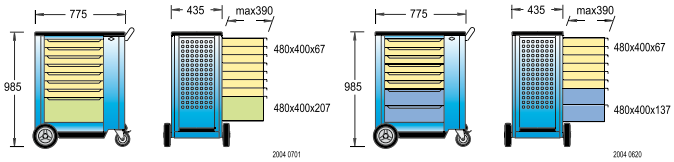
TOOL TROLLEY

- Working platform in ABS with 3 compartments for small parts
- With handle for easy pushing, pulling and turning
- Ten different drawer combinations
- Drawers fully extendable, removable
- Single-hand operation with safety locking which prevents the drawers from opening when in motion
- Ball bearings
- Drawers individually partitionable, delivery includes length- and crosswise dividers
- Bottom drawer designed as heavy-duty drawer
- Load capacity per drawer 40 kg, bottom heavy-duty drawer 60 kg (only type 2 or type 3)
- Storage compartment on the handle side with perforated sheet 9 x 33 mm to fix accessories
- Compartment door lockable with central locking
- Four removable drawers for small parts
- Central locking for padlock
- Heel protection and all-round impact protection
- GEDORE heavy-duty chassis with high-performance wheels on roller bearings, with 2 fixed castors Ø 200 mm and 2 swivel castors Ø 125 mm, one with total brake

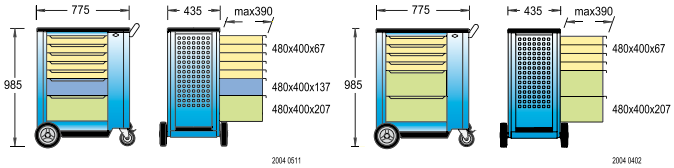
- Total load capacity 500 kg
- Dimensions: H 985 x W 775 x D 435 mm
- In GEDORIT blue, drawers GEDORIT silver, top black
- Delivery without tools
- Optional accessories: Tool chest 2430, Rear panel R 2003 or RB 2004, Wood plate 1500 HP



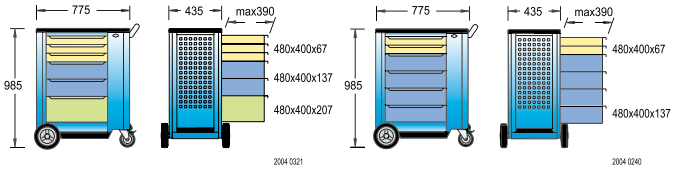
2004 1000 ◤ 2004 0810



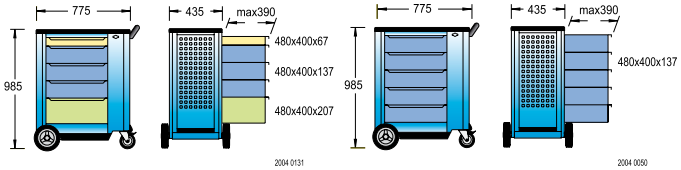
◤ 2004 0701 ◤ 2004 0620



◤ 2004 0511 ◤ 2004 0402



◤ 2004 0321 ◤ 2004 0240



◤ 2004 0131 ◤ 2004 0050

Code	No.	kg
1640690	**2004 1000** 10x Typ 1, H = 67 mm	94,0
1640704	**2004 0810** 8x Typ 1, H = 67 mm 1x Typ 2, H = 137 mm	91,0
1640712	**2004 0701** 7x Typ 1, H = 67 mm 1x Typ 3, H = 207 mm	86,0
1640720	**2004 0620** 6x Typ 1, H = 67 mm 2x Typ 2, H = 137 mm	88,0
1640739	**2004 0511** 5x Typ 1, H = 67 mm 1x Typ 2, H = 137 mm 1x Typ 3, H = 207 mm	84,0
1640747	**2004 0402** 4x Typ 1, H = 67 mm 2x Typ 3, H = 207 mm	80,0
1640755	**2004 0321** 3x Typ 1, H = 67 mm 2x Typ 2, H = 137 mm 1x Typ 3, H = 207 mm	82,0
1640771	**2004 0240** 2x Typ 1, H = 67 mm 4x Typ 2, H = 137 mm	79,0
1640763	**2004 0131** 1x Typ 1, H = 67 mm 3x Typ 2, H = 137 mm 1x Typ 3, H = 207 mm	75,0
1640798	**2004 0050** 5x Typ 2 , H = 137 mm	76,0

2004-1080 GA

TOOL TROLLEY WITH TOOL ASSORTMENT JETTEC GROUND 154 pieces

- Particularly suited for Base Maintenance (extensive maintenance of the aircraft)
- Working platform in ABS with 3 compartments for small parts
- With handle for easy pushing, pulling and turning
- With nine drawers: 8x type 1 height 67 mm and 1x type 2 height 137 mm
- Single-hand operation with safety locking which prevents the drawers from opening when in motion
- With "Check-Tool-System": 2-colour plastic insert to check that the set is complete
- Storage compartment on the handle side with perforated sheet 9 x 33 mm to fix accessories
- Compartment door lockable (with padlock) with 4 removable drawers for small parts, also usable as personal compartment. Corresponding sticker is attached.
- Heel protection and all-round impact protection
- GEDORE heavy-duty chassis with high-performance wheels on roller bearings, with 2 fixed castors Ø 200 mm and 2 swivel castors Ø 125 mm, one with total brake
- Total load capacity 500 kg
- Dimensions: H 985 x W 775 x D 435 mm
- In GEDORIT blue, drawers GEDORIT silver, top black

Code	No.	Contents
1988506	**2004-1080 GA**	2004 0511 + S 1080 A
1988514	**S 1080 A**	**4** 1/4x5/16 5/16x11/32 3/8x7/16 7/16x1/2 1/2x9/16" **4 R** 1/4x5/16 5/16x11/32 3/8x7/16 1/2x9/16" **6** 1/4x5/16 3/8x7/16 1/2x9/16 9/16x5/8 5/8x3/4 3/4x7/8 25/32x13/16 7/8x15/16 1.1/16x1.1/8 1.3/16x1.5/16 1.1/4x1.3/8 1.1/4x1.7/16" **7** 1/4 5/16 11/32 3/8 7/16 1/2 9/16 5/8 11/16 3/4 13/16 7/8 15/16 1" **8** 5/32 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16" **60 CP** 8 **D 20** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2 9/16" **D 20 L** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2" **DG 20** 1/4 5/16 3/8 7/16 1/2 9/16" **2093 U**-20 **2090**-2 -4 -6 -12 **2030 2095 2098** **D 30** 7/16 1/2 9/16 19/32 5/8 11/16 3/4 7/8" **D 30 L** 3/8 7/16 1/2 9/16 5/8 11/16 3/4 13/16 7/8" **3093 U**-20 **3090**-5 -10 **3020 3084 L 3095** **689 TS** 2 4 6 8 10 **689 TW** 2 4 6 8 10 **620 674** **2150** 4 5,5 6,5 **2153** 4 **2160 PH** 1 2 **2161 PH** 1 **174** 1 3 **H 42 EL**-88 A **8245**-180 JC **8316**-160 JC **8136**-200 JC **8136 AB**-200 JC **137** 10 **145** 10 JC **8385 8386** **710 717**-30 **4534**-3 **718 745** **4522 640**-1800 **406** **100**-10 **119**-3 4 5 6 8 **600 H**-300 **248 ST**-30

2004-1080 GA

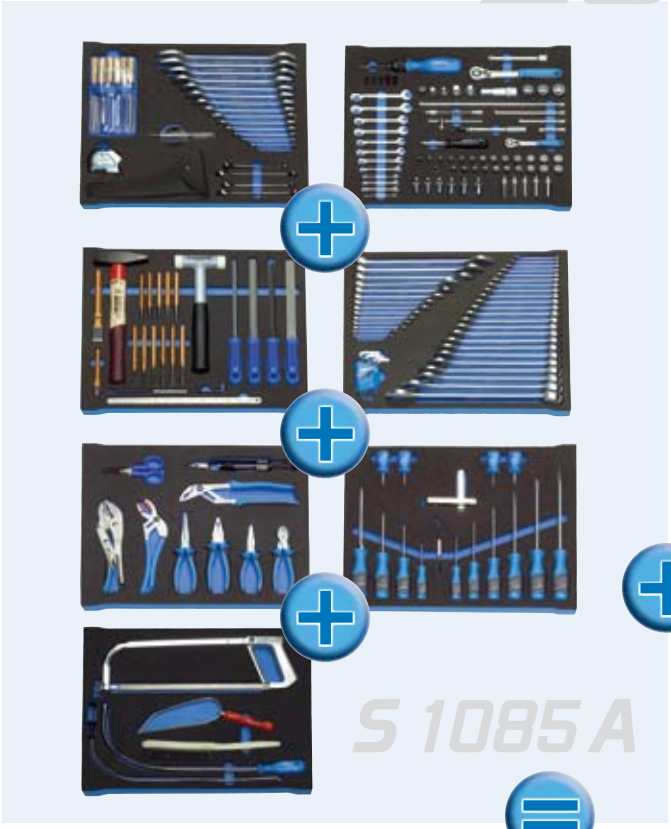
	2004 0511
	4 1/4x5/16AF 5/16x11/32AF 3/8x7/16AF 7/16x1/2AF 1/2x9/16AF
	4 R 1/4x5/16AF 5/16x11/32AF 3/8x7/16AF 1/2x9/16AF
	6 1/4x5/16AF 3/8x7/16AF 1/2x9/16AF 9/16x5/8AF 5/8x3/4AF 3/4x7/8AF 25/32x13/16AF 7/8x15/16AF 1.1/16x1.1/8AF 1.3/16x1.5/16AF 1.1/4x1.3/8AF 1.1/4x1.7/16AF
	7 1/4AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF 5/8AF 11/16AF 3/4AF 13/16AF 7/8AF 15/16AF 1AF
	8 5/32AF 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF
	60 CP 8
	D 20 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF
	D 20 L 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF
	DG 20 1/4AF 5/16AF 3/8AF 7/16AF 1/2AF 9/16AF
	2093 U -20
	2090 -2 -4 -6 -12
	2030
	2095
	2098
	D 30 7/16AF 1/2AF 9/16AF 19/32AF 5/8AF 11/16AF 3/4AF 7/8AF
	D 30 L 3/8AF 7/16AF 1/2AF 9/16AF 5/8AF 11/16AF 3/4AF 13/16AF 7/8AF
	3093 U -20
	3090 -5 -10
	3020
	3095
	3084 L
	689 TS 2 4 6 8 10
	689 TW 2 4 6 8 10
	620
	674
	2150 4 5,5 6,5
	2153 4
	2160 PH 1 2
	2161 PH 1
	174 1 3
	42 EL 2 (5/64AF) 3/32AF 1/8AF 5/32AF 3/16AF 7/32AF (5,5MM) 1/4AF 5/16AF

	8245 -180 JC
	8316 -160 JC
	8136 -200 JC
	8136 AB -200 JC
	137 10
	145 10 JC
	8385
	8386
	710
	717 -30
	4534 -3
	718
	745
	4522
	640 -1800
	406
	100 -10
	119 -8 -6 -5 -4 -3
	600 H -300
	248 ST -30

2004-1085 A

TOOL TROLLEY WITH TOOL ASSORTMENT ROTORTEC 207 pieces

- Particularly suited for repair and maintenance of helicopters of all manufacturers
- Tools in metric and inch (AF) sizes
- Working platform in ABS with 3 compartments for small parts
- With handle for easy pushing, pulling and turning
- With nine drawers: 8x type 1 height 67 mm and 1x type 2 height 137 mm
- Single-hand operation with safety locking which prevents the drawers from opening when in motion
- With "Check-Tool-System": 2-colour plastic insert to check that the set is complete
- Storage compartment on the handle side with perforated sheet 9 x 33 mm to fix accessories
- Compartment door lockable (with padlock) with 4 removable drawers for small parts, also usable as personal compartment. Corresponding sticker is attached.
- Heel protection and all-round impact protection
- GEDORE heavy-duty chassis with high-performance wheels on roller bearings, with 2 fixed castors Ø 200 mm and 2 swivel castors Ø 125 mm, one with total brake
- Total load capacity 500 kg
- Dimensions: H 985 x W 775 x D 435 mm
- In GEDORIT blue, drawers GEDORIT silver, top black



Code	No.	Contents
1988670	**2004-1085 A**	2004 0810 + S 1085 A
1988689	**S 1085 A**	**4 R** 1/4x5/16 1/2x9/16" **6** 4x5 6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22 21x23 24x26 25x28 27x32 30x32 **7** 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 26 27 30 32 **7** 7/32 1/4 5/16 11/32 3/8 7/16 1/2 9/16 5/8 11/16 3/4 7/8 15/16 1" **7 R** 10 13 **8** 4 5 5,5 6 7 8 9 10 11 12 13 14 **D 20** 4 4,5 5 5,5 6 7 8 9 10 11 12 13 14 **D 20** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2 9/16" **D 20 L** 3/16 1/4 5/16 3/8 7/16" **DG 20** 1/4 5/16 3/8 7/16 1/2 9/16" **IN 20** 5 **2093 U**-20 **2030** **2087 A** **2088** **2097** **2098** **2090**-2 -4 -6 -12 **3093 U**-20 **3019** **3020** **3090**-5 **D 19 L** 17 **1930** **689 TS** 2 4 6 8 10 **689 TW** 2 4 6 8 10 **620** **674** **2150** 3 4 5,5 6,5 8 10 **2153** 4 6,5 **2160 PH** 0 1 2 3 **2161 PH** 1 2 **H 42**-10 **8245**-180 JC **8316**-160 JC **8136**-200 JC **8136 AB**-200 JC **8120**-160 JC **8096**-140 **145** 10 JC **8385** **8386** **403** **404** **640**-1800 **641** **644** **702** 13 A 20 M 88 M **710** **717**-30 **4534**-3 **718** **720** **745** **4522** **8701** 2-8 **8719** 2-8 **8722** 2-8 **8725** 2-8 **8728** **97**-175 **98**-125 **99** 10-2 10-3 10-4 12-5 **100**-10 **119**-2 -3 -4 -5 -6 -8 **600 H**-500 **248 ST**-30

2004-1085 A

	2004 0810
	4 R 1/4x5/16AF 1/2x9/16AF
	6 4x5 6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22 21x23 24x26 25x28 27x32 30x32
	7 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 26 27 30 32 7/32AF 1/4AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF 5/8AF 11/16AF 3/4AF 7/8AF 15/16AF 1AF
	7 R 10 13
	8 4 5 5,5 6 7 8 9 10 11 12 13 14
	D 20 4 4,5 5 5,5 6 7 8 9 10 11 12 13 14 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF
	D 20 L 3/16AF 1/4AF 5/16AF 3/8AF 7/16AF
	DG 20 1/4AF 5/16AF 3/8AF 7/16AF 1/2AF 9/16AF
	IN 20 5
	2093 U -20
	2030
	2087 A
	2088
	2097
	2098
	2090 -2 -4 -6 -12
	D 30 16 17 19
	3093 U -20
	3019
	3020
	3090 -5
	D 19 L 17
	1930
	689 TS 2 4 6 8 10
	689 TW 2 4 6 8 10
	620
	674
	2150 3 4 5,5 6,5 8 10
	2153 4 6,5
	2160 PH 0 1 2 3
	2161 PH 1 2
	42 1,3 1,5 2 (5/64AF) 2,5 3 4 5 6 8 10
	8245 -180 JC
	8316 -160 JC
	8136 -200 JC
	8136 AB -200 JC
	8120 -160 JC
	8096 -140
	145 10 JC
	8385
	8386
	403
	404
	640 -1800
	641
	644
	702 13 A 20 M 88 M
	710
	717 -30
	4534 -3
	718
	720
	745
	4522
	8701 2-8
	8719 2-8
	8722 2-8
	8725 2-8
	8728
	97 -175
	98 -125
	99 10-2 10-3 10-4 12-5
	100 -10
	119 -2 -3 -4 -5 -6 -8
	600 H -500
	248 ST-30

1335-1081 AA

TOOL BOX WITH TOOL ASSORTMENT JETTEC APRON 91 pieces

- Particularly suitable for Line Maintenance (on outside station)
- With "Check-Tool-System": 2-colour plastic insert to check that the set is complete
- Due to an approved riveting technology, GEDORE tool boxes may be opened and closed especially easily and are very sturdy
- The design of the joint system allows the tool compartments to be fully pulled out
- The wide floor guarantees great stability even if only one side is opened
- Blue stove enamelled
- Dimensions: H 210 x W 535 x D 225 mm

1335 JetTec

S 1081 A

1335 CTL

Code	No.	Contents
1988603	**1335-1081 AA**	1335 CT L + S 1081 A
1988611	**S 1081 A**	**4 R** 1/4x5/16 5/16x11/32 3/8x7/16 1/2x9/16" **7** 1/4 5/16 11/32 3/8 7/16 1/2 9/16 5/8 11/16 3/4 7/8" **D 20** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2 9/16" **D 20 L** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2" **DG 20** 1/4 5/16 3/8 7/16 1/2 9/16" **2093 U**-20 **2030 2095** **2090**-4 -6 -12 **2098** **3093 U**-20 **3020 3084 L** **689 TS** 2 4 6 8 10 **689 TW** 2 4 6 8 10 **620 674** **2150** 4 5,5 **2153** 4 **2160 PH** 1 2 **2161 PH** 1 **173** 5,5 **174** 1 **H 42**-88 A **8245**-180 JC **8316**-160 JC **8136**-200 JC **8136 AB**-200 JC **137** 10 **145** 10 JC **8385 8386** **4522** **4534**-3 **718** **600 H**-300 **248 ST**-25

1335-1081 AA

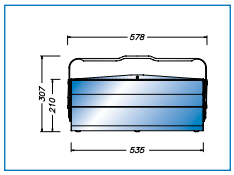
	1335 CT L
	**4 R** 1/4x5/16AF 5/16x11/32AF 3/8x7/16AF 1/2x9/16AF
	**7** 1/4AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF 5/8AF 11/16AF 3/4AF 7/8AF
	**D 20** 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF
	**D 20 L** 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF
	**DG 20** 1/4AF 5/16AF 3/8AF 7/16AF 1/2AF 9/16AF
	**2093 U** -20
	**2030**
	**2095**
	2090 -4 -6 -12
	**2098**
	**3093 U** -20
	**3020**
	**3084 L**
	**689 TS** 2 4 6 8 10
	**689 TW** 2 4 6 8 10
	**620**
	**674**
	**2150** 4 5,5
	**2153** 4
	**2160 PH** 1 2
	**2161 PH** 1
	**173** 5,5
	**174** 1

	**42** 2 (5/64AF) 3/32AF 1/8AF 5/32AF 3/16AF 7/32AF (5,5MM) 1/4AF 5/16AF
	**8245** -180 JC
	**8316** -160 JC
	**8136** -200 JC
	**8136 AB** -200 JC
	**145** 10 JC
	**137** 10
	**8385**
	**8386**
	**4522**
	**4534** -3
	**718**
	**600 H** -300
	**248 ST** -25

1335 CT L

TOOL BOX 5 compartments, long pattern

- With riveted joins
- Tool compartments can be fully pulled out
- Great stability even if only one side is opened
- Blue stove enamelled
- Dimensions: H 210 x W 535 x D 225 mm



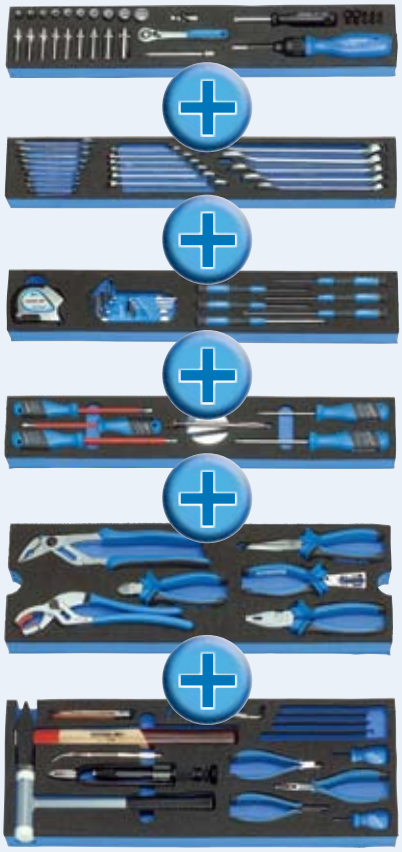
Code	No.	H	B	T	
2003708	**1335 CT L**	210	535	225	6,3

1335-1082 EA

TOOL BOX WITH TOOL ASSORTMENT JETTEC E 97 pieces

- Particularly suitable for aircraft's electronics engineers
- With "Check-Tool-System": 2-colour plastic insert to check that the set is complete
- Due to an approved riveting technology, GEDORE tool boxes may be opened and closed especially easily and are very sturdy
- The design of the joint system allows the tool compartments to be fully pulled out
- The wide floor guarantees great stability even if only one side is opened
- Blue stove enamelled
- Dimensions: H 210 x W 535 x D 225 mm

1335 JetTec E



S 1082 A

1335 CTL

Code	No.	Contents
1988654	**1335-1082 EA**	1335 CT L + S 1082 A
1988662	**S 1082 A**	**4 R** 1/4x5/16 5/16x11/32 3/8x7/16 1/2x9/16" **7** 1/4 5/16 11/32 3/8 7/16 1/2 9/16 5/8 11/16 3/4 7/8" **8** 5/32 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16" **D 20** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2 9/16" **D 20 L** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2" **2093 U**-20 **2090**-4 **2095** **2098** **689 TS** 2 4 6 8 **689 TW** 2 4 6 8 10 **620** **674** **2160 PH** 1 2 **2161 PH** 1 **2170** 2,5 4 5,5 **2153** 4 **165 PH** 00 0 1 **171 IS** 2 2,5 3 **173** 5,5 **174** 1 **H 42**-88 A **8245**-180 JC **8314**-140 JC **8136 AB**-200 JC **8099**-160 JCP **8308**-5 **8305**-9 **8306**-1 **145** 10 JC **8385** **8386** **718** **720** **4534**-3 **4522** **600 H**-300 **248 ST**-25

1335-1082 EA

	1335 CT L
	4 R 1/4x5/16AF 5/16x11/32AF 3/8x7/16AF 1/2x9/16AF
	7 1/4AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF 5/8AF 11/16AF 3/4AF 7/8AF
	8 5/32AF 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF
	D 20 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF
	D 20 L 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF
	2093 U -20
	2090 -4
	2095
	2098
	689 TS 2 4 6 8
	689 TW 2 4 6 8 10
	620
	674
	2160 PH 1 2
	2161 PH 1
	2170 2,5 4 5,5
	2153 4
	165 PH 0 00 1
	171 IS 2 2,5 3
	173 5,5
	174 1
	42 2 (5/64AF) 3/32AF 1/8AF 5/32AF 3/16AF 7/32AF (5,5MM) 1/4AF 5/16AF
	8245 -180 JC
	8314 -140 JC
	8136 AB -200 JC
	8099 -160 JCP

	8308 -5
	8305 -9
	8306 -1
	145 10 JC
	8385
	8386
	718
	720
	4534 -3
	4522
	600 H -300
	248 ST -25

1335-1086 A

TOOL BOX WITH TOOL ASSORTMENT AEROTEC 95 pieces

- Particularly suitable for repair and maintenance on business and single piston engine aircrafts
- With "Check-Tool-System": 2-colour plastic insert to check that the set is complete
- Due to an approved riveting technology, GEDORE tool boxes may be opened and closed especially easily and are very sturdy
- The design of the joint system allows the tool compartments to be fully pulled out
- The wide floor guarantees great stability even if only one side is opened
- Blue stove enamelled
- Dimensions: H 210 x W 535 x D 225 mm

1335 AeroTec

S 1086 A

1335 CTL

Code	No.	Contents
1988697	**1335-1086 A**	1335 CT L + S 1086 A
1988700	**S 1086 A**	**7** 1/4 5/16 11/32 3/8 7/16 1/2 9/16 5/8 11/16 3/4 7/8" **8** 3/16 7/32 1/4 9/32 5/16 11/32 7/16 5/32 3/8" **D 20** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2 9/16" **2093 U**-20 **2090**-4 **2030 2095 2098** **D 30** 7/16 1/2 9/16 19/32 5/8 11/16 3/4" **3093 U**-20 **3090**-5 -10 **3020 3095** **689 TS** 4 6 8 **689 TW** 2 4 6 **690** 1 2 **680** 4 5,5 6,5 **620 674** **2150** 4 5,5 **2153** 4 **2160 PH** 1 2 **2161 PH** 1 **H 42 EL**-88 A **8245**-180 JC **8316**-160 JC **8136**-200 JC **145** 10 JC **8385 8386** **702** 13 A **717**-30 **4534**-3 **718 745** **100**-10 **119**-2 -3 -4 -5 -6 -8 -10 **600 H**-300 **248 ST**-25

1335-1086 A

	1335 CT L
	7 1/4AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF 5/8AF 11/16AF 3/4AF 7/8AF
	8 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 7/16AF 5/32AF 3/8AF
	D 20 3/16AF 7/32AF 1/4AF 9/32AF 5/16AF 11/32AF 3/8AF 7/16AF 1/2AF 9/16AF
	2093 U -20
	2090 -4
	2030
	2095
	2098
	D 30 7/16AF 1/2AF 9/16AF 19/32AF 5/8AF 11/16AF 3/4AF
	3093 U -20
	3090 -5 -10
	3020
	3095
	680 4 5,5 6,5
	689 TS 4 6 8
	689 TW 2 4 6
	690 1 2
	620
	674
	2150 4 5,5
	2153 4
	2160 PH 1 2
	2161 PH 1
	42 EL 2 (5/64AF) 3/32AF 1/8AF 5/32AF 3/16AF 7/32AF (5,5MM) 1/4AF 5/16AF
	8245 -180 JC
	8316 -160 JC

	8136 -200 JC
	145 10 JC
	8385
	8386
	702 13 A
	717 -30
	4534 -3
	718
	745
	100 -10
	119 -2 -3 -4 -5 -6 -8 -10
	600 H -300
	248 ST -25

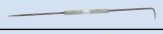
The complete range of GEDORE tool boxes is listed in the GEDORE catalogue or on our website www.gedore.com

S 1087

TOOL ASSORTMENT METAL WORKING 38 pieces

- Particularly suitable for aircraft metal working
- Practical supplement for the sets AeroTec, JetTec Ground, JetTec Apron and RotorTec

Code	No.	Contents
1988719	**S 1087**	**137** 10 11 **8701** 2-8 **8719** 2-8 **8722** 2-8 **8725** 2-8 **8728** **425026** **403** **702** 13 A **640**-1800 **717**-30 **716** **715**-1 -2 **740** **745** **97**-125 -175 **98**-125 **99** 10-2 10-3 10-4 12-5 12-6 **100**-10 **119**-2 -3 -4 -5 -6 -8 **132**-150

	Contents
	**137** 10 11
	**8701** 2-8
	**8719** 2-8
	**8722** 2-8
	**8725** 2-8
	**8728**
	**425026**
	**403**
	**702** 13 A
	**640** -1800
	**717** -30
	**716**
	**715** -1 -2
	**740**
	**745**
	**97** -125 -175
	**98** -125
	99 10-2 10-3 10-4 12-5 12-6
	**100** -10
	**119** -2 -3 -4 -5 -6 -8
	**132** -150

S 1088 EM

TOOL ASSORTMENT METRIC 60 pieces

- Supplement assortment with metrical tools for the aviation

Code	No.	Contents
1988751	**S 1088 EM**	**6** 6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22 **7** 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 **D 20** 4 5 6 7 8 9 10 11 12 13 **D 30** 6 7 8 9 10 11 13 14 15 16 17 18 19 **H 42**-10 **702** 20 M 88 M

	Contents
	**6** 6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22
	**7** 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
	**D 20** 4 5 6 7 8 9 10 11 12 13
	**D 30** 6 7 8 9 10 11 13 14 15 16 17 18 19
	**42** 1,3 1,5 2 (5/64AF) 2,5 3 4 5 6 8 10
	**702** 20 M 88 M

905

CREEPER

- Comfortable, ergonomically shaped one-piece creeper
- With practical carrying handle
- Made from PP - kind on the skin, resistant to oil, grease and brake fluid
- Six swivel rollers ensure easy and safe manoeuvrability
- Fatigue-free working, with head/neck cushion for maximum comfort
- Bucket moulding gives additional hold and allows maximum freedom of movement
- Two storage trays (right/left) to keep tools and small parts within easy reach
- Carrying capacity: 130 kg
- Temperature range -30°C to +60°C
- Dimensions: 115 x 1030 x 480 mm

Code	No.		
1823698	**905**	5.0	1










GEDORE
Werkzeuge fürs Leben · Tools for life

PRECISE AND DURABLE
QUALITY WITH PROFILE

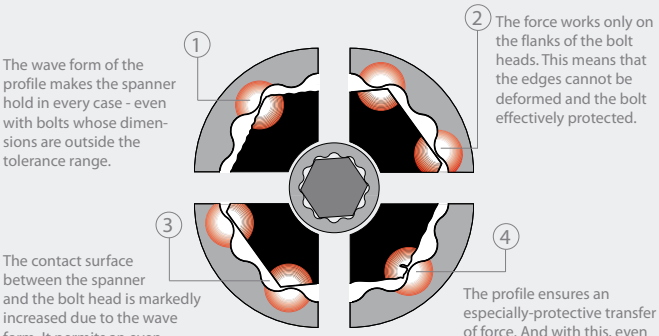
overview

- Combination Spanners
- Ring Spanners
- Open Ended Spanners

HIGH PROFILE SPANNERS

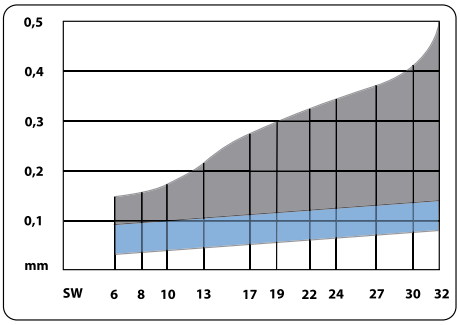
- Comfortable to hold due to ergonomic profiles without sharp edges
- Optimum cross-section for secure grip, even with oily hands
- High bending strength
- Carefully forged and professionally machined
- Non-dazzling matt chrome finish
- Large selection in standardised, non-standardised, metric and imperial sizes (AF and Whitworth)

UNIT DRIVE profile protects bolt heads



THE KEY TO SUCCESS

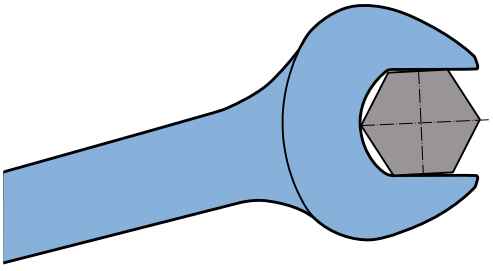
Hi-tech for the exact rated size



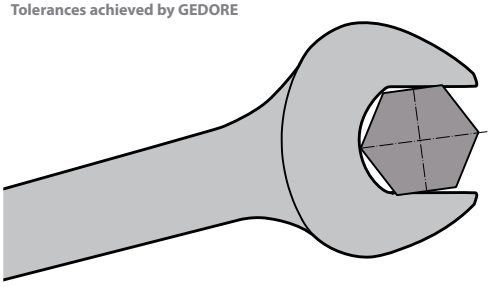
GEDORE DIN standard SW = spanner size

Open-ended spanners have been made since the dawn of technology. But the continued use of traditional tools does not automatically mean that they are still manufactured by conventional production processes. Tried and tested production stages are subject to continuous development by our workforce. Where modern technology can be used to permanently improve the quality, it is used. GEDORE grinds the spanner jaws to the exact rated size, using a hi-tech grinding machine. A perfect fit is the most important requirement for non-damaging and safe working.

- Precision dimensions ensure secure nut and bolt grip
- Long life of nut and bolt
- Complete transmission of the available torque
- Top quality for better working safety



Tolerances achieved by GEDORE

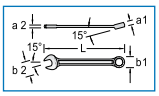


Tolerances permitted by DIN standards

7

COMBINATION SPANNER with same size each end

- To DIN 3113 Form A, ISO 3318, ISO 7738 (only metric sizes)
- GEDORE vanadium steel 31CrV3, chrome-plated
- With same size each end
- Ring 15° offset from shaft
- Sizes 3 to 5.5 with hexagon ring
- * not standardised



Code	No.	*		L	a_1	a_2	b_1	b_2		
6080680	**7 3**	*		78	2.8	2.8	6.5	9.2	8	5
6080760	**7 3,2**	*		78	2.8	2.8	6.5	9.2	8	5
6080840	**7 3,5**	*		78	2.8	2.8	6.5	9.2	8	5
6080920	**7 4**	*		85	3.2	3.2	7.7	11.8	10	5
6081060	**7 4,5**	*		85	3.2	3.2	7.7	11.8	10	5
6081140	**7 5**	*		92	3.6	3.6	9.7	13.2	12	10
6081220	**7 5,5**	*		92	3.6	3.6	9.7	13.2	12	10
6089550	**7 6**			100	5.0	3.4	10.0	16.2	12	10
6089630	**7 7**			110	5.5	3.6	11.5	17.5	15	10
6089710	**7 8**			120	6.0	3.8	12.7	19.8	20	10
6089980	**7 9**			130	6.5	4.0	14.0	21.5	32	10
6090050	**7 10**			140	7.0	4.2	15.5	23.0	34	10
6090130	**7 11**			150	7.5	4.5	17.0	26.0	45	10
6090210	**7 12**			160	8.0	4.8	18.5	27.5	50	10
6090480	**7 13**			170	8.5	5.0	19.5	30.0	65	10
6090560	**7 14**			180	9.0	5.2	21.0	31.8	73	10
6090640	**7 15**			190	9.5	5.5	22.5	34.0	90	10
6091610	**7 16**			200	10.0	5.8	23.0	35.0	120	10
6090720	**7 17**			210	10.5	6.0	25.0	38.0	105	10
6091880	**7 18**			220	11.0	6.2	26.0	40.0	165	10
6090800	**7 19**			230	11.5	6.5	28.0	42.0	150	10
6091960	**7 20**	*		240	12.0	6.8	29.0	44.2	220	10
6092180	**7 21**			252	12.5	7.0	30.0	45.5	250	10
6090990	**7 22**			262	13.0	7.2	32.0	48.0	215	10
6092260	**7 23**	*		270	13.5	7.6	33.0	49.5	335	10
6091020	**7 24**			282	14.0	8.0	35.0	52.5	295	10

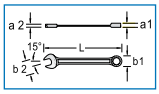
Code	No.	*	L	a_1	a_2	b_1	b_2		
6092340	**7 25**	*	290	14.5	8.2	36.0	54.5	410	10
6092420	**7 26**	*	302	15.0	8.2	37.0	56.5	450	10
6091100	**7 27**		310	15.5	8.5	39.0	59.5	400	10
6092500	**7 28**	*	320	16.0	8.8	40.0	60.0	440	10
6092690	**7 29**	*	330	16.5	8.8	41.5	61.5	500	10
6091290	**7 30**		340	17.0	9.0	43.0	63.0	544	10
6091370	**7 32**		380	18.0	9.5	46.0	67.5	624	10
1827987	**7 34**		420	19.0	10.0	49.0	72.0	750	1
6089470	**7 36**		460	20.0	10.5	52.0	75.0	880	1

Code	No.		L	a_1	a_2	b_1	b_2		
1436767	**7 3/16AF**		85	3.2	3.2	7.7	11.8	12	1
1436775	**7 7/32AF**		92	3.6	3.6	9.7	13.2	12	1
6098700	**7 1/4AF**		100	5.0	3.4	10.0	16.2	14	1
6098890	**7 5/16AF**		120	6.0	3.8	12.7	19.8	20	1
6098970	**7 11/32AF**		130	6.5	4.0	14.0	21.5	30	1
6099190	**7 3/8AF**		140	7.0	4.2	15.5	23.0	45	1
6099270	**7 7/16AF**		150	7.5	4.5	17.0	26.0	45	1
6099430	**7 1/2AF**		170	8.5	5.0	19.5	30.0	50	1
6099510	**7 9/16AF**		180	9.0	5.2	21.0	31.8	65	1
6099780	**7 5/8AF**		200	10.0	5.8	23.0	35.0	75	1
6099860	**7 11/16AF**		220	11.0	6.2	26.0	40.0	100	1
6099940	**7 3/4AF**		230	11.5	6.5	28.0	42.0	135	1
6100030	**7 13/16AF**		252	12.5	7.0	30.0	45.5	180	1
6100110	**7 7/8AF**		262	13.0	7.2	32.0	48.0	190	1
6100380	**7 15/16AF**		282	14.0	8.0	34.0	52.5	240	1
6100460	**7 1AF**		302	15.0	8.2	36.0	56.5	300	1

7 R

OPEN ENDED SPANNER WITH RING RATCHET

- Flat pattern
- Fine-toothed (72 teeth) for ratchet loosening and fast tightening
- High torque transfer
- In combination with adaptor 618 (order separately) the spanner 7 R 10 mm can be used as a 1/4" bit ratchet



Code	No.	L	a_1	a_2	b_1	b_2		
6081300	**7 R 8**	140.0	6.5	4.0	16.6	16.7	30	5
6081490	**7 R 9**	150.0	6.9	4.4	18.5	18.8	40	5
6081570	**7 R 10**	159.0	7.3	4.8	20.0	20.8	43	5
6081650	**7 R 11**	165.0	7.7	5.2	21.5	23.0	55	5
6081730	**7 R 12**	172.0	8.2	5.5	22.6	25.0	63	5
6081810	**7 R 13**	178.0	8.6	5.8	24.6	27.1	73	5
6082030	**7 R 14**	191.0	9.0	6.2	27.0	29.2	92	5
6082110	**7 R 15**	200.0	9.4	6.5	28.3	31.3	108	5
6082380	**7 R 16**	208.5	9.9	6.8	30.0	33.4	119	5
6082460	**7 R 17**	226.0	10.3	7.2	32.0	35.5	147	5
6082540	**7 R 18**	237.0	10.7	7.7	33.0	37.6	171	5
6082620	**7 R 19**	248.0	11.2	8.2	34.0	39.7	193	5
1673319	**7 R 22**	290.0	13.0	9.0	40.0	46.0	325	1
1673327	**7 R 24**	323.0	14.5	10.0	46.0	52.2	465	1
1827995	**7 R 27**	359.0	15.5	10.5	52.5	56.5	676	1
1828002	**7 R 30**	403.0	17.0	11.4	58.5	59.0	909	1
1828010	**7 R 32**	425.0	17.5	12.5	62.5	63.2	1056	1

Code	No.	L	a_1	a_2	b_1	b_2		
1995863	**7 R 1/4AF**	127.5	6.3	3.9	14.0	15.0	24	1
1995871	**7 R 5/16AF**	140.0	6.5	4.0	16.6	16.7	30	1
1995898	**7 R 3/8AF**	159.0	7.3	4.8	20.0	20.8	48	1
1995901	**7 R 7/16AF**	165.0	7.7	5.2	21.8	23.0	58	1
1995928	**7 R 1/2AF**	178.0	8.6	5.8	24.7	27.1	80	1
1995936	**7 R 9/16AF**	191.0	9.0	6.2	27.0	29.2	98	1
1995944	**7 R 5/8AF**	208.0	9.9	6.8	30.0	33.4	140	1
1995952	**7 R 3/4AF**	248.0	11.2	8.2	33.8	39.7	206	1
1995960	**7 R 7/8AF**	290.0	13.0	9.0	40.0	46.0	350	1
1995979	**7 R 1AF**	323.0	14.5	10.0	46.0	52.2	496	1
1995987	**7 R 1.1/16AF**	359.0	15.5	10.5	52.5	56.5	660	1
1995995	**7 R 1.1/8AF**	403.0	17.0	11.4	58.5	62.7	876	1
1996002	**7 R 1.1/4AF**	425.0	17.5	12.5	62.5	66.4	1100	1

7 R-005

OPEN ENDED SPANNERS WITH RING RATCHET SET 5 pieces

- In plastic case
- All usual sizes combined in a set

Code	No.		
1710974	**7 R-005** 8 10 13 17 19	950	1

7 R-012

OPEN ENDED SPANNERS WITH RING RATCHET SET 12 pieces

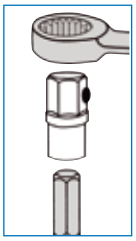
- In sheet metal case
- All usual sizes combined in a set
- Dimensions: 315 x 181 x 40 mm

Code	No.		
1669605	**7 R-012** 8 9 10 11 12 13 14 15 16 17 18 19	2650	1

618

ADAPTOR 1/4"

- To use in conjunction with spanner 7 R 10 or 7 UR 10 as a bit ratchet



Code	No.	⬡"	⬡	⬡mm		
1436791	**618**	1/4	6.3	10	20	10

4 R

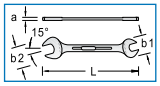
COMBINATION RING RATCHET SPANNER INCH

Code	No.	L	a_1	a_2	b_1	b_2		
1967924	**4 R 5/16x11/32AF**	115	6.3	6.5	14.2	17.2		1
1967916	**4 R 3/8x7/16AF**	128	6.5	6.9	16.8	20.2		1
1967908	**4 R 1/4x5/16AF**	150	7.3	7.7	20.2	21.8		1
1967894	**4 R 1/2x9/16AF**	180	8.6	9.0	24.8	26.5		1

6

DOUBLE OPEN ENDED SPANNER

- To DIN 3110, ISO 3318, ISO 1085, ISO 10102 (only metric sizes)
- Slim pattern, oval shaft
- GEDORE vanadium steel 31CrV3, chrome-plated
- * not standardised



Code	No.	*	L	a	b_1	b_2		
6063400	**6 4x4,5**	*	100	3.4	13.0	14.0	10	10
6063590	**6 4x5**	*	100	3.4	13.0	14.0	10	10
6063670	**6 5x5,5**	*	100	3.4	14.5	16.0	10	10
6063750	**6 5,5x7**	*	122	3.5	16.0	17.5	20	10
6063830	**6 6x7**		122	3.5	16.5	17.5	20	10
6063910	**6 6x8**	*	122	3.5	16.5	20.0	20	10
6064050	**6 7x8**		140	3.8	17.5	20.0	25	10
6064130	**6 7x9**	*	140	3.8	17.5	22.0	25	10
6064210	**6 8x9**		140	3.8	20.0	22.0	25	10
6064480	**6 8x10**		140	4.0	20.0	23.5	30	10
6064560	**6 9x10**	*	157	4.5	22.0	23.5	40	10
6064640	**6 9x11**	*	157	4.5	22.0	26.5	40	10
6064720	**6 10x11**		157	4.5	23.5	26.5	40	10
6064800	**6 10x12**	*	157	4.5	23.5	28.0	40	10
6064990	**6 10x13**		172	5.0	23.5	30.5	55	10
6065020	**6 10x14**	*	172	5.0	23.5	32.0	55	10
6065100	**6 11x13**		172	5.0	26.5	30.5	55	10
6065290	**6 11x14**	*	172	5.0	26.5	32.0	55	10
6065370	**6 12x13**		172	5.0	28.0	30.5	60	10
6065450	**6 12x14**		172	5.0	28.0	32.0	60	10
6065530	**6 13x14**		178	5.0	30.5	32.0	60	10
6065610	**6 13x15**		188	5.5	30.5	34.5	70	10
6068980	**6 13x16**		190	5.5	30.5	35.5	100	10
6065880	**6 14x15**		188	5.5	32.0	34.5	70	10
6065960	**6 13x17**		205	6.0	30.5	38.5	110	10
6066180	**6 14x17**		205	6.0	32.0	38.5	110	10
6066260	**6 16x17**		205	6.0	35.5	38.5	110	10
6066340	**6 16x18**		205	6.0	35.5	40.5	110	10
6066420	**6 17x19**		222	6.5	38.5	43.0	155	10
6066500	**6 18x19**		222	6.5	40.5	43.0	155	10
6069360	**6 18x21**		236	7.0	40.5	46.0	200	10
6066690	**6 17x22**	*	236	7.0	38.5	48.5	210	10
6066770	**6 19x22**		236	7.0	43.0	48.5	210	10
6066850	**6 20x22**	*	236	7.0	44.5	48.5	210	10
6066930	**6 19x24**		250	7.5	43.0	53.5	240	10
6067070	**6 21x23**	*	247	7.5	46.0	50.0	240	10
6069440	**6 21x24**		250	7.5	46.0	53.5	250	10
6067150	**6 22x24**		250	7.5	48.5	53.5	240	10
6067230	**6 22x27**	*	266	8.0	48.5	60.0	300	10
6067310	**6 24x26**	*	266	8.0	53.5	56.5	300	10
6067580	**6 24x27**		266	8.0	53.5	60.0	300	10
6067660	**6 24x30**		280	8.5	53.5	63.5	355	10
6067740	**6 25x28**	*	280	8.5	55.0	60.0	355	10
6067820	**6 27x29**	*	302	9.0	60.0	63.5	460	10
6067900	**6 27x30**		302	9.0	60.0	63.5	460	10
6068040	**6 27x32**		302	9.0	60.0	68.0	460	10
6068120	**6 30x32**		302	9.0	63.5	68.0	460	10
6069520	**6 30x34**		302	9.0	63.5	72.0	540	10
6068200	**6 30x36**		328	9.4	63.5	76.0	650	1
6068390	**6 32x36**		328	9.4	68.0	76.0	650	1
6069600	**6 34x36**		328	9.4	72.0	76.0	560	1
6068470	**6 36x41**		360	10.0	76.0	84.5	830	1
6068550	**6 38x42**	*	360	10.0	77.0	86.0	830	1
6068630	**6 41x46**		400	10.7	86.5	95.5	1150	1
6068710	**6 46x50**		450	11.6	95.5	102.0	1500	1

Code	No.	L	a	b_1	b_2	⚖	▦
6070020	**6 1/4x5/16AF**	122	3.7	17.5	20.0	20	1
6070100	**6 5/16x3/8AF**	140	4.0	20.0	23.5	25	1
6060060	**6 5/16x11/32AF**	140	4.0	20.5	22.5	40	1
6070290	**6 3/8x7/16AF**	157	4.5	23.5	26.5	40	1
6070370	**6 7/16x1/2AF**	172	5.0	26.5	30.0	55	1
6070450	**6 1/2x9/16AF**	190	5.5	30.0	33.0	70	1
6070530	**6 9/16x5/8AF**	190	5.5	33.0	36.0	70	1
6070610	**6 19/32x11/16AF**	205	6.0	34.5	39.5	110	1
6070880	**6 5/8x11/16AF**	205	6.0	36.0	39.5	110	1
6070960	**6 5/8x3/4AF**	222	6.5	36.0	42.5	155	1
6071180	**6 11/16x3/4AF**	222	6.5	39.5	42.5	155	1
6071260	**6 3/4x25/32AF**	222	6.5	42.5	43.5	155	1
6071340	**6 3/4x7/8AF**	236	7.0	42.5	48.5	210	1
6071420	**6 25/32x13/16AF**	236	7.0	44.5	46.0	210	1
6071500	**6 13/16x7/8AF**	236	7.0	46.0	48.5	210	1
6071690	**6 7/8x15/16AF**	250	7.5	48.5	52.0	240	1
6073550	**6 7/8x1.1/16AF**	266	8.0	48.5	60.0	310	1
6071770	**6 15/16x1AF**	266	8.0	52.0	55.0	300	1
6071850	**6 15/16x1.1/8AF**	280	8.5	56.0	63.5	355	1
6071930	**6 1x1.1/8AF**	280	8.5	55.0	63.5	355	1
6072070	**6 1.1/16x1.1/8AF**	302	9.0	60.0	64.5	460	1
6072150	**6 1.1/16x1.1/4AF**	302	9.0	60.0	68.0	460	1
6072230	**6 1.1/8x1.5/16AF**	302	9.0	65.5	70.5	460	1
6072310	**6 1.3/16x1.5/16AF**	302	9.0	65.5	70.5	460	1
6072580	**6 1.1/4x1.3/8AF**	328	9.4	69.5	75.5	650	1
6072660	**6 1.1/4x1.7/16AF**	328	9.4	69.5	75.5	650	1
6072740	**6 1.5/16x1.1/2AF**	328	9.4	74.0	79.0	650	1
6072820	**6 1.3/8x1.1/2AF**	328	9.4	74.0	79.0	650	1

Code	No.	L	a	b_1	b_2	⚖	▦
6074440	**6 1/8x3/16W**	157	4.5	21.0	27.0	40	1
6074520	**6 3/16x1/4W**	172	5.0	27.0	31.0	55	1
6074600	**6 1/4x5/16W**	190	5.5	31.0	35.0	70	1
6074790	**6 5/16x3/8W**	205	6.0	35.0	40.5	110	1
6074870	**6 3/8x7/16W**	236	7.0	40.5	46.0	210	1
6074950	**6 7/16x1/2W**	250	7.5	46.0	51.0	240	1
6075090	**6 1/2x9/16W**	266	8.0	51.0	55.5	300	1
6075250	**6 9/16x5/8W**	280	8.5	56.0	63.5	355	1
6075330	**6 9/16x11/16W**	280	8.5	56.0	63.5	355	1
6075410	**6 5/8x3/4W**	302	9.0	65.5	70.5	460	1
6075680	**6 11/16x3/4W**	302	9.0	65.5	70.5	460	1
6075840	**6 3/4x7/8W**	328	9.4	74.0	79.0	650	1
6075920	**6 7/8x1.W**	360	10.0	77.0	86.0	830	1

6

DOUBLE OPEN ENDED SPANNER SET

- To DIN 3110 ISO 3318, ISO 1085, ISO 10102
- Slim pattern, oval shaft
- GEDORE vanadium steel 31CrV3, chrome-plated
- Sets of the most used sizes
- H = set in stable plastic holder
- WVH = set in tool holder

Code	No.	Contents	⚖	▦
6076810	**6-6**	6x7 8x9 10x11 12x13 14x15 16x17	350	1
6077380	**6-8**	6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22	750	1
6077700	**6-12**	6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22 21x23 24x26 25x28 27x32	2050	1
6078000	**6-600 A**	3/8x7/16 1/2x9/16 5/8x11/16 3/4x25/32 13/16x7/8 15/16x1"	850	1
6078270	**6-8 A**	1/4x5/16 5/16x3/8 7/16x1/2 9/16x5/8 19/32x11/16 3/4x25/32 13/16x7/8 15/16x1"	950	1
6078510	**6-12 A**	1/4x5/16 5/16x3/8 3/8x7/16 7/16x1/2 1/2x9/16 9/16x5/8 19/32x11/16 5/8x3/4 3/4x7/8 25/32x13/16 15/16x1 1.1/16x1.1/8"	1650	1

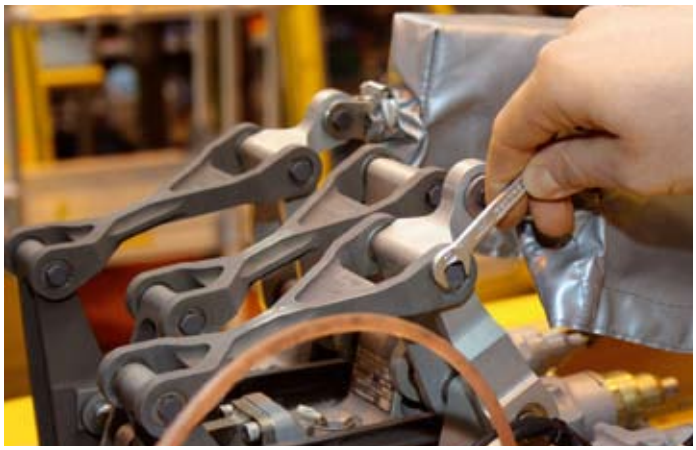
8

DOUBLE ENDED MIDGET SPANNER small

- With same size each end, flat, rings offset at 15° and 75°
- GEDORE vanadium steel 31CrV3, chrome-plated

Code	No.	L	a	b	⚖	▦
6093900	**8 4**	69.0	2.2	10.4	7	10
6094040	**8 4,5**	69.0	2.2	10.4	7	10
6094120	**8 5**	77.3	2.2	12.4	7	10
6094200	**8 5,5**	77.3	2.2	12.4	10	10
6094390	**8 6**	77.3	2.2	12.4	10	10
6094470	**8 7**	89.5	2.6	14.8	10	10
6094550	**8 8**	95.5	3.1	17.5	15	10
6094630	**8 9**	103.8	3.1	20.2	15	10
6094710	**8 10**	103.8	3.1	20.2	20	10
6094980	**8 11**	115.2	3.1	24.0	20	10
6095010	**8 12**	115.2	3.1	24.0	35	10
6095280	**8 13**	130.5	3.1	28.0	35	10
6095360	**8 14**	130.5	3.1	28.0	35	10

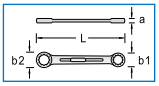
Code	No.	L	a	b	⚖	▦
6096170	**8 5/32AF**	69.0	2.2	10.4		1
1965190	**8 3/16AF**	69.0	2.2	10.4		1
1965204	**8 7/32AF**	77.3	2.2	12.4		1
1965212	**8 1/4AF**	77.3	2.2	12.4		1
1965220	**8 9/32AF**	89.5	2.6	14.8		1
1965239	**8 5/16AF**	95.5	3.1	17.5		1
1965247	**8 11/32AF**	103.8	3.1	20.2		1
6096920	**8 3/8AF**	103.8	3.1	20.2		1
1965255	**8 7/16AF**	115.2	3.1	24.0		1



4

FLAT RING SPANNER straight pattern

- To DIN 837 Form B, ISO 3318, ISO 1085 (only metric sizes)
- GEDORE vanadium steel 31CrV3, chrome-plated
- * not standardised



Code	No.	*	L	a	b_1	b_2		
6052710	**4 6x7**		99	4.5	10.0	11.5	10	10
6053010	**4 8x9**		114	5.2	13.0	14.5	15	10
6053280	**4 8x10**		115	5.2	13.0	16.0	18	10
6053440	**4 10x11**		131	5.8	16.0	17.0	28	10
6053520	**4 10x13**		149	6.4	16.0	20.5	35	10
6053870	**4 12x13**		149	6.4	19.0	20.5	35	10
6054170	**4 13x15**		161	7.2	20.5	23.0	50	10
6054250	**4 14x15**		161	7.2	21.5	23.0	50	10
6054330	**4 13x17**		167	7.8	20.5	25.5	60	10
6054410	**4 14x17**		169	7.8	21.5	25.5	60	5
6054680	**4 16x17**		169	7.8	24.5	25.5	65	10
6054760	**4 17x19**		186	8.5	25.5	28.0	80	10
6054840	**4 18x19**		186	8.5	27.0	28.0	80	10
6054920	**4 19x22**		209	9.4	28.0	32.5	115	10
6055060	**4 20x22**	*	209	9.4	29.5	32.5	120	10
6055140	**4 19x24**	*	233	10.0	28.0	35.5	140	5
6055220	**4 21x23**	*	233	10.0	30.5	33.5	145	5
6055300	**4 22x24**		233	10.0	32.5	35.5	150	10
6055490	**4 24x26**	*	261	10.8	35.5	38.0	190	5
6055570	**4 24x27**		260	10.8	35.5	39.0	200	10
6055730	**4 25x28**	*	289	11.6	36.5	41.0	240	1
6055650	**4 24x30**		290	11.6	35.5	43.5	230	10
6055810	**4 27x32**		320	12.6	39.0	46.0	320	5
6056030	**4 30x32**		320	12.6	43.5	46.0	340	5
6056110	**4 30x36**		357	13.8	43.5	51.5	530	1
6056380	**4 32x36**		357	13.8	46.0	51.5	550	1
6056460	**4 36x41**		391	15.0	51.5	59.0	700	1
6056540	**4 41x46**		431	16.2	59.0	66.0	850	1
6056620	**4 46x50**		473	16.5	66.0	71.5	950	1

Code	No.	L	a	b_1	b_2		
1965263	**4 1/4x5/16AF**	108	5.1	10.3	12.9		1
1965271	**4 5/16x11/32AF**	114	5.1	12.9	14.2		1
1965298	**4 3/8x7/16AF**	131	5.7	15.5	17.1		1
1965301	**4 7/16x1/2AF**	150	6.3	17.2	20.2		1
1965328	**4 1/2x9/16AF**	150	6.3	20.2	21.8		1

4

FLAT RING SPANNER SET

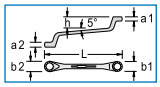
- Made up of sizes most in use

Code	No.		
6061700	**4-8** 6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22	425	1
6062000	**4-12** 6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22 21x23 24x26 25x28 27x32	1300	1
6062190	**4-120** 6x7 8x9 10x11 12x13 14x15 16x17 18x19 20x22 21x23 24x27 25x28 30x32	1350	1

2

DOUBLE ENDED RING SPANNER

- Rings deep offset, strong but thin walls
- To DIN 838, ISO 3318, ISO 1085, ISO 10104 (only metric sizes)
- GEDORE vanadium steel 31CrV3, chrome-plated
- * not standardised



Code	No.	*		L	a_1	a_2	b_1	b_2	h		
6010630	**2 5,5x7**	*		170	5.6	6.6	10.0	12.0	20.7	55	5
6015350	**2 6x7**			170	5.6	6.6	10.5	12.0	20.7	50	10
6015430	**2 7x8**			180	5.6	6.6	12.0	13.3	21.7	65	10
6015510	**2 8x9**			182	6.6	7.6	13.3	14.4	21.7	65	10
6015780	**2 8x10**			182	6.6	8.5	13.3	15.9	21.7	65	10
6015860	**2 9x11**	*		195	7.6	9.5	14.4	17.5	23.6	95	10
6015940	**2 10x11**			195	8.5	9.5	15.9	17.5	23.6	95	10
6016080	**2 10x12**	*		195	8.5	9.6	15.9	19.0	23.6	95	10
6016160	**2 10x13**			212	8.5	10.3	15.9	20.1	25.1	110	10
6016320	**2 11x13**			212	9.5	10.3	17.5	20.1	25.1	110	5
6016400	**2 11x14**	*		212	9.5	10.6	17.5	21.6	25.1	110	5
6016590	**2 12x13**			212	9.6	10.3	19.0	20.1	25.1	120	10
6016670	**2 12x14**			212	9.6	10.6	19.0	21.6	25.1	120	5
6016750	**2 13x14**			225	10.3	10.6	20.1	21.6	26.1	120	5
6016830	**2 13x15**			225	10.3	11.3	20.1	23.1	26.1	155	5
6016910	**2 14x15**			225	10.6	11.3	21.6	23.1	26.1	155	10
6025310	**2 13x16**			235	10.3	11.6	20.1	24.2	26.1	155	5
6017050	**2 13x17**			245	10.3	12.3	20.1	25.8	27.1	210	5
6017130	**2 14x17**			245	10.6	12.3	21.6	25.8	27.1	210	5
6017210	**2 16x17**			245	11.6	12.3	24.2	25.8	27.1	210	10
6025660	**2 16x18**			265	11.6	12.6	24.2	27.0	28.6	210	5
6017480	**2 17x19**			265	12.3	13.0	25.8	28.8	28.6	260	10
6017560	**2 18x19**			265	12.6	13.0	27.0	28.8	28.6	260	10
6025740	**2 18x21**			285	12.6	13.4	27.0	31.1	31.0	325	5
6017720	**2 19x22**			287	13.0	14.3	28.8	33.0	31.0	325	5
6017800	**2 20x22**	*		287	13.3	14.3	30.1	33.0	31.0	325	5
6017990	**2 19x24**			305	13.0	14.4	28.8	35.7	33.0	410	5
6018020	**2 21x23**	*		305	13.4	14.3	30.9	34.0	33.0	410	5
6025820	**2 21x24**			307	13.4	14.4	30.9	35.7	33.0	410	1
6018100	**2 22x24**			307	14.3	14.4	32.8	35.7	33.0	410	10
6018290	**2 22x27**	*		325	14.3	15.4	32.8	40.1	34.5	475	5
6018370	**2 24x26**	*		325	14.4	15.3	35.7	38.0	34.5	475	5
6018450	**2 24x27**			325	14.4	15.4	35.7	40.1	34.5	475	10
6018530	**2 24x30**			345	14.4	16.4	35.7	44.1	35.5	580	5
6018610	**2 25x28**	*		345	14.4	15.4	37.0	41.1	35.5	580	5

Code	No.	*	L	a_1	a_2	b_1	b_2	h		
6018880	**2 27x29**	*	345	14.8	16.4	40.1	42.5	35.5	680	1
6018960	**2 27x30**		345	15.4	16.4	40.1	44.1	35.5	680	5
6019180	**2 27x32**		370	15.4	17.4	40.1	47.1	37.4	680	5
6019260	**2 30x32**		370	16.4	17.4	44.1	47.1	37.4	680	5
6025900	**2 30x34**		375	16.4	18.7	44.1	50.0	37.4	680	1
6019340	**2 30x36**		400	16.4	19.4	43.6	53.0	38.4	1000	1
6019420	**2 32x36**		400	17.4	19.4	47.1	53.0	38.4	1100	1
6026040	**2 34x36**		420	18.7	19.4	50.0	53.0	38.4	950	1
6019500	**2 36x41**		440	19.4	20.4	53.0	60.5	40.4	1210	1
6019690	**2 38x42**	*	440	19.7	20.4	56.4	62.5	40.4	1210	1
6019770	**2 41x46**		485	20.4	22.2	62.0	68.9	42.8	1600	1
6019850	**2 46x50**		535	22.2	23.6	68.9	75.5	47.8	2150	1
6019930	**2 55x60**	*	610	24.6	25.6	84.9	91.8	54.2	3150	1
6020000	**2 65x70**	*	685	26.6	27.6	101.4	107.4	58.1	4650	1
6020190	**2 75x80**	*	790	29.0	30.0	120.0	127.0	61.0	6200	1
6010980	**2 85x90**	*	800	29.0	30.0	120.0	127.0	61.0	7000	1

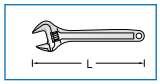
Code	No.	L	a_1	a_2	b_1	b_2	h		
6021400	**2 1/4x5/16AF**	170	6.0	7.2	11.0	13.2	20.7	50	1
6021590	**2 5/16x3/8AF**	180	7.2	8.2	13.2	15.2	21.7	65	1
6021670	**2 3/8x7/16AF**	195	8.2	9.5	15.2	17.5	23.6	95	1
6021750	**2 7/16x1/2AF**	212	9.5	10.0	17.5	20.0	25.1	110	1
6021830	**2 1/2x9/16AF**	225	10.0	10.6	20.0	22.1	26.1	155	1
6021910	**2 9/16x5/8AF**	225	10.6	11.6	22.1	24.2	26.1	155	1
6022050	**2 19/32x11/16AF**	245	11.3	12.3	22.9	26.5	27.1	210	1
6022130	**2 5/8x11/16AF**	245	11.6	12.3	24.2	26.5	27.1	210	1
6022210	**2 5/8x3/4AF**	265	11.6	13.0	24.2	29.0	28.6	260	1
6022480	**2 11/16x3/4AF**	265	12.3	13.0	26.5	29.0	28.6	260	1
6022560	**2 3/4x25/32AF**	265	13.0	13.3	29.0	30.0	28.6	260	1
6022640	**2 3/4x7/8AF**	285	13.0	14.3	29.0	33.3	31.0	325	1
6022720	**2 25/32x13/16AF**	285	13.3	13.6	30.0	31.0	31.0	325	1
6022800	**2 13/16x7/8AF**	285	13.6	14.3	31.0	33.3	31.0	325	1
6025580	**2 7/8x1.1/16AF**	325	14.3	15.8	33.3	40.1	34.5	440	1
6023020	**2 15/16x1AF**	325	14.8	15.0	35.7	37.5	34.5	475	1
6023100	**2 1x1.1/8AF**	345	15.0	16.3	37.5	42.2	35.5	580	1
6023290	**2 1.1/16x1.1/8AF**	345	14.8	16.4	40.0	42.5	35.5	680	1
6023370	**2 1.1/16x1.1/4AF**	370	15.8	17.7	40.1	47.1	37.4	680	1
6023450	**2 1.1/8x1.5/16AF**	370	16.7	18.2	42.5	49.2	37.4	680	1

Code	No.	L	a_1	a_2	b_1	b_2	h		
6026550	**2 1/8x3/16W**	195	7.8	9.5	14.3	18.0	23.6	95	1
6026630	**2 3/16x1/4W**	212	9.5	10.3	18.0	20.9	25.1	110	1
6026710	**2 1/4x5/16W**	225	10.3	11.3	20.9	23.7	26.1	155	1
6026980	**2 5/16x3/8W**	245	11.3	12.6	23.7	27.0	27.1	210	1
6027280	**2 3/8x7/16W**	285	12.6	13.8	27.0	31.0	31.0	325	1
6027360	**2 7/16x1/2W**	305	13.8	14.6	31.0	34.8	33.0	410	1
6027440	**2 1/2x9/16W**	325	14.6	15.0	34.8	38.0	34.5	475	1
6027520	**2 9/16x5/8W**	345	15.0	16.3	38.0	41.0	35.5	580	1
6027600	**2 9/16x11/16W**	345	15.0	16.7	38.0	45.1	35.5	580	1
6027790	**2 5/8x3/4W**	370	16.3	18.2	41.4	48.5	37.4	680	1
6027870	**2 11/16x3/4W**	370	16.7	18.2	45.0	48.5	37.4	680	1
6027950	**2 11/16x13/16W**	400	17.7	19.7	45.5	52.0	38.4	1000	1
6028090	**2 3/4x7/8W**	400	18.7	20.2	48.8	55.5	38.4	1000	1
6028250	**2 1x1.1/8W**	485	20.4	22.2	63.5	71.0	42.8	1600	1
6028330	**2 1.1/8x1.1/4W**	535	22.2	23.6	71.0	78.5	47.8	2150	1

60 CP

ADJUSTABLE WRENCH open end, chrome-plated

- To DIN 3117 Form A
- Jaw set at 15°
- Swedish pattern, roller with left hand thread
- With scale



Code	No.	Size "	L	mm	"inch			
6380990	**60 CP 6**	6	155	20	25/32	0-20	150	1
6381020	**60 CP 8**	8	205	25	1	0-25	250	1
6381100	**60 CP 10**	10	255	30	1.3/16	0-30	450	1
6381290	**60 CP 12**	12	305	36	1.7/16	0-36	700	1

625

MAGNETO SPANNER SET 11 pieces

- Contents: 8 open ended spanners, 1 contact file, 1 screwdriver, 1 feeler gauge 0.40 mm

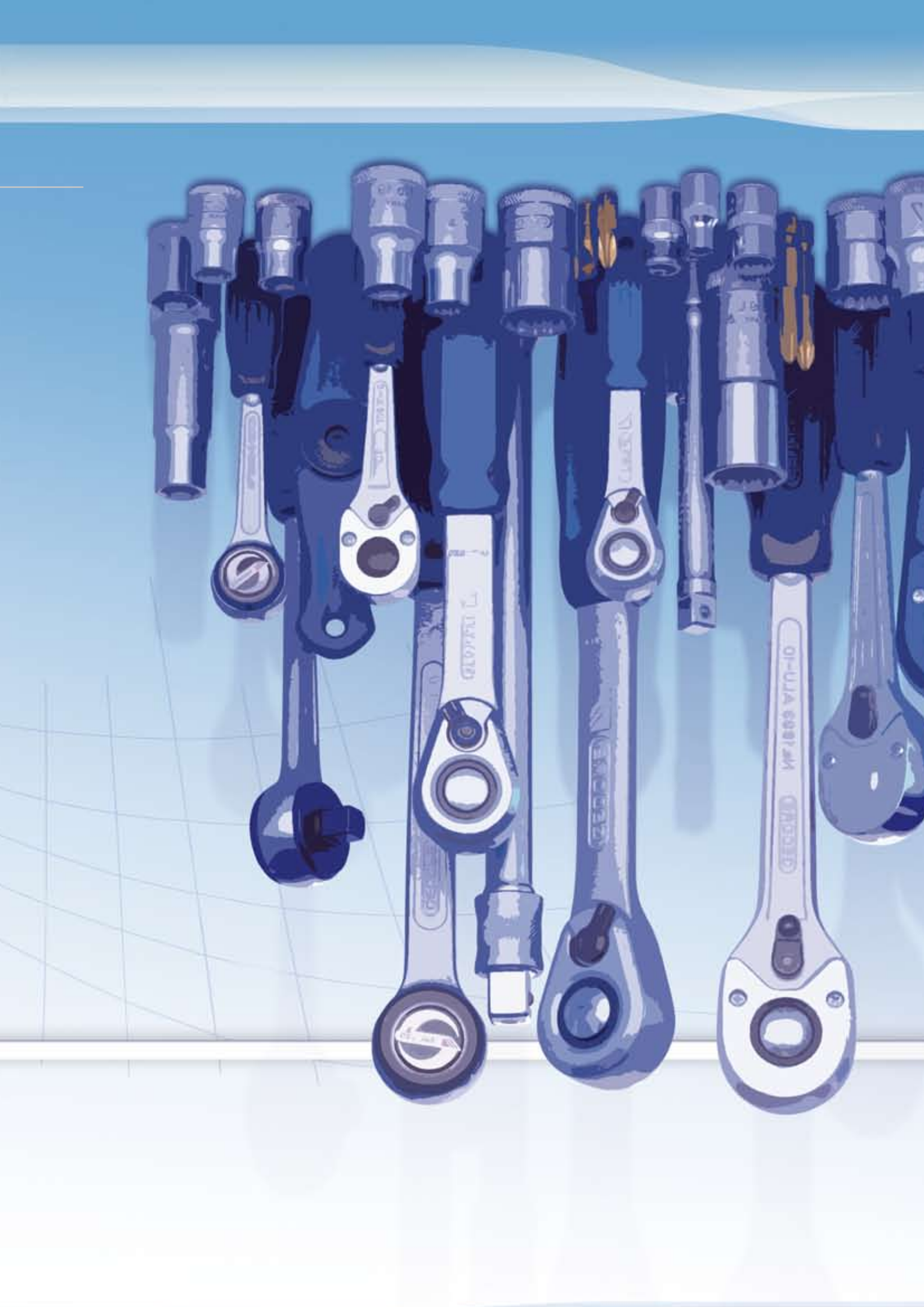
Code	No.		
6524820	**625 M** 4 4,5 5 5,5 6 6,5 7 7,5	50	1
6524900	**625 A** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16"	60	1

RUGGED AND VERSATILE SOCKETS

DESIGN FOR UNIVERSAL USE

overview

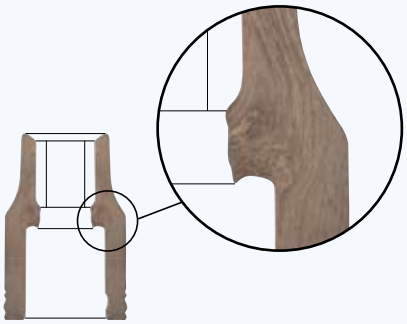
- Ratchets
- Socket sets
- Bits
- Sockets
- Accessories



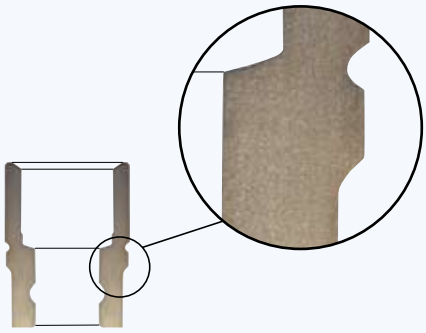
MANUFACTURING PROCESS FOR SOCKETS

Like all hot-forged tools, GEDORE sockets(*) are characterised by their homogeneous structure. The fibres run in parallel with the contour of the tool. The uninterrupted fibre orientation prevents residual stresses in the structure. In cold-formed tools, the fibres or lines of stress are bent. Fibre orientation is also important in the natural world. In a tree, the soft fibre orientation, adapted to the branch shape makes the wood resistant to bending and twisting. If fibres become kinked, the branch loses its stability at the kink point and breaks. The low-stress GEDORE sockets withstand suddenly occurring peak forces better than cold formed sockets.

(*) Not applicable to 1/4" hexagonal sockets



hot forged



cold forged

1

Blank cropped to size from 31CrV3

2

Hot forged in the forging press.

3

Accurately cropped to size.

4

Outside diameter turned and knurled. For this and the next step, GEDORE uses high-tech machinery from its in-house special mechanical engineering department.

5

Counterbored, square socket drive fluted (ball-stop flute), manufacturer and socket size permanently stamped.

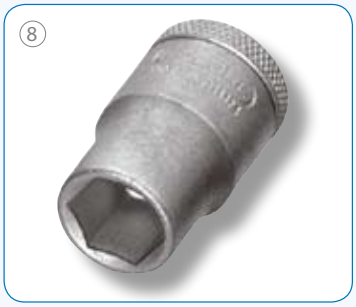
6

Degreased - grease would destroy the protective gas atmosphere in hardening.

7

Hardened under protective gas atmosphere, followed by annealing.

8

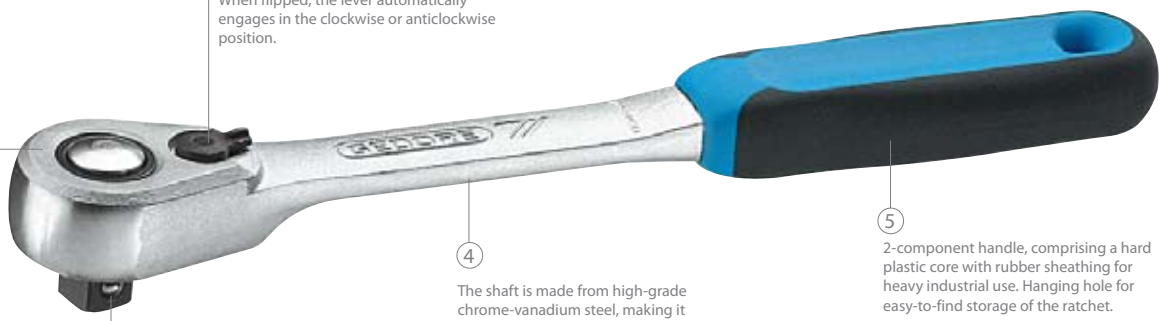


Sand blasted as preparation for surface coating.

9

Nickel-plated and matt-chrome-plated to prevent dazzle. The electrolytically applied nickel coating ensures corrosion protection. The electroplated chrome improves the look and gives the socket a perfect finish.

U-20 RATCHETS Design-orientated premium ratchets



1 Slim, ergonomic design

2 The release head simplifies attachment and removal of sockets. A ball locking device ensures a tight connection when the ratchet is in use.

3 When flipped, the lever automatically engages in the clockwise or anticlockwise position.

4 The shaft is made from high-grade chrome-vanadium steel, making it ideal for heavy constant use.

5 2-component handle, comprising a hard plastic core with rubber sheathing for heavy industrial use. Hanging hole for easy-to-find storage of the ratchet.

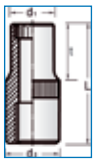
SOCKETS AND RATCHETS

D 20

SOCKET 1/4" UD profile

- Acc. to DIN 3124, ISO 2725-1
- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated

6,3 | 1/4" | UNIT DRIVE



Code	No.	mm	L	d_1	d_2	t		
1649558	**D 20 4**	4.0	24.7	6.9	12.0	2.0	15	1
1649566	**D 20 4,5**	4.5	24.7	7.5	12.0	2.3	15	1
1649574	**D 20 5**	5.0	24.7	8.2	12.0	2.5	10	1
1802402	**D 20 5,5**	5.5	24.7	8.8	12.0	3.0	12	1
1649582	**D 20 6**	6.0	24.7	9.4	12.0	3.5	11	1
1649590	**D 20 7**	7.0	24.7	11.0	12.0	4.0	11	1
6225750	**D 20 8**	8.0	24.7	12.0	12.0	5.0	15	5
6225830	**D 20 9**	9.0	24.7	13.0	13.0	5.0	15	1
6226050	**D 20 10**	10.0	24.7	14.7	14.7	6.0	20	5
6226130	**D 20 11**	11.0	24.7	16.0	16.0	7.0	25	1
6226480	**D 20 12**	12.0	24.7	17.0	17.0	8.0	25	1
6226640	**D 20 13**	13.0	24.7	18.5	18.5	8.0	30	5
6226720	**D 20 14**	14.0	24.7	19.7	19.7	10.0	40	1

Code	No.	"AF	L	d_1	d_2	t		
1812505	**D 20 3/16AF**	3/16	24.7	7.8	12.0	2.5	11	1
1812513	**D 20 7/32AF**	7/32	24.7	8.8	12.0	3.0	12	1
1812521	**D 20 1/4AF**	1/4	24.7	9.8	12.0	3.5	13	1
1812548	**D 20 9/32AF**	9/32	24.7	11.0	12.0	4.0	14	1
6226800	**D 20 5/16AF**	5/16	24.7	12.0	12.0	5.0	15	1
6226990	**D 20 11/32AF**	11/32	24.7	13.0	13.0	5.0	15	1
6227020	**D 20 3/8AF**	3/8	24.7	14.0	14.0	6.0	15	1
1901702	**D 20 13/32AF**	13/32	24.7	15.0	15.0	6.0	20	1
6227370	**D 20 7/16AF**	7/16	24.7	16.0	16.0	7.0	25	1
6227450	**D 20 1/2AF**	1/2	24.7	18.0	18.0	8.0	30	1
6228180	**D 20 9/16AF**	9/16	24.7	20.0	20.0	10.0	40	1

D 20 L

SOCKET 1/4" long, UD profile

6,3 | 1/4" | UNIT DRIVE

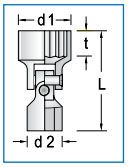
Code	No.	"AF	L	d_1	d_2	t		
1965433	**D 20 L 3/16AF**	3/16	50	7.8	11.0	3.7		1
1965476	**D 20 L 7/32AF**	7/32	50	8.8	11.0	4.5		1
1965417	**D 20 L 1/4AF**	1/4	50	9.8	11.0	5.2		1
1965484	**D 20 L 9/32AF**	9/32	50	11.0	11.0	6.0		1
1965441	**D 20 L 5/16AF**	5/16	50	12.0	11.0	7.5		1
1965492	**D 20 L 11/32AF**	11/32	50	13.0	11.0	7.5		1
1965425	**D 20 L 3/8AF**	3/8	50	14.0	11.0	9.0		1
1965468	**D 20 L 7/16AF**	7/16	50	16.0	11.0	10.5		1
1965409	**D 20 L 1/2AF**	1/2	50	18.0	11.0	12.0		1

DG 20

SWIVEL HEAD SOCKET 1/4" UD profile

- Square drive
- Hand-operated
- Chrome-plated

6,3 | 1/4" | UNIT DRIVE



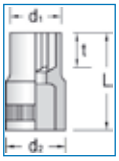
Code	No.	"AF	L	d_1	d_2	t		
1965336	**DG 20 1/4AF**	1/4	38.0	9.8	14.0	3.5		1
1965344	**DG 20 5/16AF**	5/16	38.0	12.0	14.0	5.0		1
1965352	**DG 20 3/8AF**	3/8	39.0	14.0	14.0	6.0		1
1965360	**DG 20 7/16AF**	7/16	41.0	16.0	14.0	7.0		1
1965379	**DG 20 1/2AF**	1/2	42.0	18.0	14.0	8.0		1
1965387	**DG 20 9/16AF**	9/16	43.5	20.0	14.0	9.0		1

TX 20

SOCKET 1/4" for protruding TORX® head screws

- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 | 1/4"



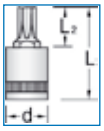
Code	No.			mm	L	d_1	d_2	t		
6193880	**TX 20 E4**	E4	M3	3.86	25	5.5	11	4.5	10	5
6187640	**TX 20 E5**	E5	M4	4.75	25	7.0	11	5.0	10	5
6187720	**TX 20 E6**	E6	M5	5.74	25	8.0	11	5.0	10	5
6187800	**TX 20 E7**	E7	M6	6.22	25	9.5	11	6.0	10	5
6187990	**TX 20 E8**	E8	M6 - M7	7.52	25	10.5	12	6.5	15	5
6193960	**TX 20 E10**	E10	M8	9.42	25	13.0	13	7.0	15	5

ITX 20

SCREWDRIVER BIT SOCKET 1/4" for recessed TORX® head screws

- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, with pressed-in pin, gun-metal finish
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 | 1/4"



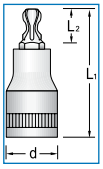
Code	No.			mm	L_1	L_2	d		
6190430	**ITX 20 T8**	T8	M2,5	2.31	30.5	14.5	12	10	10
6190510	**ITX 20 T9**	T9	M3	2.50	30.5	14.5	12	10	10
6190780	**ITX 20 T10**	T10	M3 - M3,5	2.74	30.5	14.5	12	10	10
6190860	**ITX 20 T15**	T15	M3,5 - M4	3.27	30.5	14.5	12	10	10
6190940	**ITX 20 T20**	T20	M4 - M5	3.86	30.5	14.5	12	10	10
6191080	**ITX 20 T25**	T25	M4,5 - M5	4.43	30.5	14.5	12	10	10
6191160	**ITX 20 T27**	T27	M4,5 - M6	4.99	30.5	14.5	12	10	10
6191240	**ITX 20 T30**	T30	M6 - M7	5.52	30.5	14.5	12	15	10
6265890	**ITX 20 T40**	T40	M7 - M8	6.65	33.5	14.0	14	20	10

ITX 20 K

SCREWDRIVER BIT SOCKET 1/4" with ball end for recessed TORX® head screws

- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, with pressed-in pin, gun-metal finish
- Swivel angle approx. 15°-20°
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 | 1/4"



Code	No.			mm	L_1	L_2	d		
6120220	**ITX 20 K T10**	T10	M3 - M3,5	2.74	30.5	14.5	12	20	1
6120300	**ITX 20 K T15**	T15	M3,5 - M4	3.27	30.5	14.5	12	20	1
6120490	**ITX 20 K T20**	T20	M4 - M5	3.86	30.5	14.5	12	20	1
6120570	**ITX 20 K T25**	T25	M4,5 - M5	4.43	30.5	14.5	12	20	1
6120650	**ITX 20 K T27**	T27	M4,5 - M6	4.99	30.5	14.5	12	20	1
6120730	**ITX 20 K T30**	T30	M6 - M7	5.52	30.5	14.5	12	20	1
6120810	**ITX 20 K T40**	T40	M7 - M8	6.65	33.5	14.0	14	20	1

IS 20

SCREWDRIVER BIT SOCKET 1/4" for slotted head screws

- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- Bit as per DIN DIN ISO 2380-1, Form B, manganese-phosphated

6,3 | 1/4"

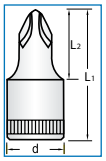
Code	No.	mm	mm	L_1	L_2	d		
6171560	**IS 20 4x0,8**	0.8	4.0	28	14.5	12	20	10
6171640	**IS 20 5,5x1**	1.0	5.5	28	14.5	12	20	10
6174230	**IS 20 6,5x1,2**	1.2	6.5	28	14.5	12	20	10
6174310	**IS 20 8x1,6**	1.6	8.0	28	14.5	12	20	10

IKS 20

SCREWDRIVER BIT SOCKET 1/4" for cross-slotted head screws PH

- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- Bit as per DIN ISO 8764-1 PH, manganese-phosphated

6,3 | 1/4"



Code	No.	PH	L_1	L_2	d		
6174580	**IKS 20 1**	1	28	15	12	20	10
6174660	**IKS 20 2**	2	28	15	12	20	10
6174740	**IKS 20 3**	3	28	15	12	20	10
6174820	**IKS 20 4**	4	28	15	12	20	10

INS 20 PM

SCREWDRIVER BIT SOCKET SET 1/4" 15 pieces

- In plastic case
- Dimensions: 160 x 95 x 38 mm

6,3 | 1/4"

Code	No.		
1815601	**INS 20 PM** **IN 20** 3 4 5 6 8 **IS 20** 4 5,5 6,5 8 **IKS 20** 1 2 3 **IKS 20 PZD** 1 2 3	275	1

ITX 20 TX-015

SCREWDRIVER BIT SOCKET SET 1/4" 15 pieces

- In plastic case
- Dimensions: 160 x 95 x 38 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 1/4"

Code	No.		
1815628	**ITX 20 TX-015** **ITX 20** T8 T9 T10 T15 T20 T25 T27 T30 T40 **TX 20** E4 E5 E6 E7 E8 E10	295	1

IN 20 L

SCREWDRIVER BIT SOCKET 1/4" long, for in-hex screws

- Acc. to DIN 7422
- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated, bit manganese-phosphated

6,3 1/4"

Code	No.	mm	L_1	L_2	d		
1933256	**IN 20 L 3-60**	3	60	28	12	24	1
1933264	**IN 20 L 4-60**	4	60	28	12	25	1
1933272	**IN 20 L 5-60**	5	60	28	12	27	1
1933280	**IN 20 L 6-60**	6	60	28	12	29	1
1933299	**IN 20 L 8-60**	8	60	28	14	50	1

ITX 20 PM

SCREWDRIVER BIT SOCKET SET 1/4" 9 pieces

- In plastic case
- Dimensions: 110 x 65 x 31 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 1/4"

Code	No.		
1815636	**ITX 20 PM** **ITX 20** T8 T9 T10 T15 T20 T25 T27 T30 T40	200	1

2093 U-20

REVERSIBLE RATCHET 1/4"

- Acc. to DIN 3122, ISO 3315
- Fine-toothed, with lever change and push-button release
- Non-slip 2-component handle with hanging hole
- For hand-operated sockets and accessories with square drive as per DIN 3120 C 6.3, ISO 1174, ball locking device

6,3 1/4"

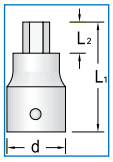
Code	No.	■"	■	∠°	mm			
1703749	**2093 U-20**	1/4	6.3	9	127	20	91	1

IN 20

SCREWDRIVER BIT SOCKET 1/4" for in-hex screws

- Acc. to DIN 7422
- Square drive as per DIN 3120 - C 6.3, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated, bit , manganese-phosphated
- * not standardised

6,3 1/4"



Code	No.	*	mm	L_1	L_2	d		
1812556	**IN 20 2**	*	2.0	28	4.5	12	12	1
1707736	**IN 20 2,5**	*	2.5	28	5.0	12	13	1
6176010	**IN 20 3**		3.0	28	5.5	12	20	10
6176280	**IN 20 4**		4.0	28	7.0	12	20	10
6176360	**IN 20 5**		5.0	28	8.0	12	20	10
6178490	**IN 20 6**		6.0	28	8.5	12	25	10
6178570	**IN 20 8**	*	8.0	28	10.0	12	25	10

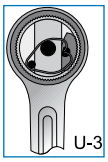
2093 U-3

REVERSIBLE RATCHET 1/4"

- Acc. to DIN 3122, ISO 3315
- With non-slip metal disc change, fine-toothed and robust
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 6.3, ISO 1174, ball locking device

6,3

1/4"



Code	No.	■"	■	∠°	⊢mm⊣			
6170590	**2093 U-3**	1/4	6.3	5	129	25	65	5

2093 U-3 T

RATCHET WITH T-HANDLE 1/4"

- With metal reversing disc and fine-toothed ratchet wheel
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 6.3, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	∠°	⊢mm⊣			
1791532	**2093 U-3 T**	1/4	6.3	5	140	56	1	

2093 HR-94

HAND RATCHET 1/4" without handle

- With square coupler
- Facilitates working quickly in confined spaces where other ratchets or tools do not fit
- Especially suitable for servicing work in conjunction with extension 2090-12
- Dimensions: Ø 26 x 20 mm

6,3

1/4"

Code	No.	■"	■	∠°		
6069870	**2093 HR-94**	1/4	6.3	18	28	1

2087

SLIDING T BAR 1/4"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	⊢mm⊣		
6170160	**2087**	1/4	6.3	115	40	5

2087 A

SLIDING T BAR WITH RELEASE 1/4"

- Secured against unintentional removal
- Turn handle for easy locking and releasing
- An unintentional release during work is averted because of the asymmetrical detachment point
- Particularly useful for work in sensitive areas where certainty against loss is a theme
- Examples: Airplane engine, work in deep machine bodies
- DBGM

6,3

1/4"

Code	No.	■"	■	⊢mm⊣		
1834398	**2087 A**	1/4	6.3	115	38	1

2088

FLEXIBLE EXTENSION 1/4"

- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	mm		
6170240	**2088**	1/4	6.3	120	45	10

2090

EXTENSION 1/4"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device
- * not standardised

6,3

1/4"

Code	No.	*	■"	■	mm		
6170320	**2090-2**		1/4	6.3	55	25	10
6170400	**2090-4**		1/4	6.3	97	45	10
6171210	**2090-6**		1/4	6.3	148	50	10
6173340	**2090-12**	*	1/4	6.3	305	120	1

2090 A

EXTENSION 1/4" with release

- Easy access to deep-fitting screws in confined areas
- No unintentional release of the socket from the extension due to safety ring
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	mm		
1932284	**2090 A-2**	1/4	6.3	55	30	1
1932292	**2090 A-4**	1/4	6.3	97	50	1
1932306	**2090 A-12**	1/4	6.3	305	125	1

2090 KR

UNIVERSAL EXTENSION 1/4"

- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device
- The extension is able to pivot up to 15°

6,3

1/4"

Code	No.	■"	■	mm		
1812564	**2090 KR-2**	1/4	6.3	55	25	1
1812572	**2090 KR-4**	1/4	6.3	97	45	1
6121030	**2090 KR-6**	1/4	6.3	148	60	1

2094

COUPLER 1/4"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	mm		
6170830	**2094**	1/4	6.3	19.8	5	10

2095

UNIVERSAL JOINT 1/4"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	□"	□	mm		
6170910	**2095**	1/4	6.3	1/4	6.3	38	20	10

2097

SWIVEL HANDLE 1/4"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	mm		
6171050	**2097**	1/4	6.3	146	75	1

2098

DRIVING HANDLE 1/4"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

6,3

1/4"

Code	No.	■"	■	mm		
6171480	**2098**	1/4	6.3	140	70	10

2099

TELESCOPIC EXTENSION 1/4" magnetic

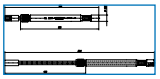
- With 1/4" female square drive and 1/4" female hexagon drive
- Automatic, form-fit connection
- Adjustable in 10 mm steps from 186-296 mm
- Suitable for 1/4" bits as well as with adaptor no. 673 for sockets up to 13 mm
- Made of quality steel, manganese-phosphated resp. chrome-plated

6,3

1/4"

6,3

1/4"



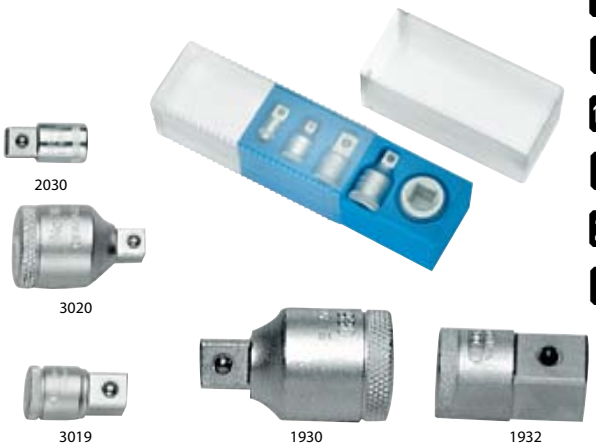
Code	No.	□"	□	⬡"	⬡	mm		
1888455	**2099**	1/4	6.3	1/4	6.3	186-296	205	1

S 2032-05

ADAPTOR SET 1/4" 5 pieces

- Set of reducers and convertors 1/4" - 3/4"
- Reducers 1930, 3020
- Convertors 2030, 3019, 1932
- In transparent plastic box L 134 x W 51 x H 51 mm
- Please take note of the maximum capacity of the external squares of the reducers acc. to DIN 3123, ISO 3316

6,3 · 1/4" · 10 · 3/8" · 12,5 · 1/2" · 20 · 3/4"



Code	No.	Contents		
1729071	**S 2032-05**	2030 1/4"-3/8" 3020 3/8"-1/2" 3019 3/8"-1/2" 1930 1/2"-3/8" 1932 1/2"-3/8"	335	1

20 EAU

SOCKET SET 1/4" INCH 14 pieces

6,3 · 1/4"

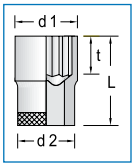
Code	No.	
6172450	**20 EAU-3** U-3 **2093 U**-3 **20** 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16 1/2" **2087** **2090**-4 **2095** **2098**	700

D 30

SOCKET 3/8" UD profile

- Acc. to DIN 3124, ISO 2725-1
- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated
- * not standardised

10 · 3/8" · UNIT DRIVE



Code	No.	*	mm	L	d_1	d_2	t		
1845705	**D 30 6**	*	6	28	9.7	17.5	5.0	20	10
1845713	**D 30 7**		7	28	11.0	17.5	5.0	22	10
1845721	**D 30 8**		8	28	12.1	17.5	9.0	24	10
1845748	**D 30 9**		9	28	13.5	17.5	9.0	26	10
6229230	**D 30 10**		10	28	14.7	17.5	9.0	30	10
6230670	**D 30 11**		11	28	16.0	17.5	9.0	30	5
6230750	**D 30 12**		12	28	17.2	18.3	9.0	32	5
6230830	**D 30 13**		13	28	18.5	17.5	9.0	35	10
6230910	**D 30 14**		14	29	19.7	18.4	11.0	40	5
6231050	**D 30 15**		15	30	21.0	19.7	12.5	42	5
6231130	**D 30 16**		16	30	22.2	21.0	12.5	48	5
6231210	**D 30 17**		17	30	23.5	22.3	12.5	55	10
6231480	**D 30 18**		18	30	24.7	23.0	12.5	60	5
6231560	**D 30 19**		19	30	26.0	23.7	12.5	70	10
6231640	**D 30 20**		20	31	27.2	24.5	12.5	75	5
6231720	**D 30 21**		21	31	28.5	25.8	13.5	82	5
6231800	**D 30 22**		22	32	29.7	26.3	14.5	85	5

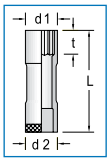
Code	No.	AF	L	d_1	d_2	t		
1997122	**D 30 5/16AF**	5/16	28	12.1	17.5	5.0		1
1997130	**D 30 3/8AF**	3/8	28	14.1	17.5	9.0		1
1997149	**D 30 13/32AF**	13/32	28	15.0	17.5	9.0		1
6232610	**D 30 7/16AF**	7/16	28	16.1	17.5	9.0	30	1
6232880	**D 30 1/2AF**	1/2	28	18.1	19.2	9.0	35	1
6232960	**D 30 9/16AF**	9/16	29	20.1	18.7	11.0	40	1
6233180	**D 30 19/32AF**	19/32	30	21.0	19.7	12.5	42	1
6233260	**D 30 5/8AF**	5/8	30	22.1	20.7	12.5	48	1
6233340	**D 30 11/16AF**	11/16	30	24.0	22.7	12.5	55	1
6233420	**D 30 3/4AF**	3/4	30	26.0	23.7	12.5	70	1
1997157	**D 30 25/32AF**	25/32	31	27.0	24.3	12.5		1
1997165	**D 30 13/16AF**	13/16	31	28.0	25.3	12.5		1
6232020	**D 30 7/8AF**	7/8	32	30.0	26.5	14.5	100	1
1997173	**D 30 15/16AF**	15/16	33	31.9	28.0	15.5		1
1983296	**D 30 1AF**	1	33	33.9	30.0	15.5		1

D 30 L

SOCKET 3/8" long, UD profile

- Acc. to DIN 3124, ISO 2725-1
- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated

10 · 3/8" · UNIT DRIVE



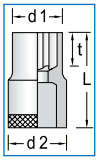
Code	No.	mm	L	d_1	d_2	t		
6258330	**D 30 L 10**	10	63.5	14.7	17.5	11	50	10
6258410	**D 30 L 11**	11	63.5	16.0	17.5	12	60	5
6258680	**D 30 L 12**	12	63.5	17.2	17.5	14	65	5
6258760	**D 30 L 13**	13	63.5	18.5	19.0	14	70	10
6258840	**D 30 L 14**	14	63.5	19.7	19.5	17	85	5
6258920	**D 30 L 15**	15	63.5	21.0	20.5	17	85	5
6259060	**D 30 L 16**	16	63.5	22.2	22.0	17	95	5
6259140	**D 30 L 17**	17	63.5	23.5	20.5	17	105	5
6259220	**D 30 L 18**	18	63.5	24.7	21.5	20	110	5
6259300	**D 30 L 19**	19	63.5	26.0	22.0	20	120	5
6259490	**D 30 L 20**	20	63.5	27.2	23.5	20	135	1
6259570	**D 30 L 21**	21	63.5	28.5	23.5	20	145	1
6259650	**D 30 L 22**	22	63.5	29.7	23.5	23	160	1

Code	No.	AF	L	d_1	d_2	t		
6259730	**D 30 L 3/8AF**	3/8	63.5	14.1	17.5	11	50	1
6259810	**D 30 L 7/16AF**	7/16	63.5	16.1	17.5	12	60	1
6260070	**D 30 L 1/2AF**	1/2	63.5	18.1	19.0	14	70	1
6260150	**D 30 L 9/16AF**	9/16	63.5	20.1	19.5	17	85	1
6260230	**D 30 L 5/8AF**	5/8	63.5	22.1	22.0	17	95	1
6260310	**D 30 L 11/16AF**	11/16	63.5	24.0	20.5	17	105	1
6260580	**D 30 L 3/4AF**	3/4	63.5	26.0	22.0	20	135	1
6260660	**D 30 L 13/16AF**	13/16	63.5	28.3	23.5	20	145	1
6260740	**D 30 L 7/8AF**	7/8	63.5	30.0	23.5	23	160	1

TX 30

SOCKET 3/8" for protruding TORX® head screws

- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA



Code	No.			mm	L	d_1	d_2	t		
6250270	**TX 30 E5**	E5	M4	4.75	28	7.2	17.5	5.0	25	5
6250350	**TX 30 E6**	E6	M5	5.74	28	8.5	17.5	5.0	25	5
6250430	**TX 30 E7**	E7	M6	6.22	28	9.5	17.5	5.5	25	5
6250510	**TX 30 E8**	E8	M6 - M7	7.52	28	10.8	17.5	6.0	25	5
6250780	**TX 30 E10**	E10	M8	9.42	28	13.2	17.5	9.0	30	5
6250860	**TX 30 E11**	E11	-	10.08	28	13.8	17.5	9.0	30	5
6250940	**TX 30 E12**	E12	M10	11.17	28	15.2	17.5	9.0	30	5
6251080	**TX 30 E14**	E14	M12	12.90	28	16.8	18.3	9.0	35	5

ITX 30 L

SCREWDRIVER BIT SOCKET 3/8" long, for recessed TORX® head screws

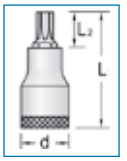
- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, with pressed-in pin, gun-metal finish
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.			mm	L_1	L_2	d		
1394177	**ITX 30 L T20**	T20	M4 - M5	3.86	94	62	17.5	45	5
1394185	**ITX 30 L T25**	T25	M4,5 - M5	4.43	94	62	17.5	45	5
1394193	**ITX 30 L T27**	T27	M4,5 - M6	4.99	94	62	17.5	45	5
1394207	**ITX 30 L T30**	T30	M6 - M7	5.52	94	62	17.5	45	5
1394215	**ITX 30 L T40**	T40	M7 - M8	6.65	94	62	17.5	45	5
1394223	**ITX 30 L T45**	T45	M8 - M10	7.82	94	62	17.5	50	5
1394231	**ITX 30 L T50**	T50	M10	8.83	94	62	19.0	70	5

ITX 30

SCREWDRIVER BIT SOCKET 3/8" for recessed TORX® head screws

- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, with pressed-in pin, gun-metal finish
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

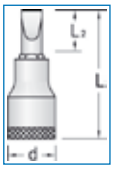


Code	No.			mm	L_1	L_2	d		
6246320	**ITX 30 T20**	T20	M4 - M5	3.86	49	17	17.5	45	5
6246830	**ITX 30 T25**	T25	M4,5 - M5	4.43	49	17	17.5	45	5
6247210	**ITX 30 T27**	T27	M4,5 - M6	4.99	49	17	17.5	45	5
6247560	**ITX 30 T30**	T30	M6 - M7	5.52	49	17	17.5	45	5
6247720	**ITX 30 T40**	T40	M7 - M8	6.65	49	17	17.5	45	5
6247800	**ITX 30 T45**	T45	M8 - M10	7.82	49	17	17.5	50	5
6247990	**ITX 30 T50**	T50	M10	8.83	49	17	19.0	70	5

IS 30

SCREWDRIVER BIT SOCKET 3/8" for slotted head screws

- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, blade as per DIN ISO 2380-1, Form B, manganese-phosphated



Code	No.	mm	mm	L_1	L_2	d		
6666100	**IS 30 5,5x1**	1.0	5.5	55	27	17.5	45	5
1640895	**IS 30 6,5x1,2**	1.2	6.5	55	27	17.5	45	1
6666290	**IS 30 8x1,2**	1.2	8.0	55	23	17.5	50	5
6666370	**IS 30 10x1,6**	1.6	10.0	55	23	19.0	55	5
1640909	**IS 30 12x2**	2.0	12.0	55	23	20.5	80	1

ITX 30 B

SCREWDRIVER BIT SOCKET 3/8" for recessed TORX® head screws with pilot

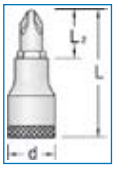
- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, with pressed-in pin, gun-metal finish
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.			mm	L_1	L_2	d	Bore		
1440969	**ITX 30 B T20**	T20	M4 - M5	3.86	49	17	17.5	1,55 x 1,86	47	5
1440977	**ITX 30 B T25**	T25	M4,5 - M5	4.43	49	17	17.5	1,93 x 2,04	47	5
1440985	**ITX 30 B T27**	T27	M4,5 - M6	4.99	49	17	17.5	2,18 x 2,29	46	5
1440993	**ITX 30 B T30**	T30	M6 - M7	5.52	49	17	17.5	2,56 x 2,92	84	5
1429701	**ITX 30 B T40**	T40	M7 - M8	6.65	49	17	19.0	2,92 x 3,28	64	5
1441000	**ITX 30 B T45**	T45	M8 - M10	7.82	49	17	19.0	3,45 x 3,68	65	5
1441019	**ITX 30 B T50**	T50	M10	8.83	49	17	20.5	3,83 x 3,78	77	5

IKS 30

SCREWDRIVER BIT SOCKET 3/8" for cross-slotted head screws PH

- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, tip as per DIN ISO 8764-1 PH, gun-metal finish



Code	No.	PH	L_1	L_2	d		
6666610	**IKS 30 1**	1	55	27	17.5	35	5
6666880	**IKS 30 2**	2	55	23	17.5	45	5
6666960	**IKS 30 3**	3	55	23	19.0	50	5

IN 30

SCREWDRIVER BIT SOCKET 3/8" for in-hex screws

- Acc. to DIN 7422
- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, bit manganese-phosphated
- * not standardised

10 | 3/8"

Code	No.	*	mm	L_1	L_2	d		
6241010	**IN 30 4**		4	47	19	17.5	43	10
6241280	**IN 30 5**		5	47	19	17.5	44	10
6241360	**IN 30 6**		6	47	19	17.5	45	10
1643037	**IN 30 7**	*	7	47	19	17.5	46	1
6241440	**IN 30 8**		8	49	17	17.5	47	10
6242920	**IN 30 10**		10	49	17	19.0	60	10

3093 U-20

REVERSIBLE RATCHET 3/8"

- Acc. to DIN 3122, ISO 3315
- Fine-toothed, with lever change and push-button release
- Non-slip 2-component handle with hanging hole
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 10, ISO 1174, ball locking device

10 | 3/8"

Code	No.	■"	■	∠°	mm			
1556800	**3093 U-20**	3/8	10	6	200	29.7	320	5

IN 30 L

SCREWDRIVER BIT SOCKET 3/8" long, for in-hex screws

- Acc. to DIN 7422
- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, bit manganese-phosphated

10 | 3/8"

Code	No.	mm	L_1	L_2	d		
1510118	**IN 30 L 4-95**	4	95	67	17.5	44	10
1394347	**IN 30 L 5-95**	5	95	67	17.5	44	10
1394355	**IN 30 L 6-95**	6	95	67	17.5	44	10
1394363	**IN 30 L 7-95**	7	95	67	17.5	44	10
1394371	**IN 30 L 8-95**	8	95	63	17.5	44	10
1394398	**IN 30 L 10-95**	10	95	63	19.0	44	10

3093 U-3

REVERSIBLE RATCHET 3/8"

- Acc. to DIN 3122, ISO 3315
- With non-slip metal disc change, fine-toothed and robust
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 10, ISO 1174, ball locking device

10 | 3/8"

Code	No.	■"	■	∠°	mm			
6237090	**3093 U-3**	3/8	10	5	200	33.5	200	5

IN 30 LK

SCREWDRIVER BIT SOCKET 3/8" long, with ball end, for in-hex screws

- Total swivel angle approx. 15°-20°
- Square drive as per DIN 3120 - C 10, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, bit gun-metal finished

10 | 3/8"

Code	No.	mm	L_1	L_2	d		
1505718	**IN 30 LK 4**	4	132	104	17.5	44	10
1505726	**IN 30 LK 5**	5	132	104	17.5	51	10
1505742	**IN 30 LK 6**	6	132	104	17.5	59	10
1505750	**IN 30 LK 8**	8	134	102	17.5	88	10
1505769	**IN 30 LK 10**	10	134	102	19.0	126	10

3093 GU-3

SWIVEL HEAD REVERSIBLE RATCHET 3/8"

- Swivels through 180°, with joint lock
- Fine-toothed, max. torque 200 N·m
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 10, ISO 1174, ball locking device

10 | 3/8"

Code	No.	■"	■	∠°	mm			
6237170	**3093 GU-3**	3/8	10	5	282	33.5	350	5

3019

CONVERTOR 3/8" TO 1/2"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device
- Load capacity as per size 10 (3/8")

10 | 3/8" | 12,5 | 1/2"

Code	No.	□"	□	■"	■	mm		
6236010	**3019**	3/8	10	1/2	12.5	35	50	10

3081

L-HANDLE 3/8"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

10 | 3/8"

Code	No.	■"	■	mm		
6236360	**3081**	3/8	10	180	150	1

3084

SPEED BRACE 3/8"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

10 | 3/8"

Code	No.	■"	■	mm		
6236440	**3084**	3/8	10	288	440	1
1965395	**3084 L**	3/8	10	463		1

3084 L

SPEED BRACE 3/8" long

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

10 | 3/8"

Code	No.	■"	■	mm		
1965395	**3084 L**	3/8	10	463		1

3087

SLIDING T BAR 3/8"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

10 | 3/8"

Code	No.	■"	■	mm		
6236520	**3087**	3/8	10	163	125	5

3087 A

SLIDING T BAR WITH RELEASE 3/8"

- Secured against unintentional removal
- Turn handle for easy locking and releasing
- An unintentional release during work is averted because of the asymmetrical detachment point
- Particularly useful for work in sensitive areas where certainty against loss is a theme
- Examples: Airplane engine, work in deep machine bodies
- DBGM

10 | 3/8"

Code	No.	■"	■	mm		
1871633	**3087 A**	3/8	10	163	135	1

3090

EXTENSION 3/8"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

10 | 3/8"

Code	No.	■"	■	mm		
1476637	**3090-2**	3/8	10	50	70	5
6236600	**3090-3**	3/8	10	76	70	5
6236790	**3090-5**	3/8	10	125	110	5
1476645	**3090-7**	3/8	10	180	70	5
6236870	**3090-10**	3/8	10	250	200	5
6238570	**3090-12**	3/8	10	305	260	5
1476653	**3090-20**	3/8	10	500	330	1

3090 A

EXTENSION 3/8" with release

- Easy access to deep-fitting screws in confined areas
- No unintentional release of the socket from the extension due to safety ring
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

10 | 3/8"

Code	No.	■"	■	mm		
1932314	**3090 A-5**	3/8	10	125	120	1
1932322	**3090 A-10**	3/8	10	250	210	1

3090 KR

UNIVERSAL EXTENSION 3/8"

- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device
- The extension is able to pivot up to 15°

Code	No.	■"	■	mm		
1874381	**3090 KR-3**	3/8	10	76	80	1
1845756	**3090 KR-5**	3/8	10	125	108	1
1845764	**3090 KR-10**	3/8	10	250	197	1

3094

COUPLER 3/8"

- Acc. to DIN 3122, ISO 3316
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

Code	No.	■"	■	mm		
6237760	**3094**	3/8	10	28.8	10	10

3095

UNIVERSAL JOINT 3/8"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

Code	No.	■"	■	□"	□	mm		
6238140	**3095**	3/8	10	3/8	10	51	60	10

3096

SWIVEL HANDLE 3/8"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

Code	No.	■"	■	mm		
6238220	**3096**	3/8	10	254	240	5

3098

SWIVEL HANDLE 3/8"

- For hand-operated sockets and accessories with square drive as per DIN 3120, ISO 1174 ball locking device

Code	No.	■"	■	mm		
6182410	**3098**	3/8	10	450	1000	1

D 30 DAU

SOCKET SET 3/8" INCH 12 pieces

Code	No.		pieces
6239030	**D 30 DAU-10** U-10 **3093** U-10 **30** 1/4 5/16 11/32 3/8" **D 30** 7/16 1/2 9/16 5/8 11/16 3/4" **3090**-5	1005	12

D 30 GAU

SOCKET SET 3/8" INCH 17 pieces

Code	No.		pieces
6240390	**D 30 GAU-3** U-3 **3093** U-3 **30** 1/4 9/32 5/16 11/32 3/8" **D 30** 7/16 1/2 9/16 19/32 5/8 11/16 3/4" **3087** **3090**-5 -10 **3095**	1860	17
6239540	**D 30 GAU-10** U-10 **3093** U-10 **30** 1/4 9/32 5/16 11/32 3/8" **D 30** 7/16 1/2 9/16 19/32 5/8 11/16 3/4" **3087** **3090**-5 -10 **3095**	1880	17

IN 30 LKM

SCREWDRIVER BIT SOCKET SET 3/8" 10 pieces

- For in-hex screws (INBUS®), short and long
- In plastic case
- Dimensions: 200 x 120 x 38 mm
- INBUS® = reg. trademark of Bauer + Schaurte

Code	No.		
1509918	**IN 30 LKM** **IN 30** 4 5 6 8 10 **IN 30 L** 4 5 6 8 10	765	1

ITX 30 PM

SCREWDRIVER BIT SOCKET SET 3/8" 7 pieces

- For recessed TORX® screws
- In blue sheet steel case
- Dimensions: 210 x 70 x 32 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

10 | 3/8"

Code	No.		
1509926	**ITX 30 PM** **ITX 30** T20 T25 T27 T30 T40 T45 T50	585	1

TX 30 E-08

SCREWDRIVER BIT SOCKET SET 3/8" 8 pieces

- For protruding TORX® screws
- In GEDORIT blue sheet steel case
- Dimensions: 210 x 70 x 32 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

10 | 3/8"

Code	No.		
1509934	**TX 30 E-08** **TX 30** E5 E6 E7 E8 E10 E11 E12 E14	450	1

ITX 30 LKP

SCREWDRIVER BIT SOCKET SET 3/8" 14 pieces

- For recessed TORX® screws, short and long
- In plastic case
- Dimensions: 200 x 120 x 38 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

10 | 3/8"

Code	No.		
1509950	**ITX 30 LKP** **ITX 30** T20 T25 T27 T30 T40 T45 T50 **ITX 30 L** T20 T25 T27 T30 T40 T45 T50	1065	1

30 TX 20

SCREWDRIVER BIT SOCKET SET 1/4"-3/8" 28 pieces

- For protruding and recessed TORX® screws
- In plastic case
- Dimensions: 275 x 150 x 42 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 | 1/4" | 10 | 3/8"

Code	No.		
1509969	**30 TX 20** **ITX 30** T25 T27 T30 T40 T45 T50 **ITX 30 L** T20 T25 T27 T30 T40 T45 T50 **TX 30** E8 E10 E11 E12 E14 **ITX 20** T8 T9 T10 T15 T20 **TX 20** E4 E5 E6 E7 **2030**	1465	1

ITX 30 TX-015

SCREWDRIVER BIT SOCKET SET 3/8" 15 pieces

- For protruding and recessed TORX® screws
- In plastic case
- Dimensions: 200 x 120 x 38 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

10 | 3/8"

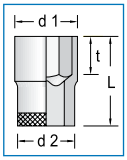
Code	No.		
1509942	**ITX 30 TX-015** **ITX 30** T20 T25 T27 T30 T40 T45 T50 **TX 30** E5 E6 E7 E8 E10 E11 E12 E14	803	1

19

SOCKET 1/2" hexagon

- Acc. to DIN 3124, ISO 2725-1
- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated
- * not standardised

12,5 | 1/2"



Code	No.	*	⌀ mm	L	d_1	d_2	t		
6130020	**19 8**		8	38.0	13.0	22.5	13.5	45	10
6130100	**19 9**	*	9	38.0	14.2	22.5	13.5	48	10
6130290	**19 10**		10	38.0	15.5	22.5	13.5	50	10
6130370	**19 11**		11	38.0	16.7	22.5	12.5	53	10
6130450	**19 12**		12	38.0	18.0	22.5	12.5	55	10
6130530	**19 13**		13	38.0	19.2	22.5	12.5	60	10
6130610	**19 14**		14	38.0	20.5	22.5	12.5	62	10
6130880	**19 15**		15	39.5	21.7	23.8	15.0	65	10
6130960	**19 16**		16	39.5	22.5	23.8	15.0	68	10
6131180	**19 17**		17	39.5	24.0	22.5	15.0	70	10
6131260	**19 18**		18	39.5	25.5	23.0	17.0	72	10
6131340	**19 19**		19	40.0	26.7	24.2	17.0	80	10
6131420	**19 20**		20	40.0	28.0	25.5	17.0	85	10
6131500	**19 21**		21	41.5	29.2	26.0	18.5	95	10
6131690	**19 22**		22	41.5	30.5	26.3	18.5	100	10
6131770	**19 23**	*	23	41.5	31.7	27.5	18.5	105	10
6131850	**19 24**		24	41.5	33.0	28.0	18.5	110	10
6131930	**19 25**	*	25	41.5	34.2	28.8	18.5	120	10
6132070	**19 26**	*	26	41.5	35.5	29.4	18.5	130	10
6132150	**19 27**		27	41.5	36.7	30.0	18.5	150	10
6132230	**19 28**	*	28	43.0	38.0	30.5	20.0	165	10
6132310	**19 29**	*	29	43.0	39.2	31.2	20.0	180	10
6132580	**19 30**		30	43.0	40.5	32.5	20.5	200	10
6132740	**19 32**		32	44.5	43.0	34.5	22.5	210	10
6138270	**19 34**		34	44.5	45.5	37.0	22.5	260	10
1718711	**19 36**	*	36	44.5	48.0	38.0	22.5	260	10

Code	No.	⌀ mm	L	d_1	d_2	t		
6145050	**D 19 L 22**	22	82.0	30.5	28.5	24.0	200	10
6140760	**D 19 L 24**	24	82.0	33.0	29.0	26.0	250	10
6141060	**D 19 L 27**	27	82.0	36.7	30.0	30.0	270	10
6145640	**D 19 L 30**	30	82.0	40.5	32.5	33.0	330	10
6191320	**D 19 L 32**	32	82.0	43.0	34.5	36.0	410	10
6147500	**D 19 L 34**	34	82.0	45.5	36.5	37.0	500	5

Code	No.	⌀ AF	L	d_1	d_2	t		
6141300	**D 19 L 1/2AF**	1/2	77.0	18.7	22.5	16.0	105	1
6141490	**D 19 L 9/16AF**	9/16	77.0	20.7	22.5	17.0	125	1
6141570	**D 19 L 5/8AF**	5/8	77.0	22.5	24.0	18.0	130	1
6141650	**D 19 L 11/16AF**	11/16	77.0	24.7	24.8	18.0	140	1
6141730	**D 19 L 3/4AF**	3/4	82.0	26.7	26.0	22.0	165	1
6141810	**D 19 L 13/16AF**	13/16	82.0	28.5	28.5	22.0	205	1
6142030	**D 19 L 7/8AF**	7/8	82.0	30.6	28.5	24.0	230	1
6142110	**D 19 L 15/16AF**	15/16	82.0	32.6	29.0	26.0	250	1

TX 19

SOCKET 1/2" for protruding TORX® head screws

- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

12,5 | 1/2"

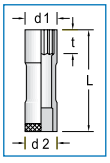
Code	No.		M	mm	L	d_1	d_2	t		
6145720	**TX 19 E10**	E10	M8	9.42	38.0	13.5	22.5	15.5	50	10
6194180	**TX 19 E11**	E11	-	10.08	38.0	14.0	22.5	15.5	50	5
6147340	**TX 19 E12**	E12	M10	11.17	38.0	15.5	22.5	15.5	55	10
6147420	**TX 19 E14**	E14	M12	12.90	38.0	17.0	22.5	13.0	55	10
6194420	**TX 19 E16**	E16	M12	14.76	38.0	19.0	22.5	13.0	60	10
6194500	**TX 19 E18**	E18	M14	16.70	40.0	21.0	24.5	14.0	65	10
6194690	**TX 19 E20**	E20	M16	18.45	40.0	23.5	24.5	14.0	70	10
6195070	**TX 19 E24**	E24	M18 - M20	22.16	41.5	28.5	26.0	16.0	85	5

D 19 L

SOCKET 1/2" long, UD profile

- Acc. to DIN 3124, ISO 2725-1
- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, polished, chrome-plated
- Sizes 16, 18, 21 with Ø 8 mm hole drilled for tommy bar

12,5 | 1/2" | UNIT DRIVE



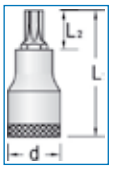
Code	No.	⌀ mm	L	d_1	d_2	t		
6141140	**D 19 L 10**	10	77.0	15.5	22.5	12.0	85	10
6141220	**D 19 L 12**	12	77.0	18.0	22.5	14.0	90	10
6140170	**D 19 L 13**	13	77.0	19.2	22.5	16.0	105	10
6140250	**D 19 L 14**	14	77.0	20.5	22.5	17.0	125	10
6142460	**D 19 L 15**	15	77.0	21.7	22.5	17.0	110	10
6142540	**D 19 L 16**	16	77.0	23.0	24.0	18.0	120	10
6140330	**D 19 L 17**	17	77.0	24.0	24.0	18.0	140	10
6142380	**D 19 L 18**	18	82.0	25.5	25.0	20.0	145	10
6140410	**D 19 L 19**	19	82.0	26.7	26.0	22.0	165	10
6140680	**D 19 L 21**	21	82.0	29.2	28.5	24.0	205	10

ITX 19

SCREWDRIVER BIT SOCKET 1/2" for recessed TORX® head screws

- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, gun-metal finish
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

12,5 | 1/2"

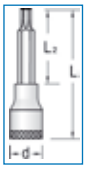


Code	No.		M	mm	L_1	L_2	d		
6152930	**ITX 19 T20**	T20	M4 - M5	3.86	55	17	22.5	60	10
6154200	**ITX 19 T25**	T25	M4,5 - M5	4.43	55	17	22.5	65	10
6154630	**ITX 19 T27**	T27	M4,5 - M6	4.99	55	17	22.5	65	10
6156170	**ITX 19 T30**	T30	M6 - M7	5.52	55	17	22.5	65	10
6156330	**ITX 19 T40**	T40	M7 - M8	6.65	55	17	22.5	65	10
6157060	**ITX 19 T45**	T45	M8 - M10	7.82	55	17	22.5	70	10
6158030	**ITX 19 T50**	T50	M10	8.83	55	17	22.5	90	10
6158380	**ITX 19 T55**	T55	M12	11.22	55	17	23.0	110	10
6158540	**ITX 19 T60**	T60	M14	13.25	55	15	24.7	110	10

ITX 19 L

SCREWDRIVER BIT SOCKET 1/2" long, for recessed TORX® head screws

- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, gun-metal finish
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA



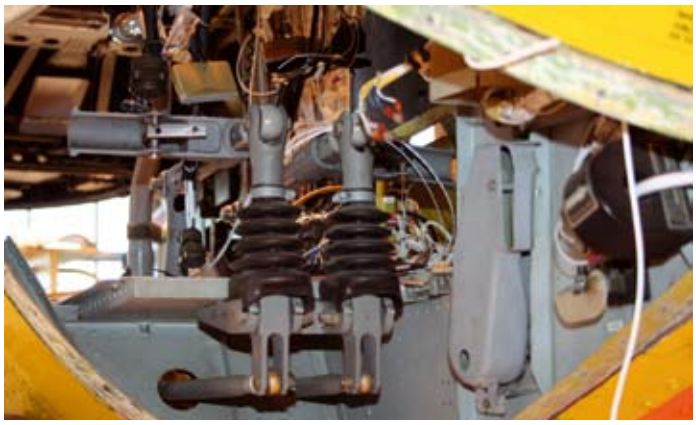
Code	No.			mm	L_1	L_2	d		
6188020	**ITX 19 L T20-100**	T20	M4 - M5	3.86	100	62	22.5	80	5
6188100	**ITX 19 L T25-100**	T25	M4,5 - M5	4.43	100	62	22.5	85	5
6188370	**ITX 19 L T27-100**	T27	M4,5 - M6	4.99	100	62	22.5	85	5
6152500	**ITX 19 L T30-100**	T30	M6 - M7	5.52	100	62	22.5	85	10
6152690	**ITX 19 L T40-100**	T40	M7 - M8	6.65	100	62	22.5	85	10
6155870	**ITX 19 L T45-100**	T45	M8 - M10	7.82	100	62	22.5	90	10
6158700	**ITX 19 L T50-100**	T50	M10	8.83	100	62	22.5	105	10
6159940	**ITX 19 L T55-100**	T55	M12	11.22	100	62	23.0	155	10
6188450	**ITX 19 L T60-100**	T60	M14	13.25	100	60	24.7	155	5
6105180	**ITX 19 L T70-100**	T70	M16	15.55	100	60	28.0	170	5

ITX 19 B

SCREWDRIVER BIT SOCKET 1/2" for recessed TORX® head screws with pilot

- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, gun-metal finish
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

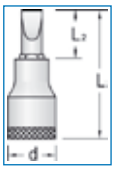
Code	No.			mm	L_1	L_2	d	Bore		
6192720	**ITX 19 B T20**	T20	M4 - M5	3.86	55	17	22.5	1,55 x 1,86	60	5
6195660	**ITX 19 B T25**	T25	M4,5 - M5	4.43	55	17	22.5	1,93 x 2,04	65	5
6196390	**ITX 19 B T27**	T27	M4,5 - M6	4.99	55	17	22.5	2,18 x 2,29	65	5
6200170	**ITX 19 B T30**	T30	M6 - M7	5.52	55	17	22.5	2,56 x 2,92	65	5
6200410	**ITX 19 B T40**	T40	M7 - M8	6.65	55	17	22.5	2,92 x 3,28	65	5
6200840	**ITX 19 B T45**	T45	M8 - M10	7.82	55	17	22.5	3,45 x 3,68	70	5
6201300	**ITX 19 B T50**	T50	M10	8.83	55	17	23.0	3,83 x 3,78	90	5
6202700	**ITX 19 B T55**	T55	M12	11.22	55	15	24.7	4,85 x 4,79	110	5
6203270	**ITX 19 B T60**	T60	M14	13.25	56	16	28.0	5,63 x 7,87	110	5



IS 19

SCREWDRIVER BIT SOCKET 1/2" for slotted head screws

- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, blade as per DIN ISO 2380-1, Form B, manganese-phosphated

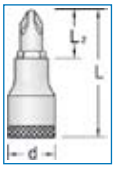


Code	No.	mm	mm	L_1	L_2	d		
6161760	**IS 19 6,5x1,2**	1.2	6.5	60	22	22.5	60	1
6656060	**IS 19 8x1,2**	1.2	8.0	60	22	22.5	50	5
6656140	**IS 19 10x1,6**	1.6	10.0	60	22	22.5	50	5
6656220	**IS 19 12x2**	2.0	12.0	60	22	23.0	65	5
6162140	**IS 19 14x2,5**	2.5	14.0	60	20	24.7	120	5
6656490	**IS 19 16x2,5**	2.5	16.0	60	20	28.0	50	5
6656570	**IS 19 18x2,5**	2.5	18.0	60	20	27.0	65	10

IKS 19

SCREWDRIVER BIT SOCKET 1/2" for cross-slotted head screws PH

- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, tip as per DIN ISO 8764-1 PH, gun-metal finish

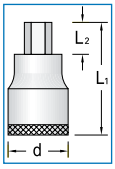


Code	No.	PH	L_1	L_2	d		
6656650	**IKS 19 2**	2	60	22	22.5	75	10
6656730	**IKS 19 3**	3	60	22	22.5	80	10
6656810	**IKS 19 4**	4	60	22	23.0	100	10

IN 19

SCREWDRIVER BIT SOCKET 1/2" for in-hex screws

- Acc. to DIN 7422
- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, bit manganese-phosphated
- **IN 19 17** for oil filter and drain plug screws
- * not standardised



Code	No.	*	mm	L_1	L_2	d		
6153070	**IN 19 4**	*	4	60	22	22.5	45	10
6153150	**IN 19 5**	*	5	60	22	22.5	50	10
6153230	**IN 19 6**		6	60	22	22.5	55	10
6153310	**IN 19 7**		7	60	22	22.5	58	10
6153580	**IN 19 8**		8	60	22	22.5	60	10
6153660	**IN 19 9**	*	9	60	22	22.5	63	10
6153740	**IN 19 10**		10	60	22	22.5	65	10
6153820	**IN 19 12**		12	60	22	23.0	75	10
6153900	**IN 19 14**		14	60	20	24.7	85	10
6154040	**IN 19 17**	*	17	60	20	28.0	115	10
6154120	**IN 19 19**	*	19	60	20	27.0	120	10

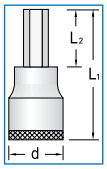
Code	No.	AF	L_1	L_2	d		
6154710	**IN 19 3/16AF**	3/16	60	22	22.5	50	10
6154980	**IN 19 7/32AF**	7/32	60	22	22.5	53	10
6155010	**IN 19 1/4AF**	1/4	60	22	22.5	55	10
6155280	**IN 19 9/32AF**	9/32	60	22	22.5	58	5
6155360	**IN 19 5/16AF**	5/16	60	22	22.5	60	10
6155440	**IN 19 3/8AF**	3/8	60	22	22.5	65	10
6155520	**IN 19 1/2AF**	1/2	60	22	23.0	80	10
6155600	**IN 19 9/16AF**	9/16	60	20	24.7	85	10
6155790	**IN 19 5/8AF**	5/8	60	20	28.0	115	10

IN 19 L

SCREWDRIVER BIT SOCKET 1/2" long, for in-hex screws

- Acc. to DIN 7422
- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, bit manganese-phosphated
- * t = stepped hexagon bit 13 mm
- * not standardised

12,5 | 1/2"



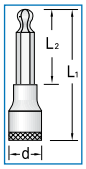
Code	No.	*	mm	L_1	L_2	d	* t		
6162060	**IN 19 L 5-90**	*	5	90	52	22.5	13	75	10
6157140	**IN 19 L 5-180**	*	5	180	142	22.5	13	150	10
6157300	**IN 19 L 6-90**		6	90	52	22.5		70	10
6145800	**IN 19 L 6-140**		6	140	102	22.5	13	90	10
6145990	**IN 19 L 6-160**		6	160	122	22.5	13	120	10
6157570	**IN 19 L 7-100**		7	100	62	22.5		100	10
6157730	**IN 19 L 8-90**		8	90	52	22.5		75	10
6157810	**IN 19 L 8-120**		8	120	82	22.5		20	10
6158110	**IN 19 L 10-140**		10	140	102	22.5		130	10
6158460	**IN 19 L 12-140**		12	140	102	23.0		155	10
6158620	**IN 19 L 14-140**		14	140	100	24.7		190	10

IN 19 LK

SCREWDRIVER BIT SOCKET 1/2" long, with ball end for in-hex screws

- Square drive as per DIN 3120 - C 12.5, ISO 1174, with ball retaining groove
- Hand-operated, chrome-plated
- With pressed-in pin, bit gun-metal finished
- Total swivel angle approx. 15°-20°

12,5 | 1/2"



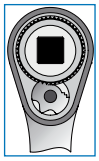
Code	No.	mm	L_1	L_2	d		
6162810	**IN 19 LK 6-140**	6	140	102	22.5	80	10
6165080	**IN 19 LK 7-140**	7	140	102	22.5	90	5
6165160	**IN 19 LK 8-140**	8	140	102	22.5	100	10
6166800	**IN 19 LK 10-140**	10	140	102	22.5	150	10
6172370	**IN 19 LK 12-140**	12	140	102	23.0	190	5

1993 U-20

REVERSIBLE RATCHET 1/2"

- Acc. to DIN 3122, ISO 3315
- Fine-toothed, with lever change and push-button release
- Non-slip 2-component handle with hanging hole
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 12.5, ISO 1174, ball locking device

12,5 | 1/2"



Code	No.	"		°	mm			
1436686	**1993 U-20**	1/2	12.5	6	270	37.5	530	5

1993 U-3

REVERSIBLE RATCHET 1/2"

- Acc. to DIN 3122, ISO 3315
- With non-slip metal disc change, fine-toothed and robust
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 12.5, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	"		°	mm			
6144240	**1993 U-3**	1/2	12.5	5	270	40.5	400	5

1993 GU-3

SWIVEL HEAD REVERSIBLE RATCHET 1/2"

- Swivels through 180°, with joint lock
- Fine-toothed
- Max. torque 300 N·m
- For hand-operated sockets and accessories with square drive as per DIN 3120 - C 12.5, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	"		°	mm			
6144320	**1993 GU-3**	1/2	12.5	5	282	40.5	380	5

1930

REDUCER 1/2" TO 3/8"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device
- Load capacity max. 202 N·m

12,5 | 1/2" | 10 | 3/8"

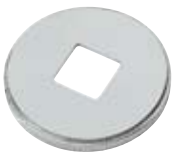
Code	No.	"		"		mm		
6143000	**1930**	1/2	12.5	3/8	10	38.5	60	10

1940

HIGH-SPEED SWIVEL DISC for 1/2" ratchets

- For 12.5 mm (1/2") ratchets
- Tightens loose screws with a flick of the wrist
- Easy assembly between release head and socket
- Speeds up the screwing process

12,5 | 1/2"



Code	No.	"			
1640887	**1940**	1/2	12.5	15	1

1981 K

L-HANDLE 1/2"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	■"	■	⊢mm⊣	⚖	▦
6143270	**1981 K**	1/2	12.5	220	260	1

1985

SPEED BRACE 1/2"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	■"	■	⊢mm⊣	⚖	▦
6143350	**1985**	1/2	12.5	395	650	1

1987

SLIDING T BAR 1/2"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	■"	■	⊢mm⊣	⚖	▦
6143430	**1987**	1/2	12.5	292	350	10

1987 A

SLIDING T BAR WITH RELEASE 1/2"

- Secured against unintentional removal
- Turn handle for easy locking and releasing
- An unintentional release during work is averted because of the asymmetrical detachment point
- Particularly useful for work in sensitive areas where certainty against loss is a theme
- Examples: Airplane engine, work in deep machine bodies
- DBGM

12,5 | 1/2"

Code	No.	■"	■	⊢mm⊣	⚖	▦
1871641	**1987 A**	1/2	12.5	292	375	1

1990

EXTENSION 1/2"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	*	■"	■	⊢mm⊣	⚖	▦
6143510	**1990-2.1/2**	*	1/2	12.5	63	110	10
6143780	**1990-3**		1/2	12.5	76	120	10
6143860	**1990-5**		1/2	12.5	125	165	10
6142890	**1990-7**	*	1/2	12.5	180	250	10
6143940	**1990-10**		1/2	12.5	250	290	10

1990 A

EXTENSION 1/2" with release

- Easy access to deep-fitting screws
- Locking ring prevents unintentional release of the socket
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

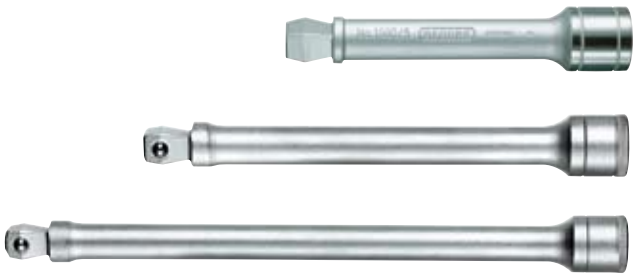
Code	No.	■"	■	⊢mm⊣	⚖	▦
1640828	**1990 A-5**	1/2	12.5	125	315	1
1640801	**1990 A-10**	1/2	12.5	250	190	1

1990 KR

UNIVERSAL EXTENSION 1/2"

- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device
- The extension is able to pivot up to 15°
- Load capacity max. 230 N·m

12,5 | 1/2"



Code	No.	■"	■	⊢mm⊣	⚖	▦
6173180	**1990 KR-5**	1/2	12.5	125	180	1
6225590	**1990 KR-7**	1/2	12.5	180	245	1
6366570	**1990 KR-10**	1/2	12.5	250	250	1

1994

COUPLER 1/2"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	■"	■	mm		
6144670	**1994**	1/2	12.5	37.8	40	10

1995

UNIVERSAL JOINT 1/2"

- Acc. to DIN 3123, ISO 3316
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

Code	No.	■"	■	□"	□	mm		
6144750	**1995**	1/2	12.5	1/2	12.5	73.5	150	10

1996-1997

SWIVEL HANDLE 1/2"

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"

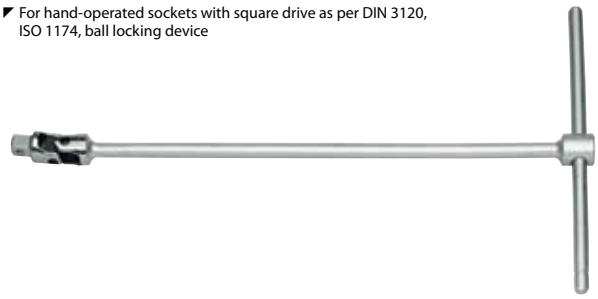
Code	No.	■"	■	mm		
6144830	**1996**	1/2	12.5	255	440	1
6144910	**1997**	1/2	12.5	381	750	10

1998

SWIVEL HANDLE WITH SLIDING T 1/2"

- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

12,5 | 1/2"



Code	No.	■"	■	mm		
6199730	**1998**	1/2	12.5	460	1000	1

D 19 WAU

SOCKET SET 1/2" INCH 24 pieces

12,5 | 1/2" | UNIT DRIVE

Code	No.		pieces
1954024	**D 19 WAU-3** U-3 **1993** U-3 **D 19** 5/16 3/8 13/32 7/16 1/2 9/16 19/32 5/8 11/16 3/4 25/32 13/16 7/8 15/16 1" 1.1/16 1.1/8 1.3/16 1.1/4" **1987** **1990**-5 -10 **1995**	5.0	24

D 19 T

SOCKET SET 1/2" INCH 25 pieces

12,5 | 1/2" | UNIT DRIVE

Code	No.		pieces
6148900	**D 19 TAZ** Z-94 **1993** Z-94 **D 19** 5/16 3/8 13/32 7/16 1/2 9/16 19/32 5/8 11/16 3/4 25/32 13/16 7/8 15/16 1" 1.1/16 1.1/8 1.3/16 1.1/4" **1985** **1987** **1990**-5 -10 **1995**	5.4	25
6149040	**D 19 TAU-10** U-10T **1993** U-10T **D 19** 5/16 3/8 13/32 7/16 1/2 9/16 19/32 5/8 11/16 3/4 25/32 13/16 7/8 15/16 1" 1.1/16 1.1/8 1.3/16 1.1/4" **1985** **1987** **1990**-5 -10 **1995**	5.6	25

D 19 XMAU

SOCKET SET 1/2" INCH 31 pieces

12,5 | 1/2" | UNIT DRIVE

Code	No.		pieces
6149470	**D 19 XMAU-10** U-10T **1993** U-10T **D 19** 11 13 14 17 19 22 24 27 30 32 **D 19** 3/8 13/32 7/16 1/2 9/16 19/32 5/8 11/16 3/4 25/32 13/16 7/8 15/16 1" 1.1/16 1.1/8" **1987** **1990**-5 -10 **1995**	5.8	31

D 19 YMAWU

SOCKET SET 1/2" INCH 41 pieces

Code	No.		pieces
6149980	**D 19 YMAWU-10** U-10T **1993** U-10 T **D 19** 10 11 12 13 14 15 16 17 18 19 20 21 22 **D 19 L** 21 **D 19** 7/16 1/2 9/16 19/32 5/8 11/16 3/4 25/32 7/8 15/16 1" **D 19** 3/16 1/4 5/16 3/8 7/16 1/2 9/16 5/8 11/16 3/4 W **1985** **1990**-5 -10 **1987** **1995**	7.3	41

IN 19 LKM

SCREWDRIVER BIT SOCKET SET 1/2" 15 pieces

- For in-hex screws (INBUS®), short and long
- In GEDORIT blue sheet steel case
- Dimensions: 320 x 208 x 55 mm
- INBUS® = reg. trademark of Bauer + Schaurte

Code	No.		
6129360	**IN 19 LKM** **IN 19** 5 6 7 8 9 10 12 14 17 **IN 19 L** 5-90 6-90 8-90 10-140 12-140 14-140	1.9	1

IN 19 P

SCREWDRIVER BIT SOCKET SET 1/2" 9 pieces

- For in-hex screws (INBUS®)
- In GEDORIT blue sheet steel case
- Dimensions: 281 x 79 x 35 mm
- INBUS® = reg. trademark of Bauer + Schaurte

Code	No.		
6156250	**IN 19 PM** **IN 19** 5 6 7 8 9 10 12 14 17	820	1
6156410	**IN 19 PA** **IN 19** 3/16 7/32 1/4 9/32 5/16 3/8 1/2 9/16 5/8"	815	1

INX 19 P

SCREWDRIVER BIT SOCKET SET 1/2" 9 pieces

- For slotted, cross-head and multi-point screws
- In GEDORIT blue sheet steel case
- Dimensions: 281 x 79 x 35 mm

Code	No.		
6150050	**INX 19 PM** **INX 19** 5 6 8 10 12 **IKS 19** 2 3 **IS 19** 12 16	2.5	1

IN 19 Q

SCREWDRIVER BIT SOCKET SET 1/2" 11 pieces

- For in-hex screws (INBUS®)
- In GEDORIT blue sheet steel case
- Dimensions: 318 x 118 x 50 mm
- INBUS® = reg. trademark of Bauer + Schaurte

Code	No.		
6156920	**IN 19 Q** U-10T **1993** U-10 T **IN 19** 5 6 7 8 9 10 12 14 17 **1990**-7	2.5	1

ITX 19 PM - ITX 19 B-PM

SCREWDRIVER BIT SOCKET SET 1/2" 9 pieces

- ITX 19 PM: for recessed TORX® head screws
- ITX 19 B-PM: for recessed TORX® head screws with pilot
- In GEDORIT blue sheet steel case
- Dimensions: 281 x 79 x 35 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
6158970	**ITX 19 PM** **ITX 19** T20 T25 T27 T30 T40 T45 T50 T55 T60	2.5	1
1394894	**ITX 19 B-PM** **ITX 19 B** T20 T25 T27 T30 T40 T45 T50 T55 T60	2.5	1

ITX 19 LKP

SCREWDRIVER BIT SOCKET SET 1/2" 18 pieces

- For recessed TORX® screws, short and long
- In GEDORIT blue sheet steel case
- Dimensions: 320 x 208 x 55 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

12,5 | 1/2"

Code	No.		
6138510	**ITX 19 LKP** **ITX 19** T20 T25 T27 T30 T40 T45 T50 T55 T60 **ITX 19 L** T20 T25 T27 T30 T40 T45 T50 T55 T60	1.9	1

ITX 19 TX-017

SCREWDRIVER BIT SOCKET SET 1/2" 17 pieces

- For protruding and recessed TORX® screws
- In GEDORIT blue sheet steel case
- Dimensions: 320 x 208 x 55 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

12,5 | 1/2"

Code	No.		
6129520	**ITX 19 TX-017** **ITX 19** T20 T25 T27 T30 T40 T45 T50 T55 T60 **TX 19** E10 E11 E12 E14 E16 E18 E20 E24	2.0	1

TX 19 E-09

SCREWDRIVER BIT SOCKET SET 1/2" 9 pieces

- For protruding TORX® screws
- In GEDORIT blue sheet sheet steel case
- Dimensions: 281 x 79 x 35 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

12,5 | 1/2"

Code	No.		
6265970	**TX 19 E-09** **TX 19** E10 E11 E12 E14 E16 E18 E20 E24 **3019**	0.9	1

19 TX 20

SCREWDRIVER BIT SOCKET SET 1/2" 34 pieces

- 1/4" and 1/2" sockets for protruding and recessed TORX® screws
- In GEDORIT blue sheet steel case
- Dimensions: 320 x 208 x 55 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 | 1/4" | 12,5 | 1/2"

Code	No.		
6129440	**19 TX 20** 1/4 **ITX 19** T40 T45 T50 T55 T60 1/4 **ITX 19 L** T20 T25 T27 T30 T40 T45 T50 T55 T60 1/4 **TX 19** E12 E14 E16 E18 E20 E24 1/4 **ITX 20** T8 T9 T10 T15 T20 T25 T27 T30 1/4 **TX 20** E4 E5 E6 E7 E8 E10	3.2	1

ITX 19-20-30 T

SCREWDRIVER BIT SOCKET SET 1/2" 10 pieces

- 1/4", 3/8" and 1/2" sockets for recessed TORX® screws
- In plastic case
- Dimensions: 200 x 120 x 38 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

6,3 | 1/4" | 10 | 3/8" | 12,5 | 1/2"

Code	No.		
6173500	**ITX 19-20-30 T** 1/4 **ITX 20** T8 T10 T15 3/8 **ITX 30** T20 T25 T30 1/2 **ITX 19** T40 T50 T55 T60	0.8	1

BITS

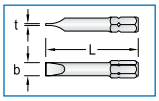
5

10

680

SCREWDRIVER BIT for slotted head screws

- For hand operation and use in electric and air tools
- Acc. to DIN ISO 2351-1
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")
- GEDORE special vanadium steel, gun-metal finishspecial steel, gun-metal finish

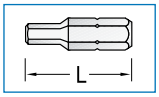


Code	No.	b	t	L		
6537640	**680 4**	4.0	0.5	25	7	10
6537720	**680 4,5**	4.5	0.6	25	7	10
6537800	**680 5,5**	5.5	0.8	25	8	10
6537990	**680 6,5**	6.5	1.2	25	9	10
6538020	**680 7**	7.0	1.2	25	9	10
6538100	**680 8**	8.0	1.6	25	14	10
6538290	**680 10**	10.0	1.6	39	16	5

685

SCREWDRIVER BIT for in-hex screws

- For hand operation and use in electric and air tools
- Acc. to DIN ISO 2351-3
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")
- GEDORE special vanadium steel, gun-metal finish

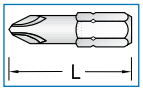


Code	No.	mm	ISO 4762	DIN 7984	L		
1802399	**685 2**	2.0	M2	M2	25	5	10
6538880	**685 2,5**	2.5	M3	M4	25	5	10
6538960	**685 3**	3.0	M4	M5	25	5	10
6539180	**685 4**	4.0	M5	M6	25	6	10
6539260	**685 5**	5.0	M6	M8	25	7	10
6539340	**685 6**	6.0	M8	M10	25	8	10
6539420	**685 8**	8.0	M10	M12	33	12	10
6539500	**685 10**	10.0	M12	M14	33	15	5

690

SCREWDRIVER BIT for cross-slotted head screws PH

- For hand operation and use in electric and air tools
- Acc. to DIN ISO 2351-2, tip as per DIN ISO 8764-1 PH
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")
- GEDORE special vanadium steel, gun-metal finish

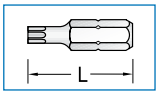


Code	No.	PH	L		
1803514	**690 0**	0	25	5	10
6541240	**690 1**	1	25	5	10
1828150	**690 1 L**	1	50	9	10
6541320	**690 2**	2	25	5	10
6541400	**690 2 L**	2	50	10	10
6541590	**690 3**	3	25	5	10
6541670	**690 3 L**	3	50	8	10
6541750	**690 4**	4	32	15	10

687 TX

SCREWDRIVER BIT for recessed TORX® head screws

- For hand operation and use in electric and air tools
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")
- GEDORE special vanadium steel, gun-metal finish
- TORX® is a registered trademark of Acument Intellectual Properties, LLC. USA

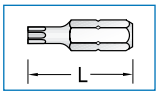


Code	No.			mm	L		
6541830	**687 TX T6**	T6	M2	1.70	25	5	10
6541910	**687 TX T7**	T7	M2,5	1.99	25	5	10
6542050	**687 TX T8**	T8	M2,5	2.31	25	5	10
6542130	**687 TX T9**	T9	M3	2.50	25	5	10
6542210	**687 TX T10**	T10	M3 - M3,5	2.74	25	5	10
6542480	**687 TX T15**	T15	M3,5 - M4	3.27	25	5	10
6542560	**687 TX T20**	T20	M4 - M5	3.86	25	5	10
6542640	**687 TX T25**	T25	M4,5 - M5	4.43	25	5	10
6542720	**687 TX T27**	T27	M4,5 - M6	4.99	25	6	10
6542800	**687 TX T30**	T30	M6 - M7	5.52	25	6	10
6542990	**687 TX T40**	T40	M7 - M8	6.65	25	6	10

688 TX

SCREWDRIVER BIT for recessed TORX® head screws with pilot

- For hand operation and use in electric and air tools
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")
- GEDORE special vanadium steel, gun-metal finish
- TORX® is a registered trademark of Acument Intellectual Properties, LLC. USA



Code	No.			mm	L		
6535510	**688 TX T10**	T10	M3 - M3,5	2.74	25	5	10
6535780	**688 TX T15**	T15	M3,5 - M4	3.27	25	5	10
6535860	**688 TX T20**	T20	M4 - M5	3.86	25	5	10
6535940	**688 TX T25**	T25	M4,5 - M5	4.43	25	5	10
6536080	**688 TX T27**	T27	M4,5 - M6	4.99	25	6	10
6536160	**688 TX T30**	T30	M6 - M7	5.52	25	6	10
6536240	**688 TX T40**	T40	M7 - M8	6.65	25	6	10

689 TS

SCREWDRIVER BIT Four-Wing TORQ-SET®

Code	No.		
1965506	**689 TS 2**	6	1
1965514	**689 TS 4**	6	1
1965522	**689 TS 6**	12	1
1965530	**689 TS 8**	12	1
1965549	**689 TS 10**	20	1

689 TW

SCREWDRIVER BIT Tri-Wing®

Code	No.		
1979868	**689 TW 2**	6	1
1979876	**689 TW 4**	6	1
1979884	**689 TW 6**	12	1
1979892	**689 TW 8**	12	1
1979906	**689 TW10**	20	1

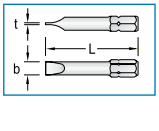
TIN SCREWDRIVER BITS

- Made from high-quality materials with high-strength; double titanium nitride surface coating
- High degree of wear resistance, preventing damage to screw heads and ensuring long life of the bit
- = Sales unit 5 pieces each

TIN 680

SCREWDRIVER BIT for slotted head screws

- For hand operation and use in electric and air tools
- Acc. to DIN ISO 2351-1
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")

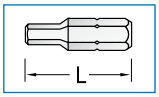


Code	No.	b	t	L		
1828320	**TIN 680 4**	4.0	0.5	25	7	5
1828339	**TIN 680 5,5**	5.5	0.8	25	8	5
1828347	**TIN 680 6,5**	6.5	1.2	25	9	5
1828355	**TIN 680 8**	8.0	1.6	25	14	5

TIN 685

SCREWDRIVER BIT for in-hex screws

- For hand operation and use in electric and air tools
- Acc. to DIN ISO 2351-3
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")

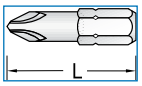


Code	No.	mm	ISO 4762	DIN 7984	L		
1828363	**TIN 685 2**	2.0	M2	M2	25	5	5
1828371	**TIN 685 2,5**	2.5	M3	M4	25	5	5
1828398	**TIN 685 3**	3.0	M4	M5	25	5	5
1828401	**TIN 685 4**	4.0	M5	M6	25	6	5
1828428	**TIN 685 5**	5.0	M6	M8	25	7	5
1828436	**TIN 685 6**	6.0	M8	M10	25	8	5
1828444	**TIN 685 8**	8.0	M10	M12	33	12	5
1828452	**TIN 685 10**	10.0	M12	M14	33	15	5

TIN 690

SCREWDRIVER BIT for cross-head screws PH

- For hand operation and use in electric and air tools
- Acc. to DIN ISO 2351-2, tip as per DIN ISO 8764-1 PH
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")

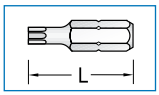


Code	No.	PH	L		
1828533	**TIN 690 1**	1	25	5	5
1828541	**TIN 690 1 L**	1	50	9	5
1828568	**TIN 690 2**	2	25	5	5
1828576	**TIN 690 2 L**	2	50	10	5
1828584	**TIN 690 3**	3	25	5	5
1828592	**TIN 690 3 L**	3	50	11	5

TIN 687 TX

SCREWDRIVER BIT for recessed TORX® head screws

- For hand operation and use in electric and air tools
- Hexagon drive as per DIN 3126 - C 6.3 (1/4")
- TORX® is a registered trademark of Acument Intellectual Properties, LLC. USA



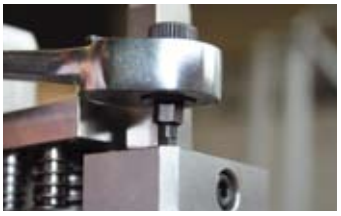
Code	No.			mm	L		
1828460	**TIN 687 TX T10**	T10	M3 - M3,5	2.74	25	5	5
1828479	**TIN 687 TX T15**	T15	M3,5 - M4	3.27	25	5	5
1828487	**TIN 687 TX T20**	T20	M4 - M5	3.86	25	5	5
1828495	**TIN 687 TX T25**	T25	M4,5 - M5	4.43	25	5	5
1828509	**TIN 687 TX T27**	T27	M4,5 - M6	4.99	25	5	5
1828517	**TIN 687 TX T30**	T30	M6 - M7	5.52	25	6	5
1828525	**TIN 687 TX T40**	T40	M7 - M8	6.65	25	6	5

671-022

BIT SET 22 pieces

- Extra slim bit reversible ratchet with most popular bit sizes
- For working in extremely confined spaces
- In plastic case, dimensions: 200 x 120 x 38 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
1814567	**671-022** **671** ⊖ **680** 4 5,5 6,5 8 ◉ **685** 3 4 5 6 ⊕ **690** 1 2 ⊕ **690 PZD** 1 2 3 ✱ **687 TX** T10 T15 T20 T25 T27 T30 **676** **699**	365	1



620-024

BIT SET 24 pieces

- In plastic case, dimensions: 110 x 65 x 31 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
1815695	**620-024** ⊖ **680** 4 6,5 ◉ **685** 3 4 5 6 ◉ **685 X** 5 6 8 ⊕ **690** 1 2 ⊕ **690 PZD** 1 2 3 ✱ **687 TX** T8 T9 T10 T15 T20 T25 T27 T30 T40 **620**	180	1

693-024

BIT SET 24 pieces

- With No. 2093 U-3 T T-handle ratchet and 2093 HR-94 hand ratchet
- In plastic case, dimensions: 200 x 120 x 38 mm
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
1814524	**693-024** **2093 U**-3 T **2093 HR**-94 ⊖ **680** 4 6,5 ◉ **685** 3 4 5 6 ⊕ **690** 1 2 ⊕ **690 PZD** 1 2 3 ✱ **687 TX** T8 T9 T10 T15 T20 T25 T27 T30 T40 **2090**-6 **620**	375	1

620

BIT ADAPTOR 1/4"

- Hex recess drive as per DIN 3126 - D 6.3 (1/4") and square drive as per DIN 3120 - C 6.3 (1/4")

Code	No.	mm		
1649329	**620**	25	13	1

670 K

BIT SCREWDRIVER 1/4" short pattern

- Hex recess drive as per DIN 3126 - D 6.3 (1/4"), for bits
- Magnetic screw retainer
- GEDORE vanadium steel

Code	No.	⬡ "	⬡	mm		
1953796	**670 K**	1/4	6.3	80	100	1

2098 K

DRIVING HANDLE 1/4" short pattern

- Acc. to DIN 3122, ISO 3315
- For hand-operated sockets with square drive as per DIN 3120, ISO 1174, ball locking device

Code	No.	■ "	■	mm		
1953788	**2098 K**	1/4	6.3	70	34	1

671

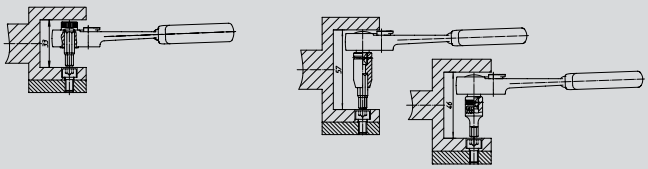
BIT REVERSIBLE RATCHET

- With knurled head for quick starting or counter-holding of screws
- Hex recess drive as per DIN 3126 - D 6.3 (1/4")
- Slimiline design for working in confined spaces

Code	No.	⬡ "	∠ °	mm	mm		
6535350	**671**	1/4	15	127	18.3	105	5

FEATURES

- (1) Bit ratchet and bit
- (2) Ratchet and socket



674

BIT SCREWDRIVER with reversible mechanism

- Hexagon drive as per DIN 3126 - D 6.3 (1/4"), with powerful magnetic screw retainer
- Smooth gear mechanism with knurled head for quick starting or counter-holding of screws
- The blue handle makes it possible to tighten even hard-to-turn wood screws
- The ratchet is reversible and fully lockable

Code	No.	⬡ "	mm	mm		
6530710	**674**	1/4	55	215	200	5

169

MAGAZINE HANDLE SCREWDRIVER

- Magnetic magazine handle with room for 7 bits
- Cap with click-locking
- No. 169 L = empty

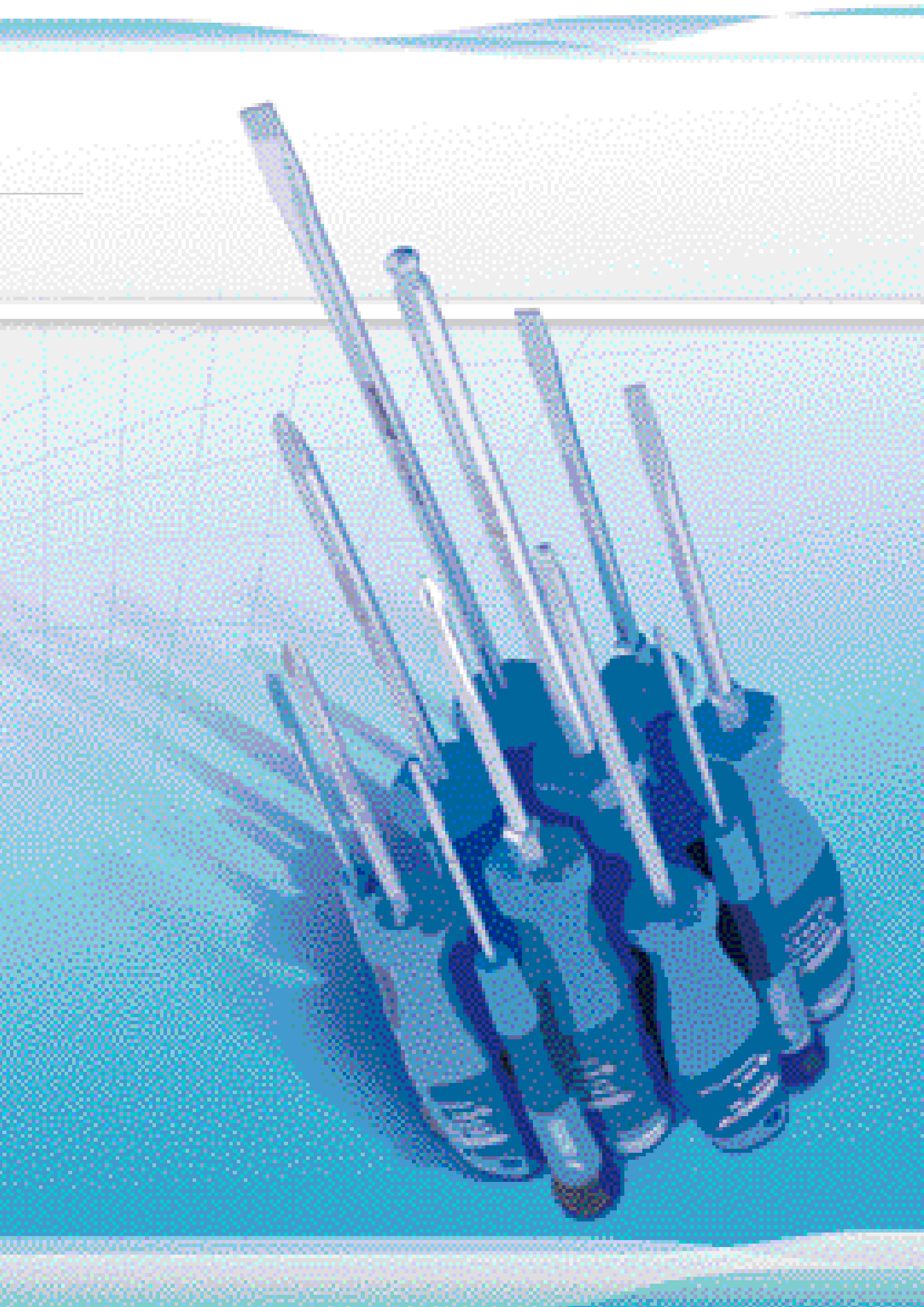
Code	No.	mm	mm		
6432700	**169** ⊖ **680** 4 5,5 6,5 ⊕ **690** 1 2 ⊕ **690 PZD** 1 2	115	220	200	1
6432620	**169 L**	115	220	150	1

POWER USE

THE PERFECT DRIVE

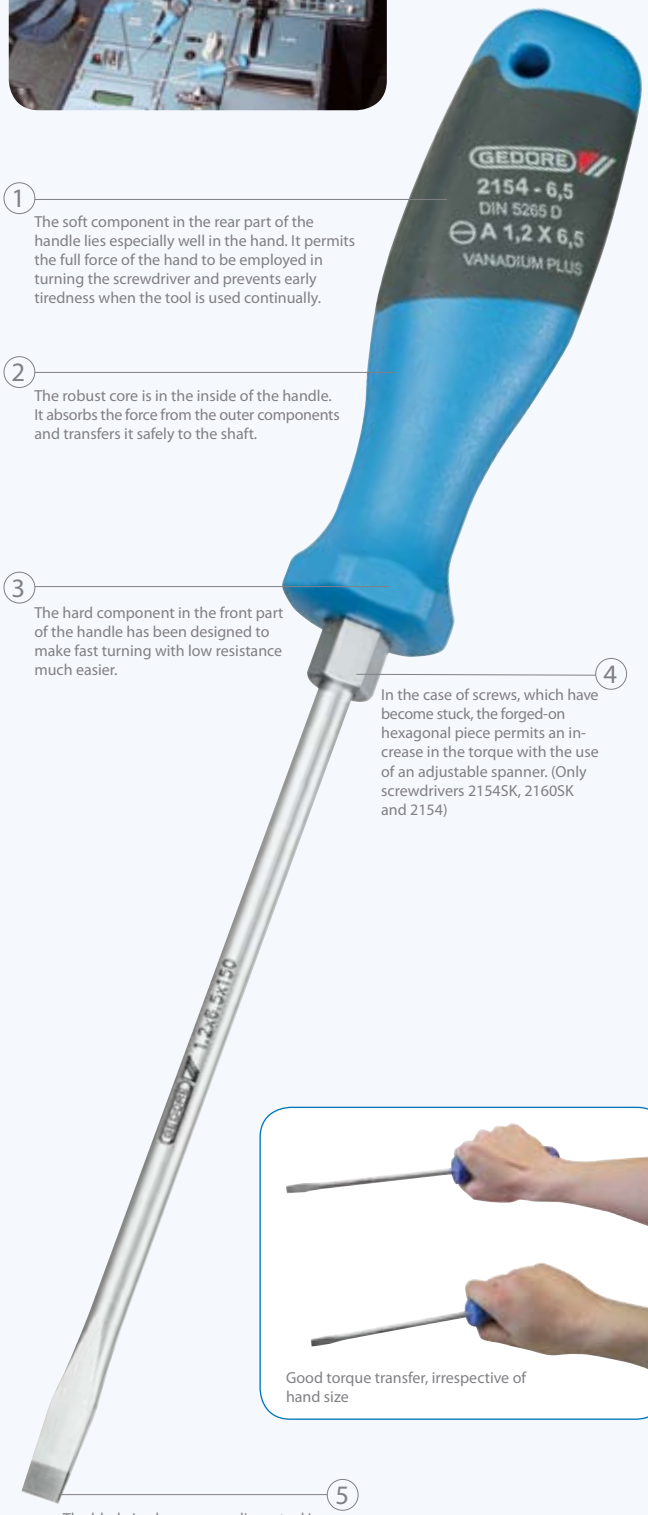
overview

- slotted head
- cross-slotted head PH
- cross-slotted head PZ
- hexagon head
- splined head
- TORX® head
- Electronic screwdriver
- Hexagon socket key
- Voltage tester



DREMO PLUS 3 C

Proven strength in constant use and is very tough!



1 The soft component in the rear part of the handle lies especially well in the hand. It permits the full force of the hand to be employed in turning the screwdriver and prevents early tiredness when the tool is used continually.

2 The robust core is in the inside of the handle. It absorbs the force from the outer components and transfers it safely to the shaft.

3 The hard component in the front part of the handle has been designed to make fast turning with low resistance much easier.

4 In the case of screws, which have become stuck, the forged-on hexagonal piece permits an increase in the torque with the use of an adjustable spanner. (Only screwdrivers 2154SK, 2160SK and 2154)

Good torque transfer, irrespective of hand size

5 The blade in chrome vanadium steel is fully hardened over the whole length and thus fulfills all the requirements for safe working.

3C-SCREWDRIVER

2150

3C-SCREWDRIVER for slotted head screws

- To DIN ISO 2380-2, blade tip DIN ISO 2380-1 Form A
- Blade in vanadium plus steel
- 3-component handle with hanging hole
- * not standardised

Code	No.	*	mm	mm	Ø	mm	mm		
6679270	**2150 3**		0.5	3.0	3	80	160	25	10
6679350	**2150 4**		0.8	4.0	4	100	190	45	10
6679430	**2150 5,5**		1.0	5.5	5	125	225	69	10
6679510	**2150 6,5**		1.2	6.5	6	150	260	101	10
6679780	**2150 8**		1.2	8.0	7	175	295	156	10
6679860	**2150 10**		1.6	10.0	8	200	320	189	10
6679940	**2150 12**		2.0	12.0	9	250	370	243	10
1828673	**2150 14**	*	2.5	14.0	11	250	370	309	1

2150

3C-SCREWDRIVER for slotted head screws, special lengths

- With parallel blade, blade tip DIN ISO 2380-1 Form B
- Blade in vanadium plus steel
- 3-component handle with hanging hole
- * not standardised

Code	No.	*	mm	mm	Ø	mm	mm		
6680010	**2150 3-100**		0.5	3.0	3,0	100	180	26	10
6680280	**2150 3-150**	*	0.5	3.0	3,0	150	230	29	10
6680360	**2150 4-150**	*	0.8	4.0	4,0	150	240	52	10
6680440	**2150 5,5-100**		1.0	5.5	5,5	100	200	70	10
6680520	**2150 5,5-150**		1.0	5.5	5,5	150	250	79	10
6680600	**2150 5,5-250**	*	1.0	5.5	5,5	250	350	89	10
6680790	**2150 6,5-100**		1.2	6.5	6,5	100	210	90	10
6680870	**2150 6,5-200**	*	1.2	6.5	6,5	200	310	120	10
1646478	**2150 6,5-300**	*	1.2	6.5	6,0	300	410	136	1
1646486	**2150 6,5-400**	*	1.2	6.5	6,0	400	510	157	1
6680950	**2150 8-125**		1.2	8.0	8,0	125	245	159	10
6681090	**2150 8-225**	*	1.2	8.0	8,0	225	345	199	10
1646494	**2150 8-300**	*	1.2	8.0	8,0	300	420	210	1
1646508	**2150 8-400**	*	1.2	8.0	8,0	400	520	250	1
6681170	**2150 10-150**		1.6	10.0	10,0	150	270	219	10
6681840	**2150 10-250**	*	1.6	10.0	10,0	250	370	281	10

2153

SCREWDRIVER for slotted head screws, stubby

- To DIN ISO 2380-2, blade tip DIN ISO 2380-1 Form B
- Blade in vanadium plus steel
- 1-component handle, blue, with hanging hole

Code	No.	mm	mm	Ø	mm	mm		
1531174	**2153 4**	0.8	4.0	4,0	25	75	25	10
1482432	**2153 5,5**	1.0	5.5	5,5	25	75	30	10
1531182	**2153 6,5**	1.2	6.5	6,5	25	75	35	10
1531190	**2153 8**	1.2	8.0	8,0	25	75	40	10

2154

3C-SCREWDRIVER for slotted head screws

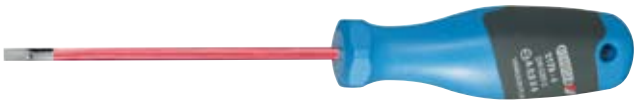
- Blade with hexagon bolster
- To DIN ISO 2380-2, blade tip DIN ISO 2380-1 Form A
- Blade in vanadium plus steel
- 3-component handle with hanging hole
- * not standardised

Code	No.	*	mm	mm	Ø	mm	mm	mm	g	
1828681	**2154 3,5**	*	0.6	3.5	4	75	180	8	66	10
6682490	**2154 4,5**	*	0.8	4.5	5	100	200	8	67	10
6682570	**2154 5,5**		1.0	5.5	5	100	200	8	68	10
6682650	**2154 6,5**		1.2	6.5	6	125	235	10	95	10
6682730	**2154 8**		1.2	8.0	7	150	270	13	157	10
6682810	**2154 10**		1.6	10.0	8	175	295	13	187	10
6683030	**2154 12**		2.0	12.0	9	200	320	16	233	10
1531158	**2154 14**		2.5	14.0	11	250	370	16	295	10

2170

3C-SCREWDRIVER for slotted head screws, insulated blade

- To DIN ISO 2380-2, blade tip DIN ISO 2380-1 Form B
- Blade in vanadium plus steel
- 3-component handle with hanging hole

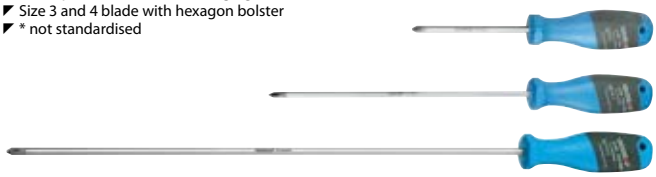


Code	No.	mm	mm	Ø	mm	mm	g	
6678700	**2170 2,5**	0.4	2.5	2,5	75	155	25	10
6678890	**2170 3**	0.5	3.0	3,0	75	155	27	10
6678970	**2170 4**	0.8	4.0	4,0	100	190	46	10
6679000	**2170 5,5**	1.0	5.5	5,5	125	225	79	10
6679190	**2170 6,5**	1.2	6.5	6,5	150	260	107	10

2160 PH

3C-SCREWDRIVER for cross-slotted head screws PH

- To DIN ISO 8764, tip to DIN ISO 8764-1 PH
- Blade in vanadium plus steel
- 3-component handle with hanging hole
- Size 3 and 4 blade with hexagon bolster
- * not standardised



Code	No.	*	PH	Ø	mm	mm	mm	g	
6683110	**2160 PH 0**		0	3,0	60	140		25	10
6683380	**2160 PH 1**		1	4,5	80	180		55	10
6683700	**2160 PH 1-200**		1	4,5	200	300		74	10
6683460	**2160 PH 2**		2	6,0	100	210		90	10
6683890	**2160 PH 2-200**		2	6,0	200	310		111	10
1646516	**2160 PH 2-300**	*	2	6,0	300	410		135	1
1646524	**2160 PH 2-400**	*	2	6,0	400	510		156	1
6683540	**2160 PH 3**		3	8,0	150	270	13	177	10
6683620	**2160 PH 4**		4	10,0	200	320	16	265	10

2161 PH

SCREWDRIVER for cross-slotted head screws PH, stubby

- To DIN ISO 8764, tip to DIN ISO 8764-1 PH
- Blade in vanadium plus steel
- 1-component handle, blue, with hanging hole

Code	No.	PH	Ø	mm	mm	g	
1482440	**2161 PH 1**	1	4,5	25	75	30	10
1531204	**2161 PH 2**	2	6,0	25	75	32	10

2163 BTX

3C-SCREWDRIVER for recessed TORX® head screws

- Blade in vanadium plus steel
- 3-component handle with hanging hole
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		M	mm	Ø	mm	mm	g	
1828703	**2163 BTX T3**	T3	M1,2 - M1,4	1.13	3,0	60	140	28	10
1828711	**2163 BTX T4**	T4	M1,4	1.29	3,0	60	140	27	10
1616471	**2163 BTX T5**	T5	M1,8	1.42	3,0	60	140	24	10
6685400	**2163 BTX T6**	T6	M2	1.69	3,0	60	140	24	10
6685590	**2163 BTX T7**	T7	M2,5	1.99	3,0	60	140	24	10
6685670	**2163 BTX T8**	T8	M2,5	2.31	3,0	60	140	24	10
6685750	**2163 BTX T9**	T9	M3	2.50	3,0	60	140	24	10
6685830	**2163 BTX T10**	T10	M3 - M3,5	2.74	3,0	80	160	25	10
6685910	**2163 BTX T15**	T15	M3,5 - M4	3.27	3,5	80	170	39	10
6686050	**2163 BTX T20**	T20	M4 - M5	3.86	4,0	100	190	45	10
6686130	**2163 BTX T25**	T25	M4,5 - M5	4.43	4,5	100	200	62	10
6686210	**2163 BTX T27**	T27	M4,5 - M6	4.99	5,5	115	215	74	10
6686480	**2163 BTX T30**	T30	M6 - M7	5.52	6,0	115	225	93	10
6686560	**2163 BTX T40**	T40	M7 - M8	6.65	7,0	130	240	100	10
6686640	**2163 BTX T45**	T45	M8 - M10	7.82	8,0	130	250	165	10
6686720	**2163 BTX T50**	T50	M10	8.83	9,0	150	270	193	10

2163 TXB

3C-SCREWDRIVER for recessed TORX® head screws with pilot

- Blade in vanadium plus steel
- 3-component handle with hanging hole
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		M	mm	Ø	mm	mm	g	
1828738	**2163 TXB T6**	T6	M2	1.69	3,0	60	140	29	10
6677570	**2163 TXB T7**	T7	M2,5	1.99	3,0	60	140	25	10
6677650	**2163 TXB T8**	T8	M2,5	2.31	3,0	60	140	25	10
6677730	**2163 TXB T9**	T9	M3	2.50	3,0	60	140	25	10
6677810	**2163 TXB T10**	T10	M3 - M3,5	2.74	3,0	80	160	27	10
6678030	**2163 TXB T15**	T15	M3,5 - M4	3.27	3,5	80	170	28	10
6678110	**2163 TXB T20**	T20	M4 - M5	3.86	4,0	100	190	36	10
6678380	**2163 TXB T25**	T25	M4,5 - M5	4.43	4,5	100	200	61	10
6678460	**2163 TXB T27**	T27	M4,5 - M6	4.99	5,5	115	215	74	10
6678540	**2163 TXB T30**	T30	M6 - M7	5.52	6,0	115	225	93	10
6678620	**2163 TXB T40**	T40	M7 - M8	6.65	7,0	130	240	100	10

2150-2160 PH

3C-SCREWDRIVER SET 6 pieces / 10 pieces

- For slotted and cross-slotted head screws PH


Code	No.		
1482319	**2150-2160 PH-06** ⊖ **2150** 4 5,5 6,5 8 ⊕ **2160 PH** 1 2	650	1
1482343	**2150-2160 PH-010** ⊖ **2150** 3 4 5,5 6,5 8 ⊖ **2153** 5,5 ⊕ **2160 PH** 1 2 ⊕ **2161 PH** 1 ⊖ **4615** 3,5	780	1

2154-2160 PH-07

3C-SCREWDRIVER SET 7 pieces

- For slotted head and cruciform head screws PH

Code	No.		
1731149	**2154-2160 PH-07** ⊖ **2154** 4,5 5,5 6,5 8 ⊕ **2160 PH** 1 2 ⊖ **4615** 3	710	1

2163 BTX

3C-SCREWDRIVER SET 5 pieces / 10 pieces

- For recessed TORX® head screws
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA


Code	No.		
1482327	**2163 BTX-05** ❀ **2163 BTX** T10 T15 T20 T25 T30	380	1
1482335	**2163 BTX-010** ❀ **2163 BTX** T7 T8 T9 T10 T15 T20 T25 T27 T30 T40	630	1

2163 TXB-05

3C-SCREWDRIVER SET 5 pieces

- For recessed TORX® head screws with pilot
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
1616617	**2163 TXB-05** ❀ **2163 TXB** T10 T15 T20 T25 T30	240	1

ELECTRONIC SCREWDRIVER

- Blade in high-alloy chrome-vanadium-molybdenum steel, chrome-plated
- Tip additionally coated for highest precision and corrosion protection
- 2-component-handle in ergonomic design, with anti-slip surface
- Pivoting 2-component end cap with anti-slip surface and colour coding
- Colour coding of the drive type

171 IS

ELECTRONIC SCREWDRIVER for slotted head screws

Code	No.	mm				
1845004	**171 IS 1,2**	1.2	60	155	12	5
6436450	**171 IS 1,5**	1.5	60	155	12	5
1845012	**171 IS 1,8**	1.8	60	155	13	5
6438660	**171 IS 2**	2.0	60	155	13	5
1845020	**171 IS 2,5**	2.5	75	170	15	5
1845039	**171 IS 3**	3.0	100	195	16	5

165 PH

ELECTRONIC SCREWDRIVER for cross-slotted head screws PH

Code	No.				
1845047	**165 PH 000**	60	155	13	5
6442770	**165 PH 00**	60	155	13	5
6442930	**165 PH 0**	60	155	15	5
1845055	**165 PH 1**	80	175	16	5

165 TX

ELECTRONIC SCREWDRIVER for recessed TORX® head screws

- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.	❀	M	mm				
1845098	**165 TX T3**	T3	M1,2 - M1,4	1.13	60	155	16	5
1845101	**165 TX T4**	T4	M1,4	1.29	60	155	16	5
1845128	**165 TX T5**	T5	M1,8	1.42	60	155	17	5
1845136	**165 TX T6**	T6	M2	1.69	60	155	19	5
1845144	**165 TX T7**	T7	M2,5	1.99	60	155	19	5
1845152	**165 TX T8**	T8	M2,5	2.31	60	155	19	5
1845160	**165 TX T9**	T9	M3	2.50	60	155	19	5
1845179	**165 TX T10**	T10	M3 - M3,5	2.74	60	155	20	5
1845187	**165 TX T15**	T15	M3,5 - M4	3.27	60	155	23	5
1845195	**165 TX T20**	T20	M4 - M5	3.86	80	175	29	5

164 IN

ELECTRONIC SCREWDRIVER for in-hex screws

Code	No.	mm				
1845063	**164 IN 0,7**	0.7	60	155	12	5
1845071	**164 IN 0,9**	0.9	60	155	12	5
6443150	**164 IN 1,3**	1.3	60	155	13	5
6443230	**164 IN 1,5**	1.5	60	155	13	5
6443310	**164 IN 2**	2.0	60	155	13	5
6443580	**164 IN 2,5**	2.5	60	155	14	5
6443740	**164 IN 3**	3.0	60	155	16	5

165-171-06

ELECTRONIC SCREWDRIVER SET 6 pieces

- For slotted and cross-slotted head screws PH

Code	No.		
1902849	**165-171-06** ⊕ **165 PH** 000 00 0 ⊖ **171 IS** 1,2 1,8 2,5	385	1

165 TX-06

ELECTRONIC SCREWDRIVER SET 6 pieces

- For recessed TORX® head screws
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
1902857	**165 TX-06** **165 TX** T5 T6 T7 T8 T9 T10	415	1

1021

ELECTRONIC SCREWDRIVER SET 7 pieces

- In plastic case

Code	No.		
6601830	**1021** ⊖ **171 IS** 1,2 1,5 2 ⊕ **165 PH** 00 0 **8305**-2 **8306**-5	620	1

VARIOUS

149

MAGNETIZER AND DEMAGNETIZER

- Magnetizes screwdrivers, tweezers and similar tools made from steel
- Blue housing, made from high-quality plastic, unbreakable, cadmium-free

Code	No.	L	H	W	
6416500	**149**	52	26	50	85

156 S

SQUARE BLADED AWL

- Blue handle with hanging hole
- Blade bright nickel-plated

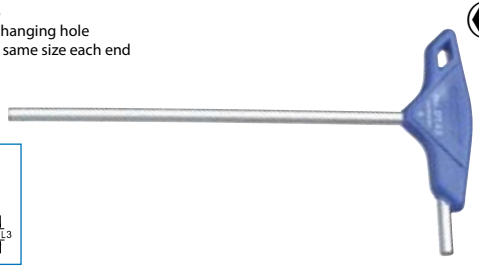
Code	No.				
6424520	**156 S**	100	200	75	10

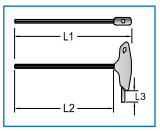
HEXAGON SOCKET KEYS

DT 42

HEXAGON SOCKET KEY WITH T-HANDLE for in-hex screws

- Blue handle with hanging hole
- With 2 hexagons, same size each end



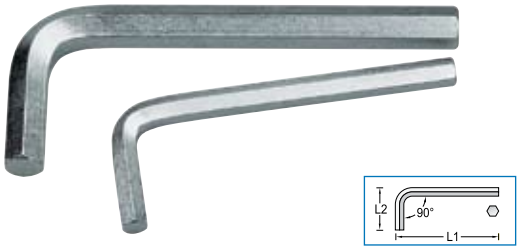


Code	No.	mm	L_1	L_2	L_3		
1476408	**DT 42 2**	2.0	107.0	87	12.0	15	10
1476424	**DT 42 2,5**	2.5	127.0	107	12.0	18	10
1476432	**DT 42 3**	3.0	147.0	127	12.0	22	10
1476440	**DT 42 4**	4.0	173.5	141	15.5	40	10
1476459	**DT 42 5**	5.0	193.5	161	17.5	57	10
1476467	**DT 42 6**	6.0	213.5	181	20.5	80	10
1476475	**DT 42 7**	7.0	231.0	192	28.0	120	10
1476483	**DT 42 8**	8.0	246.0	207	28.0	155	10
1476491	**DT 42 10**	10.0	261.0	222	28.0	245	10

42

HEXAGON SOCKET KEY for in-hex screws

- To DIN ISO 2936
- Zinc-plated up to size 12 mm, chrome-plated up from size 14 mm



Code	No.	mm	L_1	L_2		
6342200	**42 0,7**	0.7	33.0	7.0	1	10
6342390	**42 0,9**	0.9	33.0	11.0	1	10
6342470	**42 1,3**	1.3	41.0	13.0	1	10
6340260	**42 1,5**	1.5	46.5	15.5	1	10
6340340	**42 2 (5/64AF)**	2.0	52.0	18.0	2	10
6340420	**42 2,5**	2.5	58.5	20.5	3	10
6340500	**42 3**	3.0	66.0	23.0	5	10
6340690	**42 4**	4.0	74.0	29.0	10	10
6340770	**42 5**	5.0	85.0	33.0	18	10
6340850	**42 6**	6.0	96.0	38.0	29	10
6340930	**42 7**	7.0	102.0	41.0	42	10
6341070	**42 8**	8.0	108.0	44.0	58	10
6341150	**42 9**	9.0	114.0	47.0	78	10
6341230	**42 10**	10.0	122.0	50.0	100	10
6341310	**42 12**	12.0	137.0	57.0	163	10
6341580	**42 14**	14.0	154.0	70.0	260	10
6341660	**42 17**	17.0	177.0	80.0	420	10
6341740	**42 19**	19.0	199.0	89.0	600	10
6341820	**42 22**	22.0	222.0	102.0	910	10
6341900	**42 24**	24.0	248.0	114.0	1210	5
6342550	**42 27**	27.0	277.0	127.0	1700	5
6342630	**42 30**	30.0	315.0	142.0	2500	1
6342710	**42 32**	32.0	347.0	157.0	3200	1

Code	No.	AF	L_1	L_2		
6342120	**42 3/64AF**	3/64	41.0	13.0	2	10
6342040	**42 1/16AF**	1/16	46.5	15.5	1	10
6340340	**42 2 (5/64AF)**	5/64	52.0	18.0	2	10
6344330	**42 3/32AF**	3/32	56.5	20.5	3	10
6344410	**42 1/8AF**	1/8	60.0	23.0	5	10
6344680	**42 5/32AF**	5/32	67.0	26.0	9	10
6344760	**42 3/16AF**	3/16	73.0	30.0	14	10
6344840	**42 7/32AF (5,5MM)**	7/32	82.0	32.0	21	10
6344920	**42 1/4AF**	1/4	92.0	36.5	31	10
6345060	**42 5/16AF**	5/16	102.0	43.0	54	10
6345140	**42 3/8AF**	3/8	115.0	49.0	87	10
6345220	**42 1/2AF**	1/2	142.0	61.0	193	10
6345300	**42 9/16AF**	9/16	154.0	66.0	270	10
6345490	**42 5/8AF**	5/8	168.0	76.0	350	5
6345570	**42 3/4AF**	3/4	199.0	89.0	580	5

42 EL

HEXAGON SOCKET KEY for in-hex screws, extra long

- To DIN ISO 2936
- Zinc-plated up to size 12 mm, chrome-plated up from size 14 mm

Code	No.	mm	L_1	L_2		
6350810	**42 EL 2 (5/64AF)**	2.0	102.0	18.0	3	10
6351030	**42 EL 2,5**	2.5	114.5	20.5	5	10
6351110	**42 EL 3**	3.0	129.0	23.0	9	10
6351380	**42 EL 4**	4.0	144.0	29.0	18	10
6351460	**42 EL 5**	5.0	165.0	33.0	31	10
6351540	**42 EL 6**	6.0	186.0	38.0	51	10
6351620	**42 EL 8**	8.0	208.0	44.0	100	10
6351700	**42 EL 10**	10.0	234.0	50.0	170	10
6351890	**42 EL 12**	12.0	262.0	57.0	280	10
6351970	**42 EL 14**	14.0	294.0	70.0	440	10

Code	No.	AF	L_1	L_2		
1543377	**42 EL 3/32AF**	3/32	114.5	20.5	3	10
1543318	**42 EL 1/8AF**	1/8	129.0	23.0	9	10
1543326	**42 EL 5/32AF**	5/32	144.0	29.0	14	10
1543334	**42 EL 3/16AF**	3/16	165.0	33.0	26	10
1543342	**42 EL 7/32AF (5,5MM)**	7/32	186.0	38.0	45	10
1543369	**42 EL 1/4AF**	1/4	197.0	41.0	49	10
1543350	**42 EL 5/16AF**	5/16	208.0	44.0	95	10
1543385	**42 EL 3/8AF**	3/8	234.0	50.0	155	10
1543393	**42 EL 1/2AF**	1/2	277.0	63.0	323	10
1543407	**42 EL 9/16AF**	9/16	294.0	70.0	455	10

42

HEXAGON SOCKET KEY SET for in-hex screws

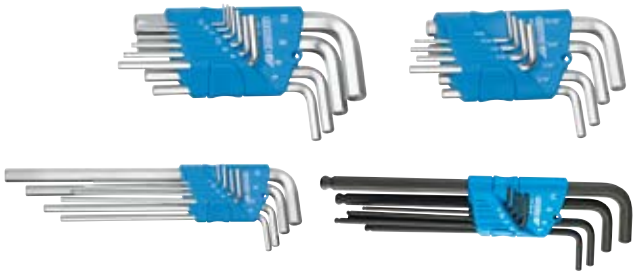
- In blue PVC wallet
- Zinc-plated

Code	No.		
6347510	**42-07** 2 2,5 3 4 5 6 8	135	1
6349050	**42-70** 2,5 3 4 5 6 8 10	230	1
6347780	**42-08** 3 4 5 6 8 10 12 14	380	1
6347860	**42-09** 2 2,5 3 4 5 6 7 8 10	270	1
6348750	**42-07 A** 5/64 3/32 1/8 5/32 3/16 7/32 1/4"	93	1
6348830	**42-08 A** 1/8 5/32 3/16 1/4 5/16 3/8 1/2 9/16"	690	1
6348910	**42-09 A** 5/64 3/32 1/8 5/32 3/16 7/32 1/4 5/16 3/8"	230	1

H 42 - H 42 EL

HEXAGON SOCKET KEY SET for in-hex screws

- In blue PVC holder
- Zinc-plated
- Execution K with ball end, phosphated



Code	No.		
1505408	**H 42-10** 1,3 1,5 2 2,5 3 4 5 6 8 10	254	1
1505424	**H 42-88 A** 5/64 3/32 1/8 5/32 3/16 7/32 1/4 5/16"	25	1
1505416	**H 42 EL-88** 2 2,5 3 4 5 6 8 10	25	1
1543555	**H 42 EL-88 A** 5/64 3/32 1/8 5/32 3/16 7/32 1/4 5/16"	297	1
1523988	**H 42 KEL-88** 2 2,5 3 4 5 6 8 10	25	1

S 42

HEXAGON SOCKET KEY SET for in-hex screws

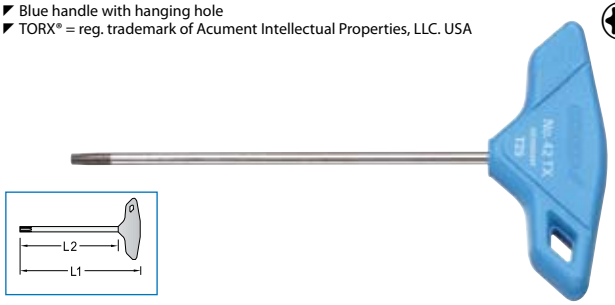
- On key ring with quick release
- Zinc-plated

Code	No.		
6347430	**S 42-07** 2 2,5 3 4 5 6 8	144	1
6348160	**S 42-09 A** 5/64 3/32 1/8 5/32 3/16 7/32 1/4 5/16 3/8"	250	1

42 TX

SCREWDRIVER WITH T-HANDLE for recessed TORX® screws

- Blue handle with hanging hole
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

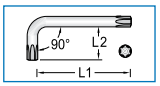


Code	No.			L_1	L_2		
1531328	**42 TX T5**	M1,8	1.42	107.0	87	30	10
1531336	**42 TX T6**	M2	1.70	107.0	87	30	10
1531344	**42 TX T7**	M2,5	1.99	107.0	87	30	10
1531352	**42 TX T8**	M2,5	2.31	119.5	87	30	10
6361180	**42 TX T9**	M3	2.50	139.5	107	30	10
6362070	**42 TX T10**	M3 - M3,5	2.74	139.5	107	30	10
6362820	**42 TX T15**	M3,5 - M4	3.27	159.5	127	31	10
6362900	**42 TX T20**	M4 - M5	3.86	173.5	141	33	10
6365330	**42 TX T25**	M4,5 - M5	4.43	180.0	141	50	10
6365410	**42 TX T27**	M4,5 - M6	4.99	200.0	161	53	10
6365680	**42 TX T30**	M6 - M7	5.52	200.0	161	61	10
6365760	**42 TX T40**	M7 - M8	6.65	220.0	181	71	5
6365840	**42 TX T45**	M8 - M10	7.82	231.0	192	142	5
6365920	**42 TX T50**	M10	8.83	246.0	207	165	5

43 TX

CRANKED SOCKET SCREWDRIVER for recessed TORX® screws

- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA



Code	No.			L_1	L_2		
6363550	**43 TX T6**	M2	1.69	42	16	2	5
6363630	**43 TX T7**	M2,5	1.99	48	16	3	5
6363710	**43 TX T8**	M2,5	2.31	48	16	3	5
6363980	**43 TX T9**	M3	2.50	48	16	3	5
6364010	**43 TX T10**	M3 - M3,5	2.74	51	17	3	5
6364280	**43 TX T15**	M3,5 - M4	3.27	54	18	5	5
6364360	**43 TX T20**	M4 - M5	3.86	57	19	7	5
6364440	**43 TX T25**	M4,5 - M5	4.43	60	20	10	5
6364520	**43 TX T27**	M4,5 - M6	4.99	64	21	15	5
6364600	**43 TX T30**	M6 - M7	5.52	70	24	20	5
6364790	**43 TX T40**	M7 - M8	6.65	76	26	30	5
6364870	**43 TX T45**	M8 - M10	7.82	83	29	40	5
6364950	**43 TX T50**	M10	8.83	95	32	60	5
6365090	**43 TX T55**	M12	11.22	108	35	120	1
6365170	**43 TX T60**	M14	13.25	120	38	180	1

H 43 TX

CRANKED SOCKET SCREWDRIVER SET for recessed TORX® screws

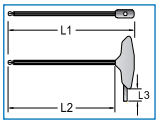
- In blue PVC holder
- Execution K with ball end
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
1531417	**H 43 TX-09** T7 T8 T9 T10 T15 T20 T25 T30 T40	109	1
1531425	**H 43 TX-88** T9 T10 T15 T20 T25 T27 T30 T40	118	1
1531433	**H 43 TX-08** T10 T15 T20 T25 T27 T30 T40 T45	155	1
1531441	**H 43 KTX-07** T10 T15 T20 T25 T27 T30 T40	115	1

DT 43 KTX

CRANKED SOCKET SCREWDRIVER WITH T-HANDLE with ball end for recessed TORX® screws

- Working angle approx. 25°
- Blue handle with hanging hole
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA



Code	No.				L_1	L_2	L_3		
1505521	**DT 43 KTX T10**	T10	M3 - M3,5	2.74	150.0	130	12.0	35	1
1505548	**DT 43 KTX T15**	T15	M3,5 - M4	3.27	170.0	150	12.0	40	1
1505556	**DT 43 KTX T20**	T20	M4 - M5	3.86	202.5	170	15.5	57	1
1505564	**DT 43 KTX T25**	T25	M4,5 - M5	4.43	222.5	190	17.5	80	1
1505572	**DT 43 KTX T27**	T27	M4,5 - M6	4.99	242.5	210	20.0	120	1
1505580	**DT 43 KTX T30**	T30	M6 - M7	5.52	279.0	240	28.0	155	1
1505599	**DT 43 KTX T40**	T40	M7 - M8	6.65	309.0	270	28.0	245	1

708

TORX® GAUGE

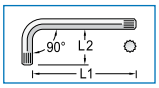
- Easy determination of TORX® sizes, internal E4-E16, external T10-T60
- TORX® = reg. trademark of Acument Intellectual Properties, LLC. USA

Code	No.		
1394428	**708** E4 - E16 T10 - T60	21	1

42 X

CRANKED ALLEN SOCKET SCREWDRIVER for multi-point screws INBUS®XZN

- To DIN 65253, tips DIN 2325



Code	No.		L_1	L_2		
1531212	**42 X 4**	M 4	63	20	25	5
6350060	**42 X 5**	M 5	75	30	15	5
6350140	**42 X 6**	M 6	86	34	25	5
6350220	**42 X 8**	M 8	98	40	40	5
6350300	**42 X 10**	M 10	110	46	90	5
6350490	**42 X 12**	M 12	124	52	140	5
6350570	**42 X 14**	M 14	139	59	200	5
6350650	**42 X 16**	M 16	156	72	320	5
6350730	**42 X 18**	M 18	178	81	370	1

173

CRANKED SCREWDRIVER for slotted head screws

- To DIN 5200, blade tips DIN ISO 2380-1

Code	No.	mm	mm			
6437180	**173 3,5**	3.5	0.6	90	12	5
6437850	**173 4**	4.0	0.8	100	20	10
6436100	**173 5,5**	5.5	1.0	125	20	10
6436370	**173 8**	8.0	1.2	150	50	10
6437930	**173 10**	10.0	1.6	175	105	5
6436530	**173 12**	12.0	2.0	200	175	5

174

CRANKED SCREWDRIVER for cross-slotted head screws PH

- To DIN 5208, tips to DIN ISO 8764-1 PH

Code	No.	PH	M			
6436880	**174 1**	1-2	M2 - M5	100	30	10
6436960	**174 3**	3-4	M6 - M10	200	110	5

VOLTAGE TESTER

4611

VOLTAGE TESTER

- For 6-24 Volt
- With cable and alligator crimp

Code	No.	mm				
6698650	**4611**	3	55	115	27	10

4612

VOLTAGE TESTER

- For 6-48 Volt
- Use: automobile, utility vehicles
- LED displays the voltage in the area of 12, 24, 48 V as well as the polaritity
- For work in confined areas
- TÜV and GS tested, IEC / EN 61010-1 (DIN VDE 0411)
- Measurements: 145 x 25 x 16mm
- Degree of protection IP40, protection class III

Code	No.		
1881647	**4612**	120	1

4615

VOLTAGE TESTER

- For 150-250 Volt
- Blade nickel-plated, fully insulated blade conforming to VDE 0680
- Transparent handle

Code	No.	mm	mm				
6699110	**4615 3**	0.5	3.0	60	140	16	10
6699380	**4615 3,5**	0.6	3.5	90	180	26	10


GEDORE
AUSTRIA

GEDORE
Werkzeuge fürs Leben · Tools for life

TAKE A FIRM GRIP
STRONG AND TIGHT

overview

- Combination pliers
- Side cutters
- Circlip pliers
- Electronic pliers
- Long-nose pliers
- Mechanics pliers
- Lock-grip pliers
- Water pump pliers
- Crimping pliers
- Wire-stripping pliers

MANUFACTURING PROCESS FOR 8250 COMBINATION PLIERS

1

Blank cropped to size from C50 hardened and tempered steel.

2

Hot forged in the double forging die. The excess burr is removed under an eccentric press

3

The blanks are "normalised" to obtain an even finer-grain, more uniform structure with optimum strength. After descaling, the blanks are calibrated for the following work steps.

4

The head is machined in a CNC-controlled machining centre. The rivet hole is drilled and counter-bored. The joint clearance and the outer contour are milled.
The geometry of the joint area and the coarse and fine toothing are broached.

5

The joint faces are precision milled. The pliers head takes on its final form.

6

The moving and fixed pliers legs are riveted together. A smooth-moving joint with no play is the essential requirement for safe one-handed operation.

7

In a chamber hardening kiln, the pliers are hardened in a protective gas atmosphere, quenched in oil and finally annealed. The design of the hardening kiln ensures that the process gases are uniformly distributed, which has a positive effect on the desired material properties.

8

The cutting edges of GEDORE pliers are once again induction hardened. The additional hardness that this achieves ensures a good cutting performance and a long life between sharpening.

9

The pliers head is ground to achieve a flush geometry.

10

The surface is cleaned by sand blasting. The removal of scale and grease is necessary for the follow-on electroplating process.

11

Nickel-plated and matt-chrome-plated to prevent dazzle. The electrolytically deposited nickel coating provides the corrosion protection. The electroplated chrome improves the look and gives the pliers a perfect finish.

12

TL pliers are painted black by a robot, using water soluble paint.

13

The 2-component handles are pressed on and bonded.

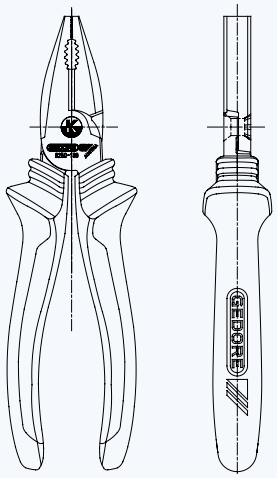
14

The plastic coating on the handles is built up by multiple dipping in liquid immersion compound.

The pliers are laser marked
The joint is oiled
Tip: An occasional drop of oil on the joint will ensure that your pliers have a long life. VDE pliers are subjected to an individual test in accordance with DIN EN 60900 / IEC 60900:2004. GEDORE Austria has been a certified manufacturing plant for VDE protective insulated pliers since 2003.

POWER PLIERS New Look, New Technical Features, New Safety Features

Technical features



PLIERS

GEDORE PLIERS RANGE

- Produced in-house by GEDORE Austria
- Combination, flat-nosed, round-nosed and mechanics pliers made from GEDORE special hardened and tempered steel
- Side cutters and end cutting nippers made from GEDORE high-performance hardened and tempered steel

- TL = black, with blue dipped handle protectors
- JC = chrome-plated, with 2-component handle sleeves

- Hot-forged tempered steel
- Precision machined, oil-hardened and annealed
- Induction-rehardened cutting edges
- Protective nickel and chrome plating
- 2-component handles with secure-grip hand protection
- Optimum transfer of force
- High cutting performance
- Fatigue-free, even in constant use
- Guaranteed GEDORE quality

8245

COMBINATION PLIERS Euro pattern

- Universal model with slimline head
- Induction-hardened precision cutting edges, hardness 62-64 HRC
- For medium-hard and hard wire
- To DIN ISO 5746

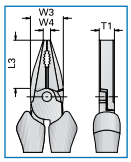
Code	No.	L	L_3	W_3	W_4	T_1		
6733070	**8245-160 JC**	160	34	23.0	5.8	8.8	191	5
6730050	**8245-160 TL**	160	34	23.0	5.8	8.8	162	5
6733150	**8245-180 JC**	180	38	27.0	6.4	9.8	260	5
6730210	**8245-180 TL**	180	38	27.0	6.4	9.8	230	5
6733230	**8245-200 JC**	200	42	29.5	7.4	10.5	350	5
6730720	**8245-200 TL**	200	42	29.5	7.4	10.5	280	5

Code	No.	L	L_3	W_3	W_4	T_1		
1698753	**SB 8245-160 JC**	160	34	23.0	5.8	8.8	201	5
1698729	**SB 8245-160 TL**	160	34	23.0	5.8	8.8	172	5
1698761	**SB 8245-180 JC**	180	38	27.0	6.4	9.8	270	5
1698737	**SB 8245-180 TL**	180	38	27.0	6.4	9.8	240	5
1698788	**SB 8245-200 JC**	200	42	29.5	7.4	10.5	360	5
1698745	**SB 8245-200 TL**	200	42	29.5	7.4	10.5	290	5

8250

POWER COMBINATION PLIERS

- For heavy, continuous use
- Good lever action for easy cutting
- Induction-hardened precision cutting edges, hardness 62-64 HRC
- To cut all wire types including piano wire
- To DIN ISO 5746



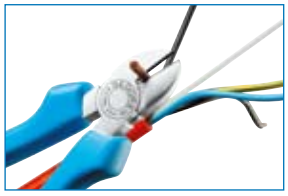
Code	No.	L	L_3	W_3	W_4	T_1		
1429566	**8250-160 JC**	160	35.0	22.8	5.8	10.4	194	5
1429574	**8250-160 TL**	160	35.0	22.8	5.8	10.4	168	5
6707070	**8250-180 JC**	180	38.5	25.6	6.5	11.0	240	5
6707660	**8250-180 TL**	180	38.5	25.6	6.5	11.0	210	5
6707310	**8250-200 JC**	200	39.5	27.0	6.5	12.4	320	5
6707740	**8250-200 TL**	200	39.5	27.0	6.5	12.4	270	5
6708040	**8250-225 TL**	225	42.2	27.7	6.5	13.0	320	1

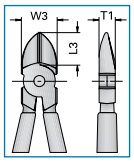
Code	No.	L	L_3	W_3	W_4	T_1		
1698826	**SB 8250-160 JC**	160	35.0	22.8	5.8	10.4	204	5
1698834	**SB 8250-160 TL**	160	35.0	22.8	5.8	10.4	178	5
1698877	**SB 8250-180 JC**	180	38.5	25.6	6.5	11.0	250	5
1698842	**SB 8250-180 TL**	180	38.5	25.6	6.5	11.0	220	5
1698885	**SB 8250-200 JC**	200	39.5	27.0	6.5	12.4	330	5
1698850	**SB 8250-200 TL**	200	39.5	27.0	6.5	12.4	280	5
1698869	**SB 8250-225 TL**	225	42.2	27.7	6.5	13.0	330	1

8314

SIDE CUTTER Swedish pattern

- For medium-hard wire
- Induction-hardened precision cutting edges, hardness 63-65 HRC
- To DIN ISO 5749
- Max. cutting capacity Ø mm





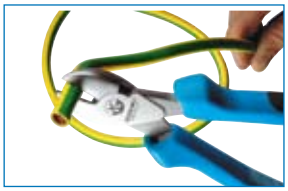
Code	No.	L	L_3	W_3	T_1	Ø mm		
6742300	**8314-125 JC**	125	16.0	17.0	8.5	1,6	118	5
6740870	**8314-125 TL**	125	16.0	17.0	8.5	1,6	96	5
6742730	**8314-140 JC**	140	18.5	18.5	9.5	1,6	152	5
6740950	**8314-140 TL**	140	18.5	18.5	9.5	1,6	120	5
6743380	**8314-160 JC**	160	19.0	22.0	10.0	1,6	190	5
6741090	**8314-160 TL**	160	19.0	22.0	10.0	1,6	165	5

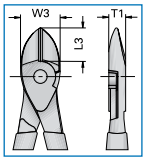
Code	No.	L	L_3	W_3	T_1	Ø mm		
1698923	**SB 8314-125 JC**	125	16.0	17.0	8.5	1,6	128	5
1698893	**SB 8314-125 TL**	125	16.0	17.0	8.5	1,6	106	5
1698931	**SB 8314-140 JC**	140	18.5	18.5	9.5	1,6	162	5
1698907	**SB 8314-140 TL**	140	18.5	18.5	9.5	1,6	130	5
1698966	**SB 8314-160 JC**	160	19.0	22.0	10.0	1,6	200	5
1698915	**SB 8314-160 TL**	160	19.0	22.0	10.0	1,6	175	5

8316

POWER SIDE CUTTER American pattern

- For hard wire, including piano wire
- Induction-hardened precision cutting edges, hardness 63-65 HRC
- To DIN ISO 5749
- Max. cutting capacity Ø mm





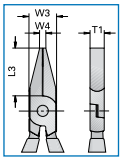
Code	No.	L	L_3	W_3	T_1	Ø mm		
6744190	**8316-140 JC**	140	17.0	22.0	9.5	1,4	152	5
6711930	**8316-140 TL**	140	17.0	22.0	9.5	1,4	132	5
6744510	**8316-160 JC**	160	19.0	24.5	10.0	1,6	210	5
6712070	**8316-160 TL**	160	19.0	24.5	10.0	1,6	185	5
1439588	**8316-180 JC**	180	22.6	26.0	11.0	1,8	230	5
1439596	**8316-180 TL**	180	22.6	26.0	11.0	1,8	210	5
6745080	**8316-200 JC**	200	22.0	28.0	11.0	2,0	305	5
6712150	**8316-200 TL**	200	22.0	28.0	11.0	2,0	250	5

Code	No.	L	L_3	W_3	T_1	Ø mm		
1699024	**SB 8316-140 JC**	140	17.0	22.0	9.5	1,4	162	5
1698974	**SB 8316-140 TL**	140	17.0	22.0	9.5	1,4	142	5
1699032	**SB 8316-160 JC**	160	19.0	24.5	10.0	1,6	220	5
1698990	**SB 8316-160 TL**	160	19.0	24.5	10.0	1,6	195	5
1699040	**SB 8316-180 JC**	180	22.6	26.0	11.0	1,8	240	5
1699008	**SB 8316-180 TL**	180	22.6	26.0	11.0	1,8	220	5
1699059	**SB 8316-200 JC**	200	22.0	28.0	11.0	2,0	315	5
1699016	**SB 8316-200 TL**	200	22.0	28.0	11.0	2,0	260	5

8110

FLAT NOSE PLIERS without wire cutter, serrated

- Short jaws, serrated gripping faces
- DIN ISO 5745



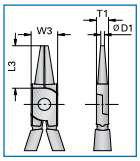
Code	No.	L	L_3	W_3	W_4	T_1		
6711690	**8110-140 JC**	140	28.5	16.5	3.6	8.5	127	1
6711500	**8110-140 TL**	140	28.5	16.5	3.6	8.5	104	1

Code	No.	L	L_3	W_3	W_4	T_1		
1699547	**SB 8110-140 JC**	140	28.5	16.5	3.6	8.5	137	1
1699539	**SB 8110-140 TL**	140	28.5	16.5	3.6	8.5	114	1

8112

ROUND NOSE PLIERS serrated

- Short jaws, serrated gripping faces
- Similar to DIN ISO 5745



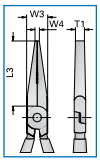
Code	No.	L	L_3	W_3	D_1	T_1		
6713390	**8112-140 JC**	140	29.0	17.0	2.5	8.5	117	1
6713200	**8112-140 TL**	140	28.5	16.5	2.5	8.5	92	1

Code	No.	L	L_3	W_3	D_1	T_1		
1699598	**SB 8112-140 JC**	140	29.0	17.0	2.5	8.5	127	1
1699571	**SB 8112-140 TL**	140	28.5	16.5	2.5	8.5	102	1

8120

FLAT NOSE PLIERS without wire cutter, serrated

- Long jaws, serrated gripping faces
- DIN ISO 5745



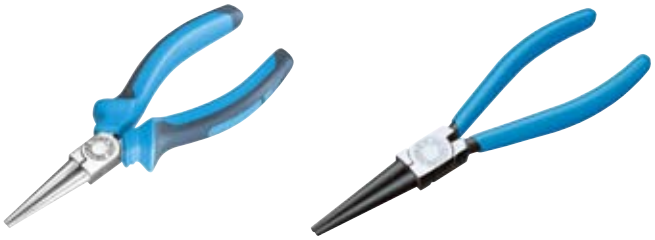
Code	No.	L	L_3	W_3	W_4	T_1		
6715170	**8120-160 JC**	160	51	16.5	3.4	9	140	5
6710370	**8120-160 TL**	160	51	16.5	3.4	9	121	5

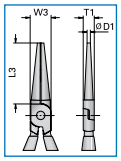
Code	No.	L	L_3	W_3	W_4	T_1		
1699563	**SB 8120-160 JC**	160	51	16.5	3.4	9	150	5
1699555	**SB 8120-160 TL**	160	51	16.5	3.4	9	131	5

8122

ROUND NOSE PLIERS serrated

- Long jaws, serrated gripping faces
- DIN ISO 5745





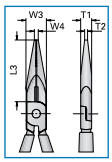
Code	No.	L	L_3	W_3	D_1	T_1		
6716490	**8122-140 JC**	140	40	15.5	2.3	8.2	111	1
6710450	**8122-140 TL**	140	40	15.5	2.3	8.2	91	1
6716810	**8122-160 JC**	160	48	16.5	2.5	8.7	125	5
6710530	**8122-160 TL**	160	48	16.5	2.5	8.7	112	5

Code	No.	L	L_3	W_3	D_1	T_1		
1699636	**SB 8122-140 JC**	140	40	15.5	2.3	8.2	121	1
1699601	**SB 8122-140 TL**	140	40	15.5	2.3	8.2	101	1
1699644	**SB 8122-160 JC**	160	48	16.5	2.5	8.7	135	5
1699628	**SB 8122-160 TL**	160	48	16.5	2.5	8.7	122	5

8132

NEEDLE NOSE PLIERS with wire cutter, serrated, straight pattern

- Flat-round jaws, straight gripping faces, serrated
- To DIN ISO 5745
- Induction-hardened precision cutting edges, hardness 61-63 HRC



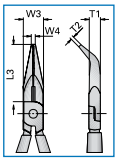
Code	No.	L	L_3	W_3	W_4	T_1	T_2		
6718860	**8132-140 JC**	140	42.0	15.0	2.5	7.8	2.0	118	5
6710610	**8132-140 TL**	140	42.0	15.0	2.5	7.8	2.0	103	5
6719240	**8132-160 JC**	160	50.0	16.5	3.2	9.0	2.5	140	5
6710880	**8132-160 TL**	160	50.0	16.5	3.2	9.0	2.5	120	5
6719670	**8132-200 JC**	200	75.7	18.5	3.7	9.5	2.8	200	5
6710960	**8132-200 TL**	200	75.7	18.5	3.7	9.5	2.8	175	5

Code	No.	L	L_3	W_3	W_4	T_1	T_2		
1699083	**SB 8132-140 JC**	140	42.0	15.0	2.5	7.8	2.0	128	5
1699652	**SB 8132-140 TL**	140	42.0	15.0	2.5	7.8	2.0	113	5
1699091	**SB 8132-160 JC**	160	50.0	16.5	3.2	9.0	2.5	150	5
1699067	**SB 8132-160 TL**	160	50.0	16.5	3.2	9.0	2.5	130	5
1699105	**SB 8132-200 JC**	200	75.7	18.5	3.7	9.5	2.8	210	5
1699075	**SB 8132-200 TL**	200	75.7	18.5	3.7	9.5	2.8	185	5

8132 AB

NEEDLE NOSE PLIERS with wire cutter, serrated, angled pattern

- Flat-round jaws, angled gripping faces, serrated
- Induction-hardened precision cutting edges, hardness 61-63 HRC
- Similar to DIN ISO 5745



Code	No.	L	L_3	W_3	W_4	T_1	T_2		
6720920	**8132 AB-160 JC**	160	46.0	16.5	3.2	9.0	2.5	140	5
6711180	**8132 AB-160 TL**	160	46.0	16.5	3.2	9.0	2.5	120	5
6721300	**8132 AB-200 JC**	200	70.5	18.5	3.7	9.5	2.8	200	5
6711260	**8132 AB-200 TL**	200	70.5	18.5	3.7	9.5	2.8	175	5

Code	No.	L	L_3	W_3	W_4	T_1	T_2		
1699148	**SB 8132 AB-160 JC**	160	46.0	16.5	3.2	9.0	2.5	150	5
1699113	**SB 8132 AB-160 TL**	160	46.0	16.5	3.2	9.0	2.5	130	5
1699156	**SB 8132 AB-200 JC**	200	70.5	18.5	3.7	9.5	2.8	210	5
1699121	**SB 8132 AB-200 TL**	200	70.5	18.5	3.7	9.5	2.8	185	5

8136

MECHANICS PLIERS without wire cutter, straight pattern

- Without wire cutter, flat-round tapered jaws, cross-hatched gripping surfaces
- DIN ISO 5745
- Fine-tipped nose, for safe work in confined spaces

Code	No.	L	L_3	W_3	W_4	T_1	T_2		
6722700	**8136-200 JC**	200	75.7	18.5	3.7	9.5	2.8	210	1
6722890	**8136-200 TL**	200	75.7	18.5	3.7	9.5	2.8	178	1

Code	No.	L	L_3	W_3	W_4	T_1	T_2		
1699679	**SB 8136-200 JC**	200	75.7	18.5	3.7	9.5	2.8	220	1
1699660	**SB 8136-200 TL**	200	75.7	18.5	3.7	9.5	2.8	188	1

8136 AB

MECHANICS PLIERS without wire cutter, angled pattern

- Without wire cutter, flat-round tapered jaws, cross-hatched gripping surfaces
- Fine-tipped nose, for safe work in confined spaces
- Similar to DIN ISO 5745

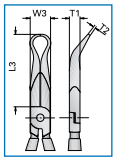
Code	No.	L	L_3	W_3	W_4	T_1	T_2		
6722970	**8136 AB-200 JC**	200	70	18.5	3.7	9.5	2.8	210	1
6723000	**8136 AB-200 TL**	200	70	18.5	3.7	9.5	2.8	178	1

Code	No.	L	L_3	W_3	W_4	T_1	T_2		
1699695	**SB 8136 AB-200 JC**	200	70	18.5	3.7	9.5	2.8	220	1
1699687	**SB 8136 AB-200 TL**	200	70	18.5	3.7	9.5	2.8	188	1

8138

MECHANICS PLIERS without wire cutter, 30° angled

- Without wire cutter, 30° angled flat-round tapered, hooked jaws, cross-hatched gripping surfaces 30°, fine-tipped nose
- For safe gripping, positioning and loosening of round, oval and angular parts
- Ideal for spark plug connectors



Code	No.	L	L_3	W_3	T_1	T_2		
6723350	**8138-200 JC**	200	68	18.5	9.5	2.8	210	1
6723430	**8138-200 TL**	200	68	18.5	9.5	2.8	178	1

Code	No.	L	L_3	W_3	T_1	T_2		
1699733	**SB 8138-200 JC**	200	68	18.5	9.5	2.8	220	1
1699725	**SB 8138-200 TL**	200	68	18.5	9.5	2.8	188	1

8385

Code	No.	mm	inch			
1979957	**8385**	229	9	400	1	

8386

CONNECTOR PLIERS

Code	No.	mm			
2003481	**8386**	20-60	300	1	
2003694	**E-8386**			1	

142

UNIVERSAL PLIERS 15 settings

- Acc. to DIN ISO 8976 Form C
- With safety box joint and protection against blocking
- Fine adjustment
- Single-hand push-button adjustment
- Long slim jaws
- Long jaws, slim handles with forged serrations in execution C
- Offset gripping faces for self-gripping of nuts and pipes
- GEDORE chrome-vanadium special steel
- Induction-rehardened serrated faces
- SB = self-service pack

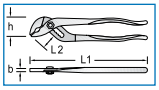
Code	No.	L_1	L_2	b	h	mm		
6416260	**142 10 C**	250	39	7.5	48	38	310	5
6416180	**142 10 TL**	255	39	7.5	48	38	320	5
6416340	**142 10 JC**	260	39	7.5	48	38	350	5
1995553	**142 12 C**	300	43		55	44		1
1995413	**142 12 TL**	300	43		55	44		1

Code	No.	L_1	L_2	b	h	mm		
1700138	**SB 142 10 C**	250	39	7.5	48	38	320	5
1700146	**SB 142 10 JC**	260	39	7.5	48	38	360	5
1700111	**SB 142 10 TL**	255	39	7.5	48	38	330	5

144

MECHANICS PLIERS 7 settings

- Acc. to DIN ISO 8976 Form A
- Lay-on slip joint and straight, serrated jaws
- GEDORE chrome-vanadium special steel
- Induction-rehardened serrated faces
- E-144 = spare bolt, washer and nut



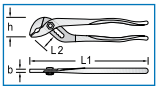
Code	No.	L_1	L_2	b	h	mm		
6411110	**144 4.1/2 C**	113	13	3.8	23	16	50	1
6411380	**144 7 C**	175	22	5.5	35	26	150	1

Code	No.	Description		
5411170	**E-144 A 4.1/2**	Set of spares	7	1
5411330	**E-144 A 7**	Set of spares	10	1

145

WATER PUMP PLIERS

- Acc. to DIN ISO 8976 Form A
- Lay-on slip joint and toothed recess
- Induction-rehardened serrated faces, with finger protection
- GEDORE chrome-vanadium special steel
- Execution C = handles cross-hatched
- Execution JC = with 2-component handle sleeves
- 145 10 = 7 settings, with extra narrow jaws
- 145 15 = 9 settings
- 145 20 = 11 settings
- E-145 = spare bolt, washer and nut
- SB = self-service pack



Code	No.	L_1	L_2	b	h	mm		
6412000	**145 10 C**	250	41	7.8	47	39	320	5
6415610	**145 10 JC**	260	41	7.8	47	39	330	5
6412190	**145 15 C**	375	46	10.4	72	50	700	1
6412270	**145 20 C**	500	55	13.8	98	65	1450	1

Code	No.	L_1	L_2	b	h	mm		
1700073	**SB 145 10 C**	250	32	7.8	47	39	330	5
1700081	**SB 145 10 JC**	260	32	7.8	47	39	340	5

Code	No.	Description		
5412140	**E-145 A 15**	Set of spares 3-5a	20	1
5412220	**E-145 A 20**	Set of spares 3-5b	35	1

ELECTRONIC PLIERS

- Welded-in double leaf spring cannot be lost, ensuring perfect functioning and a long service life
- Precision box joint, induction-hardened cutting edges
- 2-component handles with thermoplastic inserts, slip-inhibiting comfort grip
- Precision-polished faces
- Two different bevel edge designs for different uses:
- mini bevel for a normal cut
- no bevel for almost flush cut

- ESD = electrostatic discharge protection
- GEDORE-ESD-electronic-pliers dissipate electrostatic energy in a slow, controlled manner
- Surfaces: Ground-steel - no flaking chrome parts to cause faults in electronic circuitry
- B = non-glare gun-metal finish for reflection-free working

- Attention! Safety Note!
- Due to the conductivity of the ESD 2-component handles, these tools must not be brought into contact with live conductors passing a voltage sufficient to cause an electric shock.

- BL [JL] = Jaw length, SL [CL] = Cutting edge length

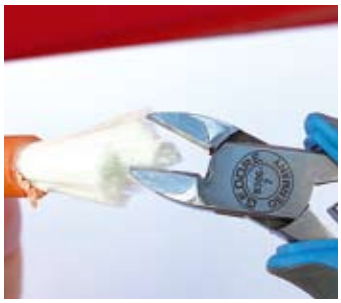
8306-7

ELECTRONIC SIDE CUTTER CARBIDE

- Oval head, with bevel
- Tungsten-carbide cutting edges for an extremely long service life
- Cutting values:

Piano wire: 0.6 mm/AWG 22
Hard steel: 1.0 mm/AWG 18
Nickel wire: 1.2 mm/AWG 16

Code	No.	CL	mm		
6727770	**8306-7**	11	125	65	1
1700642	**SB 8306-7**	11	125	75	1



8306-5

MINIATURE ELECTRONIC SIDE CUTTER

- Pointed head, with mini bevel
- Cutting values:

Hard wire: 0.4 mm/AWG 26
Soft steel: 1.0 mm/AWG 18
Copper wire: 1.2 mm/AWG 16

Code	No.	CL	mm		
6727340	**8306-5**	12	125	50	1
1700626	**SB 8306-5**	12	125	60	1

8308-2

ELECTRONIC CARBIDE MINI DIAGONAL CUTTER

- Long service life
- Tungsten-carbide cutting edges for maximum cutting performance
- Pointed head, without bevel
- Cutting edges angled 55°
- Cutting values:

Piano wire: 0.6 mm/AWG 22
Hard steel: 1.0 mm/AWG 18
Nickel wire: 1.2 mm/AWG 16

Code	No.	CL	mm		
1743619	**8308-2**	12	125	65	1
1745913	**SB 8308-2**	12	125	75	1

8306-4

ELECTRONIC SIDE CUTTER

- Oval head, without bevel
- Cutting values:

Soft steel: 1.0 mm/AWG 18
Copper wire: 1.5 mm/AWG 15

Code	No.	CL	mm		
6727180	**8306-4**	14	125	65	1
1700618	**SB 8306-4**	14	125	75	1

8307-3

NEEDLE NOSE ELECTRONIC PLIERS

- Slim, narrow, flat-round tapered jaws, angled 45°
- Gripping faces with fine file cut

Code	No.	JL	mm		
1743554	**8307-3**	22	140	65	1
1745859	**SB 8307-3**	22	140	75	1

8307-4

NEEDLE NOSE ELECTRONIC PLIERS

- Slim, narrow, flat-round tapered jaws
- Smooth-ground gripping faces

Code	No.	JL	mm		
1743562	**8307-4**	31	145	65	1
1745867	**SB 8307-4**	31	145	75	1

8306-1

ELECTRONIC SIDE CUTTER

- Oval head, with mini bevel
- Cutting values:

Hard wire: 0.4 mm/AWG 26
Soft steel: 1.0 mm/AWG 18
Copper wire: 1.5 mm/AWG 15

Code	No.	CL	mm		
6726450	**8306-1**	12	125	65	1
1700561	**SB 8306-1**	12	125	75	1

8305-7

ELECTRONIC DIAGONAL CUTTER

- 30° angle cutting edges, without bevel
- With slim head for confined spaces
- Cutting values:

Soft steel: 0.6 mm/AWG 22
Copper wire: 0.8 mm/AWG 20

Code	No.	CL	mm		
6725990	**8305-7**	6	135	60	1
1700731	**SB 8305-7**	6	135	70	1

8308-1

ELECTRONIC MINI DIAGONAL CUTTER

- Pointed head, cutting edges angled 55°, without bevel
- For working in confined spaces
- Cutting values:

Hard steel: 0.4 mm/AWG 26
Soft steel: 1.0 mm/AWG 18
Copper wire: 1.2 mm/AWG 16

Code	No.	CL	mm		
1743600	**8308-1**	12	125	65	1
1745905	**SB 8308-1**	12	125	75	1

STRIPPING PLIERS

8097

STRIPPING PLIERS automatic

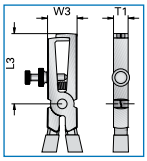
- With V-shaped cutting knife
- For stripping single-strand conductors 0.2 - 6.0 mm²
- Adjustable stripping length
- With wire cutter up to 2 mm

Code	No.	mm	Ø mm²		
6702940	**8097**	200	0,2-6,0	130	1

8098

STRIPPING PLIERS

- With spring and brass adjusting screw
- For wires 0.8 - 6.0 mm²
- JC = chrome-plated, with 2-component handle protectors
- TL = enamelled black, with blue dipped handle protectors



Code	No.	L	L_3	W_3	T_1	Ø mm²		
6708630	**8098-160 JC**	160	43.5	18.5	8.5	0,8-6,0	167	5
6710020	**8098-160 TL**	160	43.5	18.5	8.5	0,8-6,0	140	5
1699164	**SB 8098-160 JC**	160	43.5	18.5	8.5	0,8-6,0	177	5
1699172	**SB 8098-160 TL**	160	43.5	18.5	8.5	0,8-6,0	150	5

8146 WIRE STRIPPER

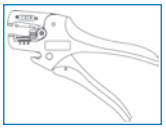
Advantages:
- Flexible: easy-change insert modules give this tool a wide stripping range
- Precision stripping: exact adjustment facility ensures accurate stripping - without any damage to the conductor
- Ergonomic and user-friendly: the soft main grip, easy-action operating lever, optimised span, angled head and low weight guarantee comfortable, user-friendly operation
- Reliable: tested through more than 150000 stripping processes

8146

STRIPPING PLIERS WITH EXCHANGEABLE MODULE INSERTS self-adjusting
- Self-adjusting cutting and stripping tool (No. 8146) for modern electrical installations and equipment circuitry (90% of all wires can be stripped without any adjustment of the tool)
- The use of easily exchangeable module inserts allows accurate stripping of a wide range of insulation materials, including PVC and PTFE, with just one tool
- Dimensions: 191 x 123 x 20 mm

Stripping capacity:
- 8146-1 with flat blade: 0.02-10 mm² / AWG 34-8 (for PVC insulation)
- 8146-2 with round blade: 4-16 mm² / AWG 12-6
- 8146-3 with V blade: PTFE 0.1-4 mm² / AWG 26-12 (for all types of insulation)

Cutting values:
- Flexible wires up to 10 mm² / AWG 8
- Rigid wires up to 1.5 mm² / AWG 16



Code	No.	Ø mm²	AWG		
1830805	**8146** Stripping pliers, self-adjusting, incl. module insert 8146-1			136	1
1830813	**8146-1** Module insert with flat blade	0,02-10,0	34-8	51	1
1830821	**8146-2** Module insert with round blade	4,0-16,0	12-6	51	1
1830848	**8146-3** Module insert with V-blade	0,1-4,0	26-12	51	1

KNIVES & SCISSORS

8096

SMALL UNIVERSAL SCISSORS
- With insulation stripping notch
- Nickel-plated, with blue handle sleeves

Code	No.	mm		
6707900	**8096-140**	140	75	1

Code	No.	mm		
1700782	**SB 8096-140**	140	85	1

4522

ELECTRICIANS' CABLE KNIFE
- With wire stripper, folding blade
- Rosewood-faced handle

Code	No.				
6690240	**4522**	85	195	75	10

4522 SP

ELECTRICIANS' CABLE KNIFE
- With wire stripper, folding blade
- Rosewood-faced handle

Code	No.				
6295530	**4522 SP**	80	190	70	5

4629

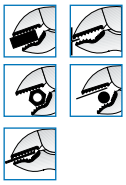
INSULATING TAPE

Code	No.	L m	mm		
6699540	**4629**	10	15	28	1

GRIP WRENCHES

137

GRIP WRENCH
- With adjusting screw and release lever, model 137 10 with blue dip-insulated lever
- Forged, hardened and tempered jaws, special jaw shape for secure gripping, clamping and holding
- Automatically welded upper jaw - absolutely solid connection with the sheet steel body
- Intelligent jaw design guarantees a three-point contact with all material cross-sections
- Threaded bore welded at bottom
- No widening under extreme loading
- Safe release
- Special spring keeps release lever under constant pressure
- Nickel-plated



Code	No.	mm	"inch	mm	"inch		
6406620	**137 7**	175	7	25	1	300	5
6406700	**137 10**	240	10	32	1.1/4	550	5
6407270	**137 11**	280	11	45	1.3/4	750	1
6406890	**137 12**	300	12	45	1.3/4	1000	1

Code	No.	mm	"inch	mm	"inch		
1700022	**SB 137 7**	175	7	25	1	310	5
1700030	**SB 137 10**	240	10	32	1.1/4	560	5

137 KR

GRIP WRENCH, LONG JAWS

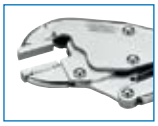
- With narrow jaws
- For working in confined spaces
- For clamping air and brake lines up to Ø 10 mm, copper lines Ø 12 mm
- Nickel-plated

Code	mm		
1954113	210	280	1
1868039	255	520	1

137 P

PARALLEL JAW GRIP WRENCH

- 137 P With toothed jaws, for parallel clamping, with adjustment screw and release lever, jaw width 14 mm, jaw length 30 mm
- 137 PA With smooth jaws for plumbing fittings and sensitive surfaces, jaws = 8 x 29 mm, nickel-plated
- E-137 PB = PVC protective jaws for jaw width 14 x 30 mm



Code	No.	mm	"inch	mm	"inch		
6407000	**137 P**	250	10	50	2	700	1
6407190	**137 PA**	250	10	50	2	700	1
5400130	**E-137 PB**					50	1

139

GEDORE SPECIAL GRIP WRENCH

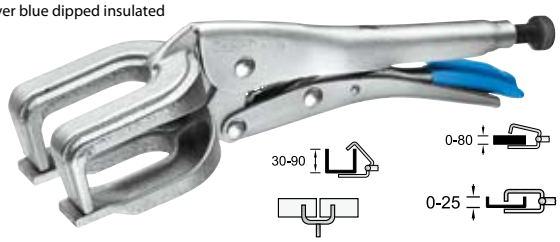
- With movable lower jaw for clamping over a large area
- Release lever dip-insulated
- Nickel-plated

Code	No.	mm	"inch	mm	"inch		
6407940	**139**	250	10	45	1.3/4	600	1
1700014	**SB 139**	250	10	45	1.3/4	610	1

138

WELDER'S GRIP WRENCH

- For clamping strips and profile sections when welding
- Malleable cast iron jaws
- Nickel-plated
- Release lever blue dipped insulated

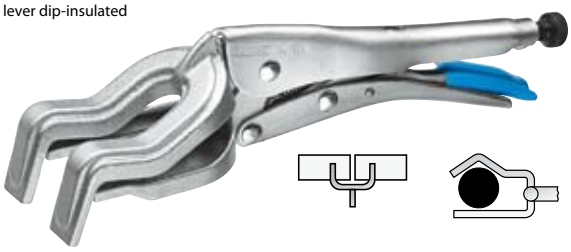


Code	mm	"inch		
6407350	280	11	900	1

138 X

WELDER'S GRIP WRENCH FOR TUBES

- For clamping tubes and round stock when welding
- Malleable cast iron jaws
- Nickel-plated
- Release lever dip-insulated



Code	mm	"inch	mm	"inch		
6407510	280	11	10-90	3/8-3.1/2	900	1

138 Y

PROFILE-SECTION GRIP WRENCH

- For clamping bulky profile and angle sections
- Strong forged jaws
- GEDORE chrome-vanadium steel, nickel-plated
- Release lever dip-insulated

Code	No.	mm	"inch	mm	"inch	mm	"inch		
6407860	**138 Y**	280	11	95	3.3/4	75	3	700	1
1700049	**SB 138 Y**	280	11	95	3.3/4	75	3	710	1

138 Z

PROFILE-SECTION GRIP WRENCH

- For clamping extremely bulky profile sections
- Jaws made from forged and welded GEDORE chrome-vanadium special steel
- Extra wide clamping width
- Nickel-plated
- Release lever dip-insulated

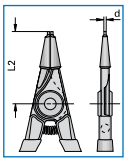
Code	No.	mm	"inch	mm	"inch	mm	"inch		
6410730	**138 Z-460**	460	18	280	11	250	10	1000	1
6410810	**138 Z-600**	600	24	400	16	400	16	1300	1

CIRCLIP PLIERS

8000 A 0 - A 4

CIRCLIP PLIERS FOR EXTERNAL RETAINING RINGS Form A

- DIN 5254 Form A
- Straight nose



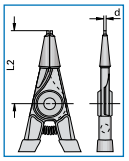
Code	No.	● mm	● inch	L	L_2	d		
6701380	**8000 A 0**	3-10	5/32-3/8	141	40.0	0.9	82	5
6701460	**8000 A 1**	10-25	3/8-1	141	40.0	1.3	82	5
6701540	**8000 A 2**	19-60	3/4-2.3/8	182	54.0	1.8	167	5
6701620	**8000 A 3**	40-100	1.5/8-4	230	69.0	2.3	280	1
6701700	**8000 A 4**	85-140	3.3/8-5.1/2	320	85.5	3.2	550	1

Code	No.	● mm	● inch	L	L_2	d		
1699180	**SB 8000 A 0**	3-10	5/32-3/8	141	40.0	0.9	92	5
1699199	**SB 8000 A 1**	10-25	3/8-1	141	40.0	1.3	92	5
1698257	**SB 8000 A 2**	19-60	3/4-2.3/8	182	54.0	1.8	177	5
1698273	**SB 8000 A 3**	40-100	1.5/8-4	230	69.0	2.3	290	1
1698303	**SB 8000 A 4**	85-140	3.3/8-5.1/2	320	85.5	3.2	560	1

8010 A 0 - A 4

CIRCLIP PLIERS FOR EXTERNAL RETAINING RINGS Form A

- DIN 5254 Form A
- Straight nose



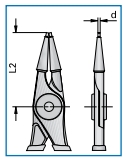
Code	No.	● mm	● inch	L	L_2	d		
6704800	**8010 A 0**	3-10	5/32-3/8	141	40.0	0.9	82	5
6704990	**8010 A 1**	10-25	3/8-1	141	40.0	1.3	82	5
6705020	**8010 A 2**	19-60	3/4-2.3/8	182	54.0	1.8	167	5
6705100	**8010 A 3**	40-100	1.5/8-4	230	69.0	2.3	280	1
6705290	**8010 A 4**	85-140	3.3/8-5.1/2	320	85.5	3.2	550	1

Code	No.	● mm	● inch	L	L_2	d		
1700278	**SB 8010 A 0**	3-10	5/32-3/8	141	40.0	0.9	92	5
1700286	**SB 8010 A 1**	10-25	3/8-1	141	40.0	1.3	92	5
1700294	**SB 8010 A 2**	19-60	3/4-2.3/8	182	54.0	1.8	177	5
1700308	**SB 8010 A 3**	40-100	1.5/8-4	230	69.0	2.3	290	1
1700316	**SB 8010 A 4**	85-140	3.3/8-5.1/2	320	85.5	3.2	560	1

8000 J 0 - J 4

CIRCLIP PLIERS FOR INTERNAL RETAINING RINGS Form C

- Straight nose
- DIN 5256 Form C



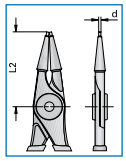
Code	No.	○ mm	○ inch	L	L_2	d		
6703240	**8000 J 0**	8-13	3/8-9/16	141	41.0	0.9	72	5
6703320	**8000 J 1**	12-25	3/8-1	141	41.0	1.3	72	5
6703400	**8000 J 2**	19-60	3/4-2.3/8	183	54.0	1.8	146	5
6703590	**8000 J 3**	40-100	1.5/8-4	230	68.0	2.3	230	1
6703670	**8000 J 4**	85-140	3.3/8-5.1/2	322	84.5	3.2	490	1

Code	No.	○ mm	○ inch	L	L_2	d		
1699296	**SB 8000 J 0**	8-13	3/8-9/16	141	41.0	0.9	82	5
1699318	**SB 8000 J 1**	12-25	3/8-1	141	41.0	1.3	82	5
1698311	**SB 8000 J 2**	19-60	3/4-2.3/8	183	54.0	1.8	156	5
1698346	**SB 8000 J 3**	40-100	1.5/8-4	230	68.0	2.3	240	1
1699342	**SB 8000 J 4**	85-140	3.3/8-5.1/2	322	84.5	3.2	500	1

8010 J 0 - J 4

CIRCLIP PLIERS FOR INTERNAL RETAINING RINGS Form C

- Straight nose
- DIN 5256 Form C



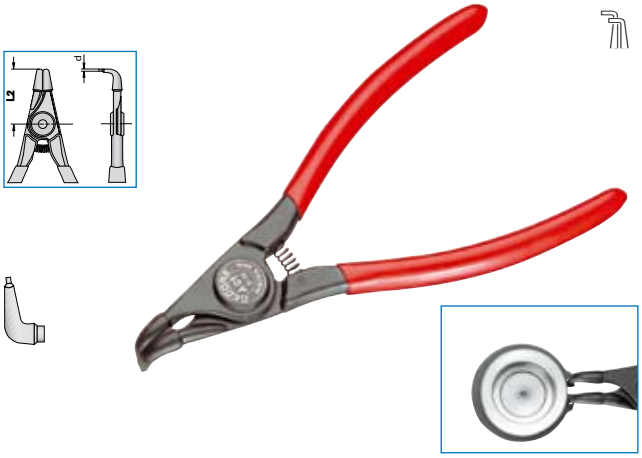
Code	No.	○ mm	○ inch	L	L_2	d		
6705370	**8010 J 0**	8-13	3/8-9/16	141	41.0	0.9	72	5
6705450	**8010 J 1**	12-25	3/8-1	141	41.0	1.3	72	5
6705530	**8010 J 2**	19-60	3/4-2.3/8	183	54.0	1.8	146	5
6705610	**8010 J 3**	40-100	1.5/8-4	230	68.0	2.3	230	1
6705880	**8010 J 4**	85-140	3.3/8-5.1/2	322	84.5	3.2	490	1

Code	No.	○ mm	○ inch	L	L_2	d		
1700375	**SB 8010 J 0**	8-13	3/8-9/16	141	41.0	0.9	82	5
1700383	**SB 8010 J 1**	12-25	3/8-1	141	41.0	1.3	82	5
1700391	**SB 8010 J 2**	19-60	3/4-2.3/8	183	54.0	1.8	156	5
1700413	**SB 8010 J 3**	40-100	1.5/8-4	230	68.0	2.3	240	1
1700421	**SB 8010 J 4**	85-140	3.3/8-5.1/2	322	84.5	3.2	500	1

8000 A 01 - A 41

CIRCLIP PLIERS FOR EXTERNAL RETAINING RINGS Form B

- DIN 5254 Form B
- 90° angled nose



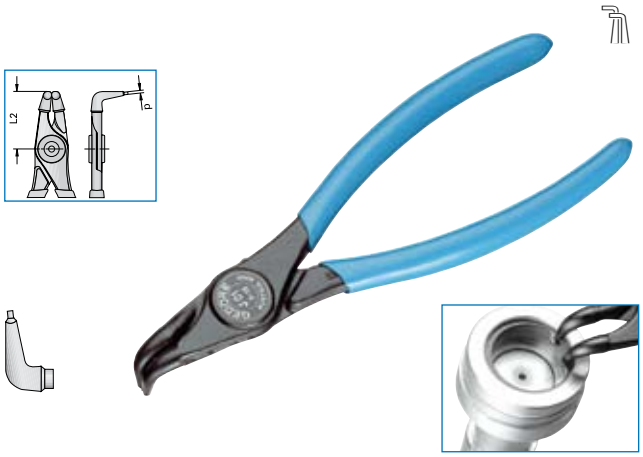
Code	No.	● mm	● "inch	L	L_2	d		
6702270	**8000 A 01**	3-10	5/32-3/8	130	29	0.9	82	5
6702350	**8000 A 11**	10-25	3/8-1	130	29	1.3	82	5
6702430	**8000 A 21**	19-60	3/4-2.3/8	170	43	1.8	200	5
6702510	**8000 A 31**	40-100	1.5/8-4	210	53	2.3	280	1
6702780	**8000 A 41**	85-140	3.3/8-5.1/2	305	64	3.2	600	1

Code	No.	● mm	● "inch	L	L_2	d		
1699237	**SB 8000 A 01**	3-10	5/32-3/8	130	29	0.9	92	5
1699245	**SB 8000 A 11**	10-25	3/8-1	130	29	1.3	92	5
1699253	**SB 8000 A 21**	19-60	3/4-2.3/8	170	43	1.8	210	5
1698281	**SB 8000 A 31**	40-100	1.5/8-4	210	53	2.3	290	1
1699288	**SB 8000 A 41**	85-140	3.3/8-5.1/2	305	64	3.2	610	1

8000 J 01 - J 41

CIRCLIP PLIERS FOR INTERNAL RETAINING RINGS Form D

- DIN 5256 Form D
- 90° angled nose



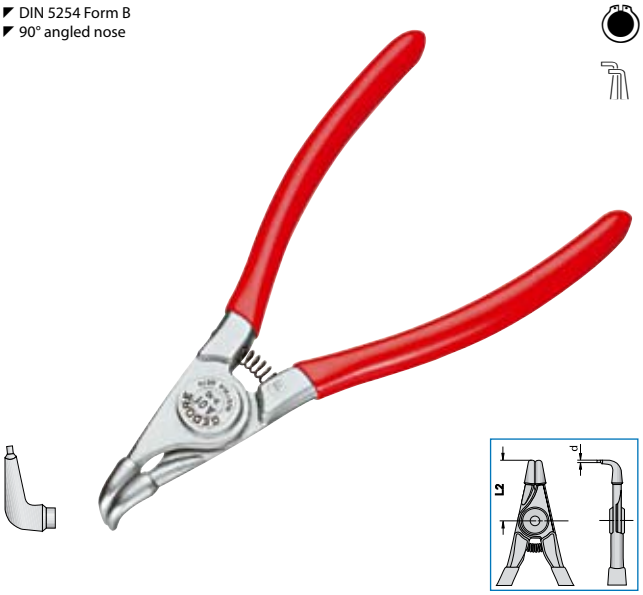
Code	No.	○ mm	○ "inch	L	L_2	d		
6704130	**8000 J 01**	8-13	3/8-9/16	129	28	0.9	72	5
6704210	**8000 J 11**	12-25	3/8-1	129	28	1.3	72	5
6704480	**8000 J 21**	19-60	3/4-2.3/8	169	41	1.8	146	5
6704560	**8000 J 31**	40-100	1.5/8-4	214	50	2.3	230	1
6704640	**8000 J 41**	85-140	3.3/8-5.1/2	292	65	3.2	490	1

Code	No.	○ mm	○ "inch	L	L_2	d		
1699482	**SB 8000 J 01**	8-13	3/8-9/16	129	28	0.9	82	5
1699490	**SB 8000 J 11**	12-25	3/8-1	129	28	1.3	82	5
1698338	**SB 8000 J 21**	19-60	3/4-2.3/8	169	41	1.8	156	5
1699512	**SB 8000 J 31**	40-100	1.5/8-4	214	50	2.3	240	1
1699520	**SB 8000 J 41**	85-140	3.3/8-5.1/2	292	65	3.2	500	1

8010 A 01 - A 41

CIRCLIP PLIERS FOR EXTERNAL RETAINING RINGS Form B

- DIN 5254 Form B
- 90° angled nose



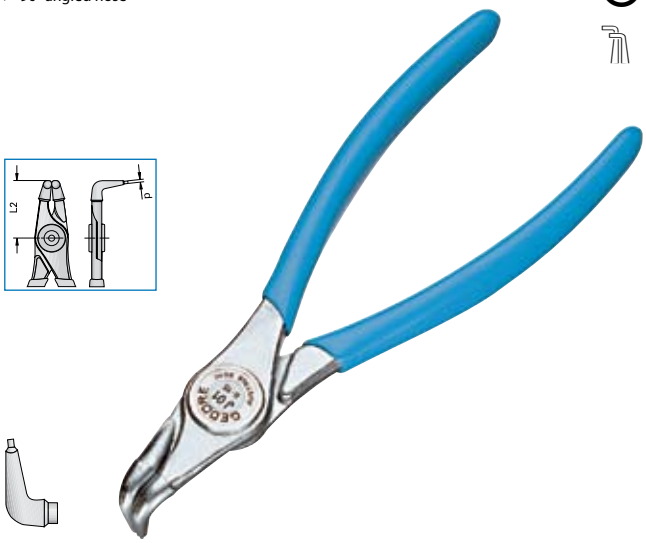
Code	No.	● mm	● "inch	L	L_2	d		
6705960	**8010 A 01**	3-10	5/32-3/8	130	29	0.9	82	5
6706180	**8010 A 11**	10-25	3/8-1	130	29	1.3	82	5
6706260	**8010 A 21**	19-60	3/4-2.3/8	170	43	1.8	167	5
6706340	**8010 A 31**	40-100	1.5/8-4	210	53	2.3	280	1
6706930	**8010 A 41**	85-140	3.3/8-5.1/2	305	64	3.2	550	1

Code	No.	● mm	● "inch	L	L_2	d		
1700324	**SB 8010 A 01**	3-10	5/32-3/8	130	29	0.9	92	5
1700332	**SB 8010 A 11**	10-25	3/8-1	130	29	1.3	92	5
1700340	**SB 8010 A 21**	19-60	3/4-2.3/8	170	43	1.8	177	5
1700359	**SB 8010 A 31**	40-100	1.5/8-4	210	53	2.3	290	1
1700367	**SB 8010 A 41**	85-140	3.3/8-5.1/2	305	64	3.2	560	1

8010 J 01 - J 41

CIRCLIP PLIERS FOR INTERNAL RETAINING RINGS Form D

- DIN 5256 Form D
- 90° angled nose



Code	No.	○ mm	○ "inch	L	L_2	d		
6706420	**8010 J 01**	8-13	3/8-9/16	129	28	0.9	72	5
6706500	**8010 J 11**	12-25	3/8-1	129	28	1.3	72	5
6706690	**8010 J 21**	19-60	3/4-2.3/8	169	41	1.8	146	5
6706770	**8010 J 31**	40-100	1.5/8-4	214	50	2.3	230	1
6706850	**8010 J 41**	85-140	3.3/8-5.1/2	292	65	3.2	490	1

Code	No.	○ mm	○ "inch	L	L_2	Ø-d		
1700448	**SB 8010 J 01**	8-13	3/8-9/16	129	28	0.9	82	5
1700456	**SB 8010 J 11**	12-25	3/8-1	129	28	1.3	82	5
1700464	**SB 8010 J 21**	19-60	3/4-2.3/8	169	41	1.8	156	5
1700472	**SB 8010 J 31**	40-100	1.5/8-4	214	50	2.3	240	1
1700480	**SB 8010 J 41**	85-140	3.3/8-5.1/2	292	65	3.2	500	1

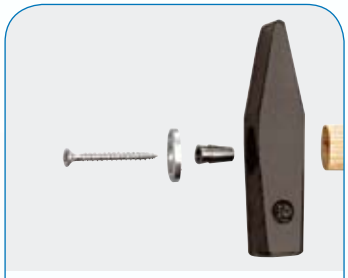
GEDORE
Werkzeuge fürs Leben · Tools for life

SAFETY BEAT BY BEAT
OPTIMUM WORK RESULTS

overview

- Engineers' hammers
- Recoilless hammers
- Safety hammers
- Scraper, chisels
- Pin, Drift and Centre punches


DIN
1041
500



Wood screw with fixing plate and tapered collar

Long protective steel sleeve

Wooden handle in ash or hickory

ROTBAND-PLUS hammer

1. The hammer shaft is pressed into the hammer head.
2. The ring wedge is pressed in to secure the shaft in the eye of the hammer head.
3. The round, conical form ensures an all-round, uniform pressure.
4. Tightening the wood screw ensures a positive fit of the safety plate with the shaft.

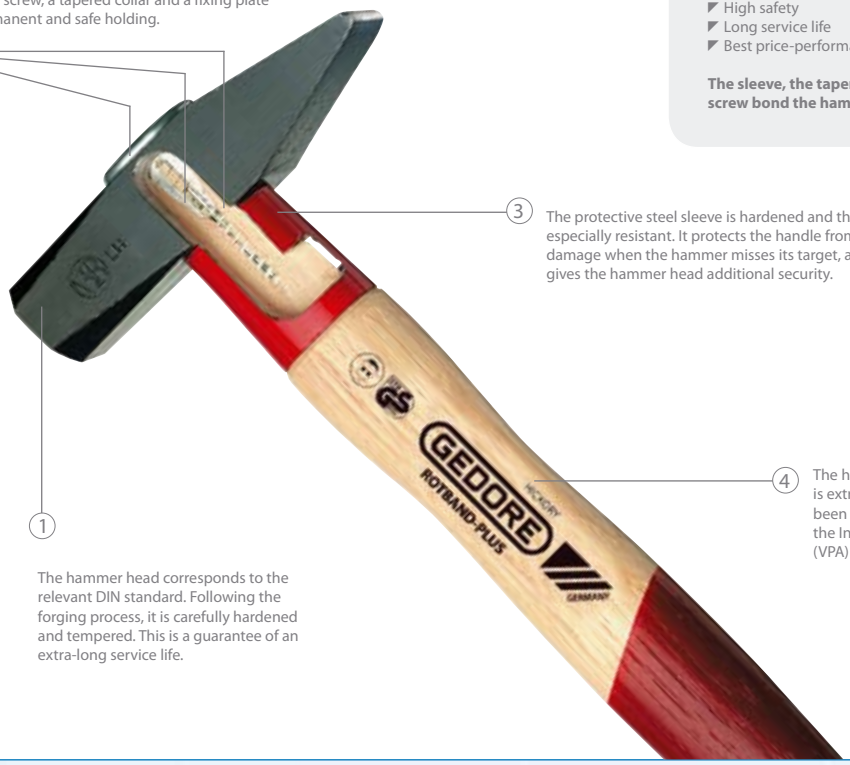
ROTBAND-PLUS HAMMERS A safe join

The join between the hammer head and the handle is one of the most important features of the ROTBAND-PLUS. A wood screw, a tapered collar and a fixing plate ensure a permanent and safe holding.

All advantages at a glance

- Patented handle join
- High safety
- Long service life
- Best price-performance ratio

The sleeve, the tapered collar, the fixing plate and the wood screw bond the hammer head and the handle into one unit.



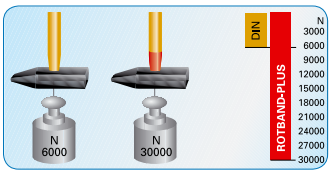
2

3 The protective steel sleeve is hardened and thus especially resistant. It protects the handle from damage when the hammer misses its target, and gives the hammer head additional security.

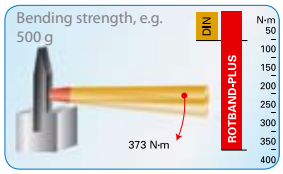
4 The handle in hand-friendly wood, is extremely bend-resistant. This has been proven by tests carried out at the Institute for testing and checking (VPA) in Remscheid.

1 The hammer head corresponds to the relevant DIN standard. Following the forging process, it is carefully hardened and tempered. This is a guarantee of an extra-long service life.

Features



The values required by the German standards institute (DIN) are exceeded considerably. According to the report by the Institute for testing and checking (VPA) in Remscheid, with the ROTBAND-PLUS hammers more than five times required force was reached.



Due to the hardened ROTBAND-PLUS protective sleeve for the handle and the fixing plate, the bending strength of the ROTBAND-PLUS hammers compared to standard DIN hammers was increased several

Safety principle

Unprotected hammer handle - After 30 impacts: Noticeable damage to the handle - risk of breakage!

Wooden handle with ROTBAND-PLUS Safety Feature - After 1,000 impacts: Slight traces in the paint, no deformation, absolutely firm seating.

With the standardised ROTBAND-PLUS handles every standardised hammer head can be turned into a ROTBAND-PLUS hammer.

MANUFACTURING PROCESS FOR HAMMERS

Hammer head

1. C45 hardened and tempered steel precisely cropped to length.
2. Hot pre-forged in a double forging die.
3. Fully forged blank.
4. De-burring of the blanks.
5. Production of the hammer eye.
6. After descaling the blank, it is machined all round in accordance with DIN 1193. The pein and face of the hammer head are additionally ground.
7. The hammer head is induction hardened to 50-58 HRC and then annealed. Care has to be taken to ensure that, within a defined measured area, the hardness deviation is no greater than 5 HRC. The hardening depth on the face and pein must be at least 3 mm. The hardness of the eye zones, however, must not exceed 30 HRC. The hammer head now has hard striking faces and a soft "shock absorber" zone. These safety-relevant values are subject to continuous monitoring. The hammer head is permanently stamped with the manufacturer's mark, weight and DIN 1041.
8. The hammer head is sand blasted to descale and degrease it.
9. Corrosion protection by stove enamelling.
10. The hammer face and pein are ground bright in accordance with DIN 1041. Attention is paid here particularly to regulation clean edges and to a slight convex geometry of the face.

1 2 3 4

5 6 7 8 9 10

1 2 3 4 5 6 7

Hammer shaft

1. Shaft blank from hickory. This tough wood has long fibres, making it ideal for hammer shafts. The long fibres cushion the impact in the hand. The tight annual rings give the wood its flexural strength.
2. The square shaft blank is cut to size.
3. The hammer shaft is milled.
4. The look is improved by sanding.
5. Coating with water-soluble clear varnish.
6. The hand end is set off in mahogany staining.
7. The shaft protection sleeve is pressed on and the shaft tampon printed.

ADVANTAGES OF THE DIFFERENT HANDLE TYPES

Hickory handles

- High quality and extremely break-proof wood. Compared with ash the physical load stability of hickory is around 3-4 times higher
- Long-fibre structure: More safety in the event of a handle breakage - the wood is held together by the long fibres and hence uncontrolled separation of the broken handle as well as the hammer head is avoided
- Vibration dampening
- Long life = very good price/performance ratio

Ash handles

- This wood is prescribed by the DIN as the minimum wood quality
- Inexpensive
- Short-fibre structure: the short fibres in the wood mean that, in the event of a break, the shaft cannot be held together. The shaft breaks into two parts.

Fibre glass handles

- Robust - virtually unbreakable
- Insensitive to all weather conditions - can also be fully used in minus temperatures and is still unbreakable
- Resistant to all common chemicals such as for example oils and greases

Tubular steel handles

- High bending strength
- Resistant to the influence of weather

HAMMERS

500 F

ENGINEERS' HAMMER

- Forged hammer head made from special steel
- Carefully hardened and tempered
- Striking face and pein polished, accurate chamfer
- Nearly unbreakable fibreglass handle with plastic grip
- Additionally hardened handle protective steel sleeve, up from 1000 g with secured head
- Induction tempered edges of the flat side of the head available on request

Code	No.			
8598180	**500 F-200**	200	330	6
8598260	**500 F-300**	300	460	6
8598340	**500 F-400**	400	605	6
8598420	**500 F-500**	500	710	6
8598500	**500 F-600**	600	835	6
8598690	**500 F-800**	800	1025	6
8598770	**500 F-1000**	1000	1315	6
8598850	**500 F-1500**	1500	1890	6
8598930	**500 F-2000**	2000	2460	6

4 E + H

ENGINEERS' HAMMER

- Forged hammer head DIN 1041
- Carefully hardened and tempered
- Striking face and pein polished, accurate chamfer
- Ash (4 E) or hickory handle (4 H) DIN 5111

Code	No.			
8586090	**4 E-50**	50	85	6
8586170	**4 E-100**	100	150	6
8586250	**4 E-200**	200	255	6
8586330	**4 E-300**	300	420	6
8586410	**4 E-400**	400	510	6
8586680	**4 E-500**	500	610	6
8586760	**4 E-600**	600	730	6
8586840	**4 E-800**	800	970	6
8586920	**4 E-1000**	1000	1235	6
8587060	**4 E-1500**	1500	1755	6
8587140	**4 E-2000**	2000	2345	6
8590010	**4 H-50**	50	85	6
8590280	**4 H-100**	100	150	6
8590360	**4 H-200**	200	255	6
8590440	**4 H-300**	300	420	6
8590520	**4 H-400**	400	510	6
8590600	**4 H-500**	500	610	6
8590790	**4 H-600**	600	730	6
8590870	**4 H-800**	800	970	6
8590950	**4 H-1000**	1000	1235	6
8591090	**4 H-1500**	1500	1755	6
8591170	**4 H-2000**	2000	2345	6

600 E + H

ENGINEERS' HAMMER ROTBAND-PLUS

- Forged hammer head DIN 1041 made from special steel
- With contoured ash (600 E) or hickory handle (600 H) DIN 5111
- Additionally shaped with a long hardened handle protective steel sleeve
- Patented handle join, high working safety, long service life, best price-performance ratio

Code	No.			
8581610	**600 E-100**	100	170	6
8581880	**600 E-200**	200	275	6
8581960	**600 E-300**	300	425	6
8582180	**600 E-400**	400	510	6
8582260	**600 E-500**	500	615	6
8582340	**600 E-600**	600	765	6
8582420	**600 E-800**	800	1000	6
8582500	**600 E-1000**	1000	1215	6
8582690	**600 E-1500**	1500	1750	6
8582770	**600 E-2000**	2000	2375	6
8582850	**600 H-100**	100	170	6
8582930	**600 H-200**	200	275	6
8583070	**600 H-300**	300	425	6
8583150	**600 H-400**	400	510	6
8583230	**600 H-500**	500	615	6
8583310	**600 H-600**	600	765	6
8583580	**600 H-800**	800	1000	6
8583660	**600 H-1000**	1000	1215	6
8583740	**600 H-1500**	1500	1750	6
8583820	**600 H-2000**	2000	2375	6

625 H

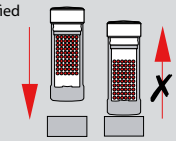
HAMMER KOMBI-PLUS

- Combination of engineers' and plastic hammer
- ROTBAND-PLUS execution
- With hickory handle (E 600 H) with hardened handle protective steel sleeve
- Spare head E 225-27

Code	No.	Ø mm	mm			
2010844	**625 H-500**	27	320	500	615	1

RECOILLESS HAMMERS

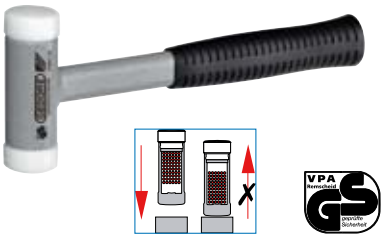
- Due to the special filling insert in the hammer head a considerable higher striking effect is reached compared to standard engineers' and recoilless hammers
- Universal use for service and assembly work, with all advantages of a recoilless hammer with higher striking effect
- "Dead blows" with no recoil reduces stress on muscles, nerves and wrists
- Reduction in expenses due to universal use as an engineer's and recoilless hammer
- Recoilless hammers improve effect of impact and so protect sensitive surfaces
- Each blow is up to 100% more effective than standard safety hammers
- Available with hickory, tubular steel or fibreglass handles
- Exchangeable inserts, resistant to breakage or wear, made of modified polyamide



248 ST

RECOILLESS HAMMER

- With very robust and durable steel tube handle
- Splinter-proof, shatter-proof and wear-resistant polyamide heads, 75 Shore D
- Powder-coated with silver hammer-effect enamel

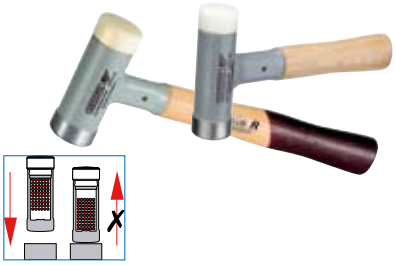


Code	No.	mm	Ø mm		
8724070	**248 ST-25**	270	25	370	6
8828950	**248 ST-30**	290	30	585	6
8829090	**248 ST-35**	295	35	670	6
8829170	**248 ST-40**	300	40	820	6
8829410	**248 ST-45**	305	45	1030	6
8829250	**248 ST-50**	310	50	1180	1
8829330	**248 ST-60**	335	60	1800	1
8724150	**248 ST-70**	335	70	2400	1

247 H

COMBINATION HAMMER KOMBI-PLUS R

- Reduction in expenses due to universal use as an engineers' and recoilless hammer
- With hickory handle (E 247 H)
- With exchangeable insert in breakage and wear-resistant modified polyamide (E 247), 75 Shore D
- DBGM (German utility patent)



Code	No.	mm	Ø mm		
1603299	**247 H-30**	305	30	520	6
1885979	**247 H-30-200**	200	30	480	6
1603396	**247 H-35**	310	35	670	6
1687883	**247 H-40**	330	40	820	6
1605313	**E 247 H-30**	270		10	1
1630709	**E 247 H-35**	270		14	1
1688014	**E 247 H-40**	290		135	1
1605305	**E 247-30**		30	19	1
1605380	**E 247-35**		35	27	1
1688022	**E 247-40**		40	40	1

CHISELS

WHAT IS THE SPECIAL ABOUT GEDORE STRIKING TOOLS

- The material (45 CrMoV7) used by GEDORE is a pure air-hardening steel which hardens at a temperature of about 850°C in still air. This material features very high stability and enormous strength. The tools cannot break even under the hardest working conditions. Pin punches, drift punches and centre punches are also hot forged in our factory and are thus provided with a very homogeneous structure.
- All tools are fully hardened over their whole length
- The hammer heads of our tools are electro-inductively and hence extremely homogeneously tempered. In this way the maximum stability is achieved and splintering is avoided.

PROTECTIVE HAND GUARD 108 UNI

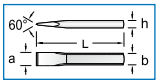
- The 108 UNI protective hand guard recently won the Product Design Award 2008 of the prestigious International Forum (iF) for its attractive design. This competition is one of the oldest design competitions anywhere in the world. For more than 50 years, the logo has been synonymous with high-quality design awards.

product design award 2008

95

FLAT COLD CHISEL flat oval

- Acc. to DIN 6453
- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished, free of burrs
- * not standardised

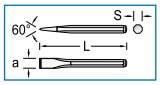


Code	No.	*	L	a	b	h		
8698560	**95-100**		100	15	14	9	75	10
8698640	**95-125**		125	15	14	9	125	10
8698720	**95-150**		150	18	17	11	225	10
8698800	**95-175**		175	21	20	12	270	10
8698990	**95-200**		200	24	23	13	400	10
8699610	**95-225**	*	225	24	23	13	440	10
8699020	**95-253**		250	25	23	13	480	10
8699100	**95-250**	*	250	28	26	13	560	10
8699290	**95-303**		300	26	23	13	560	10
8699370	**95-300**	*	300	30	26	13	700	10
8699450	**95-400**	*	400	30	26	13	905	10
8699530	**95-500**	*	500	30	26	13	1140	1

97

FLAT COLD CHISEL octagonal

- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished, free of burrs

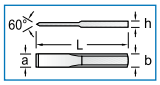


Code	No.	L	a	s		
8703820	**97-125**	125	12	10	90	10
8703900	**97-150**	150	16	12	140	10
8704040	**97-175**	175	20	16	240	10
8704120	**97-200**	200	22	18	305	10
2004666	**97-250**	250	24	20	405	10

104

SPLITTING CHISEL flat

- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Forged
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished, free of burrs
- 104 HS with protective hand guard 108 UNI

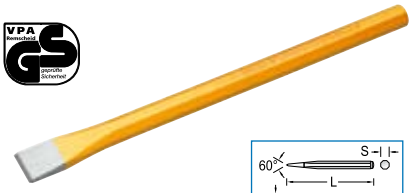


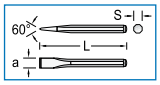
Code	No.	L	a	b	h		
8723850	**104**	240	26	26	7	245	1
8723930	**104 HS**	240	26	26	7	405	1

110

BRICKLAYER'S CHISEL octagonal

- Acc. to DIN 7254 Form B
- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished, free of burrs
- * not standardised



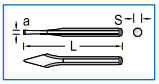


Code	No.	*	L	a	s		
8731280	**110-216**		200	23	16	295	10
8731440	**110-256**		250	23	16	380	10
8731600	**110-316**	*	300	23	16	460	10
8731790	**110-318**		300	26	18	635	10
8731870	**110-358**		350	26	18	700	10
8731950	**110-418**	*	400	26	18	810	10
8732090	**110-420**		400	30	20	970	10
8732170	**110-520**		500	30	20	1240	1
8732250	**110-622**	*	600	32	22	1510	1

98

CROSS-CUT CHISEL octagonal

- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished, free of burrs

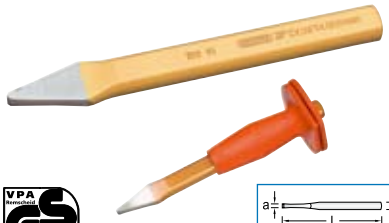


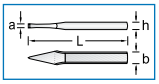
Code	No.	L	a	s		
8704630	**98-125**	125	5	10	90	10
8704710	**98-150**	150	7	12	140	10
8704980	**98-175**	175	9	16	240	10
8705010	**98-200**	200	10	18	305	10

96

CROSS-CUT CHISEL flat oval

- Acc. to DIN 6451
- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished, free of burrs
- 96 HS with protective hand guard 108 UNI



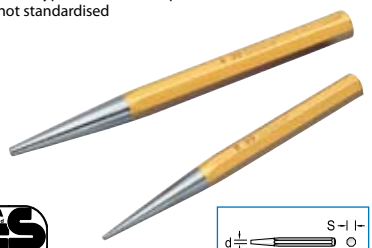


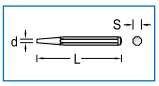
Code	No.	L	a	b	h		
8702180	**96-125**	125	5	14	9	140	10
8702260	**96-150**	150	6	17	11	220	10
8702340	**96-175**	175	7	17	11	270	10
8702420	**96-200**	200	8	20	12	380	10
8702500	**96-250**	250	9	23	13	535	10
8702690	**96-300**	300	10	23	13	690	10
8702770	**96 HS-250**	250	9	23	13	695	1
8702850	**96 HS-300**	300	10	23	13	850	1

99

DRIFT PUNCH

- Acc. to DIN 6458
- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished
- Special types or sizes on request
- * not standardised





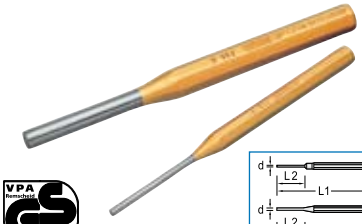
Code	No.	*	L	s	d		
8708700	**99 10-1**		120	10	1	60	10
8708970	**99 10-2**		120	10	2	60	10

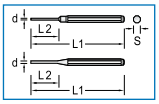
Code	No.	*	L	s	d		
8709190	**99 10-3**		120	10	3	60	10
8709350	**99 10-4**		120	10	4	60	10
8709510	**99 10-5**		120	10	5	60	10
8709780	**99 10-6**		120	10	6	60	10
8710520	**99 12-1**		120	12	1	90	10
8710790	**99 12-2**		120	12	2	90	10
8710950	**99 12-3**		120	12	3	90	10
8711170	**99 12-4**		120	12	4	90	10
8711330	**99 12-5**		120	12	5	90	10
8711410	**99 12-6**		120	12	6	90	10
8711680	**99 12-7**		120	12	7	100	10
8711760	**99 12-8**		120	12	8	105	10
8711840	**99 12-9**	*	120	12	9	105	10
8711920	**99 12-10**	*	120	12	10	110	10
8713890	**99 15-9**		150	12	9	130	10
8713970	**99 15-10**		150	12	10	135	10
8714430	**99 15-12**	*	150	14	12	185	10
8714940	**99 15-14**	*	150	16	14	245	10

119

PIN PUNCH

- Acc. to DIN 6450
- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered, working edge polished and clear varnished
- No. 119-175 with pilot
- Special types or sizes on request
- * not standardised



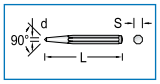


Code	No.	*	L_1	L_2	d	s		
2004658	**119-1,5**	*	110	30	1.5	8	65	10
8758640	**119-2**		150	30	2.0	10	65	10
8758720	**119-2,5**	*	150	30	2.5	10	65	10
8758800	**119-3**		150	40	3.0	10	65	10
8758990	**119-3,5**	*	150	40	3.5	10	65	10
8759020	**119-4**		150	50	4.0	10	65	10
8759290	**119-5**		150	50	5.0	10	70	10
8759370	**119-6**		150	50	6.0	10	75	10
8759450	**119-7**	*	150	50	7.0	12	105	10
8759530	**119-8**		150	50	8.0	12	110	10
8759610	**119-9**	*	150	50	9.0	12	115	10
8759880	**119-10**	*	150	50	10.0	12	125	10
8759960	**119-12**	*	150	50	12.0	14	180	10
8760110	**119-84**	*	180	80	4.0	10	80	10
8760380	**119-86**	*	180	80	6.0	10	85	10
8761350	**119-175**		175	85	6.0	10	85	10

100

CENTRE PUNCH

- Acc. to DIN 7250
- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished
- * not standardised



Code	No.	*	L	s	d		
8721050	**100-10**		120	10	4	60	10
8721130	**100-12**		120	12	5	95	10
8721210	**100-15**		150	12	5	120	10
8721480	**100-16**	*	150	16	8	240	10

101

AUTOMATIC CENTRE PUNCH with tip

- For one hand operation
- With spring mechanism
- Impact power can be set by a screw thread
- With hand protection for comfortable and safe working
- Spare tip E 101

Code	No.	L	s	d		
8722880	**101**	145	16	4	128	1
8870800	**E 101**			4	12	1

116 A - 116 L

PIN PUNCH SET 6 pieces

- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered, working edge polished and clear varnished
- 116 L long pattern

Code	No.	Execution		
8757240	**116** **119**-3 -4 -5 -6 -7 -8	wooden stand	730	1
8758050	**116 D** **119**-3 -4 -5 -6 -7 -8	metal case with lid	800	1
8757670	**116 A** **119**-3 -4 -5 -6 -7 -8	PVC holder	510	1
8839990	**116 L** **119**-2 -3 -5 -84 -86 -175	PVC holder	525	1

113 - 113 D

DRIFT PUNCH SET 6 pieces

- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished

Code	No.	Execution		
8753680	**113** **99** 10-1 2 3 **99** 12-4 5 **100**-10	PVC holder	450	1
8754060	**113 D** **99** 10-1 2 3 **99** 12-4 5 **100**-10	metal case with lid	720	1

106 - 106 D

CHISEL AND PUNCH SET 6 pieces

- Chrome-molybdenum-vanadium air hardening steel 45CrMoV7
- Carefully hardened and tempered along the full length
- Striking heads inductively tempered
- Working edge polished and clear varnished

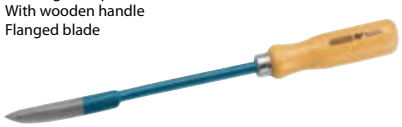
Code	No.	Execution		
8725200	**106** **97**-125 150 **98**-125 **99** 12-3 **100**-10 **119**-4	PVC holder	550	1
8725710	**106 D** **97**-125 150 **98**-125 **99** 12-3 **100**-10 **119**-4	Metal case with lid	820	1

SRAPERS

130

THREE-EDGED BEARING SCRAPER

- Made from special steel
- Working ends polished
- With wooden handle
- Flanged blade

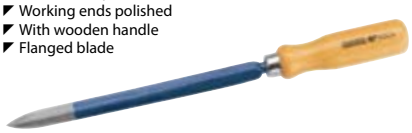


Code	No.				
8777270	**130-125**	125	225	95	10
8777350	**130-150**	150	270	120	10
8777430	**130-200**	200	315	150	10
8777510	**130-250**	250	365	200	10

132

THREE-EDGED HOLLOW GROUND SCRAPER

- Acc. to DIN 8350 Form C
- Made from special steel
- Working ends polished
- With wooden handle
- Flanged blade



Code	No.				
8778910	**132-100**	100	200	70	10
8779050	**132-125**	125	225	80	10
8779130	**132-150**	150	270	100	10
8779210	**132-175**	175	295	120	10
8779480	**132-200**	200	315	155	10
8779560	**132-250**	250	365	210	10
8779640	**132-300**	300	415	290	10

133

FLAT SCRAPER

- Acc. to DIN 8350 Form A
- Made from special steel
- Working ends polished
- With wooden handle
- Flanged blade

Code	No.				
8780220	**133 F-100**	100	200	115	10
8780300	**133 F-125**	125	225	125	10
8780490	**133 F-150**	150	270	140	10
8780570	**133 F-175**	175	295	150	10
8780650	**133 F-200**	200	315	220	10
8780730	**133 F-250**	250	365	310	10
8780810	**133 F-300**	300	415	290	10

SAWS

403

HACKSAW

- Adjustable tubular steel frame
- For 10" and 12" hacksaw blades, complete with No. 403 A-405 A
- Saw blades single-sided (403 A-405 A) and double-sided (403 B-405 B)

Code	No.			
6500210	**403**	410	460	1
5500350	**403 A-405 A**		55	10
5500430	**403 B-405 B**		55	10

404

SMALL SAW FOR METAL PUK

- Bright nickel-plated
- Saw blade 404 A-406 A

Code	No.			
6500480	**404**	290	250	1
5501080	**404 A-406 A**	145	20	10

406

HOBBY SAW

- For wood and metal
- Made from flat bar, 10 x 5 mm, zinc-plated
- Glass-fibre reinforced plastic handle
- Reach 50 mm
- For use with junior hacksaw blades 145 mm
- Saw blade 404 A-406 A

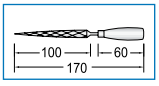
Code	No.			
6501020	**406**	250	250	1
5501080	**404 A-406 A**	145	20	10

FILES - SCRIBERS

8728

KEY FILE SET 6 pieces

- In blue plastic wallet
- DIN 7283



Code	No.	5 types	Cut		
6771910	**8728**		2	115	1

8701

HAND FILE

- PVC handle
- DIN 7261, Form A
- Cut: 2

Code	No.	L	L"	W	H		
6768020	**8701 2-6**	150	6	16	4	65	1
6768100	**8701 2-8**	200	8	20	5	180	1
6768290	**8701 2-10**	250	10	25	6	280	1

8719

TRIANGULAR FILE

- PVC handle
- DIN 7261, Form C
- 2-6 = not standardised
- Cut: 2

Code	No.	L	L"	W		
6769260	**8719 2-6**	150	6	10	45	1
6769340	**8719 2-8**	200	8	14	140	1
6769420	**8719 2-10**	250	10	17	250	1

8722

ROUND FILE

- PVC handle
- DIN 7261, Form F
- Cut: 2

Code	No.	L	L"	Ø		
6770000	**8722 2-6**	150	6	6.0	30	1
6770190	**8722 2-8**	200	8	7.5	100	1
6770270	**8722 2-10**	250	10	9.5	120	1

8725

HALF-ROUND BLUNT FILE

- PVC handle
- DIN 7261, Form E
- Cut: 2

Code	No.	L	L"	W	H		
6770350	**8725 2-6**	150	6	16	4.5	80	1
6770430	**8725 2-8**	200	8	20	6.0	165	1
6770510	**8725 2-10**	250	10	25	7.0	280	1

745

SCRIBER

- Made from special steel

Code	No.			
6559530	**745**	250	55	10

746

SCRIBER

- Tungsten carbide, with retractable, replaceable tip (E-746)

Code	No.			
6559610	**746**	140	20	10
5545100	**E-746**	35	2	1

MEASURING TOOLS + SPECIAL HELPERS

702

FEELER GAUGE SET, FAN PATTERN

- With protective handle, folding, blade length 100 mm
- **702** 22 A + **702** 26 A, each incrementing by 1/1000"

Code	No.			
6547520	**702 8 M**	5 10 15 20 25 30 40 50/100	38	5
6547600	**702 88 M**	3 4 5 6 7 8 9 10/100	28	5
6547790	**702 13 M**	5 10 15 20 25 30 40 50 60 70 80 90 100/100	70	10
6547870	**702 20 M**	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100/100	100	10
6547950	**702 21 M**	10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50/100	70	5
6548250	**702 8 A**	.002 .004 .006 .008 .010 .012 .015 .020"	38	1
6548410	**702 11 A**	.0015 .002 .003 .004 .006 .008 .010 .012 .015 .020 .025"	45	1
6548680	**702 13 A**	.002 .003 .004 .005 .006 .008 .010 .012 .015 .020 .025 .030 .035"	56	5
6548760	**702 22 A**	.004 - .025"	85	5
6548840	**702 26 A**	.0015 - .025"	85	1

710

POCKET VERNIER CALLIPER

- DIN 862, Form A 2
- Quick locking, for internal and external measurements, with ground tips and depth gauge
- In leather wallet

Code	No.	mm	mm	"inch		
6555030	**710**	213	140	5.1/2	200	1

710-80

VERNIER CALLIPER, SMALL

- With inside and outside jaws, ground tips, depth gauge
- In leather pouch

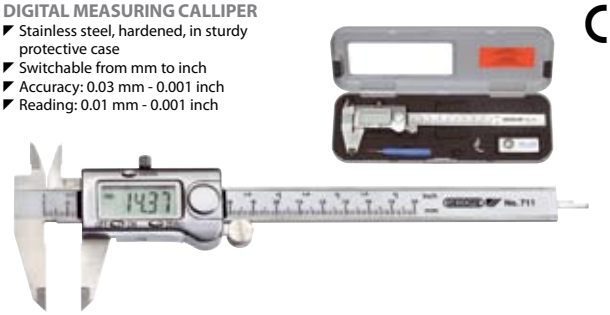
Code	No.		
1933205	**710-80**	100	1

711

DIGITAL MEASURING CALLIPER

- Stainless steel, hardened, in sturdy protective case
- Switchable from mm to inch
- Accuracy: 0.03 mm - 0.001 inch
- Reading: 0.01 mm - 0.001 inch

CE



Code	No.	mm	mm	"inch		
6550070	**711**	230	153	6	50	1

717

STEEL RULE

Code	No.	mm		
1965603	**717-30**	300	10	1

4534

STEEL TAPE MEASURE

- With belt clip and rewind stop
- mm-divisions
- Approved standard mark

Code	No.	L m	mm		
6697920	**4534-3**	3	13	100	5
6698060	**4534-5**	5	19	200	5
6698140	**4534-8**	8	25	360	1

716

ANGLE MEASURE with adjusting screw

Code	No.		
1965581	**716**	200	1

715

CONTROL SQUARE

Code	No.		
1965565	**715-1**	200	1
1965573	**715-2**	200	1

740

SPRING DIVIDERS

Code	No.		
1965557	**740**	100	1

718

INSPECTION MIRROR

Code	No.	Ø		
1979841	**718**	60	90	1

640

MAGNETIC LIFTER

- With flexible shaft and plastic handle
- Bright nickel-plated

Code	No.	mm	Magnet-Ø	Ω		
6531010	**640-500**	460	9	500	80	1
6531280	**640-1800**	520	15	1800	250	1
6531360	**640-3000**	520	19	3000	320	1

640

MINI MAGNETIC LIFTER

- Flexible thin shaft for the smallest apertures

Code	No.	mm	Magnet-Ø	Ω		
6530630	**640-120**	400	4	120	25	1
1785338	**640-270**	400	5	270	21	1

641

CLAW GRIPPER

- With flexible shaft
- Max. gripping capacity 14 mm

Code	No.	mm	Ø		
6531520	**641**	540	7	100	1

720

TWEEZERS

- With angled tips
- Bright nickel-plated

Code	No.	mm		
6556270	**720**	150	24	5

721

CROSS TWEEZERS

- With straight tips
- Bright nickel-plated

Code	No.	mm		
6556350	**721**	160	35	1

722-1

PRECISION TWEEZERS

- Flat, fine, long points
- Satin non-glare finish

Code	No.	mm		
1881655	**722-1**	130	22	1

722-1 ESD

PRECISION TWEEZERS ESD

- Flat, fine, long points
- Satin non-glare finish
- ESD = electrostatic discharge protection, black

Code	No.	mm		
1881663	**722-1 ESD**	130	22	1

722-2

PRECISION TWEEZERS

- Flat, fine points
- Satin non-glare finish

Code	No.	mm		
1881671	**722-2**	95	10	1

722-3/-4

ELECTRONIC TWEEZERS

- Curved, fine, long points
- 722-4 double curved
- Satin non-glare finish

Code	No.	mm		
1881698	**722-3**	122	18	1
1881701	**722-4**	122	16	1

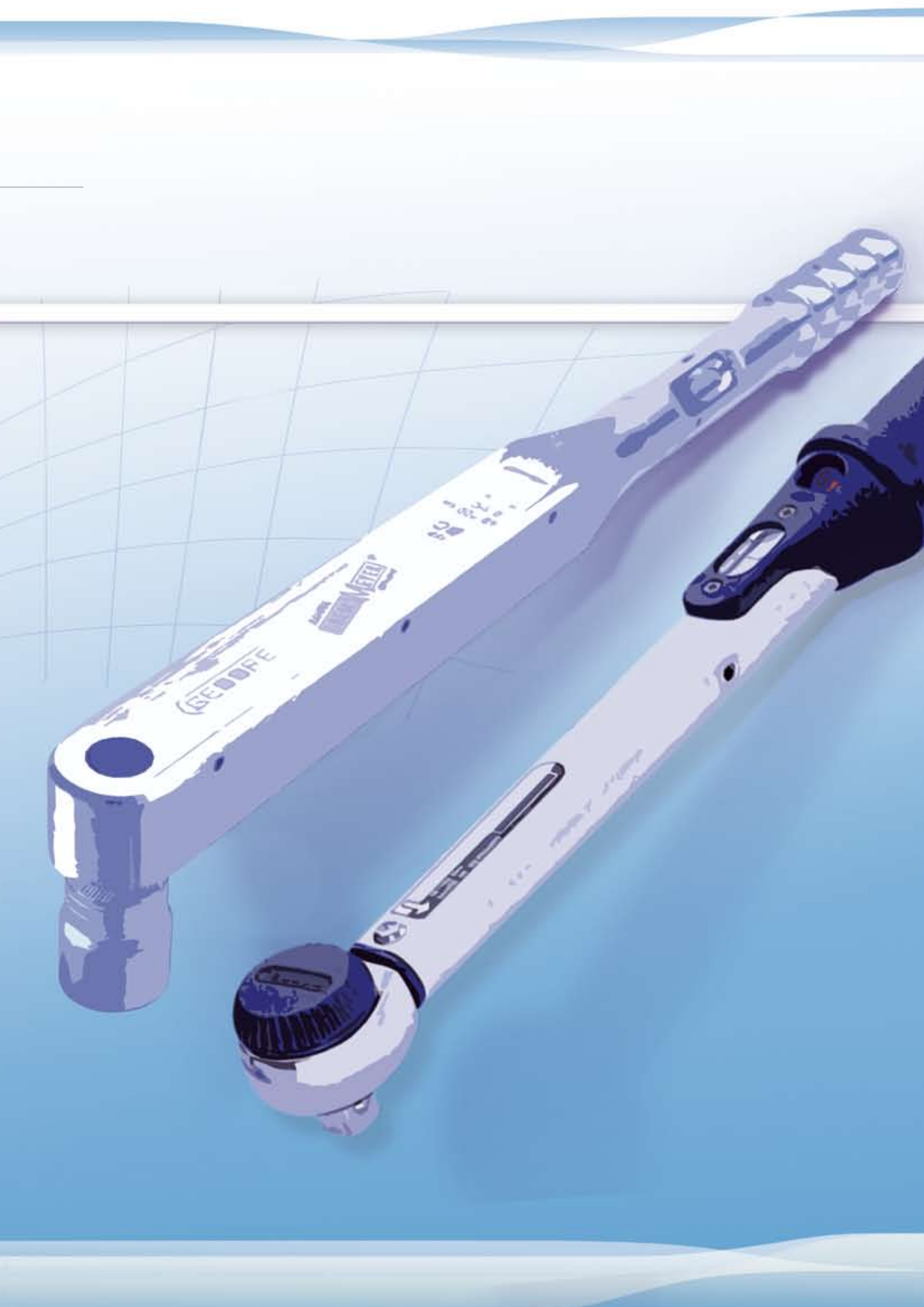
GEDORE
Werkzeuge fürs Leben · Tools for life

CONTROLLED SAFETY

SECURE PRECISION JOINTS

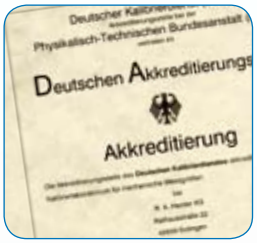
overview

- Torque angle indicators
- Special DREMO tools
- DREMOMETER range
- Torque screwdrivers
- Torque wrenches



OUR SERVICE - QUALIFIED AND CUSTOMISED



- Our reasonably-priced factory calibration service for RAHSOL products as well as our proprietary accredited DKD calibration laboratory create certificates in accordance with the applicable standards and requirements as per DIN EN ISO 9000 ff.
- Our repair service will repair your RAHSOL torque wrenches within 5-7 working days. On request, we will of course provide you with replacement tools - for a small fee.

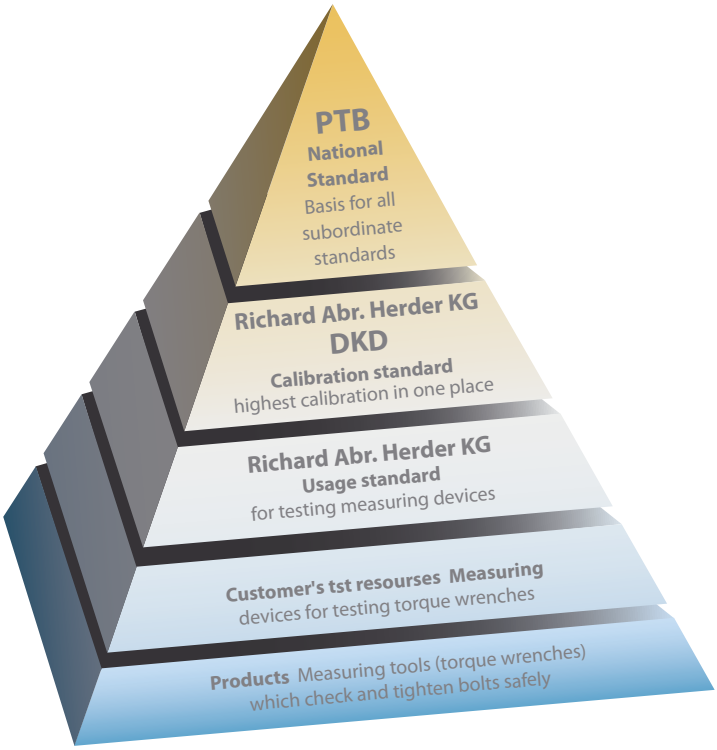
OUR FACTORY CALIBRATION SERVICE WITH INSPECTION CERTIFICATE TO INDUSTRY STANDARD

Since 01/01/2007, all our own, mechanical torque wrenches will be calibrated and adjusted in our factory. Each calibrated torque wrench will be provided with a inspection certificate.

The affixed works calibration mark provides an indicator of tested safety (month/year) at a glance. The mark will serve to support your inspection equipment monitoring.

We recommend an annual verification of your torque wrenches. Remember that the verification interval can be shorter if you reach the 5000 load cycles earlier on account of move intensive use.

Werkskalibriert /2009 Richard Abr. Herder KG 5000 x In-house calibrated



Service concept

We have developed a new, customer-orientated service concept. A service flyer, with associated advice sheet gives you all the information you need about our services and procedure at a glance. Or simply visit us on the Internet at www.gedore.de. Our service flyer, including advice sheet, can be downloaded from the site.

Service at a glance

Technical field service

Make use of our qualified advice to solve your technical problems, via telephone or on-site during work. We will willingly assist you in making your choice of the optimum tool - from standard solutions up to and including the customised manufacture for specific uses. Product training courses and presentations are also included in our service offering as is assistance at your company exhibitions.

We help you at any time...

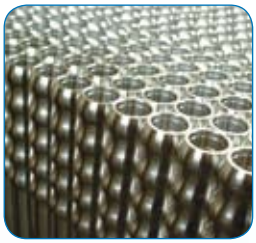
Service-telephone

Between 7.30 a.m. and 4.30 p.m., our customer service operators will answer all your questions about products, including technical enquiries, fast and efficiently.

Hotline: ++49 (0) 1804 37 36 68

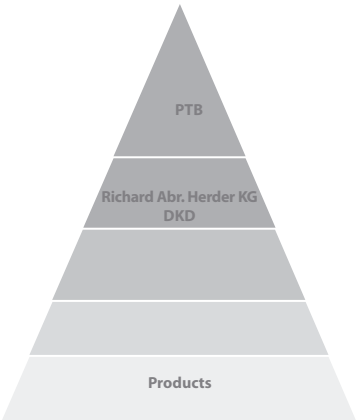
Instant help on the service-telephone





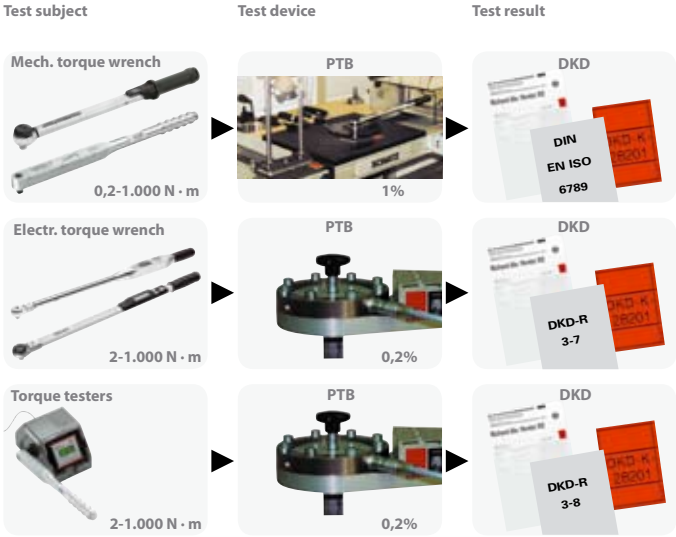
DKD CALIBRATION WITH 100% SAFETY

DKD calibration - 100% documented safety



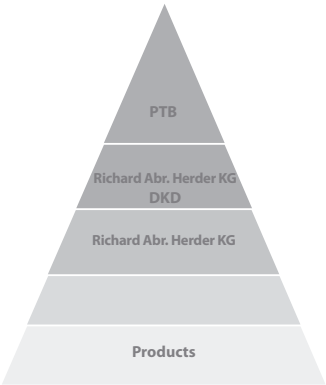
- Direct traceability to the national standard
- DKD calibration as per DKD guidelines 3-7 / 3-8 / DIN EN ISO 6789
- Minimum measurement inaccuracies
- DKD calibration of our own products and those of other manufactures
- Air-conditioned laboratory controls under the most stringent conditions
- DKD calibration certificate and DKD calibration stamp

DKD Calibration



FACTORY CALIBRATION - SOLID RELIABILITY!

We give you the security you need



- Direct traceability to the national standard
- Calibration according to the standard DIN EN ISO 6789
- RAHSOL calibration if necessary with adjusutments and repairs - for RAHSOL products only
- RAHSOL test certificate and calibration stamp

Calibration

Remark

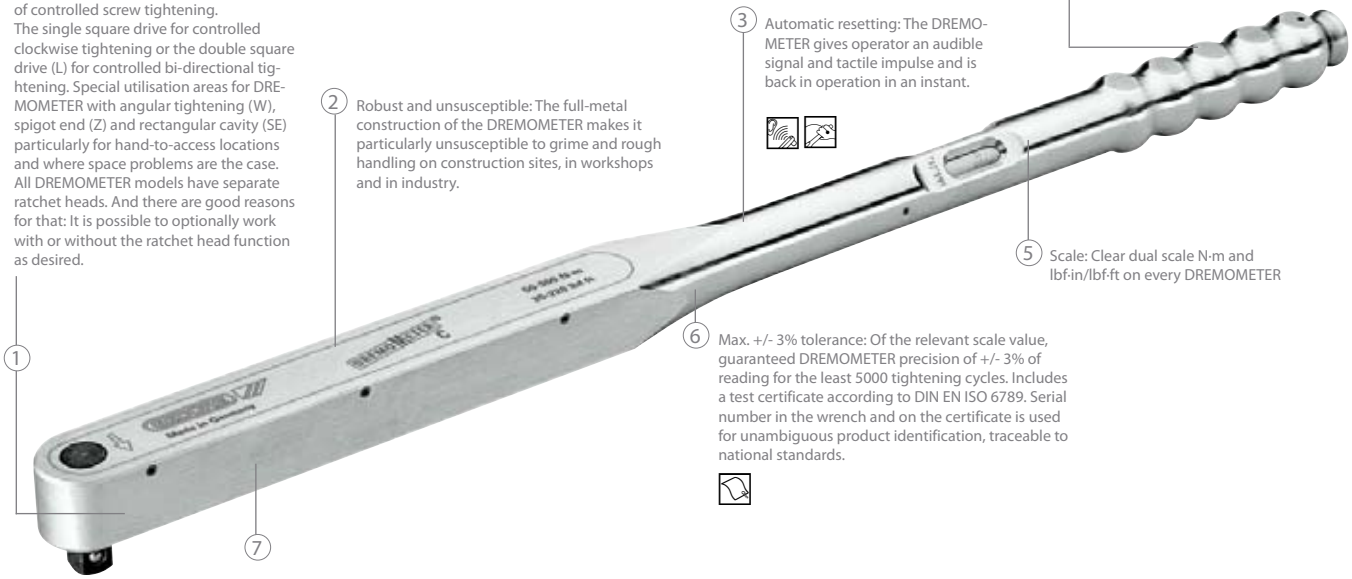
The creation of a test certificate in accordance with RAHSOL criteria, as well as adjustment and repair, is only possible for torque wrenches and torque testers made by RAHSOL. Depending on requirements and on the customer's wishes, we will calibrate in accordance with DKD guidelines or according to RAHSOL criteria.

DREMOMETER - PERMANET PRECISION

Torque wrench made of high-strength aluminium alloy

DREMOMETER - permanet precision

Drive in accordance with application: DREMOMETER are available for a large variety of areas of application in the area of controlled screw tightening.
The single square drive for controlled clockwise tightening or the double square drive (L) for controlled bi-directional tightening. Special utilisation areas for DREMOMETER with angular tightening (W), spigot end (Z) and rectangular cavity (SE) particularly for hand-to-access locations and where space problems are the case. All DREMOMETER models have separate ratchet heads. And there are good reasons for that: It is possible to optionally work with or without the ratchet head function as desired.



1

2 Robust and unsusceptible: The full-metal construction of the DREMOMETER makes it particularly unsusceptible to grime and rough handling on construction sites, in workshops and in industry.

3 Automatic resetting: The DREMOMETER gives operator an audible signal and tactile impulse and is back in operation in an instant.

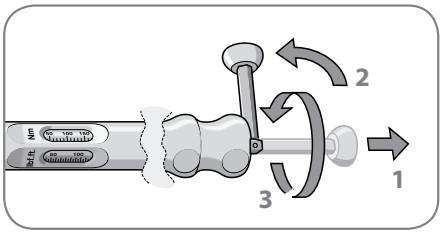
4 Lightweight and pleasant: The aluminium housing and the ergonomically designed handgrip enable simple and safe operation over wide tightening ranges.

5 Scale: Clear dual scale N·m and lbf·in/lbf·ft on every DREMOMETER

6 Max. +/- 3% tolerance: Of the relevant scale value, guaranteed DREMOMETER precision of +/- 3% of reading for the least 5000 tightening cycles. Includes a test certificate according to DIN EN ISO 6789. Serial number in the wrench and on the certificate is used for unambiguous product identification, traceable to national standards.

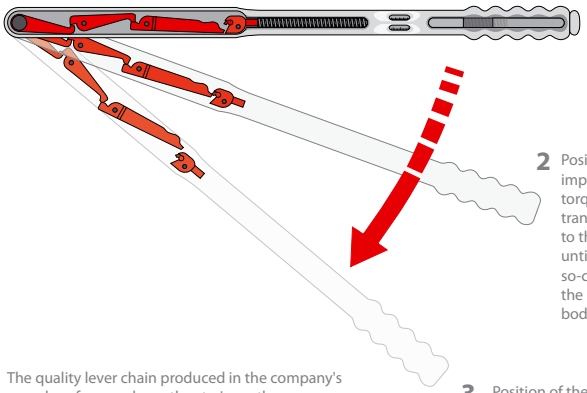
7 Maximum precision: Extended tool life and long life cycle even if used intensely over a long period.

TECHNOLOGY



Setting of the torque value to N·m or alternatively to lbf·in/lbf·ft by the non-losable hexagon key in the handgrip. The smooth-running mechanism enables the setting to be made quickly without significant force needing to be applied. All DREMOMETER are also available with locking and safely device (A+S).

Working principle



1 Position of the lever chain without impact of force (in starting position).

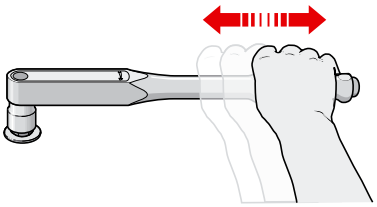
2 Position of the lever chain with impact of force before the set torque is achieved. The force is transferred from the primary lever to the intermediary and final lever until the final lever slips past the so-called release lever through the sliding back of the angle-lever body.

3 Position of the lever chain when the force impacts after the torque setting is achieved. Immediate posistion after the clear tactile impulse and audible signal "click". On relief, the lever chain moves back into the starting position (1).

The quality lever chain produced in the company's own drop forge reduces the strain on the mechanics to a minimum. The proportioning of the individual levers, which are optimally attuned to each other, gives the DREMOMETER its unique precision and its long tool life.

DREMOMETER Type AM-F

Operable without inaccuracies



Irrespective of where you apply the force - whether it be at the centre of the handgrip or at another part of the DREMOMETER, with both hands or using extension tube - your torque setting will always be attained precisely - without shifts in value. By virtue of the unique single-axis location of the centre of rotation and the output square drive, the DREMOMETER is a tool which can be operated free from errors. By contrast to conventional torque wrenches, this single lever enables tightening to take place without shifts in the measured value and without interfering with the precision caused by activation outside of the handgrip. (However, bear possible shifts in value in mind when activating the DREMOMETER with special spanners or in general in the case of spanners having different depth gauges.)

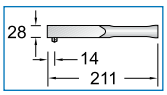
753

DREMOMETER MINI 2-12 N·m / 18-106 lbf·in

- Working accuracy: +/- 3% tolerance of scale set torque
- Lightweight plastic casing, made from high-grade, glass-fibre reinforced polyamide, with soft-grip handle
- Dual scale with a scale graduation of 0.5 N·m and 5 lbf·in
- Micrometer scale graduations of 0.05 N·m
- Window with a magnifying-glass effect

6,3

1/4"



Code	No.	Type	Inclusion	
1957694	**753-11**	MINI	in plastic box	253
1957708	**753-12**	MINI	in plastic cassette	628
1957724	**753-13**	MINI	Set mm 4 5 5,5 6 7 8 9 10 1 2 3 4 5,5 6,5 3 4 5 6 T20 T27 T30 754-00 55 + 97 mm 2098	968
1957732	**753-14**	MINI	Set INCH 3/16 7/32 1/4 9/32 5/16 11/32 3/8 7/16" 1 2 3 4 5,5 6,5 3 4 5 6 T20 T27 T30 754-00 55 + 97 mm 2098	968

8554 - 8559 AM

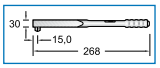
DREMOMETER 6-30 N·m / 50-270 lbf·in

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 1/4" single square drive for controlled clockwise tightening (type AM No. 8554) or double square drive for bi-directional tightening (type AML No. 8559)
- If ordering with pre-set-value locking and safety device (type AM/AML A+S No. 7554/7559), please specify the N·m value - if fixed factory-pre-setting is desired

6,3

1/4"

5000 x



Code	No.	Type	Inclusion	
7775440	**8554-01**	AM	in plastic box	580
7775870	**8559-01**	AML	in plastic box	580
1210891	**7554-01**	AM A+S	in plastic box, with pre-set-value locking and safety device	580
1210904	**7559-01**	AML A+S	in plastic box, with pre-set-value locking and safety device	580
7674090	**8554-02**	AM	in plastic cassette	910
7673790	**8559-02**	AML	in plastic cassette	910
7674170	**8554-03**	AM	Set mm 8 9 10 11 12 13 14 3 5,5 4 5 6 8 T20 T27 T30 754-00 55 + 97 mm	1300
7675060	**8559-03**	AML	Set mm 8 9 10 11 12 13 14 3 5,5 4 5 6 8 T20 T27 T30 754-00 55 + 97 mm	1300
7674410	**8554-04**	AM	Set INCH 9/32 5/16 11/32 3/8 7/16 1/2 9/16 3 5,5 4 5 6 8 T20 T27 T30 754-00 55 + 97 mm	1300
7675140	**8559-04**	AML	Set INCH 9/32 5/16 11/32 3/8 7/16 1/2 9/16 3 5,5 4 5 6 8 T20 T27 T30 754-00 55 + 97 mm	1300

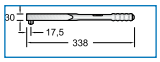
- On request, all torque wrenches can be factory pre-set -at extra charge-
- When ordering, please specify the N·m value

8560 - 8565 A

DREMOMETER 8-40 N·m / 70-350 lbf·in

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 3/8" single square drive for controlled clockwise tightening (type A No. 8560) or double square drive for bi-directional tightening (type AL no. 8565)
- If ordering with pre-set-value locking and safety device (type A/AL A+S no. 7560/7565), please specify the N·m value - if fixed factory-pre-setting is desired

10
3/8
5000 x



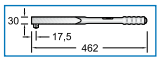
Code	No.	Type	Inclusion	
7682000	**8560-01**	A	in plastic box	1.0
7682190	**8565-01**	AL	in plastic box	1.0
7708920	**7560-01**	A A+S	in plastic box, with pre-set-value locking and safety device	1.0
1210939	**7565-01**	AL A+S	in plastic box, with pre-set-value locking and safety device	1.0
7682270	**8560-02**	A	in a sheet-metal case	2.2
7682350	**8565-02**	AL	in a sheet-metal case	2.2
7682430	**8560-03**	A	Set mm ○ 8 10 11 13 14 15 17 19 ◉ 4 5 6 8 754-01 125 + 250 mm	3.1
7682940	**8565-03**	AL	Set mm ○ 8 10 11 13 14 15 17 19 ◉ 4 5 6 8 754-01 125 + 250 mm	3.1
7683160	**8560-04**	A	Set INCH ○ 3/8 7/16 1/2 9/16 19/32 5/8 11/16 ◉ 1/4 5/16 3/8 754-01 125 + 250 mm	3.0
7683240	**8565-04**	AL	Set INCH ○ 3/8 7/16 1/2 9/16 19/32 5/8 11/16 ◉ 1/4 5/16 3/8 754-01 125 + 250 mm	3.0

8561 - 8566 B

DREMOMETER 20-120 N·m / 15-90 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 1/2" single square drive for controlled clockwise tightening (type B no. 8561) or double square drive for bi-directional tightening (type BL no. 8566)
- If ordering with pre-set-value locking and safety device (type B/BL A+S no. 7561/7566), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

12,5
1/2"
5000 x

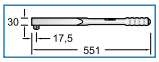


Code	No.	Type	Inclusion	
7683320	**8561-01**	B	in plastic box	1.5
7683400	**8566-01**	BL	in plastic box	1.5
7709060	**7561-01**	B A+S	in plastic box, with pre-set-value locking and safety device	1.5
1210947	**7566-01**	BL A+S	in plastic box, with pre-set-value locking and safety device	1.5
7683830	**8561-02**	B	in a sheet-metal case	2.8
7684130	**8566-02**	BL	in a sheet-metal case	2.8
7684480	**8561-03**	B	Set mm ○ 11 13 14 17 19 22 24 ◉ 6 8 10 12 754-02 76 + 125 + 250 mm	4.7
7684640	**8566-03**	BL	Set mm ○ 11 13 14 17 19 22 24 ◉ 6 8 10 12 754-02 76 + 125 + 250 mm	4.7
7684990	**8561-04**	B	Set INCH ○ 7/16 1/2 9/16 19/32 5/8 11/16 3/4 25/32 13/16 7/8 15/16 1" ◉ 5/16 3/8 1/2" 754-02 76 + 125 + 250 mm	5.3
7685100	**8566-04**	BL	Set INCH ○ 7/16 1/2 9/16 19/32 5/8 11/16 3/4 25/32 13/16 7/8 15/16 1" ◉ 5/16 3/8 1/2" 754-02 76 + 125 + 250 mm	5.3

8573 - 8578 BC

DREMOMETER 40-200 N·m / 30-150 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 1/2" single square drive for controlled clockwise tightening (type BC no. 8573) or double square drive for bi-directional tightening (type BCL no. 8578)
- If ordering with pre-set-value locking and safety device (type BC/BCL A+S no. 7573/7578), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

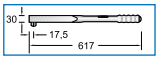


Code	No.	Type	Inclusion	
7685530	**8573-00**	BC	in plastic box	1.4
7683670	**8578-00**	BCL	in plastic box	1.3
1211013	**7573-00**	BC A+S	in plastic box, with pre-set alue locking and safety device	1.4
1427113	**7578-00**	BCL A+S	in plastic box, with pre-set alue locking and safety device	1.3
7683590	**8573-02**	BC	in a sheet-metal case	3.5
7683750	**8578-02**	BCL	in a sheet-metal case	3.5
7683910	**8573-03**	BC	Set mm ○ 11 13 14 17 19 21 22 24 27 ● 6 8 10 12 754-02 125 + 250 mm	5.1
7684050	**8578-03**	BCL	Set mm ○ 11 13 14 17 19 21 22 24 27 ● 6 8 10 12 754-02 125 + 250 mm	5.1
7684720	**8573-04**	BC	Set INCH ○ 1/2 9/16 5/8 11/16 3/4 13/16 7/8" ● 5/16 3/8 1/2 9/16" 754-02 125 + 250 mm	4.9
7684210	**8578-04**	BCL	Set INCH ○ 1/2 9/16 5/8 11/16 3/4 13/16 7/8" ● 5/16 3/8 1/2 9/16" 754-02 125 + 250 mm	4.9

8562 - 8567 C

DREMOMETER 50-300 N·m / 35-220 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 1/2" single square drive for controlled clockwise tightening (type C no. 8562) or double square drive for bi-directional tightening (type C no. 8567)
- If ordering with pre-set-value locking and safety device (type C/CL A+S no. 7562/7567), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

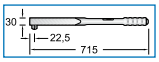


Code	No.	Type	Inclusion	
7685450	**8562-10**	C	in plastic box	2.0
7685960	**8567-10**	CL	in plastic box	2.0
7709650	**7562-10**	C A+S	in plastic box, with pre-set-value locking and safety device	2.0
1210955	**7567-10**	CL A+S	in plastic box, with pre-set-value locking and safety device	2.0
7686340	**8562-20**	C	in a sheet-metal case	3.6
7686690	**8567-20**	CL	in a sheet-metal case	3.6
7687070	**8562-30**	C	Set mm ○ 17 19 22 24 27 30 32 ● 8 10 12 14 754-02 76 + 125 + 250 mm	6.0
7687310	**8567-30**	CL	Set mm ○ 17 19 22 24 27 30 32 ● 8 10 12 14 754-02 76 + 125 + 250 mm	6.0
7687820	**8562-40**	C	Set INCH ○ 3/4 25/32 13/16 7/8 15/16 1" 1.1/16 1.1/8 1.1/4" ● 3/8 1/2 9/16 5/8" 754-02 76 + 125 + 250 mm	6.2
7688120	**8567-40**	CL	Set INCH ○ 3/4 25/32 13/16 7/8 15/16 1" 1.1/16 1.1/8 1.1/4" ● 3/8 1/2 9/16 5/8" 754-02 76 + 125 + 250 mm	6.2

8570 - 8575 CD

DREMOMETER 80-360 N·m / 60-260 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 3/4" single square drive for controlled clockwise tightening (type CD no. 8570) or double square drive for bi-directional tightening (type CDL no. 8575)
- If ordering with pre-set-value locking and safety device (type CD/CDL A+S no. 7570/7575), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

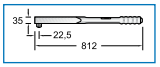


Code	No.	Type	Inclusion	
7688470	**8570-10**	CD	in cardboard packaging	2.4
7688710	**8575-10**	CDL	in cardboard packaging	2.4
1210998	**7570-10**	CD A+S	in cardboard packaging, with pre-set-value locking and safety device	2.4
1211021	**7575-10**	CDL A+S	in cardboard packaging, with pre-set-value locking and safety devic	2.4
7689280	**8570-20**	CD	in a sheet-metal case	6.2
7689520	**8575-20**	CDL	in a sheet-metal case	6.2
7689950	**8570-30**	CD	Set mm 19 22 24 27 30 32 754-04 200 + 400 mm	11.0
7690290	**8575-30**	CDL	Set mm 19 22 24 27 30 32 754-04 200 + 400 mm	11.0
7690530	**8570-40**	CD	Set INCH 7/8 15/16 1" 1.1/8 1.1/4 1.3/8 1.1/2 1.5/8" 754-04 200 + 400 mm	11.3
7691180	**8575-40**	CDL	Set INCH 7/8 15/16 1" 1.1/8 1.1/4 1.3/8 1.1/2 1.5/8" 754-04 200 + 400 mm	11.3

8574 - 8579 DS

DREMOMETER 110-550 N·m / 80-405 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 3/4" single square drive for controlled clockwise tightening (type DS no. 8574) or double square drive for bi-directional tightening (type DSL no. 8579)
- If ordering with pre-set-value locking and safety device (type DS/DSL A+S no. 7574/7579), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

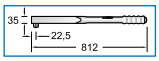


Code	No.	Type	Inclusion	
1427156	**8574-10**	DS	in cardboard packaging	2.9
1427121	**8579-10**	DSL	in cardboard packaging	2.9
1427164	**7574-10**	DS A+S	in cardboard packaging, with pre-set-value locking and safety device	2.9
1427148	**7579-10**	DSL A+S	in cardboard packaging, with pre-set-value locking and safety device	2.9
1436112	**8574-20**	DS	in a sheet-metal case	6.7
1436120	**8579-20**	DSL	in a sheet-metal case	6.7

8563 - 8568 D

DREMOMETER 140-760 N·m / 105-560 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 3/4" single square drive for controlled clockwise tightening (type D no. 8563) or double square drive for bi-directional tightening (type DL no. 8568)
- If ordering with pre-set-value locking and safety device (type D/DL A+S no. 7563/7568), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

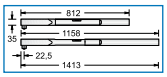


Code	No.	Type	Inclusion	
7691500	**8563-10**	D	in cardboard packaging	3.2
7691850	**8568-10**	DL	in cardboard packaging	3.2
1210921	**7563-10**	D A+S	in cardboard packaging, with pre-set-value locking and safety device	3.2
1210971	**7568-10**	DL A+S	in cardboard packaging, with pre-set-value locking and safety device	3.2
7692070	**8563-20**	D	in a sheet-metal case	7.7
7692310	**8568-20**	DL	in a sheet-metal case	7.7
7692660	**8563-30**	D	Set mm 22 24 27 30 32 36 41 46 754-04 200 + 400 mm	13.6
7692900	**8568-30**	DL	Set mm 22 24 27 30 32 36 41 46 754-04 200 + 400 mm	13.6
7693200	**8563-40**	D	Set INCH 1" 1.1/8 1.1/4 1.5/16 1.3/8 1.7/16 1.1/2 1.5/8 1.3/4 1.13/16 1.7/8 2" 754-04 200 + 400 mm	13.3
7693550	**8568-40**	DL	Set INCH 1" 1.1/8 1.1/4 1.5/16 1.3/8 1.7/16 1.1/2 1.5/8 1.3/4 1.13/16 1.7/8 2" 754-04 200 + 400 mm	13.3

8563 - 8568 DR

DREMOMETER 140-760 N·m / 105-560 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 3/4" single square drive for controlled clockwise tightening (type DR no. 8563) or double square drive for bi-directional tightening (type DRL no. 8568)
- If ordering with pre-set-value locking and safety device (type DR/DRL A+S no. 7563/7568), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

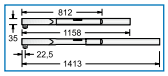


Code	No.	Type	Inclusion	
7670180	**8563-01**	DR	in cardboard packaging with extension tube	5.0
7670500	**8568-01**	DRL	in cardboard packaging with extension tube	5.0
1210912	**7563-01**	DR A+S	in cardboard packaging with extension tube, with pre-set-value locking and safety device	5.0
1210963	**7568-01**	DRL	in cardboard packaging with extension tube, with pre-set-value locking and safety device	5.0
7670260	**8563-02**	DR	in a sheet-metal case with extension tube	8.8
7670690	**8568-02**	DRL	in a sheet-metal case with extension tube	8.8
7670340	**8563-03**	DR	Set mm O 22 24 27 30 32 36 41 46 754-04 200 + 400 mm	14.4
7670770	**8568-03**	DRL	Set mm O 22 24 27 30 32 36 41 46 754-04 200 + 400 mm	14.4
7670420	**8563-04**	DR	Set INCH O 1" 1.1/8 1.1/4 1.5/16 1.3/8 1.7/16 1.1/2 1.5/8 1.3/4 1.13/16 1.7/8 2" 754-04 200 + 400 mm	16.7
7670850	**8568-04**	DRL	Set INCH O 1" 1.1/8 1.1/4 1.5/16 1.3/8 1.7/16 1.1/2 1.5/8 1.3/4 1.13/16 1.7/8 2" 754-04 200 + 400 mm	16.7

8571 - 8576 DX

DREMOMETER 520-1000 N·m / 380-730 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- With 3/4" single square drive for controlled clockwise tightening (type DX no. 8571) or double square drive for bi-directional tightening (type DXL no. 8576)
- If ordering with pre-set-value locking and safety device (type DX/DXL A+S no. 7571/7576), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)



Code	No.	Type	Inclusion	
7694010	**8571-01**	DX	in cardboard packaging with extension tube	5.6
7694360	**8576-01**	DXL	in cardboard packaging with extension tube	5.6
1211005	**7571-01**	DX A+S	in cardboard packaging with extension tube, with pre-set-value locking and safety device	5.6
1211048	**7576-01**	DXL A+S	in cardboard packaging with extension tube, with pre-set-value locking and safety device	5.6
7694520	**8571-02**	DX	in a sheet-metal case with extension tube	10.0
7694600	**8576-02**	DXL	in a sheet-metal case with extension tube	10.0
7694870	**8571-03**	DX	Set mm O 30 32 36 41 46 50 754-04 200 + 400 mmm	16.8
7694950	**8576-03**	DXL	Set mm O 30 32 36 41 46 50 754-04 200 + 400 mm	16.8
7695170	**8571-04**	DX	Set INCH O 1.1/8 1.1/4 1.3/8 1.1/2 1.3/4 1.7/8" 754-04 200 + 400 mm	16.0
7695330	**8576-04**	DXL	Set INCH O 1.1/8 1.1/4 1.3/8 1.1/2 1.3/4 1.7/8" 754-04 200 + 400 mm	16.0

EXTENSION TUBES FOR DREMOMETER DR - F + W

- Spare extension tube for torque wrench series DREMOMETER DR - F and DXZ
- To enable high torque values by means of extending the lever arm
- Extension tubes 8572-74 / 8564-92 / 8564-40 made from high-grade, galvanised steel
- Extension tube 8571-80 made from high-grade aluminium with anodised locknuts - extremely lightweight

Code	No.	mm	
7622020	**8572-74** Extension tube for DREMOMETER F	745	3.6
1686313	**8571-80** Extension tube ALU for DREMOMETER DX/DR	772	0.8
7621720	**8564-92** Extension tube for DREMOMETER E/F	925	3.4
7621640	**8564-40** Extension tube for DREMOMETER E	400	2.3

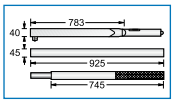
8572 F

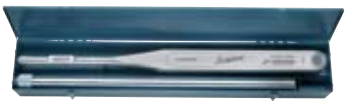
DREMOMETER 1500-3000 N·m

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy
- Extension tubes (no. 8564-92/8572-74) with max. lever length of 2343 mm
- If ordering with pre-set-value locking and safety device (type F A+S no. 7572), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

40

1½





Code	No.	Type	Inclusion	
7717160	**8572-01**	F	in cardboard packaging with 2 extension tubes	13.2
1547259	**7572-01**	F A+S	in cardboard packaging with 2 extension tubes with pre-set-value locking and safety device	13.2
7717240	**8572-02**	F	in a sheet-metal case with 2 extension tubes	24.0

8460 - 8471 Z

DREMOMETER WITH QUICK-FITTING CHANGE 8-1000 N·m / 70 lbf·in-730 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Full-metal construction from high-strength aluminium alloy, type DXZ with aluminium extension tube
- Factory depth gauges: 32 mm (16), 56 mm (22) or 75 mm (28), use type DXZ only with aluminium extension tube
- If ordering with pre-set-value locking and safety device (AZ to DXZ A+S no. 7460-7471), please specify the N·m value - if fixed factory-pre-setting is desired (price on request)

16

22

28

Code	No.	Type	Ø	N·m	lbf·in	lbf·ft	
7703610	**8460-01**	AZ	16	8-40	70-350		1000
7704260	**8461-01**	BZ	16	20-120		15-90	1450
7704340	**8462-01**	CZ	16	50-400		35-300	2000
7703020	**8463-10**	DZ	22	140-620		105-450	3000
1427067	**7460-01**	AZ A+S	16	8-40	70-350		1000
1427075	**7461-01**	BZ A+S	16	20-120		15-90	1450
1225669	**7462-01**	CZ A+S	16	50-400		35-300	2000
1427083	**7463-10**	DZ A+S	22	140-620		105-450	3000

8791

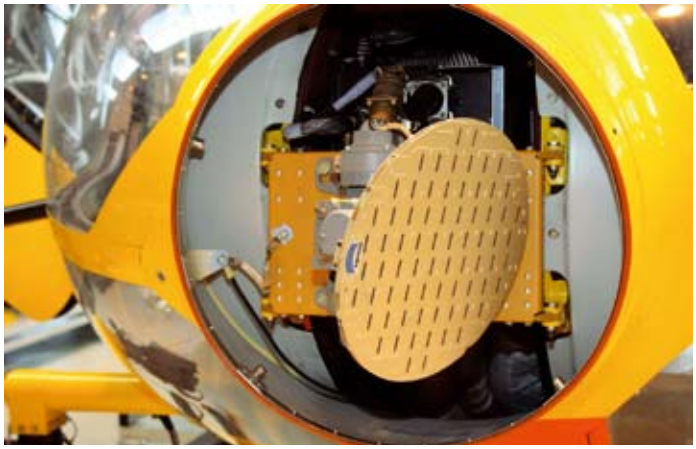
OPEN END FITTING 16 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

16

Code	No.	mm	Depth gauge	
7774470	**8791-07**	7	32	80
7774550	**8791-08**	8	32	80
7774630	**8791-09**	9	32	80
7710070	**8791-10**	10	32	90
7710150	**8791-11**	11	32	90
7676890	**8791-12**	12	32	90
7710230	**8791-13**	13	32	120
7710310	**8791-14**	14	32	120
7710580	**8791-15**	15	32	120
7710660	**8791-16**	16	32	160
7710740	**8791-17**	17	32	160
7676970	**8791-18**	18	32	160
7710820	**8791-19**	19	32	180
7710900	**8791-20**	20	32	180
7677000	**8791-21**	21	32	180
7711040	**8791-22**	22	32	220
7711120	**8791-24**	24	32	220
7711200	**8791-27**	27	32	260
7774710	**8791-30**	30	32	300
7774980	**8791-32**	32	32	300
1552317	**8791-36**	36	32	300

Code	No.	AF	Depth gauge	
1211421	**8791-1/4AF**	1/4	32	90
7720030	**8791-5/16AF**	5/16	32	80
1211447	**8791-3/8AF**	3/8	32	90
7720110	**8791-7/16AF**	7/16	32	90
7720380	**8791-1/2AF**	1/2	32	90
7720460	**8791-9/16AF**	9/16	32	120
7720540	**8791-5/8AF**	5/8	32	160
7720620	**8791-11/16AF**	11/16	32	160
7720700	**8791-3/4AF**	3/4	32	180
1211439	**8791-13/16AF**	13/16	32	90
7720890	**8791-7/8AF**	7/8	32	220
7720970	**8791-15/16AF**	15/16	32	220
7721000	**8791-1AF**	1	32	220
7721190	**8791-1.1/16AF**	1.1/16	32	260
7721270	**8791-1.1/8AF**	1.1/8	32	300
7776170	**8791-1.3/16AF**	1.3/16	32	300
7776250	**8791-1.1/4AF**	1.1/4	32	300
7776330	**8791-1.5/16AF**	1.5/16	32	300



8792

RING END FITTING 16 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

Code	No.	mm	Depth gauge	
7775010	**8792-07**	7	32	90
7775280	**8792-08**	8	32	90
7775360	**8792-09**	9	32	90
7712600	**8792-10**	10	32	100
7712790	**8792-11**	11	32	100
7677190	**8792-12**	12	32	100
7712870	**8792-13**	13	32	140
7712950	**8792-14**	14	32	140
7713090	**8792-15**	15	32	140
7713170	**8792-16**	16	32	180
7713250	**8792-17**	17	32	180
7677270	**8792-18**	18	32	180
7713330	**8792-19**	19	32	210
7713410	**8792-20**	20	32	210
7677350	**8792-21**	21	32	210
7713680	**8792-22**	22	32	260
1211471	**8792-23**	23	32	270
7713760	**8792-24**	24	32	260
7713840	**8792-27**	27	32	300

Code	No.	"AF	Depth gauge	
1211455	**8792-1/4AF**	1/4	32	100
7721350	**8792-5/16AF**	5/16	32	90
1211498	**8792-3/8AF**	3/8	32	100
7721430	**8792-7/16AF**	7/16	32	100
7721510	**8792-1/2AF**	1/2	32	100
7721780	**8792-9/16AF**	9/16	32	140
7721860	**8792-5/8AF**	5/8	32	140
7721940	**8792-11/16AF**	11/16	32	180
7722080	**8792-3/4AF**	3/4	32	210
1211463	**8792-13/16AF**	13/16	32	100
7722160	**8792-7/8AF**	7/8	32	260
7722240	**8792-15/16AF**	15/16	32	260
7722320	**8792-1AF**	1	32	300
7722400	**8792-1.1/16AF**	1.1/16	32	300

8755

END FITTING TORX® 16 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking
- TORX® = registered trademark of Acument Intellectual Properties, LLC. USA

Code	No.		Depth gauge	
7672040	**8755-20**	20	32	100
7672120	**8755-25**	25	32	100
7672200	**8755-27**	27	32	140
7672390	**8755-30**	30	32	140
7672470	**8755-40**	40	36	140
7672550	**8755-45**	45	36	180

8756

END FITTING INBUS® 16 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking
- INBUS® = registered Trademark of Bauer + Schaurte

Code	No.	mm	Depth gauge	
7773740	**8756-03**	3	32	100
7773820	**8756-04**	4	32	100
7773900	**8756-05**	5	32	100
7774040	**8756-06**	6	32	100
7774120	**8756-08**	8	36	110

8754

RATCHET HEAD 16 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

Code	No.	Type	■"	∠°	Depth gauge	
7711980	**8754-01**		3/8	10,0	32	170
7712010	**8754-02**		1/2	7,5	32	270

8797

FLARED END FITTING 16 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

16

Code	No.	mm	max. N·m	Depth gauge	
1211587	**8797-07**	7	7.0	32	90
1211595	**8797-08**	8	6.5	32	90
1211609	**8797-09**	9	5.5	32	90
1211625	**8797-10**	10	26.0	32	100
1211633	**8797-11**	11	19.0	32	100
1211641	**8797-12**	12	13.0	32	120
1211668	**8797-13**	13	34.0	32	140
7664290	**8797-14**	14	24.0	32	140
1211684	**8797-15**	15	18.0	32	140
1211692	**8797-16**	16	66.0	32	180
1211706	**8797-17**	17	56.0	32	180
1211714	**8797-18**	18	45.0	32	200
1211722	**8797-19**	19	80.0	32	210
1211731	**8797-20**	20	60.0	32	210
1211749	**8797-21**	21	43.0	32	210
1211757	**8797-22**	22	172.0	32	260
1211765	**8797-23**	23	153.0	32	260
1211773	**8797-24**	24	118.0	32	260
1211781	**8797-27**	27	76.0	32	300

Code	No.	AF	max. N·m	Depth gauge	
1326503	**8797-1/4AF**	1/4	7.0	32	390
7709300	**8797-5/16AF**	5/16	6.5	32	90
1211803	**8797-3/8AF**	3/8	26.0	32	140
7715620	**8797-7/16AF**	7/16	18.0	32	100
7715970	**8797-1/2AF**	1/2	37.0	32	140
7716350	**8797-9/16AF**	9/16	22.0	32	140
7716430	**8797-5/8AF**	5/8	68.0	32	180
7719610	**8797-11/16AF**	11/16	51.0	32	180
7719880	**8797-3/4AF**	3/4	77.0	32	210
1211676	**8797-13/16AF**	13/16	58.0	32	370
7725180	**8797-7/8AF**	7/8	169.0	32	210
7719960	**8797-15/16AF**	15/16	138.0	32	210
7725260	**8797-1AF**	1	104.0	32	260
7725340	**8797-1.1/16AF**	1.1/16	77.0	32	300

8796

RING END FITTING 22 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

22

Code	No.	mm	Depth gauge	
7707950	**8796-22**	22	56	350
7708090	**8796-24**	24	56	330
7708170	**8796-27**	27	56	370
7708250	**8796-30**	30	56	350
7708330	**8796-32**	32	56	420
7677510	**8796-34**	34	56	420
7708410	**8796-36**	36	56	390
7708680	**8796-41**	41	56	560
7708760	**8796-46**	46	56	520

Code	No.	AF	Depth gauge	
1532677	**8796-1.1/8AF**	1.1/8	56	400
1532685	**8796-1.3/16AF**	1.3/16	56	470
1532693	**8796-1.1/4AF**	1.1/4	56	550
1532707	**8796-1.5/16AF**	1.5/16	56	460
1532715	**8796-1.7/16AF**	1.7/16	56	430

8794

FIXED SQUARE HEAD / RATCHET HEAD 22 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

22

20

3/4"

Code	No.	Type	■"	∠°	Depth gauge	
7708840	**8794-00**		3/4		56	610
1427318	**8794-03**		3/4	10	56	950

8790 - 8793

FIXED SQUARE HEAD 16 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

16

10

3/8"

12,5

1/2"

Code	No.	Type	■"	Depth gauge	
7709490	**8790-00**		3/8	32	350
7709570	**8793-00**		1/2	32	380

8795

OPEN END FITTING 22 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

22

Code	No.	mm	Depth gauge	
7707010	**8795-22**	22	56	330
7707280	**8795-24**	24	56	320
7707360	**8795-27**	27	56	380
7707440	**8795-30**	30	56	370
7707520	**8795-32**	32	56	450
7677430	**8795-34**	34	56	430
7707600	**8795-36**	36	56	430
7707790	**8795-41**	41	56	580
7707870	**8795-46**	46	56	530

Code	No.	AF	Depth gauge	
1532650	**8795-1.7/16AF**	1.7/16	56	425
1532669	**8795-1.1/2AF**	1.1/2	56	429

8797

FLARED END FITTING 22 Z

- For accessing bolts in cramped and hard-to-access locations - easy to change
- Forged
- Chrome-vanadium steel, chrome-plated
- With eject-pin for unlocking

22

Code	No.	AF	max. N·m	Depth gauge	
1532723	**8797-1.1/8AF**	1.1/8	166	56	370
1532731	**8797-1.3/16AF**	1.3/16	145	56	360
1532758	**8797-1.1/4AF**	1.1/4	396	56	440
1532766	**8797-1.5/16AF**	1.5/16	367	56	430
1532774	**8797-1.7/16AF**	1.7/16	271	56	390

TECHNICAL INFORMATION ANGULAR TIGHTENING

- For activation with torque angle measurement, set the DREMOMETER to the stipulated setting torque. Loosen the lamping screw on the flexible rod and place the magnet firmly onto the metallic surface or securely affix the claw to the other end of the flexible spindle. In the process, bend the rod into place and firmly re-tighten the clamping screw. Slowly and evenly pull through the DREMOMETER until the "click" is heard. The proper resting position of the screw on the surface (setting torque) has now been reached. Now, hold the DREMOMETER in this position and set the angle-disc to the desired angle. Pull it further until the arrow is pointing to zero. The connection now has the desired pre-tension force.

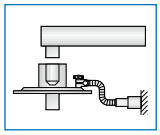
- Please note:
- Pay attention to the maximum output of the torque wrenches to avoid overloading. The total torque (set torque plus angle tightening) may not pass the indicated maximum output of the torque wrenches.

8200

TORQUE ANGLE INDICATOR

- For additional precise angle tightening (0-360°)
- No. 8200-01/-02 models with sliding magnetic and gripping arm
- No. 8200-11 only with magnetic arm - simple design
- To operate with a suitable torque wrench
- The maximum output of the torque wrench must not be passed

12,5 1/2" 20 3/4"



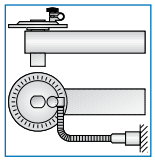
Code	No.	■"	■	Ø mm	∠°	
1195980	**8200-01**	1/2	12.5	80	0-360	330
7718480	**8200-11**	1/2	12.5	80	0-360	330
7716510	**8200-02**	3/4	20.0	120	0-360	530

8261 - 8273 W

DREMOMETER 20-300 N·m / 15-220 lbf·ft

- Working accuracy: +/- 3% tolerance of scale set torque
- Torque angle indicator with a sliding magnetic and gripping arm
- Full-metal construction from high-strength aluminium alloy
- For controlled clockwise tightening with angle measurement
- The maximum output of the torque wrench must not be passed
- The 4-piece DREMOMETER W set (-03) with 1/2" accessories: 1x ratchet head for controlled clockwise tightening (no. 754-02), 2x extension tubes (125 + 250 mm)
- Delivery in solid sheet metal case

12,5 1/2"



Code	No.	Type	■"	N·m	lbf·ft	Wrench	Set
7696730	**8261-03**	BW	1/2	20-120	15-90	1500	4700
7696810	**8273-03**	BCW	1/2	40-200	30-150	1700	4800
7697030	**8262-03**	CW	1/2	50-300	35-220	1900	5200

6550 - 6551

TORCOFIX K US 10 lbf·in - 600 lbf·ft / 1,1 - 810 N·m

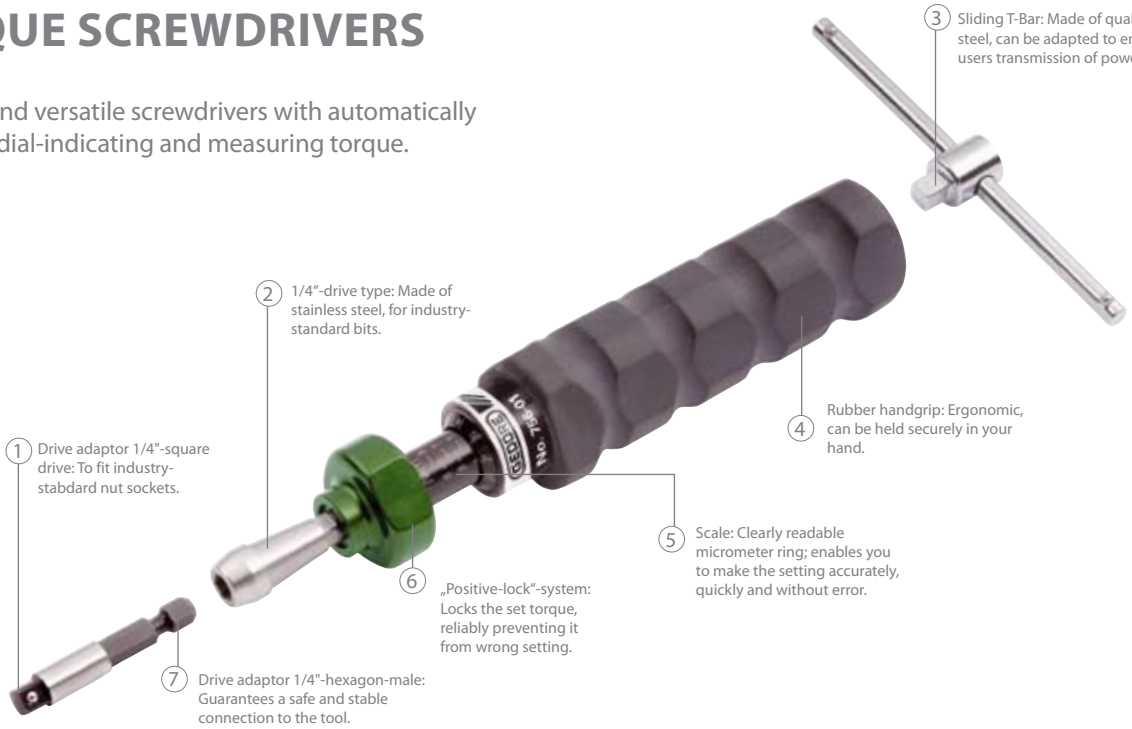
- Anglo-American unit
- Adjustable torque wrench with square drive and integrated ratchet function
- For controlled bi-directional tightening
- 1/4", 3/8", 1/2" mushroom-head reversible square drive with ball locking device as per DIN 3120 - A 6.3, A 10 or A 12.5, ISO 1174
- 3/4" push-through square drive with pin locking device DIN 3120 - B 20, ISO 1174 (no. 6551-120)
- Working accuracy: +/- 3% tolerance of scale set torque
- Robust, silk-matt chrome-plated steel tube construction, with chrome-plated ratchet head and glass-fibre-reinforced plastic parts
- Dual scale in lbf·in resp. lbf·ft and N·m underneath a window with a magnifying-glass effect

6,3 1/4" 10 3/8" 12,5 1/2" 20 3/4"

Code	No.	■"	lbf·in	lbf·ft		
1956744	**6550-01**	1/4	10-50		0,25 lbf·in	300
1956752	**6550-02**	1/4	20-100		0,25 lbf·in	300
1956779	**6550-05**	3/8	50-250		1,0 lbf·in	800
1956787	**6550-15**	3/8	150-1000		5,0 lbf·in	900
1956795	**6551-07**	3/8		7-50	0,25 lbf·ft	900
1956817	**6551-10**	1/2		10-75	0,25 lbf·ft	900
1956833	**6551-30**	1/2		30-150	0,5 lbf·ft	1100
1956841	**6551-60**	1/2		60-300	1,0 lbf·ft	1600
1956868	**6551-120**	3/4		120-600	1,0 lbf·ft	4500

TORQUE SCREWDRIVERS

Compact and versatile screwdrivers with automatically actuating, dial-indicating and measuring torque.



755

TORQUE SCREWDRIVER TYPE FS 0.02-13.6 N·m

- Working accuracy: +/- 6% tolerance of the selected torque
- Precision radial ball clutch and cam design for controlled bidirectional tightening
- The pre-setting can be made at the RAHSOL DREMOTEC factory or by the user on suitable torque testers
- If a factory setting is required, please specify the N·m value on the order
- ESD = electrostatic discharge protection (with one exception: model 755-05 is available only with ESD protection as an optional extra)

Code	No.	⬡ "	■ "	cN·m	N·m	Colour	⚖
1471481	**755-01**	1/4	1/4	2-22		red	50
1471473	**755-02**	1/4	1/4	0,5-22		gold	72
1471465	**755-03**	1/4	1/4	2-135		blue	210
1471457	**755-04**	1/4	1/4	6-406		green	280
1228501	**755-05**	1/4	1/4		1-13,6	black	325

756

TORQUE SCREWDRIVER TYPE S 0.05-9 N·m

- Working accuracy: +/- 6% tolerance of the selected torque
- Compact, lightweight and non-slip rubber handle
- Precision radial ball clutch and cam design for controlled bidirectional tightening
- Positive locking system prevents torque setting from slipping
- ESD = electrostatic discharge protection

Code	No.	⬡ "	■ "	cN·m	N·m	Colour	⚖
1498738	**756-00**	1/4	1/4	5-40		silver	124
1400150	**756-01**	1/4	1/4	20-120		blue	165
1400169	**756-06**	1/4	1/4		1-6	red	340
1400177	**756-09**	1/4	1/4		4-9	green	340

757

TORQUE SCREWDRIVER TYPE S 0.2-9 N·m

- Working accuracy: +/- 6% tolerance of the selected torque
- Precision radial ball clutch and cam design for controlled bidirectional tightening
- Micrometer-scale graduation: 1 cN·m / 0.1 N·m
- Lightweight design with anodised aluminium handles
- ESD = electrostatic discharge protection

Code	No.	⬡ "	■ "	cN·m	N·m	Colour	⚖
7718050	**757-01**	1/4	1/4	20-120		black	165
7718130	**757-06**	1/4	1/4		1-6	red	400
7718210	**757-09**	1/4	1/4		4-9	green	400

758

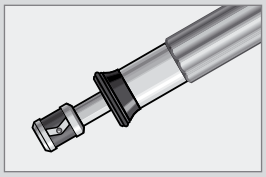
TORQUE SCREWDRIVER TYPE SP 10-500 cN·m / 14 ozf·in - 40 lbf·in

- Working accuracy +/- 6% tolerance of the indicated torque
- Dial-indicating torque and test screwdriver - with dual scale (cN·m/ozf·in/lbf·in)
- Lightweight design with anodised aluminium handles
- ESD = electrostatic discharge protection
- With bidirectional maximum indicator function

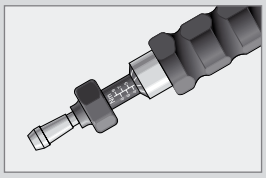
Code	No.	⬡ "	■ "	cN·m	ozf·in / lbf·in	Colour	⚖
7096380	**758-05**	1/4	1/4	10-50	14-70 ozf·in	gold	190
7096460	**758-10**	1/4	1/4	20-100	28-140 ozf·in	blue	190
7096540	**758-25**	1/4	1/4	50-250	4-20 lbf·in	red	465
7096620	**758-50**	1/4	1/4	100-500	8-40 lbf·in	green	465

TORQUE SCREWDRIVER TECHNICAL FEATURES

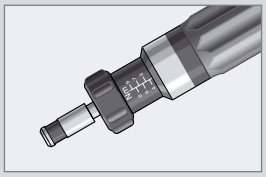
Type FS 755
Pre-set torque screwdriver without scale for durable and identical value tightening
- Auto setting
- Bidirectional
- Anodised aluminium handgrip



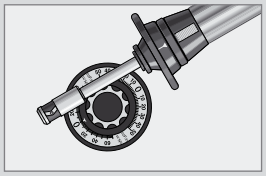
Type 756
Adjustable torque screwdriver with micrometer scale
- "Positive-lock"-system
- Drive type made of stainless steel
- Auto setting
- Bidirectional
- Non-slip rubber handgrip
- ESD = electrostatically protected



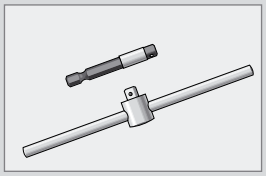
Type S 757
Adjustable torque screwdriver with micrometer scale
- Auto setting
- Bidirectional
- Anodised aluminium handgrip
- ESD = electrostatically protected



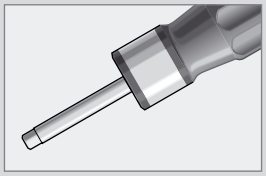
Type SP 758
Dial-indicating torque screwdriver with dual scale
- Locking of maximum values / maximum value-display
- Bidirectional
- Anodised aluminium handgrip
- ESD = electrostatically protected



Scope of delivery
We supply a 1/4"-1/4"-drive adaptor with all models
To make work easier, a sliding or removable T-bar is included with several models



Special models
Optionally, all torque screwdrivers are also available with a 1/4" male square drive spindle.
Apart from that: Torque screwdrivers for the medical "clean-room" area are available on request.



763

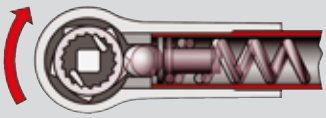
TORQUE WRENCH DREMOMETER T-FS pre-set, 1-14 N·m

- Torque wrench series with 14 pre-set models
- Working accuracy in accordance with DIN EN ISO 6789 Type II Class E (+/- 6%)
- Lightweight high-grade aluminium casing

Code	No.	■ "	■	N·m	⚖
1947907	**763-01**	1/4	6.3	1	241
1947915	**763-02**	1/4	6.3	2	241
1947923	**763-03**	1/4	6.3	3	241
1947931	**763-04**	1/4	6.3	4	241
1947958	**763-05**	1/4	6.3	5	241
1947966	**763-06**	1/4	6.3	6	241
1947974	**763-07**	1/4	6.3	7	241
1947990	**763-08**	1/4	6.3	8	241
1948008	**763-09**	1/4	6.3	9	241
1948016	**763-10**	1/4	6.3	10	241
1948024	**763-11**	1/4	6.3	11	241
1948032	**763-12**	1/4	6.3	12	241
1948040	**763-13**	1/4	6.3	13	241
1948059	**763-14**	1/4	6.3	14	241

TSN-SIPPER WORKING PRINCIPLE

◤ When the pre-set torque value is achieved, the mechanism slips through over the roller (without the possibility of over-tightening). The torque wrench is then immediately ready for the next operation.



759

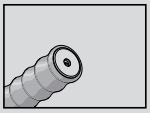
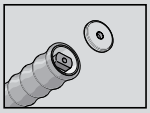
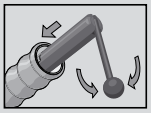
TORQUE WRENCH TSN SLIPPER 3-125 N·m

- ◤ Working accuracy: +/- 4% tolerance of the selected torque
- ◤ Pre-set torque wrench - without scale
- ◤ The precision mechanism slips noticeably when the pre-set value is reached - completely eliminating the risk of over-tightening
- ◤ The pre-setting can be made at the RAHSOL DREMOTEC factory or by the user on suitable torque testers
- ◤ If a factory setting is required, please specify the N·m value on the order

6,3 | 1/4" | 10 | 3/8" | 12,5 | 1/2"

Code	No.	■"	N·m	
7091900	**759-00**	1/4	3-25	340
7092040	**759-01**	3/8	3-25	340
7092120	**759-02**	3/8	15-55	800
7092200	**759-03**	1/2	40-125	1360

TSN SLIPPER AND TBN BREAKER TECHNICAL INFORMATION

◤ All TSN Slippers and TBN Breaker torque wrenches (apart from 760-00/-01) are fitted with the patented "Mechanical Torque Adjustment Locking Device" to modify torque tester.

761

TORQUE WRENCH TSP SLIPPER 1-10 N·m / 10-90 lbf·in

- ◤ Working accuracy: +/- 6% tolerance of the selected torque
- ◤ Pre-set torque wrench - without scale
- ◤ The precision mechanism slips noticeably when the pre-set value is reached - completely eliminating the risk of over-tightening
- ◤ ESD = electrostatic discharge protection
- ◤ The pre-setting can be made at the RAHSOL DREMOTEC factory or by the user on suitable torque testers
- ◤ If a fixed factory setting is required, please specify the N·m value on the order

6,3 | 1/4"

Code	No.	■"	N·m	lbf·in	
1196650	**761-05**	1/4	1-5	10-45	190
1196731	**761-10**	1/4	2-10	20-90	190

762

TORQUE WRENCH TSC SLIPPER 1-10 N·m

- ◤ Working accuracy: +/- 6% tolerance of the scale set torque
- ◤ Adjustable torque wrench - with scale
- ◤ The precision mechanism slips noticeably when the pre-set value is reached - completely eliminating the risk of over-tightening
- ◤ Automatic reset to start position
- ◤ ESD = electrostatic discharge protection

6,3 | 1/4"

Code	No.	■"	N·m	
1196480	**762-05**	1/4	1-5	235
1196510	**762-10**	1/4	2-10	235

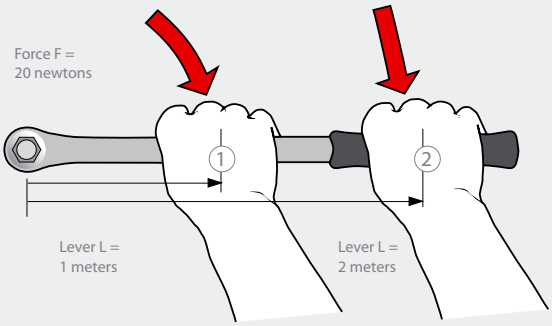
HOW IS THE TORQUE MEASURED?





The torque is calculated by multiplying the force "F" applied to the lever with the distance from the pivot point to the point of application "L" (length of the lever).

Working principle



Mathematically, that is expressed as follows: Torque M_A = Force F x Lever L

The diagram shows dependencies of force F and lever L on the torque on the base of 2 examples.

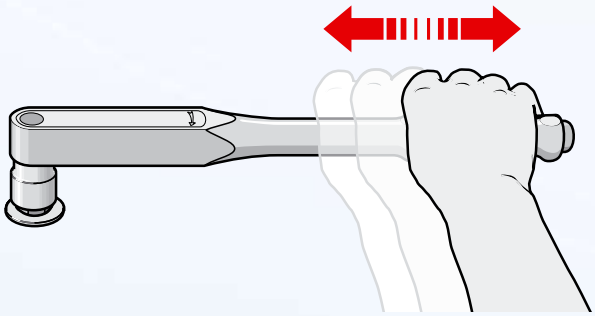
In order to determine the relevant torque, we employ the formula „M_A = F x L".

1 M_A = F x L = 20 N x 1 m = 20 N·m (newton meters)

2 M_A = F x L = 20 N x 2 m = 40 N·m (newton meters)

This means that the actual torque applied to the screw changes if the hand's position on the wrench changes.

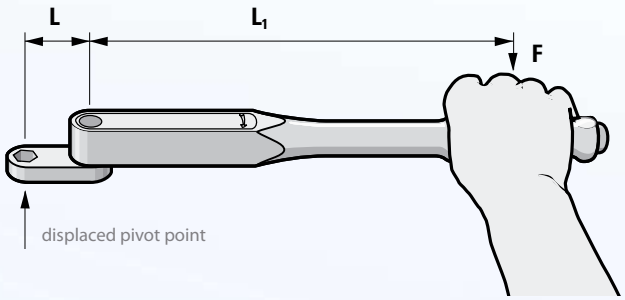
Operable without inaccuracies



DREMOMETER Type AM-F

In the DREMOMETER, we got around the physical principle explained above using constructional cleverness. Irrespective of where you apply the force - whether it be in the middle of the handgrip or at another position ot the DREMOMETER, whether it be with both hands or using an extension tube - the torque set by you is always achieved exactly - without shifts in value! By virtue of an axial position of the pivot point and the output square drive, the DREMOMETER is a tool which is operable without inaccuracies. By contrast to convencional torque wrenches, this single lever enables tightening without shifts in the measured value and without actuation away from the handgrip adversely affecting the accurancy.

Please note that most conventional torque wrenches can only be actuated at the middle of the handgrip because, otherwise, considerable shifts in value could occur. Do you want to play it safe? Then choose DREMOMETER.



DREMOMETER with spanners

When the DREMOMETER is actuated with a special extension spanner, the single lever mentioned above is no longer the case. The attached spanner alters the conditions to the extent that the pivot point is now situated outside of the output square drive and thus a socalled double lever ("L_1+L") acts upon the screw connection. That has the consequence that the hand's pressure "F" can now only be applied to the middle of the handgrip. Every other pressure point would inevitably lead to shifts in value.

The set torque when using special spanners is determined along the following lines:

$$\text{Set torque} = \frac{M_A \times L_1}{L + L_1}$$

Our DREMOMETER and SE operate in accordance with the same principle. Here, the position of the pivot point also shifts to the front. These wrenches must also be actuated at the middle of the handgrip.

However, if you are using our norm-compliant stabdard spanner end fittings, then the setting torque does not have to be re-calculated on the basis of the below-specified formula. Here, we already take the gauge (L) into consideration when adjusting the wrench.

Only if you are using your own designs (therby changing the dimension "L") does the setting torque have to be re-calculated.

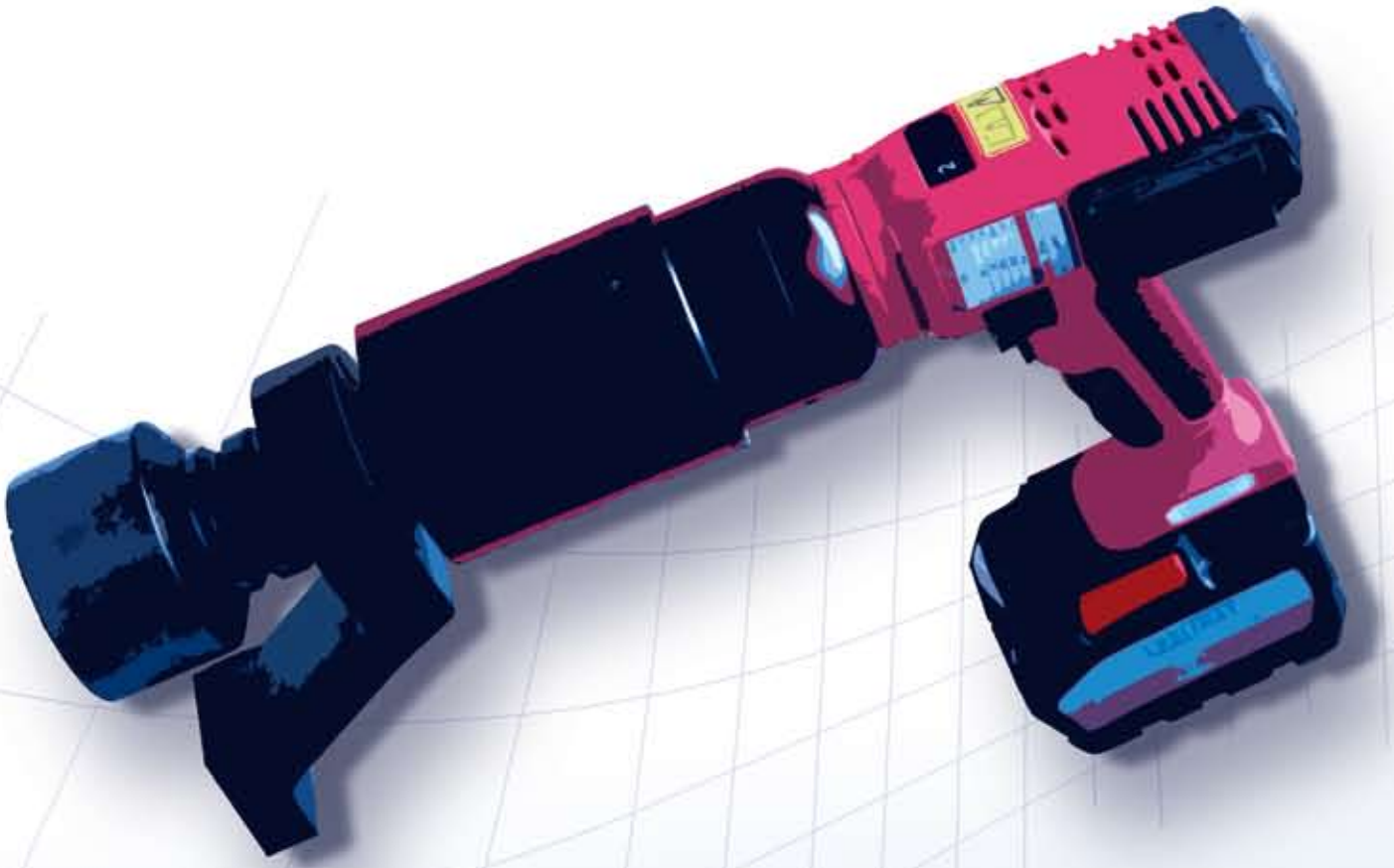
F = Force

L_1 = Distance (path) from the middle of the handgrio to the pivot point

L = Distance (path) from the middle of the screw to the pivot point

M_A = Torque

GEDORE
Werkzeuge fürs Leben · Tools for life



TORQUE WRENCHES

LÖSOMAT ... power which motivates

Member of the GEDORE group

For more than 30 years the innovative partner for precise torques. Battery-operated wrenches, electric wrenches, hydraulic wrenches, torque multipliers or pneumatic wrenches - LÖSOMAT torque wrenches are ideal for all assembly and maintenance work from 100 - 30000 N·m.

As inventer of the first precise electric torque wrench in the 1980s, and major market success gave the company the impetus to work on innovative new developments in the future. Numerous patents and globally unique torque wrenches have been the consequence of these efforts.

Today LÖSOMAT-Schraubtechnik Neef GmbH is the youngest partner in the GEDORE Group - a high-tech centre for innovative product developments and individual solutions in the bolt technology sector. An in-house development department, a depth of production of well over 90% on the most modern machines, and an excellent level of service, are the guarantee for Made in Germany.

Your advantages:

- The use of state-of-the-art materials and high precision during the production process guarantees a long service life
- User-friendly and ergonomic due to its light weight
- Compact design for use in otherwise inaccessible areas
- Dynamic torque wrenches with individual test certificate for high safety at all bolted connections
- Customer-specific special wrenches
- Process reliability due to optional documentation with RFID radio technology
- Own test facilities for the calibration of customer's special wrenches
- Repair within three working days
- Our competent team will advise and analyse your tightening and loosening task on-site. Please contact us!

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info@loesomat.de · www.loesomat.de

TIGHTENING / TEST TORQUE

Suggested bolt tightening torque in Nm (Newton metres)

These torque levels are guideline values for metric standard threads in accordance with DIN ISO 261 and head sizes in accordance with DIN EN ISO 4762, DIN EN ISO 4032, DIN EN ISO 4014, and DIN 931-2, 6912, 7984 and 7990. These produce a 90% utilization of the bolt yield strength. The calculations are based on a friction coefficient of 0.14 (new bolt) without any after treatment, non-lubricated). Please note: in extreme cases, e.g. for bolts lubricated with MoS_2 compound and with cadmium-plated connecting elements on both sides, the tightening torque should be reduced by around 20%.

Wrench/spanner test torques in accordance with DIN ISO 1711-1 (minimum guaranteed values) Nm

M	Tightening values for quality grade as per DIN 267						mm	No. 2, 2A, 2B No. 1B, 308, 7	No. 4	No. 6, No. 1B, 7, 400	No. 25	No. 26 R No. 626	No. 35 A No. 35 B No. 3112	No. 894 No. 895
	4.6	5.6	6.9	8.8	10.9	12.9								
M 2	0,123	0,162	0,314	0,373	0,520	0,628	**4**			1,90				
M 2,2	0,196	0,265	0,510	0,598	0,843	1,010	**4,5***			2,64				
M 2,5	0,284	0,373	0,726	0,863	1,206	1,451	**5**	11,5		3,55				
M 3	0,441	0,588	1,128	1,344	1,883	2,256	**5,5**	14,4		4,64		14,4		2,32
M 3,5	0,677	0,902	1,736	2,060	2,893	3,481	**6***	17,6	7,4	5,92		17,6		2,96
M 4	1,000	1,344	2,599	3,040	4,315	5,148	**7**	25,2	11,4	9,12		25,2		4,56
M 5	1,916	2,648	5,099	6,031	8,483	10,200	**8** **9***	34,5 45,4	16,6 23	13,3 18,4		34,5 45,4	34,5 45,4	6,65 9,20
M 6	3,432	4,511	8,728	10,300	14,710	17,652	**10**	58,1	31	24,8	58,1	58,1	58,1	12,4
M 7	5,590	7,453	14,220	17,162	24,517	28,439	**11** **12**	72,7 89,1	40,4 51,5	32,3 41,2	72,7 89,1	72,7 89,1	72,7 89,1	16,1 20,6
M 8	8,238	10,787	21,575	25,497	35,304	42,168	**13** **14***	107 128	64,5 79,4	51,6 63,5	107 128	107 128	107 128	25,8 31,7
M 10	16,67	21,575	42,168	50,014	70,608	85,317	**15** **16** **17**	150 175 201	96,2 115 134	77,0 92,3 107	150 175 201	150 175 201	150 175 201	38,5 46,1 53,5
M 12	28,44	38,246	73,550	87,279	122,60	147,10	**18** **19*** **20***	230 261 294	160 186 215	128 149 172	230 261 294	230 261 294	230 261 294	64,0 74,5 86,0
M 14	45,11	60,801	116,70	138,30	194,20	235,40	**21** **22*** **23***	330 368 408	247 281 319	198 225 255	330 368 408	330 368 408	330 368 408	99,0 112 127
M 16	69,63	93,163	178,5	210,80	299,10	357,90	**24** **25*** **26***	451 496 544	359 402 449	287 322 359	451 496 544	451 496 544	451 496 544	143 161 179
M 18	95,12	127,50	245,20	289,3	411,90	490,30	**27** **28***	594 647	499 552	399 442	594 647	594 647	594 647	199 221
M 20	135,3	180,45	384,10	411,90	578,60	696,30	**30**	760	670	536	760	760	760	268
M 22	182,4	245,16	470,70	559,00	784,50	941,40	**32*** **34**	884 1019	804 951	643 761	884 1019	884 1019	884 1019	321 381
M 24	230,5	308,91	598,20	711,00	1000	1196	**36**	1165	1117	894	1165	1165	1165	447
M 27	343,2	460,90	887,50	1049	1481	1775	**41**	1579	1442	1154	1579	1579	1579	577
M 30	465,8	622,72	1206	1422	2010	2403	**46**	2067	1816	1453	2067	2067	2067	726
M 33	632,5	848,30	1628	1932	2716	3266	**50**	2512	2145	1716	2512	2512	2512	858
M 36	814,0	1089	2099	2481	3491	4197	**55**	3140		2077	3140	3140	3140	1038
M 39	1059	1412	2716	3226	4531	5443	**60**	3849		2471	3849		3849	1235
M 42	1304	1746	3364	3991	5609	6727	**65**	4021		2900	4021		4021	1422
M 45	1638	2177	4207	4992	7012	8414	**70**	4658		3364	4658		4658	1618
M 48	1981	2638	5080	6021	8473	10150	**75**	5394		3862			5394	1765
M 52	2540	3393	6541	7747	10885	13092	**80**	6178		4394			6178	1912
M 56	3168	4227	8149	9650	13582	16279	**85**	6963					6963	2059
M 60	3932	5247	10101	11964	16867	20202	**90**	7845					7845	-
M 64	4737	6306	12160	14416	20300	24320	**95**	8336					8336	-

*These sizes are not included in DIN ISO 272

Note:
In reference to the "spanner test torque as per DIN ISO 1711-1" column, we explicitly point out that these are minimum guarantee values.
Bolts from M39 in quality grades 4.6, 5.6, 6.9, 8.8, 10.9 and 12.9 are not standardized.

TIGHTENING / TEST TORQUE

		Wrench/spanner test torques in accordance with DIN ISO 1711-1 (minimum guaranteed values) Nm					Test torques for tightening tools for hexagon socket head screws							
		With square socket head as per DIN 3120					DIN EN ISO 4762	No. 42T, DT42 No. 42, 42EL	No. IN 34	With hexagon head as per DIN 7422				
		6,3	10	12,5	20	25				6,3	10	12,5	20	25
		No. 20 No. D 20	No. 30 No. D 30	No. 19 No. D 19	No. 32 No. D 32	No. D 21				No. IN 20	No. IN30	No. IN 19	No. IN 32	No. IN 21
M	mm						mm							
		1/4"	3/8"	1/2"	3/4"	1"				1/4"	3/8"	1/2"	3/4"	1"
M 2	**4**	10,4					1,5	0,82						
M 2,2	**4,5***	12,6					2	1,9		1,9				
M 2,5	**5**	15,1												
M 3	**5,5**	17,8					2,5	3,8		3,8				
M 3,5	**6***	20,6	23,2											
M 4	**7**	26,8	33,2				3	6,6	6,6	6,6				
M 5	**8** **9***	33,6 41,1	45,5 59,9	94,1 119,2			4	16	16	16	16	16		
M 6	**10**	49,1	76,7	147			5	30	30	30	30	30		
M 7	**11** **12**	57,8 67,0	96 118	178 212										
M 8	**13** **14***	68,6 68,6	141 169	249 288			6 7	52 80	52	52	52 80	52 80		
M 10	**15** **16** **17**		198 225 225	331 377 425			8 9	120 165	120	120	120	120 165		
M 12	**18** **19*** **20***		225 225 225	477 531 569			10 12	220 370	220 370		220	220 370		
M 14	**21** **22*** **23***		225 225	569 569 569	 569 569									
M 16	**24** **25*** **26***			569 569 569	569 583 624		14	590	590			590	590	
M 18	**27** **28***			569 569	665 707									
M 20	**30**			569	795		17	980	980			1000	1000	1000
M 22	**32*** **34**			569 569	888 984									
M 24	**36**				1084	1677	19	1360	1360			1400	1400	1400
M 27	**41**				1353	1910								
M 30	**46**				1569	2143	22	2110					2100	2100
M 33	**50**				1569	2329	24	2750						
M 36	**55**				1569	2562	27	3910						2700
M 39	**60**				1569	2795	30	4000						
M 42	**65**					2795	32	4000						
M 45	**70**					2795								
M 48	**75**					2795	36	4000						
M 52	**80**					2795								
M 56	**85**													
M 60	**90**													
M 64	**95**													

The matching test torques are derived from the theoretical load capability of the connecting square drive.

Attention:
Hand tightening sockets are unsuited to use with impact drivers. Inappropriate use poses an accident risk.
Power driver sockets can be found up from page 102.

HEAD WIDTHS AND THREAD DIAMETERS

				Head widths		Thread Ø		Head widths	
mm	Metric as per DIN ISO 272	Metric for high-tensile bolted structural joints as per EN 14399-4	"AF	inch	mm	Whitw.	BS 916 1083	inch	mm
2,5 3 3,2	1 1,4 and 1,2 1,6								
4 4,5 5	2 2,3 2,5		5/32 3/16	0,1562 0,1875	3,97 4,76	8 BA 7 BA 6 BA		0,152 0,172 0,193	3,86 4,37 4,90
5,5 6	3 3,5		7/32 1/4	0,2187 0,2500	5,56 6,35	5 BA 4 BA 1/16 W		0,220 0,248 0,256	5,59 6,30 6,90
7 7+8	4 5		9/32 5/16	0,2812 0,3125	7,14 7,94	3 BA 3/32 W 2 BA		0,282 0,297 0,324	7,16 7,54 8,23
9 8+10	5 Old 6		11/32 3/8 13/32	0,3438 0,3750 0,4062	8,73 9,52 10,32	1/8 W 1 BA 0 BA	(3/16) (7/32)	0,340 0,365 0,413	8,64 9,27 10,49
11 12 10+13	7 8		7/16 1/2	0,4375 0,5000	11,11 12,70	3/16 W 1/4 W	1/4 5/16	0,445 0,525	11,30 13,34
14* 15 16	8 Old 10 KFZ 10		9/16 19/32 5/8	0,5625 0,5938 0,6250	14,29 15,08 15,88	5/16 W	3/8	0,600	15,24
13+15+17 18 15+18+19	10 12 12		11/16 3/4	0,6875 0,7500	17,46 19,05	3/8 W	7/16	0,710	18,03
20* 18+21 22+24	 14 14	 12	25/32 13/16 7/8	0,7812 0,8125 0,8750	19,84 20,64 22,22	7/16 W	1/2	0,820	20,83
23* 21+24* 25*+27*	16		15/16 1.	0,9375 1,0000	23,81 25,40	1/2 W	9/16	0,920	23,37
26* 27 27+28*+30	18	16	1.1/16	1,0625	26,99	9/16 W 5/8 W	5/8 (11/16)	1,010 1,100	25,65 27,94
27+30+34 32+36+41	20 22	 20	1.1/8 1.3/16 1.1/4	1,1250 1,1875 1,2500	28,58 30,16 31,75	11/16 W	3/4	1,200	30,48
34 36+41	22 24	 22	1.5/16 1.3/8 1.7/16	1,3125 1,3750 1,4375	33,34 34,92 36,51	3/4 W 13/16 W	7/8 (15/16)	1,300 1,390	33,02 35,31
38* 41+46	 27	 24	1.1/2 1.5/8 1.11/16	1,5000 1,6250 1,6875	38,10 41,28 42,86	7/8 W 1. W	1. 1.1/8	1,480 1,670	37,59 42,42
46+50	30	27	1.3/4 1.13/16 1.7/8	1,7500 1,8125 1,8750	44,45 46,04 47,62	 1.1/8 W	 1.1/4	 1,860	 47,24
50+55 55+60	33 36	30	2. 2.1/16 2.3/16	2,0000 2,0625 2,1875	50,80 52,39 55,56	1.1/4 W	1.3/8	2,050	52,07
60+65	39	36	2.1/4 2.3/8 2.7/16	2,2500 2,3750 2,4375	57,15 60,32 61,91	1.3/8 W 1.1/2 W	1.1/2 1.5/8	2,220 2,410	56,39 61,21
65 70	42 45		2.9/16 2.5/8 2.3/4	2,5625 2,3750 2,7500	65,09 66,68 69,85	1.5/8 W 1.3/4 W	1.3/4 2.	2,580 2,760	65,53 70,10
75	48		2.13/16 2.15/16 3	2,8125 2,9375 3,0000	71,44 74,61 76,20	 (1.7/8 W)			 76,70
80 85 90	52 56 60		3.1/8 3.3/8 3.1/2	3,1250 3,3750 3,5000	79,38 85,72 88,90		2.1/4 2.1/2	3,150 3,550	80,01 90,17
95 100	64 68		3.3/4 3.7/8	3,7500 3,8750	95,25 98,42		 2.3/4	 3,890	 98,81
105 110 115	72 76 80		4.1/8 4.1/4 4.1/2	4,1250 4,2500 4,5000	104,78 107,95 114,30		3. 3.1/4	4,180 4,530	106,17 115,06
120 125*	85		4.5/8 4.7/8 5.	4,6250 4,8750 5,0000	117,48 123,82 127,00		 3.1/2	 4,850	 123,19
130 135 140*	90 95		5.1/4 5.3/8 5.5/8	5,2500 5,3750 5,6250	133,35 136,52 142,88		3.3/4 4.	5,180 5,550	131,57 140,97
145 150 155	100 105 110		5.3/4 6. 6.1/8	5,7500 6,0000 6,1250	146,05 152,40 155,58		 4.1/2	 6,380	 162,05
160* 165 170	 115 120								
175* 180 185	 125 130								
200 210	140 150								

* not standardised

mm				
Nominal size/s in mm	**Tolerance class 1 as per ISO 691 dimensions**		**Tolerance class 2[a] as per ISO 691 dimensions**	
	min.	max.	min.	max.
2 ≤s < 3	+ 0,02	+ 0,08	+ 0,02	+ 0,12
3 ≤s < 4	+ 0,02	+ 0,10	+ 0,02	+ 0,14
4 ≤s < 6	+ 0,02	+ 0,12	+ 0,02	+ 0,16
6 ≤s < 10	+ 0,03	+ 0,15	+ 0,03	+ 0,19
10 ≤s < 12	+ 0,04	+ 0,19	+ 0,04	+ 0,24
12 ≤s < 14	+ 0,04	+ 0,24	+ 0,04	+ 0,30
14 ≤s < 17	+ 0,05	+ 0,27	+ 0,05	+ 0,35
17 ≤s < 19	+ 0,05	+ 0,30	+ 0,05	+ 0,40
19 ≤s < 26	+ 0,06	+ 0,36	+ 0,06	+ 0,46
26 ≤s < 33	+ 0,08	+ 0,48	+ 0,08	+ 0,58
33 ≤s < 55	+ 0,10	+ 0,60	+ 0,10	+ 0,70
55 ≤s < 75	+ 0,12	+ 0,72	+ 0,12	+ 0,92
75 ≤s < 105	+ 0,15	+ 0,85	+ 0,15	+ 1,15
105 ≤s < 150	+ 0,20	+ 1,00	+ 0,20	+ 1,40
150 ≤s < 210	+ 0,25	+ 1,25	-	-

[a] This tolerance class applies only to ring spanners that have not been manufactured by material removal.

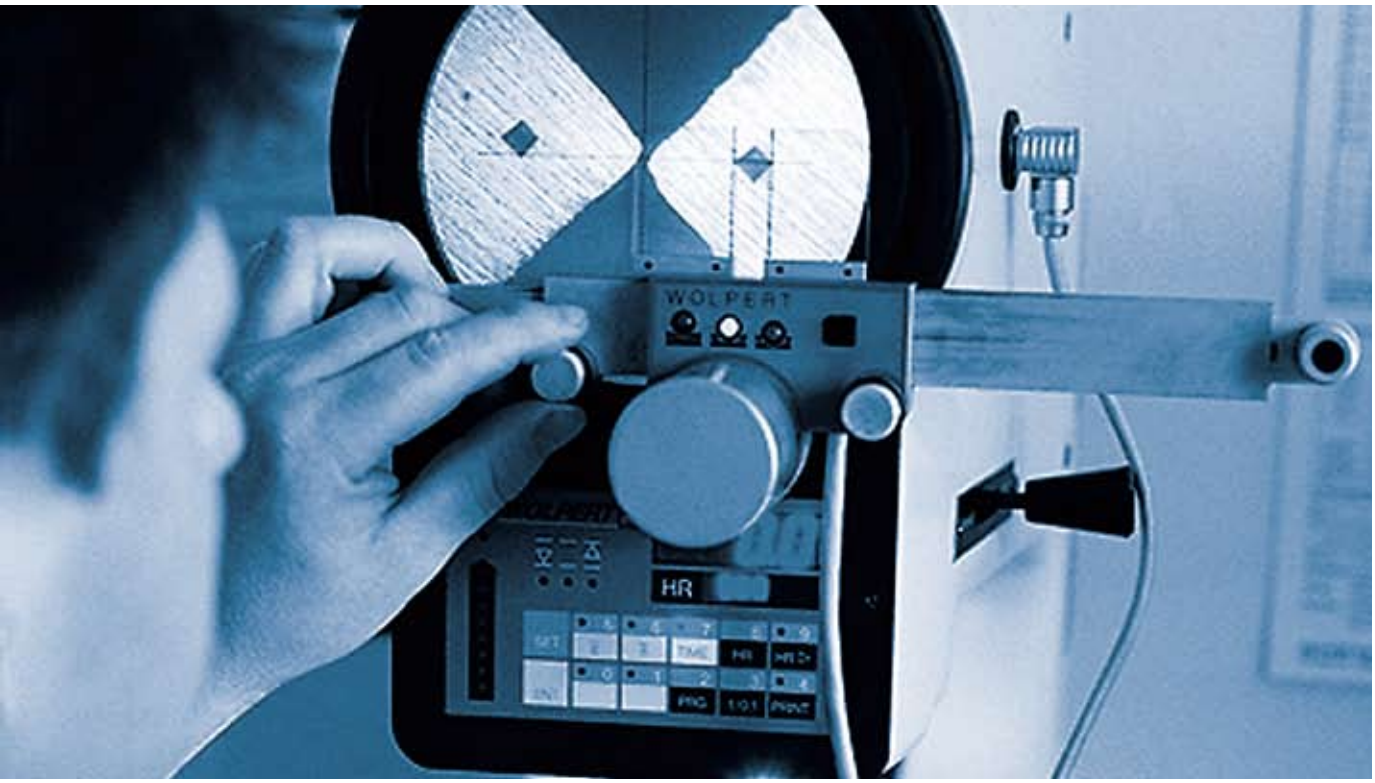
Spanner sizes in accordance with this international standard must be marked with:

a. Spanner head size
b. Reference to the international standard, i.e. ISO 691
c. Nominal size s in millimetres
d. Tolerance class 1 or 2

Conversion tables inches to decimal-inches and mm

in.	dec. in.	mm
0	**0**	**0**
1/64	0.015625	0,3969
1/32	0.03125	0,7938
3/64	0.046875	1,1906
1/16	**0.0625**	**1,5875**
5/64	0.078125	1,9844
3/32	0.09375	2,3812
7/64	0.109375	2,7781
1/8	**0.125**	**3,1750**
9/64	0.140625	3,5719
5/32	0.15625	3,9688
11/64	0.171875	4,3656
3/16	**0.1875**	**4,7625**
13/64	0.203125	5,1594
7/32	0.21875	5,5562
15/64	0.234375	5,9531
1/4	**0.25**	**6,3500**
17/64	0.265625	6,7469
9/32	0.28125	7,1438
19/62	0.296875	7,5406
5/16	**0.3125**	**7,9375**
21/64	0.328125	8,3344
11/32	0.34375	8,7312
23/64	0.359375	9,1281
3/8	**0.375**	**9,5250**
25/64	0.390625	9,9219
13/32	0.40625	10,3188
27/64	0.421875	10,7156
7/16	**0.4375**	**11,1125**
29/64	0.453125	11,5094
15/32	0.46875	11,9062
31/64	0.484375	12,3031

in.	dec. in.	mm
1/2	**0.5**	**12,7000**
33/64	0.515625	13,0969
17/32	0.53125	13,4938
35/64	0.546875	13,8906
9/16	**0.5625**	**14,2875**
37/64	0.578125	14,6844
19/32	0.59375	15,0812
39/64	0.609375	15,4781
5/8	**0.625**	**15,8750**
41/64	0.640625	16,2719
21/32	0.65625	16,6688
43/64	0.671875	17,0656
11/16	**0.6875**	**17,4625**
45/64	0.703125	17,8594
23/32	0.71875	18,2562
47/64	0.734375	18,6531
3/4	**0,75**	**19,0500**
49/64	0,765625	19,4469
25/32	0,78125	19,8438
51/64	0,796875	20,2406
13/16	**0,8125**	**20,6375**
53/64	0,828125	21,0344
27/32	0,84375	21,4312
55/64	0,859375	21,8281
7/8	**0,875**	**22,2250**
57/64	0,890625	22,6219
29/32	0,90625	23,0188
59/64	0,921875	23,4156
15/16	**0,9375**	**23,8125**
61/64	0,953125	24,2094
31/32	0,96875	24,6062
63/64	0,984375	25,0031
1	1	25,4000



TORQUE CONVERSION TABLES

Torque conversion factors

Units to be	Corresponding unit								
	= mN·m	= cN·m	= N·m	= ozf·in	= lbf·in	= lbf·ft	= gf·cm	= kgf·cm (kp·cm)	= kgf·m (kp·m)
1 mN·m	1	0,1	0,001	0,142	0,009	0,0007	10,2	0,01	0,0001
1 cN·m	10	1	0,01	1,416	0,088	0,007	102	0,102	0,001
1 N·m	1000	100	1	141,6	8,851	0,738	10197	10,2	0,102
1 ozf·in	7,062	0,706	0,007	1	0,0625	0,005	72	0,072	0,0007
1 lbf·in	113	11,3	0,113	16	1	0,083	1152,1	1,152	0,0115
1 lbf·ft	1356	135,6	1,356	192	12	1	13826	13,83	0,138
1 gf·cm	0,098	0,01	0,0001	0,014	0,0009	0,00007	1	0,001	0,00001
1 kgf·cm (kp·cm)	98,07	9,807	0,098	13,89	0,868	0,072	1000	1	0,01
1 kgf·m (kp·m)	9807	980,7	9,807	1389	86,8	7,233	100000	100	1

APPLICATION

Conversion formula:
Units to be converted x factor = corresponding unit

Example:
Convert of 5 lbf·ft in cN·m

Solution:
5 x 135,6 = 678 cN·m

Conversion from N·m in kgf·m (kp·m) — 1N·m = 0,102 kgf·m

N·m	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	10,20	10,30	10,40	10,50	10,60	10,71	10,81	10,91	11,01	11,11

Conversion from kgf·m(kp·m) in N·m — 1 kgf·m (kp·m) = 9,807 N·m

kgf·m(kp·m)	0	1	2	3	4	5	6	7	8	9
0	0,00	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	294,20	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	588,40	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	882,60	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	1049,31	1059,12	1068,92

Conversion from N·m in lbf·ft — 1N·m=0,7386 lbf·ft

N·m	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	17,70	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	41,30	42,04	42,87	43,52
60	44,25	44,99	45,73	46,47	47,20	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 from lbf·ft in N·m — 1 lbf·ft = 1,356 N·m

lbf·ft	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	100,33	101,69	103,04	104,40	105,75	107,11
80	108,46	109,82	111.18	112,53	113,89	115,24	116,60	117,96	119,31	120,67
90	122,02	123,38	124,73	126,09	127,45	128,80	130,16	131,51	132,87	134,23
100	135,58	136,94	138,29	139,65	141,00	142,36	143,72	145,07	146,43	147,78

Conversion from N·m in lbf·in — 1 N·m = 8,851 lbf·in

N·m	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 from lbf·in in N·m — 1 lbf·in = 0,113 N·m

lbf·in	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	10,58	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

Important prefix characters

Giga	G	1.000.000.000	$= 10^9$
Mega	M	1.000.000	$= 10^6$
Kilo	k	1.000	$= 10^3$
Hecto	H	100	$= 10^2$
Deca	Da	10	$= 10^1$
Deci	d	0,1	$= 10^{-1}$
Centi	c	0,01	$= 10^{-2}$
Milli	m	0,001	$= 10^{-3}$
Micro	µ	0,000001	$= 10^{-6}$
Nano	n	0,000000001	$= 10^{-9}$

Important SI units with conversions to old but still commonly used untis

Length	metre	m		
Masa	kilogramme	kg		
Time	second	s		
Force	newton	N	= kg m/s²	1 N = 0,102 kp
Torque	newton metre	N·m		9,81 N·m = 1 kp·m
Energy (work)	joule	J	= N·m	
Heat quantity	joule	J		1 J = 0,239 cal
Power	watt	W	= N·m/s	1 kW = 1,36 PS = 860 kcal/h
Pressure	pascal	Pa	= N/m²	100 000 Pa = 1 bar = 10 mWS
Electrical current	ampere	A		
Temperature	kelvin	K		1 K = 1 °C

Conversion table, mass and weight

1 megagramme (Mg)	= 1.000 kg	= 10.000 hg	= 100.000 dag	= 1.000.000 g
1 ton (to.)	= 1.000 kg			
1 kilogramme (kg)		= 10 hg	= 100 dag	= 1000 g
1 hectogramme (hg)			= 10 dag	= 100 g
1 decagramme (dag)				= 10 g
1 gramme (g)	= 10 dg	= 100 cg	= 1000 mg	
1 decigramme (dg)		= 10 cg	= 100 mg	
1 centigramme (cg)			= 10 mg	
1 miligramme (mg)			= 1 mg	

Conversion table, force and torque

1 newton (N)	= 0,102 kp
1 kilopond (kp)*	= 9,81 N
1 kilopond metre (kp·m)*	= 9,81 N·m

* Statutory unit in the Federal Republic of Germany until 1977

Material properties

	Density g/cm³	Expansion 1/°C	Melting point °C	Modulus of elasticity N/mm
Aluminium	2,7	0,000024	660,1	72 000
Lead	11,3	0,000029	327,3	16 000
Iron (steel)	7,86	0,000012	1540	210 000
Gold	19,3	0,000014	1063	79 000
Copper	8,9	0,000017	1083	126 000
Zinc	7,1	0,000026	419	94 000
Glass	2,2–2,9	0,000008	800–1500	68 000
Air	0,0013	0,0036		
Wood	0,5–0,7			10 000
Plastics/synthetic materials:				
PS	1,05	0,00008		3 400
PP	0,9	0,00018		1 200
ABS	1,05	0,00010		2 500

EXAMPLES

Example 1: Expansion of a steel body of 100 mm in length at a temperature of 10 °C. Length y expansion coefficient x °C exp. = 100 mm x 0,000012 x 10 = 0,012 mm = 12 µm

Example 2: Elastic expansion e = s/E.
A body of 100 mm in length made of ABS is stretched with s= 50 N/mm². e = 50 N/mm²: 2500 N/mm2 = 0,02.
The expansion is: 100 mm x 0,02 = 2 mm.

Example 3: Two steel plates with a total thickness of 20 mm are pre-stressed by means of a screw connection of s = 50 N/mm²: e = 50: 210000 = 0,00024.
The compression in the surrounding area of the screw is 20 mm x 0,00024 = 0,0048 mm = 5 µm.

The elastic compression induces a continuous pre-tension of the screw connection. A properly tensed screw connection is selfinhibiting.

Comparsion table of Vickers-Brinell-Rockwell hardness and tensile strength

Vickers hardness HV 30	Brinell hardness HB 30	Rockwell hardness HRB	Rockwell hardness HRC	Tensile strength sB N/mm²
80	80,7	36,4	–	270
85	85	42,4	–	290
90	90	47,4	–	310
95	95	52,0	–	320
100	100	56,4	–	340
105	105	60,0	–	360
110	110	63,4	–	380
115	115	66,4	–	390
120	120	69,4	–	410
125	125	72,0	–	420
130	130	74,4	–	440
135	135	76,4	–	460
140	140	78,4	–	470
145	145	80,4	–	490
150	150	82,2	–	500
155	155	83,8	–	520
160	160	85,4	–	540
165	165	86,8	–	550
170	170	88,2	–	570
175	175	89,6	–	590
180	180	90,8	–	600
185	185	91,8	–	620
190	190	91,5	–	640
195	195	94,0	–	660
200	200	95,0	–	670
205	205	95,8	–	680
210	210	96,6	–	710
215	215	97,4	–	720
220	220	98,2	–	730
225	225	99,0	–	750
230	230	–	19,2	760
235	235	–	20,2	780
240	240	–	21,2	800
245	245	–	22,1	820
250	250	–	23,0	830
255	255	–	23,8	850
260	260	–	24,6	870
265	265	–	25,4	880
270	270	–	26,9	900
275	275	–	27,1	920
280	280	–	27,6	940
285	285	–	28,3	950
290	290	–	29,0	970
295	295	–	29,6	990
300	300	–	30,3	1010
310	310	–	31,5	1040
320	320	–	32,7	1080
330	330	–	33,8	1110
340	340	–	34,9	1140
350	350	–	36,0	1170
360	359	–	37,0	1200
370	368	–	38,0	1230
380	376	–	38,9	1260
390	385	–	39,8	1290
400	392	–	40,7	1320
410	400	–	41,5	1350
420	408	–	42,4	1380
430	415	–	43,2	1410
440	423	–	44,0	1430
450	430	–	44,8	1460
460	–	–	45,6	(1490)
470	–	–	46,3	(1520)
480	–	–	47,0	(1550)
490	–	–	47,7	(1580)
500	–	–	48,3	(1600)
510	–	–	49,1	(1630)
520	–	–	49,7	(1660)
530	–	–	50,4	(1690)
540	–	–	51,0	(1710)
550	–	–	51,6	(1740)
560	–	–	52,2	(1770)
570	–	–	52,8	(1790)
580	–	–	53,3	(1820)
590	–	–	53,9	(1850)
600	–	–	54,4	(1870)
610	–	–	55,0	(1900)
620	–	–	55,5	(1930)
630	–	–	56,0	(1950)
640	–	–	56,5	(1980)
650	–	–	57,0	(2000)
660	–	–	57,5	(2030)
670	–	–	58,0	(2050)
680	–	–	58,5	(2080)
690	–	–	59,0	(2110)
700	–	–	59,5	(2130)
720	–	–	60,4	(2170)
740	–	–	61,2	(2220)
760	–	–	62,0	(2260)
780	–	–	62,8	(2300)
800	–	–	63,6	–
820	–	–	64,3	–
840	–	–	65,0	–
860	–	–	65,7	–
880	–	–	66,3	–
900	–	–	66,9	–
920	–	–	67,5	–
940	–	–	68,0	–

GUIDELINE VALUES FOR THE COEFFICIENT OF FRICTION µ




Choosing the right friction value

In order to exactly define the pre-tension force and the tightening torque, it is essential to know the coefficient friction.

However, it would seem almost impossible to specify definite values for the coefficients of friction for the large variety of possible surface and lubrication conditions and above all for their variance.

Added to this are the variances of the various different tightening methods which also constitute a greater or lesser factor of uncertainty. For this reason, it is only possible to make recommendations on the choise of the coefficient of friction. 80% of the tightening-torque values apply for countersunk head screws on account of the remaining base thickness.

Screw thread				blackened or Zinc-phosphate			Steel	
Nut thread				pressed rolled	rolled cut	sharpened	cadmiumplated 6µ	zincplated 6µ
Steel	ground		Slightly oiled	0,14	0,10	0,16	0,10	0,10
Steel	sharpened		Slightly oiled	0,16	0,10	0,16	0,10	0,10
Steel	ground sharpened	Zn-phosphat.	Slightly oiled	0,14		0,10		
Steel	turned sharpened	Zn-phosphat.	Slightly oiled	0,10				
Steel	turned sharpened		Slightly oiled	0,10		0,10	0,10	0,10
Steel	cadmium-plated	6 µ	Slightly oiled				0,14	
Steel	zinc-plated	6 µ	Slightly oiled					0,10
Steel	cadmium-plated	6 µ	Dry	0,10		0,10	0,14	
Steel	zinc-plated	6 µ	Dry	0,10		0,10		0,14

Guideline values for the coefficient of friction µ

In order to exactly define the pre-tension force and the tightening torque, it is essential to know the coefficient of friction. However, it would seem almost impossible to specify definite values for the coefficients of friction for the large variety of possible surface and lubrication conditions and above all for theier variance.

The following circumstances influence the friction value:
The surfaces and the nature of the materials being screwed, the method of lubrication, the sliding path due to the flexibility and the tightening method, i.e. the number and the speed of the tightening cycles and finally the tightening path – the so-called hard or soft screw case. The sum total of these items represents a greater or lesser factor of uncertainty. Even DIN-equivalent screws con differ considerably in their friction value because of being delivered by different suppliers, depending on the screw lot and depending on their storage and, in particalar, on the oiling or greasing performed inthe course of installation. Please note that around 80 to 90% of the tightening torque in most tightening procedures is required for overcoming the friction in the screw.

Important remark:

For this reason, it is only possible to give recommendations on the choice of the friction value. We point out explicitly that the following tables only contain guideline values. In all cases, a detailed screw calculation is more reliable than these tables! That applies particularly for parts which are relevant to safety, are subject to official regulations or perform sealing functions. The tables should only be utilised where the manufacturer of the screws or elements being connected has made no specifications on the required tightening torques.

FRICTION VALUE μ_{ges} 0,10 AND 0,14

Friction value μ_{ges} 0,10		Shank screws with metric ISO-medium threads in accordance with DIN 13 Part 12 (selection)											
		4.6		5.6		6.8		8.8		10.9		12.9	
μ_{ges} 0,10	P mm	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m
M 2	0,4	367	0,108	459	0,135	734	0,216	979	0,288	1.376	0,405	1.651	0,486
M 2,5	0,45	610	0,221	763	0,276	1.221	0,441	1.628	0,588	2.289	0,827	2.747	0,993
M 3	0,5	915	0,392	1.144	0,491	1.830	0,785	2.441	1,047	3.432	1,472	4.118	1,766
M 3,5	0,6	1.228	0,617	1.535	0,771	2.456	1,234	3.274	1,645	4.605	2,313	5.526	2,776
M 4	0,7	1.587	0,914	1.983	1,142	3.173	1,827	4.231	2,436	5.950	3,426	7.139	4,111
M 4,5	0,75	2.059	1,325	2.574	1,656	4.118	2,649	5.491	3,532	7.722	4,967	9.266	5,961
M 5	0,8	2.593	1,843	3.242	2,304	5.187	3,686	6.915	4,915	9.725	6,912	11.670	8,294
M 6	1	3.661	3,140	4.576	3,925	7.322	6,280	9.762	8,373	13.728	11,775	16.473	14,130
M 8	1,25	6.713	7,609	8.391	9,511	13.426	15,218	17.901	20,291	25.173	28,534	30.208	34,240
M 10	1,5	10.683	15,06	13.354	18,82	21.366	30,11	28.488	40,15	40.061	56,46	48.073	67,75
M 12	1,75	15.571	26,24	19.463	32,80	31.142	52,48	41.522	69,97	58.390	98,39	70.068	118,07
M 14	2	21.377	41,92	26.721	52,40	42.753	83,83	57.004	111,78	80.162	157,19	96.195	188,62
M 16	2	29.373	64,80	36.717	81,01	58.747	129,61	78.329	172,81	110.150	243,02	132.180	291,62
M 18	2,5	35.742	89,80	44.678	112,25	71.484	179,60	95.312	239,46	134.033	336,75	160.840	404,09
M 20	2,5	45.896	126,57	57.370	158,21	91.792	253,14	122.389	337,52	172.109	474,64	206.531	569,57
M 22	2,5	57.312	172,1	71.640	215,1	114.623	344,2	152.831	459,0	214.919	645,4	257.902	774,5
M 24	3	66.090	218,7	82.612	273,4	132.180	437,4	176.240	583,2	247.837	820,2	297.405	984,2
M 27	3	86.922	319,7	108.653	399,6	173.845	639,3	231.793	852,4	325.959	1.198,7	391.150	1.438,4
M 30	3,5	105.686	434,0	132.107	542,5	211.371	868,0	281.828	1.157,3	396.321	1.627,4	475.585	1.952,9
M 33	3,5	131.646	589,0	164.557	736,3	263.292	1.178,1	351.056	1.570,8	493.672	2.208,9	592.407	2.650,7
M 36	4	154.529	757,7	193.161	947,1	309.057	1.515,4	412.076	2.020,5	579.482	2.841,4	695.379	3.409,6
M 39	4	185.617	978	232.021	1.223	371.233	1.957	494.978	2.609	696.062	3.669	835.275	4.403
M 42	4,5	212.619	1.212	265.774	1.515	425.238	2.424	566.983	3.232	797.321	4.545	956.785	5.454
M 45	4,5	248.834	1.510	311.043	1.888	497.669	3.020	663.559	4.027	933.129	5.663	1.119.755	6.795
M 48	5	279.956	1.819	349.945	2.274	559.912	3.638	746.550	4.850	1.049.836	6.821	1.259.803	8.185
M 52	5	335.711	2.346	419.639	2.932	671.422	4.692	895.229	6.256	1.258.916	8.797	1.510.700	10.557
M 56	5,5	387.206	2.919	484.007	3.649	774.412	5.839	1.032.549	7.785	1.452.022	10.948	1.742.427	13.137
M 60	5,5	452.319	3.632	565.399	4.540	904.639	7.265	1.206.185	9.686	1.696.198	13.621	2.035.438	16.345
M 64	6	511.800	4.392	639.751	5.490	1.023.601	8.784	1.364.801	11.713	1.919.252	16.471	2.303.102	19.765
M 68	6	586.272	5.319	732.840	6.649	1.172.545	10.638	1.563.393	14.184	2.198.521	19.947	2.638.225	23.936
		Shank screws with metric ISO-fine-pitch thread in accordance with DIN 13 Part 12 (selection)											
M 8	1	7.343	8,10	9.179	10,13	14.687	16,20	19.582	21,60	27.537	30,38	33.045	36,45
M 10	1	12.288	16,57	15.360	20,71	24.576	33,14	32.768	44,19	46.080	62,14	55.297	74,57
M 12	1,5	16.522	27,34	20.653	34,17	33.045	54,68	44.060	72,91	61.959	102,52	74.351	123,03
M 14	1,5	23.624	44,89	29.530	56,11	47.249	89,78	62.998	119,70	88.591	168,33	106.309	202,00
M 16	1,5	31.988	68,63	39.984	85,79	63.975	137,26	85.300	183,01	119.953	257,36	143.944	308,83
M 18	1,5	41.612	99,49	52.015	124,36	83.223	198,98	110.965	265,30	156.044	373,08	187.253	447,70
M 20	1,5	52.497	138,4	65.621	173,0	104.993	276,8	139.991	369,1	196.862	519,0	236.235	622,8
M 22	1,5	64.642	186,3	80.803	232,8	129.284	372,6	172.379	496,7	242.408	698,5	290.890	838,3
M 24	1,5	78.048	244,1	97.560	305,1	156.096	488,1	208.129	650,8	292.681	915,2	351.217	1.098,3

Friction value μ_{ges} 0,14		Shank screws with metric ISO-medium threads in accordance with DIN 13 Part 12 (selection)											
		4.6		5.6		6.8		8.8		10.9		12.9	
μ_{ges} 0,14	P mm	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m
M 2	0,4	338	0,130	422	0,163	675	0,261	901	0,348	1.267	0,489	1.520	0,587
M 2,5	0,45	563	0,269	703	0,336	1.125	0,537	1.500	0,716	2.110	1,007	2.532	1,209
M 3	0,5	845	0,480	1.056	0,600	1.689	0,961	2.253	1,281	3.168	1,801	3.801	2,161
M 3,5	0,6	1.133	0,754	1.416	0,942	2.266	1,507	3.021	2,009	4.248	2,826	5.098	3,391
M 4	0,7	1.463	1,115	1.829	1,393	2.927	2,229	3.902	2,972	5.487	4,180	6.585	5,016
M 4,5	0,75	1.901	1,621	2.376	2,026	3.801	3,242	5.068	4,323	7.127	6,079	8.553	7,295
M 5	0,8	2.395	2,261	2.994	2,827	4.790	4,523	6.387	6,030	8.982	8,480	10.778	10,176
M 6	1	3.379	3,843	4.224	4,803	6.758	7,685	9.011	10,247	12.671	14,410	15.205	17,292
M 8	1,25	6.202	9,349	7.753	11,686	12.404	18,698	16.539	24,931	23.258	35,059	27.909	42,070
M 10	1,5	9.876	18,54	12.345	23,18	19.752	37,09	26.336	49,45	37.034	69,54	44.441	83,44
M 12	1,75	14.400	32,37	18.000	40,46	28.801	64,74	38.401	86,32	54.001	121,38	64.801	145,66
M 14	2	19.775	51,77	24.719	64,71	39.551	103,54	52.734	138,06	74.158	194,14	88.989	232,97
M 16	2	27.221	80,62	34.027	100,77	54.443	161,24	72.591	214,98	102.080	302,32	122.497	362,78
M 18	2,5	33.078	111,09	41.347	138,86	66.155	222,17	88.207	296,23	124.041	416,58	148.850	499,89
M 20	2,5	42.534	157,46	53.167	196,82	85.067	314,91	113.423	419,88	159.501	590,46	191.401	708,55
M 22	2,5	53.175	215,1	66.469	268,9	106.350	430,2	141.800	573,7	199.406	806,7	239.288	968,0
M 24	3	61.248	272,1	76.560	340,1	122.497	544,2	163.329	725,6	229.681	1.020,3	275.617	1.224,4
M 27	3	80.670	399,9	100.837	499,9	161.339	799,9	215.119	1.066,5	302.512	1.499,7	363.014	1.799,7
M 30	3,5	98.027	541,7	122.533	677,2	196.054	1.083,4	261.405	1.444,6	367.600	2.031,5	441.120	2.437,7
M 33	3,5	122.241	738,5	152.801	923,2	244.482	1.477,1	325.976	1.969,4	458.404	2.769,5	550.084	3.323,4
M 36	4	143.413	948,0	179.266	1.185,0	286.826	1.896,0	382.434	2.528,0	537.798	3.555,0	645.358	4.265,9
M 39	4	172.420	1.229	215.525	1.536	344.839	2.457	459.786	3.276	646.574	4.607	775.888	5.529
M 42	4,5	197.407	1.519	246.758	1.899	394.813	3.038	526.417	4.050	740.275	5.696	888.329	6.835
M 45	4,5	231.206	1.898	289.007	2.373	462.412	3.796	616.549	5.062	867.022	7.118	1.040.426	8.541
M 48	5	260.008	2.282	325.010	2.853	520.015	4.565	693.354	6.086	975.029	8.559	1.170.035	10.211
M 52	5	312.056	2.954	390.070	3.692	624.112	5.907	832.149	7.876	1.170.209	11.076	1.404.251	13.292
M 56	5,5	359.843	3.672	449.804	4.591	719.686	7.345	959.581	9.793	1.349.411	13.772	1.619.293	16.526
M 60	5,5	420.651	4.582	525.813	5.728	841.301	9.164	1.121.735	12.219	1.577.440	17.183	1.892.928	20.619
M 64	6	475.860	5.536	594.825	6.920	951.720	11.071	1.268.960	14.762	1.784.476	20.759	2.141.371	24.911
M 68	6	545.427	6.720	681.784	8.400	1.090.855	13.440	1.454.473	17.919	2.045.353	25.199	2.454.423	30.239
		Shank screws with metric ISO-fine-pitch thread in accordance with DIN 13 Part 12 (selection)											
M 8	1	6.805	10,08	8.507	12,60	13.611	20,15	18.148	26,87	25.520	37,79	30.624	45,35
M 10	1	11.418	20,83	14.272	26,04	22.835	41,66	30.447	55,55	42.816	78,11	51.379	93,73
M 12	1,5	15.312	34,01	19.140	42,51	30.624	68,02	40.832	90,69	57.420	127,54	68.904	153,05
M 14	1,5	21.934	56,25	27.418	70,32	43.868	112,51	58.491	150,01	82.253	210,96	98.703	253,15
M 16	1,5	29.741	86,50	37.177	108,12	59.483	172,99	79.310	230,66	111.530	324,36	133.836	389,23
M 18	1,5	38.733	125,95	48.417	157,44	77.467	251,91	103.289	335,88	145.250	472,33	174.300	566,80
M 20	1,5	48.910	175,9	61.138	219,8	97.820	351,7	130.427	468,9	183.413	659,4	220.096	791,3
M 22	1,5	60.272	237,4	75.340	296,8	120.543	474,8	160.724	633,1	226.019	890,3	271.223	1.068,3
M 24	1,5	72.818	311,8	91.022	389,8	145.635	623,7	194.180	831,6	273.066	1.169,4	327.680	1.403,3

FRICTION VALUE μ_{ges} 0,16

Friction value μ_{ges} 0,16		Shank screws with metric ISO medium threads in accordance with DIN 13 Part 12 (selection)											
		4.6		5.6		6.8		8.8		10.9		12.9	
μ_{ges} 0,16	P mm	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m	Fsp N	M_A N·m
M 2	0,4	324	0,140	405	0,175	647	0,280	863	0,373	1.214	0,525	1.456	0,630
M 2,5	0,45	539	0,289	674	0,361	1.079	0,578	1.439	0,770	2.023	1,083	2.428	1,300
M 3	0,5	810	0,517	1.013	0,647	1.620	1,035	2.161	1,380	3.038	1,940	3.646	2,328
M 3,5	0,6	1.086	0,811	1.358	1,014	2.173	1,622	2.897	2,163	4.074	3,042	4.889	3,650
M 4	0,7	1.403	1,199	1.754	1,499	2.806	2,398	3.742	3,198	5.262	4,497	6.314	5,396
M 4,5	0,75	1.823	1,746	2.279	2,182	3.646	3,492	4.861	4,656	6.836	6,547	8.204	7,857
M 5	0,8	2.298	2,438	2.872	3,047	4.596	4,875	6.127	6,500	8.617	9,141	10.340	10,969
M 6	1	3.241	4,139	4.051	5,173	6.482	8,277	8.643	11,036	12.154	15,520	14.584	18,623
M 8	1,25	5.951	10,083	7.438	12,603	11.901	20,165	15.868	26,887	22.315	37,809	26.778	45,371
M 10	1,5	9.477	20,01	11.847	25,02	18.955	40,03	25.273	53,37	35.540	75,05	42.648	90,06
M 12	1,75	13.821	34,96	17.277	43,69	27.642	69,91	36.857	93,22	51.830	131,08	62.195	157,30
M 14	2	18.982	55,93	23.728	69,91	37.964	111,86	50.619	149,15	71.183	209,74	85.419	251,69
M 16	2	26.145	87,30	32.682	109,13	52.291	174,61	69.721	232,81	98.045	327,39	117.654	392,87
M 18	2,5	31.755	120,08	39.694	150,10	63.510	240,15	84.680	320,20	119.081	450,29	142.897	540,34
M 20	2,5	40.852	170,52	51.065	213,14	81.704	341,03	108.939	454,71	153.195	639,43	183.834	767,32
M 22	2,5	51.093	233,3	63.867	291,7	102.187	466,6	136.249	622,2	191.600	875,0	229.921	1.050,0
M 24	3	58.827	294,7	73.534	368,3	117.654	589,3	156.872	785,7	220.601	1.104,9	264.721	1.325,9
M 27	3	77.519	433,9	96.899	542,4	155.038	867,9	206.717	1.157,2	290.696	1.627,2	348.835	1.952,7
M 30	3,5	94.179	587,3	117.724	734,2	188.358	1.174,6	251.144	1.566,2	353.172	2.202,5	423.806	2.642,9
M 33	3,5	117.488	801,9	146.860	1.002,3	234.977	1.603,8	313.302	2.138,3	440.581	3.007,0	528.697	3.608,5
M 36	4	137.811	1.028,6	172.264	1.285,7	275.623	2.057,2	367.497	2.742,9	516.793	3.857,2	620.152	4.628,6
M 39	4	165.738	1.335	207.172	1.668	331.475	2.669	441.967	3.559	621.516	5.005	745.819	6.006
M 42	4,5	189.724	1.649	237.155	2.061	379.448	3.298	505.930	4.397	711.465	6.183	853.758	7.420
M 45	4,5	222.267	2.063	277.834	2.578	444.534	4.125	592.712	5.500	833.501	7.735	1.000.201	9.282
M 48	5	249.916	2.479	312.395	3.099	499.833	4.958	666.444	6.610	937.186	9.296	1.124.624	11.155
M 52	5	300.035	3.212	375.043	4.014	600.069	6.423	800.093	8.564	1.125.130	12.043	1.350.156	14.452
M 56	5,5	345.954	3.992	432.442	4.990	691.908	7.984	922.544	10.645	1.297.327	14.969	1.556.793	17.963
M 60	5,5	404.516	4.985	505.645	6.232	809.031	9.970	1.078.709	13.294	1.516.934	18.695	1.820.321	22.433
M 64	6	457.571	6.021	571.964	7.526	915.142	12.042	1.220.189	16.056	1.715.891	22.579	2.059.069	27.095
M 68	6	524.576	7.315	655.720	9.143	1.049.152	14.629	1.398.869	19.506	1.967.160	27.430	2.360.592	32.916
		Shank screws with metric ISO-fine-pitch thread in accordance with DIN 13 Part 12 (selection)											
M 8	1	6.536	10,91	8.170	13,64	13.073	21,83	17.430	29,10	24.511	40,92	29.413	49,11
M 10	1	10.976	22,64	13.720	28,29	21.952	45,27	29.270	60,36	41.161	84,88	49.393	101,86
M 12	1,5	14.707	36,83	18.383	46,04	29.413	73,66	39.218	98,22	55.150	138,12	66.180	165,74
M 14	1,5	21.080	61,07	26.351	76,34	42.161	122,14	56.214	162,86	79.052	229,02	94.862	274,82
M 16	1,5	28.598	94,08	35.748	117,60	57.196	188,16	76.262	250,88	107.243	352,80	128.692	423,35
M 18	1,5	37.260	137,20	46.575	171,50	74.519	274,40	99.359	365,87	139.724	514,51	167.669	617,41
M 20	1,5	47.065	191,8	58.831	239,7	94.130	383,6	125.506	511,4	176.494	719,2	211.792	863,0
M 22	1,5	58.014	259,2	72.517	324,0	116.027	518,4	154.703	691,2	217.551	971,9	261.062	1.166,3
M 24	1,5	70.106	340,7	87.632	425,9	140.212	681,5	186.949	908,6	262.897	1.277,7	315.477	1.533,3

Specifications given without warranty.

LEGEND

μ_{ges} = Average friction value for thread and underhead seat

P = Pitch of the thread

F_{sp} = Axial pre-tension force in the screw for 90 % utilisation of the screw yield point (determined in accordance with the shape-changing-energy hypothesis)

M_A = Tightening torque during installation

Important remarks:

Please make sure to read our information relating to the guideline values of the thread friction values on page 330. Taking into consideration the friction values, the above-specified table values only apply for headless screws (expanding screws generally require lower tightening values). The effective friction diameter in the screw underhead seat was defined as 1.3 x ecternal thread diameter. For this reason, it is only possible to use them in the case of normal shank screws, generally hexagon-headed and cylindrical-head screws (e.g. DIN EN ISO 4014, 4017, 4764, DIN 7984). When screws of high strengths (8.8 to 12.9) and tensed parts made of „soft" construction materials are used, a verification of the interfacial pressure under the screw head is strongly recommended.

The properties of screws and nuts are described with the aid of strength classes.

This is shown in the table below on the basis of 10 strength classes for which the properties such as tensile strength, hardness, yield point, elongation after fracture etc. are shown.

Section ISO 898-1	Mechanical and physical properties			Strength class 3.6	4.6	4.8	5.6	5.8	6.8	8.8 d ≤16 mm	8.8 ❶❸ d>16 mm❸	9.8 ❷	10.9	12.9
5.1	Norm, tensile strength Rm, nominal		N/mm²	300	400	400	500	500	600	800	800	900	1000	1200
5.2	Norm, tensile strength Rm, min. ❹, ❺		N/mm²	330	400	420	500	520	600	800	830	900	1040	1220
5.3	Vickers hardness HV F ≥ 98 N	min.		95	120	130	155	160	190	250	255	290	320	385
		max.		220 ❻	220 ❻	220 ❻	220 ❻	220 ❻	250	320	335	360	380	435
5.4	Brinell hardness HB F = 30 D²	min.		90	114	124	147	152	181	238	242	276	304	366
		max.				209 ❻			238	304	318	342	361	414
5.5	Rockwell hardness HR	min.	HRB	52	67	71	79	82	89	–	–	–	–	–
		min.	HRC	–	–	–	–	–	–	22	23	28	32	39
		max.	HRB	95,0 ❻	95,0 ❻	95,0 ❻	95,0 ❻	95,0 ❻	99,5	–	–	–	–	–
		max.	HRC	–	–	–	–	–	–	32	34	37	39	44
5.6	Surface hardness HV 0,3	max.		–	–	–	–	–	–				❼	
5.7	Lower yield point ReL ❽ in N/mm²	Nominal value		180	240	320	300	400	480	–	–	–	–	–
		min.		190	240	340	300	420	480	–	–	–	–	–
5.8	0,2 %-yield strength Rp 0,2 ❾ in N/mm² raised	Nominal value		–	–	–	–	–	–	640	640	720	900	1080
		min.		–	–	–	–	–	–	640	660	720	940	1100
5.9	Wind-up force under test force	S_p/R_{eL}		0,94	0,94	0,91	0,93	0,90	0,92	0,91	0,91	0,90	0,88	0,88
		$S_p/R_{p0,2}$												
		S_p		180	225	310	280	380	440	580	600	650	830	970
5.10	Fracture torque M_B	N·m min.		–	–	–	–	–	–	see ISO 898-7				
5.11	Elongation after fracture A in	% min.		25	22	–	20	–	–	12	12	10	9	8
5.12	Fracture construction Z	% min.		–	–	–	–	–	–	52	52	48	48	44
5.13	Strength under diagonal pull strain ❺			The values under diagonal pull strain for whole screws (not pin screwa) must not fall below the minimum tensile strengths stated in Section.										
5.14	Notched bar impact KU	J min.		–	–	–	25	–	–	30	30	25	20	15
5.15	Notched impact strength			No fracture										
5.16	Minimum height of the non-decarbonised thread zone E			–	–	–	–	–	–	1/2 H_1	1/2 H_1	1/2 H_1	2/3 H_1	3/4 H_1
	Maximum depth of decarburisation G	mm		–	–	–	–	–	–	0,015	0,015	0,015	0,015	0,015
5.17	Hardness after tempering			–	–	–	–	–	–	Hardness drop max. 20 HV				
5.18	Surface condition			in accordance with ISO 6157-1 or ISO 6157-3, where applicable										

❶ In the case of screws of the strength class 8.8 having a thread diameter d ≤ 16 mm, an increased danger of scraping exists for nuts if the scerw connection is tightened with a force exceeding the test force of the screw. It is recommended to comply with the standard ISO 898-2.

❷ The strength class 9.8 only applies for nominalthread diameters ≤ 16 mm.

❸ For steel screws, the limit is 12 mm.

❹ The minimum tensile strengths apply for screws with nominal lengths l ≥ 2.5 d. The minimum hardness values apply for screws with nominal length l < 2.5 d and for those products which cannot be tested in a tensile test (e.g. on account of their head shape).

❺ For tests on full screws, the fracture forces used to calculate Rm must concur with the properties of the screws at higher temperature.

❻ A hardness value at the end of the screw is permitted to be250 HV, 238 HB or 99,5 HRB at most.

❼ The surface hardness on the relevant product must not exceed 30 Vickers points of the measured core hardness if both the surface hardness and the core hardness are determined with HV 0.3. For the strength class 10.9, a surface hardness of 390 HV must not be exceeded.

❽ If the lower yield point ReL cannot ne determined, the 0.2 % yield strength $R_{p0,2}$, lowerd, applies. For the strength classes 4.8, 5.8 and 6.8, the values for R_{eL} are only specified as a calculation basis – they are not tested.

❾ The yield point ratio corresponding to the description of the strength class and the minimum wind-up force on the 0.2 % yield strength $R_{p0,2}$ both apply for machine-processed test pieces. When full screws are tested, these values vary on account of the effects of the manufacturing process and the size factors.

Excerpt from EN ISO 898-1

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GENERAL INFORMATION

Info

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2013207_Kat_GTC_Aerospace_UK_08_08/08