# CATALOGUE 2020/2021

Professional tool solutions

Made in Germany

# ONE THING THAT HASN’T CHANGED.
## ACCURACY IS STILL OUR PASSION.

For over 150 years, the name STAHLWILLE has been a byword for innovative premium handtools that are »Made in Germany«. With its intelligent torque technology and tool systems, high-grade tightening tools and individual solutions for tool storage in a modern design, STAHLWILLE continues to redefine standards. The company unites all the outstanding features of traditional German forging, state-of-the-art production techniques and digital technologies – from classic handtools and automatic calibration systems through to interconnected tool solutions for the next generation, STAHLWILLE is recognised as being a leading, worldwide pace-setter in the handtools industry.

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# STAHLWILLE DAPTIQ®.
## ENABLING THE NETWORKED DIMENSION OF HANDTOOLS.

Wherever professional tool solutions are used, computerisation and automation also play a pioneering role. Industry 4.0 is on everyone's lips – and those who computerise their processes will benefit from increased efficiency and transparency as well as higher process capability.

This is why STAHLWILLE is already leading the field today with a range of products that can be interconnected and networked and that open the door to a new future. Discover DAPTIQ® and its many applications: WORK, CHECK and STORE.

**Solutions for the production environment.**
The WORK application area includes tools that interact smoothly with the production planning and control system (PPC). The PPC can transmit messages to the MANOSKOP® display, read out data and adjust settings.

## CHECK

**The easy way to schedule test equipment planning.**
The products developed for the CHECK application area communicate with IMTE management and CAQ. The superordinate system has access to all the test data all the time. The user is not required to do anything – all the data and logs of the calibration process are securely transmitted.

## STORE

**Inventory control and more.**
STORE stands for the storage solutions of the future: even the most extensive tool sets can be checked for completeness within a few seconds. All the data is immediately available in the ERP system.

# A WORLDWIDE PRESENCE.
## AND IN CLOSE CONTACT WITH THE CUSTOMER.

Professional users on all continents rely on the quality and performance of STAHLWILLE tool solutions. Hardly surprising, when you think that we and our well established sales network are always close at hand. With its experienced application engineers, STAHLWILLE has also proven its competence as a project partner and its reliability as a supplier in countless projects around the globe, for example in aviation, transport, power generation and general industry.

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# SOPHISTICATED – DOWN TO THE LAST DETAIL.
## OUR HIGHLIGHTS AT A GLANCE.

The name STAHLWILLE has always stood for tools that go well beyond the standard solution. The commitment has always been to deliver that additional decisive detail, greater accuracy, better thought-out and technologically more advanced products. Our customers know this worldwide, across all industries.

**Flexible rod principle**
Mechanical torque wrenches from STAHLWILLE have a wear-resistant trigger system with a flexible rod. In contrast to conventional torque wrenches with spiral springs, the STAHLWILLE system eliminates one key work step: once the fastener has been tightened, it is not necessary to reset the wrench to »0«.

More detailed information on the flexible rod system can be found at
**www.stahlwille.de/videos/flexible-rod-system**

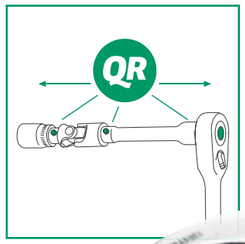
**Electromechanical triggering**
The best of both worlds: electromechanical torque wrenches from STAHLWILLE combine the uncompromising accuracy of an electronic torque tool with the comforting tactile feedback of a mechanical trigger mechanism.

More detailed information on the electromechanical trigger mechanism can be found at
**www.stahlwille.de/videos/em-click-trigger**

**Fine tooth ratchet mechanisms**
STAHLWILLE fine tooth ratchets have a specially developed, perfectly balanced mechanism with 80 teeth, ensuring maximum load capacity and, at the same time, excellent durability. With STAHLWILLE fine-tooth ratchets, no less than eight teeth engage at once, which provides smooth working action. The tight ratchet angle of only 4.5° enables efficient working in confined spaces

More detailed information on the mechanics of our fine-tooth ratchets can be found at
**www.stahlwille.de/videos/fine-tooth-ratchets**

**QuickRelease**
STAHLWILLE QuickRelease is the only locking system on the market that locks every single item in the tool chain – from the ratchet, the cross handle or the crank to the extension, universal joint and the socket insert – without taking up more space than a tool without a safety system. In this way, QuickRelease prevents unintentional loss of tools from the ratchet through to the bolting point and ensures maximum safety – even in the tightest of spaces.



**FOD prevention** The screwless tool design protects against foreign object damage (FOD) and provides greater safety for bolted joints, especially in sensitive areas such as aviation.

**Double T-profile**

The double T-profile used for the STAHLWILLE open-jaw and ring spanners saves material where it is not needed and guarantees two things at once: peak dimensional stability and extremely low weight, whichever spanner size you pick up. As a result, tool-kits from STAHLWILLE weigh considerably less. But that is not all: the double T-profile from STAHLWILLE fits snugly in the hand, allows fatigue-free working and can be gripped comfortably and safely. This also increases user safety.

**AS-Drive and HPQ**

STAHLWILLE spanners and sockets have the sophisticated AS-Drive profile. Thanks to this profile, the forces applied are transferred ideally to the flats of nuts & bolts. This allows even large forces to be applied without causing damage to the bolt and nut. STAHLWILLE HPQ® socket provide the same reliability. Since they are made of tough, high-grade steel, they have extremely thin walls and are nevertheless extremely resilient.

STAHLWILLE
WB620
STAHLWILLE
96VA
STAHLWILLE
95VA
STAHLWILLE

# 1 FACTORY AND WORKSHOP EQUIPMENT, SETS OF TOOLS



Tool trolleys, workbenches and accessories
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# The right solution for every professional.
# **STAHLWILLE tool trolleys.**

1

Made in Germany

STAHLWILLE's »Made in Germany« tool trolleys feature state-of-the-art design, a high standard of safety and many sophisticated details. Four models are available – and with them, numerous opportunities for personalising the trolleys in a way that leaves nothing to be desired.

750 kg

1400 kg

## RESILIENT.

Particularly high static load capacity of up to 750 kg (95, 95VA) or 1,400 kg (98VA).

## VERSATILE.

Six, seven or eight drawers? White, anthracite grey, green, red or blue? Models 95, 95VA and 98VA leave nothing to be desired.

100%

## SOPHISTICATED.

All the drawers can be fully extended. Use of STAHLWILLE's standard TCS inlays or the variable drawer dividers ensures a clear overview and easy tool removal.

## SAFE.

The three-stage locking system prevents toppling, stops drawers opening inadvertently in transit and makes them tamper-proof (95, 95VA and 98VA).



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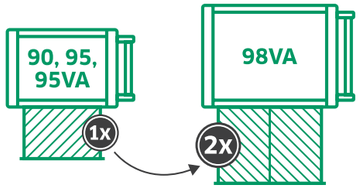
| Comparison of features | 90 | 95 | 95VA | 98VA |
|---|---|---|---|---|
| **Drawers** | 6 | 6 / 7 / 8 | 6 / 7 / 8 | 6 / 7 / 8 |
| **Inside dimension** | 530 x 350 mm | 530 x 350 mm | 530 x 350 mm | 700 x 530 mm |
| **Tray** | Plastic | Plastic | Stainless steel | Stainless steel |
| **Colours** | Anthracite grey | White, anthracite grey, green, red, blue | White, anthracite grey, green, red, blue | White, anthracite grey, green, red, blue |
| **Safety concept** | 2-stage | 3-stage | 3-stage | 3-stage |
| **Wheels** | ∅ 100 mm | ∅ 125 mm | ∅ 125 mm | ∅ 125 mm, ball-bearing mounted |
| **Parking brake** | 1 | 2 | 2 | 2 |
| **Drawer extension** | 100% | 100% | 100% | 100% |
| **Drawer load max.** | 25 kg | 30 kg | 30 kg | 40 kg |
| **Load pick-up** | 300 kg | 750 kg | 750 kg | 1.400 kg |

## ROBUST.

Sturdy construction using high-grade materials to ensure durability.

## GENTLE.

All-round damping protectors guard the trolley and its contents against impact damage (95, 95VA and 98VA).




## MOBILE.

The special carpet protection features protect the bearings of the oil and acid resistant wheels (95, 95VA and 98VA).

## LOTS MORE.

In comparison with models 90, 95 and 95VA, this model offers 100% more drawer volume.

## PRACTICAL.

Maximum manoeuvrability thanks to highly elastic wheels (95, 95VA and 98VA).

Detailed information in our video:
www.stahlwille.de/videos/werkstattwagen



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# Ready for anything.
# WB620 Mobile Workbench.

1

Made in Germany

STAHLWILLE's Mobile Workbench WB620 – state-of-the-art, sturdy and versatile, based on the highly successful Tool Trolley 95VA. The working height of 103 cm is ideal for professional work, the worktop is generously dimensioned and the unit is equipped with seven fully extendible drawers. The three-stage safety concept protects against unauthorised removal of tools and prevents toppling since only one drawer can be opened at any time.

## HIGH-GRADE.

The sturdy construction, multiplex worktop (115 x 50 cm) and such sophisticated features as the protective base strip made of stainless steel ensure the legendary »made in Germany« durability that STAHLWILLE is famous for.

## ERGONOMICALLY REFINED.

Strain-free working thanks to the 103-cm-high worktop.

## SAFE.

Central locking with a recessed lateral cylinder lock. Together with the fold-down key, this reduces injuries and damage. Individual locks prevent inadvertent opening in transit.

## AMPLE SPACE.

Seven drawers and the spacious cabinet section provide plenty of storage space. Particularly convenient: the shelves in the cabinet section are adjustable in 5-cm steps. Additional shelves available on request.

30 kg

## RESILIENT.

The robust construction allows a drawer load of up to 30 kg.



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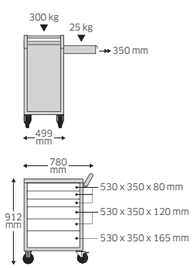
# Tool trolley 90

- two-stage safety logic:
  - central locking with a cylinder lock and fold-down key
  - individual locks prevent inadvertent opening in transit
- sturdy push-bar
- particularly tough, oil and skydrol resistant worktop made of ABS with compartments for small components
- oil and acid resistant wheels (∅ 100 mm) with carpet protection to prevent ingress of dirt and fibres into bearings, with one parking brake
- can be enhanced with STAHLWILLE standard and TCS inlays (see page 46–79)

## 90/6A Tool trolley

- 6 locking, easily removable drawers mounted in full-extension runners



| Code | colour | | kg |
|---|---|---|---|
| **81200000** | | charcoal grey, RAL 7016 | 56.5 |

## SCH 90 Drawers

| Code | size | dimensions mm | for No | kg |
|---|---|---|---|---|
| **81490080** | **80SI** | 530 x 350 x 80 | 90/6A | 3.1 |
| **81490120** | **120SI** | 530 x 350 x 120 | 90/6A | 3.6 |
| **81490165** | **165SI** | 530 x 350 x 165 | 90/6A | 4.5 |

## R 90 Set of wheels

- set consists of 2 fixed wheels and 2 pivoting, 100 mm ∅
- 1 wheel with locking brake

| Code | for No | kg |
|---|---|---|
| **81490000** | 90/6A | 2.8 |

## 910 Non-slip mat GRIPMAT

- protects the tools
- prevents them sliding and rattling

| Code | Length mm | Width mm | g |
|---|---|---|---|
| **89010003** | 3800 | 370 | 680 |

**Tool Trolley No 90.**
Simple. Impressive.

**Sophisticated.**
Six arrestable, easily removable drawers mounted in full-extension runners.

**Safe.**
Oil and acid resistant castors (∅ 100 mm) with one parking brake.

**Doubly secure.**
Central locking with a cylinder lock and fold-down key. Individual locks prevent inadvertent opening in transit.



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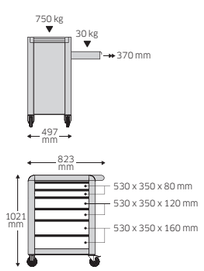
## Tool trolley 95

- three-stage safety logic:
  - central locking with a cylinder lock and fold-down key
  - individual locks prevent inadvertent opening in transit
  - topple-proof - it is not possible to pull out more than one drawer at a time
- stainless steel handle with reinforced connection to body
- impact protection strips with wrap-around bumper
- particularly tough, oil and skydrol resistant worktop made of ABS with compartments for small components
- oil and acid resistant low-friction wheels (∅ 125 mm) with carpet protection to prevent ingress of dirt and fibres into bearings, with two parking brakes
- paper-roll holder
- 5 standard colour shades, drawers in two colours (silver with black full-width handle)
- perforations from both sides for hooks No 8031-8041, e.g. for larger tools
- can be enhanced with STAHLWILLE standard and TCS inlays (see page 46–79)

### 95/6 Tool trolleys TTS

- 6 easily removable drawers mounted in full extension rails with bearing cage guidance (fully extendible roller-mounted runners as an option)



| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200010** | **95/6G** | | STAHLWILLE green | 69 |
| **81200011** | **95/6R** | | red, RAL 3020 | 69 |
| **81200012** | **95/6B** | | blue, RAL 2703035 | 69 |
| **81200013** | **95/6A** | | charcoal grey, RAL 7016 | 69 |
| **81200014** | **95/6W** | | white, RAL 9010 | 69 |

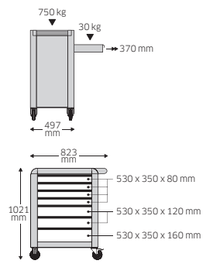
### 913/4 ABS Cover

- oil and skydrol resistant

| Code | for No | dimensions mm | g |
|---|---|---|---|
| **81490004** | 95 | 565 x 490 x 23 | 965 |

### 95/7 Tool trolleys TTS

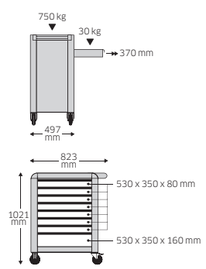
- 7 easily removable drawers mounted in full extension rails with bearing cage guidance (fully extendible roller-mounted runners as an option)



| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200015** | **95/7G** | | STAHLWILLE green | 72 |
| **81200016** | **95/7R** | | red, RAL 3020 | 72 |
| **81200017** | **95/7B** | | blue, RAL 2703035 | 72 |
| **81200018** | **95/7A** | | charcoal grey, RAL 7016 | 72 |
| **81200019** | **95/7W** | | white, RAL 9010 | 72 |

### 95/8 Tool trolleys TTS

- 8 easily removable drawers mounted in full extension rails with bearing cage guidance (fully extendible roller-mounted runners as an option)



| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200020** | **95/8G** | | STAHLWILLE green | 75 |
| **81200021** | **95/8R** | | red, RAL 3020 | 75 |
| **81200022** | **95/8B** | | blue, RAL 2703035 | 75 |
| **81200023** | **95/8A** | | charcoal grey, RAL 7016 | 75 |
| **81200024** | **95/8W** | | white, RAL 9010 | 75 |

### R 95 Set of wheels

- set consists of 2 fixed low-friction wheels and 2 pivoting, 125 mm ∅
- 2 wheels with locking brake

| Code | for No | kg |
|---|---|---|
| **81490001** | WB620; 95; 95VA | 3.9 |



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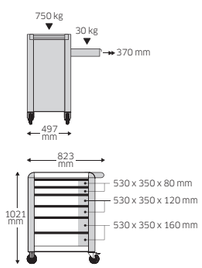
## Tool trolley 95VA

- three-stage safety logic:
  - central locking with a cylinder lock and fold-down key
  - individual locks prevent inadvertent opening in transit
  - topple-proof - it is not possible to pull out more than one drawer at a time
- drawers can be identified with multiple stickers per drawer (sheet of stickers included in delivery)
- stainless steel handle with reinforced connection to body
- impact protection strips with wrap-around bumper
- wear and scratch-resistant worktop and ribbed protective base strip in stainless steel
- oil and acid resistant low-friction wheels (∅ 125 mm) with carpet protection to prevent ingress of dirt and fibres into bearings, with two parking brakes
- paper-roll holder
- 5 standard colour shades, drawers in two colours (silver with black full-width handle)
- perforations from both sides for hooks No 8031-8041, e.g. for larger tools
- can be enhanced with STAHLWILLE standard and TCS inlays (see page 46–79)

### 95VA/6 Tool trolleys TTS

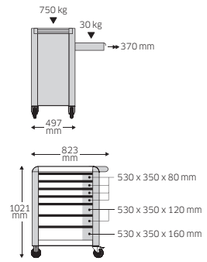
- 6 easily removable drawers mounted in full extension rails with bearing cage guidance (fully extendible roller-mounted runners as an option)



| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200055** | **95VA/6G** | | STAHLWILLE green | 73.5 |
| **81200056** | **95VA/6R** | | red, RAL 3020 | 73.5 |
| **81200057** | **95VA/6B** | | blue, RAL 2703035 | 73.5 |
| **81200058** | **95VA/6A** | | charcoal grey, RAL 7016 | 73.5 |
| **81200059** | **95VA/6W** | | white, RAL 9010 | 73.5 |

### 95VA/7 Tool trolleys TTS

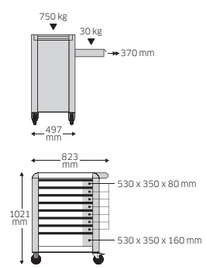
- 7 easily removable drawers mounted in full extension rails with bearing cage guidance (fully extendible roller-mounted runners as an option)



| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200060** | **95VA/7G** | | STAHLWILLE green | 75.5 |
| **81200061** | **95VA/7R** | | red, RAL 3020 | 75.5 |
| **81200062** | **95VA/7B** | | blue, RAL 2703035 | 75.5 |
| **81200063** | **95VA/7A** | | charcoal grey, RAL 7016 | 75.5 |
| **81200064** | **95VA/7W** | | white, RAL 9010 | 75.5 |

### 95VA/8 Tool trolleys TTS

- 8 easily removable drawers mounted in full extension rails with bearing cage guidance (fully extendible roller-mounted runners as an option)



| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200065** | **95VA/8G** | | STAHLWILLE green | 78 |
| **81200066** | **95VA/8R** | | red, RAL 3020 | 78 |
| **81200067** | **95VA/8B** | | blue, RAL 2703035 | 78 |
| **81200068** | **95VA/8A** | | charcoal grey, RAL 7016 | 78 |
| **81200069** | **95VA/8W** | | white, RAL 9010 | 78 |

### SCH 95VA Drawers

| Code | size | dimensions mm | for No | kg |
|---|---|---|---|---|
| **81493080** | **80SI** | 530 x 350 x 80 | 95VA/6; 95VA/7; 95VA/8 | 2.8 |
| **81493120** | **120SI** | 530 x 350 x 120 | 95VA/6; 95VA/7 | 3.3 |
| **81493160** | **160SI** | 530 x 350 x 160 | 95VA/6; 95VA/7; 95VA/8 | 3.9 |





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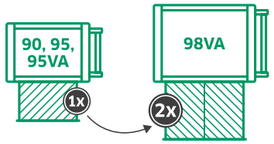
## Tool trolley 98VA

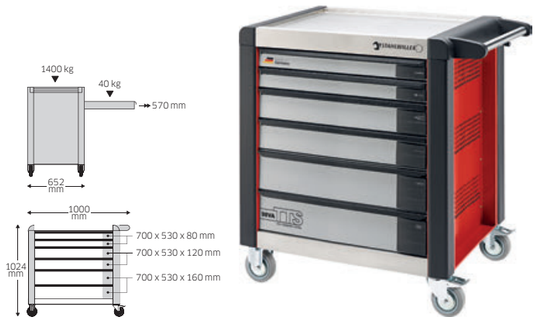
- **in comparison with the 90, 95 and 95VA models, this model offers 100% more drawer volume**




- three-stage safety logic:
  - central locking with a cylinder lock and fold-down key
  - individual locks prevent inadvertent opening in transit
  - topple-proof - it is not possible to pull out more than one drawer at a time
- drawers can be identified with multiple stickers per drawer (sheet of stickers included in delivery)
- stainless steel handle with reinforced connection to body
- impact protection strips with wrap-around bumper
- wear and scratch-resistant worktop and ribbed protective base strip in stainless steel
- oil and acid resistant ball-bearing mounted low-friction wheels (∅ 125 mm) with carpet protection to prevent ingress of dirt and fibres into bearings, with two parking brakes
- paper-roll holder
- 5 standard colour shades, drawers in two colours (silver with black full-width handle)
- perforations from both sides for hooks No 8031-8041, e.g. for larger tools
- can be enhanced with STAHLWILLE standard and TCS inlays (see page 46–79)

### 98VA/6 Tool trolleys TTS

- 6 easily removable drawers mounted in full extension rails with bearing cage guidance




| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200099** | **98VA/6G** | | STAHLWILLE green | 98 |
| **81200100** | **98VA/6R** | | red, RAL 3020 | 98 |
| **81200101** | **98VA/6B** | | blue, RAL 2703035 | 98 |
| **81200102** | **98VA/6A** | | charcoal grey, RAL 7016 | 98 |
| **81200103** | **98VA/6W** | | white, RAL 9010 | 98 |

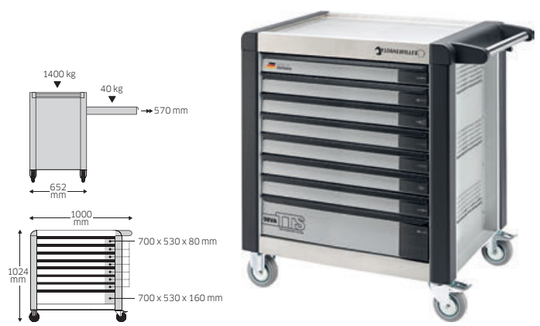
### 98VA/7 Tool trolleys TTS

- 7 easily removable drawers mounted in full extension rails with bearing cage guidance

| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200104** | **98VA/7G** | | STAHLWILLE green | 100 |
| **81200105** | **98VA/7R** | | red, RAL 3020 | 100 |
| **81200106** | **98VA/7B** | | blue, RAL 2703035 | 100 |
| **81200107** | **98VA/7A** | | charcoal grey, RAL 7016 | 100 |
| **81200108** | **98VA/7W** | | white, RAL 9010 | 100 |

### 98VA/8 Tool trolleys TTS

- 8 easily removable drawers mounted in full extension rails with bearing cage guidance




| Code | No | colour | | kg |
|---|---|---|---|---|
| **81200109** | **98VA/8G** | | STAHLWILLE green | 102 |
| **81200110** | **98VA/8R** | | red, RAL 3020 | 102 |
| **81200111** | **98VA/8B** | | blue, RAL 2703035 | 102 |
| **81200112** | **98VA/8A** | | charcoal grey, RAL 7016 | 102 |
| **81200113** | **98VA/8W** | | white, RAL 9010 | 102 |

### SDH 98 Spray-can holder

- for 6 spray-cans (max. ∅ 67 mm) and 7 screwdrivers

| Code | for No | kg |
|---|---|---|
| **89010049** | 98VA | 1.9 |



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## R 98 Set of wheels

- set consists of 2 fixed and 2 pivoting ball-bearing mounted low-friction wheels, ∅ 125 mm
- 2 wheels with locking brake

| Code | for No | kg |
|---|---|---|
| **81490005** | WB620, 95, 95VA, 98VA | 4.5 |

## SCH 98VA Drawers

| Code | size | dimensions mm | for No | kg |
|---|---|---|---|---|
| **81492080** | **80SI** | 700 x 530 x 80 | 98VA/6; 98VA/7; 98VA/8 | 4.4 |
| **81492120** | **120SI** | 700 x 530 x 120 | 98VA/6; 98VA/7 | 5 |
| **81492160** | **160SI** | 700 x 530 x 160 | 98VA/6; 98VA/7; 98VA/8 | 6 |

## AB 98 Rubbish bin

- capacity approx. 14 l

| Code | dimensions mm | for No | kg |
|---|---|---|---|
| **89010053** | 456 x 150 x 370 | 98VA | 3.5 |

## 913/95, 913/98 Multiplex beechwood worktop

| Code | No | for No | dimensions mm | kg |
|---|---|---|---|---|
| **89010031** | **913/95** | 95VA | 563 x 415 x 15 | 2.8 |
| **89010032** | **913/98** | 98VA | 741 x 570 x 15 | 4.8 |

## KH 91 Cable holder

- for storing cable and hoses

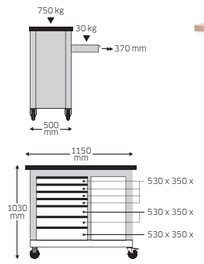
| Code | for No | dimensions mm | kg |
|---|---|---|---|
| **89010040** | WB620; 95; 95VA; 98VA | 200 x 153 x 170 | 0.9 |

## Mobile workbench WB620

- three-stage safety logic:
  - central locking with a cylinder lock and fold-down key
  - individual locks prevent inadvertent opening in transit
  - topple-proof - it is not possible to pull out more than one drawer at a time
- large worktop with multiplex beechwood worktop, 1150 x 500 mm
- ribbed protective base strip made of stainless steel
- oil and acid resistant wheels (∅ 125 mm) with carpet protection to prevent ingress of dirt and fibres into bearings, with two parking brakes
- roomy storage area with an adjustable shelf in the cabinet (perforations 50 mm)
- paper-roll holder
- lateral lockable cabinet door with magnetic closure
- perforations from both sides for hooks No 8031-8041, e.g. for larger tools
- drawers and cabinet part have the same locking mechanism
- can be combined with accessories range for Tool Trolley 95
- can be enhanced with STAHLWILLE standard and TCS inlays (see page 46–79)

## WB620 Mobile workbench

- 7 easily removable drawers mounted in full extension rails with bearing cage guidance



| Code | colour | | kg |
|---|---|---|---|
| **85010620** | | charcoal grey, RAL 7016 | 87 |

## WB620 FB Compartment shelf

- additional shelf for mobile workbench WB620

| Code | colour | dimensions mm | kg |
|---|---|---|---|
| **85110620** | silver, RAL 9006 | 452 x 394 x 8 | 1.3 |



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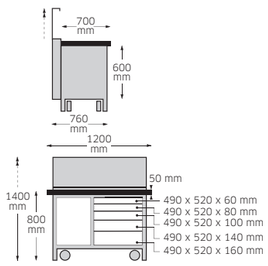
## Mobile workbench 96/3

- with chassis and retractable tool panel
- aluminium handle
- automatic catches on all drawers prevent them opening in transit
- lockup cabinet with height-adjustable shelf
- worktop is 50 mm thick, warp- and water resistant, multilayer bonded beech wood with clear varnish finish
- front edge has hardwood edging strip

### 96/3 Mobile workbench

- 5 ball-bearing mounted steel drawers with slotted liners for partitioning drawers



| Code | kg |
|---|---|
| **85030003** | 166.5 |

### SDH 95 Spray-can holder

- for 4 spray-cans (max. ∅ 67 mm) and 5 screwdrivers

| Code | for No | kg |
|---|---|---|
| **81490003** | WB620; 95; 95VA | 1.4 |

### AB 95 Rubbish bin

- capacity approx. 9 l

| Code | for No | dimensions mm | kg |
|---|---|---|---|
| **89010052** | WB620; 95; 95VA | 302 x 133 x 320 | 2 |

### R 95/98S Set of wheels, with directional locks

- 4 ball-bearing mounted, smooth-running swivelling wheels (∅ 125 mm)
- 2 with parking brakes, 2 with directional locks

| Code | for No | kg |
|---|---|---|
| **89480003** | WB620; 95; 95VA; 98VA | 5.4 |

### SCH 95 Drawers

| Code | size | dimensions mm | for No | kg |
|---|---|---|---|---|
| **81491080** | **80SI** | 530 x 350 x 80 | WB620; 95/6; 95/7; 95/8 | 2.7 |
| **81491120** | **120SI** | 530 x 350 x 120 | WB620; 95/6; 95/7 | 3.3 |
| **81491160** | **160SI** | 530 x 350 x 160 | WB620; 95/6; 95/7; 95/8 | 3.4 |

### 912 Empty tray for small components

- with compartments for small parts such as screws, nuts etc.
- oil and skydrol resistant
- 8 compartments each 60 x 80 mm or 80 x 80 mm
- 2 compartments each 100 x 165 mm or 50 x 330 mm

| Code | for No | dimensions mm | g |
|---|---|---|---|
| **83812070** | WB620; 95; 95VA; 98; 920; 922N | 520 x 340 x 30 | 330 |

### VE 50-150 Drawer separators

- allow you to divide up the drawer the way you need it
- consisting of: one each galvanised steel front and back piece and three separators

| Code | for No | dimensions mm | kg |
|---|---|---|---|
| **81484001** | WB620; 90; 95; 95VA; 98VA;920; 922N | 530 x 350 x 40 | 0.8 |



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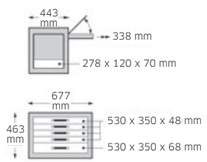
## 920 Magazine case CONVERTA

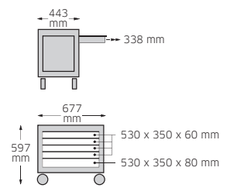
- with 5 drawers and 5 magazines
- **converts to tool trolley with undercarriage No R 920**
- features two removable spray can holders on the end pieces of the case and two integrated lifting handles
- drawers for mounting magazines are removable and lockable in fully extended position
- the magazines can be replaced with standard drawers
- the worktop of the case is fitted with an oil and skydrol resistant plastic mat with compartments for small components



| Code | Colour | Can be combined with No | kg |
|---|---|---|---|
| **81480000** | red, RAL 3020 | 920; 922N; R 920 | 53.6 |

## 922N Wheely box with drawers CONVERTA

- with 4 wheels ∅ 125 mm (2 pivoting castors, one wheel with parking brake)
- with 5 silver-coloured drawers
- drawers are removable and lockable in fully extended position
- the worktop of the case is fitted with an oil and skydrol resistant plastic mat with compartments for small components
- spray can holders No SDH 921 can be retrofitted to the sides (please order separately)



| Code | Colour | Can be combined with No | kg |
|---|---|---|---|
| **96480002** | red, RAL 3020 | 920 | 39.5 |

## R 920 Set of wheels

- set consists of 2 fixed wheels and 2 pivoting, ∅ 125 mm
- 2 wheels with locking brake

| Code | for No | kg |
|---|---|---|
| **89480001** | 920; 922N | 4.3 |

## SCH 60-80 Drawers

- coated with environmentally friendly silver-coloured textured powder-coat

| Code | No | dimensions mm | Can be combined with No | kg |
|---|---|---|---|---|
| **81482060** | **SCH 60** | 530 x 350 x 60 | 922N | 2.4 |
| **81482080** | **SCH 80** | 530 x 350 x 80 | 920; 922N | 2.8 |

## 920 C Tool magazines

- coated with environmentally friendly silver-coloured textured powder-coat
- for use with magazine drawers No 920 C-SCH

| Code | No | dimensions mm | for No | kg |
|---|---|---|---|---|
| **81481060** | **920 C 60** | 530 x 350 x 48 | 920; 922N | 3.7 |
| **81481080** | **920 C 80** | 530 x 350 x 68 | 920; 922N | 3.3 |

## 913 Cover

- oil and skydrol resistant

| Code | for No | dimensions mm | g |
|---|---|---|---|
| **89010011** | 920; 922N | 680 x 450 x 20 | 936 |

## 920 C-SCH Magazine drawer

- coated with environmentally friendly silver-coloured textured powder-coat
- for mounting tool magazines No 920 C

| Code | dimensions mm | for No | kg |
|---|---|---|---|
| **81481000** | 350 x 530 | 920 C | 2.6 |

## SDH 921 Spray can and paper roll holder

- coated with environmentally friendly silver-coloured textured powder-coat

| Code | for No | kg |
|---|---|---|
| **81483001** | 920; 922N | 1.4 |





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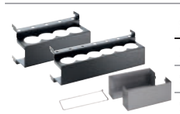
## **Accessories** Tool Trolley, Tool Box and Mobile Workbench



| Drawers | No 90/6A | No 95/6 | No 95/7 | No 95/8 | No 95VA/6 | No 95VA/7 | No 95VA/8 | No 98VA/6 | No 98VA/7 | No 98VA/8 | No 920 | No 922N | No WB620 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCH 90-80SI | o | | | | | | | | | | | | |
| SCH 90-120SI | o | | | | | | | | | | | | |
| SCH 90-165SI | o | | | | | | | | | | | | |
| SCH 95-80SI | | o | o | o | | | | | | | | | o |
| SCH 95-120SI | | o | o | | | | | | | | | | o |
| SCH 95-160SI | | o | o | o | | | | | | | | | o |
| SCH 95VA-80SI | | | | | o | o | o | | | | | | |
| SCH 95VA-120SI | | | | | o | o | | | | | | | |
| SCH 95VA-160SI | | | | | o | o | o | | | | | | |
| SCH 98VA-80SI | | | | | | | | o | o | o | | | |
| SCH 98VA-120SI | | | | | | | | o | o | | | | |
| SCH 98VA-160SI | | | | | | | | o | o | o | | | |
| SCH 60 | | | | | | | | | | | o | o | |
| SCH 80 | | | | | | | | | | | o | o | |
| **Drawers separators** | | | | | | | | | | | | | |
| VE 50-150 | o | o | o | o | o | o | o | o | o | o | o | o | o |
| **Magazine drawer** | | | | | | | | | | | | | |
| 920C-SCH | | | | | | | | | | | o | o | |
| **Tool magazines** | | | | | | | | | | | | | |
| 920 C 60 | | | | | | | | | | | o | o | |
| 920 C 80 | | | | | | | | | | | o | o | |
| 920 C 120 | | | | | | | | | | | | | |
| **Empty tray for small components** | | | | | | | | | | | | | |
| 912 | | o | o | o | o | o | o | o | o | o | o | o | o |
| **Worktops** | | | | | | | | | | | | | |
| 913 | | | | | | | | | | | o | o | |
| 913/4 | | o | o | o | | | | | | | | | |
| **Wooden worktops** | | | | | | | | | | | | | |
| 913/95 | | | | | o | o | o | | | | | | |
| 913/98 | | | | | | | | o | o | o | | | |
| **Cable holder** | | | | | | | | | | | | | |
| KH 91 | | o | o | o | o | o | o | o | o | o | | | o |
| **Spray can holders** | | | | | | | | | | | | | |
| SDH 95 | | o | o | o | o | o | o | | | | | | o |
| SDH 98 | | | | | | | | o | o | o | | | |
| SDH 921 | | | | | | | | | | | o | o | |
| **Rubbish bins** | | | | | | | | | | | | | |
| AB 95 | | o | o | o | o | o | o | | | | | | o |
| AB 98 | | | | | | | | o | o | o | | | |
| **Sets of wheels** | | | | | | | | | | | | | |
| R90 | o | | | | | | | | | | | | |
| R95 | | o | o | o | o | o | o | | | | | | o |
| R98 | | o | o | o | o | o | o | o | o | o | | | o |
| R95/98S | | o | o | o | o | o | o | o | o | o | | | o |
| R920 | | | | | | | | | | | o | o | |



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# Tool boxes

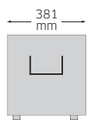
## 13217 Tool trolleys

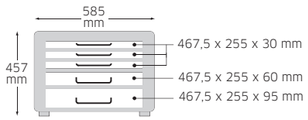
- extremely sturdy, tool trolley resilient to loads and made of polypropylene for professional use
- 5 easily removed lockable drawers with transparent covers, with endstops for the extendible rails, 3 different drawer heights
- drawers can be inserted in any order
- with one top cover and one front cover, both folding
- the top cover is fitted with napped foam to hold tools firmly in place
- one removable tray with 2 handles and 2 transparent drawer covers under the top cover
- drawers can be used as separate tool boxes using the transparent cover
- tool case and drawers can be individually marked
- 2 smooth-running twin castors on the telescopic-handle side
- adaptable for vertical transport using 4 castors, R 13217 set of castors (please order separately)
- extendible telescopic handle facilitates transport
- 2 carrying handles at the sides
- resistant to skydrol, acetone, petrol and hydraulic fluids
- carrying capacity 60 kg
- 3 locking positions with padlock
- **also available as IP67 version (6 drawers, 4 x 30 mm, 2 x 60 mm**
- **additional catches and seals protect against water and dust. Special valve for pressure relief**
- **also available with all-round high-visibility reflecting surface (5 drawers, 2 x 30 mm, 3 x 60 mm), for increased safety when working in dark surroundings**
- **individually tailored cases are available on request**

13217 TS IP67

13217 TS RF

Delivery without tools






| Code | No | colour | kg |
|---|---|---|---|
| **81091301** | **13217 LGE** | luminous yellow | 15.6 |
| **81091304** | **13217 LR** | luminous red | 15.6 |
| **81091306** | **13217 TS** | jet black | 15.6 |
| **81091322** | **13217 TS IP67** | jet black | 15.6 |
| **96894809** | **13217 TS RF** | jet black (with reflecting film) | 15.6 |

## 805/4 WT TCS Tool set for tool trolley No 13217

TCS

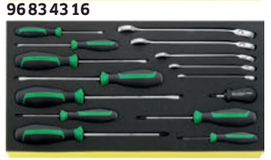
- 89 tools, in TCS inlays (Tool Control System see page 57)
- **additional sets of tools with tool trolley No 13217 on pages 38, 41, 43, 44**

| Code | kg |
|---|---|
| **97842803** | 9.1 |

**96834315**

**96834316**

**96834317**



**96834318**

| 96834315 | No | Content |
|---|---|---|
| | **40** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **400** | 1/4" ■ 150 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |
| | **509/3** | 1/2" ■ O 75 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

| 96834316 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24 mm |

| 96834317 | No | Content |
|---|---|---|
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65516240** | 240 mm |
| | **66025160** | 160 mm |

| 96834318 | No | Content |
|---|---|---|
| | **17** | 8; 10; 13; 17; 19 mm |
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **4734** | PH2 |

## R 13217 Set of wheels

- optional
- extra castors allowing upright travel on four wheels
- 4 swivelling castors, 2 of which with parking brakes

| Code | for No | kg |
|---|---|---|
| **96894805** | 13217 | 0.7 |

## 13217 TA Transparent cover

- the cover is fitted to the top lid and provides additional storage space, e.g. for documents
- delivery includes fixing materials

| Code | for No | kg |
|---|---|---|
| **89010100** | 13217 | 0.6 |

## TR-SCH Drawers

- for tool trolley No 13217
- black

| Code | size | dimensions mm | kg |
|---|---|---|---|
| **81483230** | **30 SC** | 467.5 x 255 x 30 | 0.6 |
| **81483260** | **60 SC** | 467.5 x 255 x 60 | 0.9 |
| **81483295** | **95 SC** | 467.5 x 255 x 95 | 1 |



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## 806/6 WT TCS Tool set for tool trolley No 13217

TCS

- 104 tools in TCS inlays (Tool Control System see page 57)
- **additional sets of tools with tool trolley No 13217 on pages 38, 41, 43, 44**

| Code | kg |
|---|---|
| **97830207** | 14.2 |

**96830094**

**96830095**

**96830096**

**96830097**

**96830098**

**96830099**

| 96830094 | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

| 96830095 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

| 96830096 | No | Content |
|---|---|---|
| | **17** | 8; 10; 13; 17; 19 mm |
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6; 100 x 3.4 mm |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |
| | **10961** | 500 g |

| 96830097 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65642250** | 250 mm |
| | **66025160** | 160 mm |

| 96830098 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |

| 96830099 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **10956** | ∅ 35 mm |

# TCS inlays for tool trolley No 13217

## TCS WT 10/10 6-32 mm

TCS

- for the drawers of tool trolley No 13217
- 460 x 250 x 30 mm
- 10 pieces

| Code | g |
|---|---|
| **96830120** | 1545 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 20 x 22; 24 x 27; 30 x 32 mm |

## TCS WT 10a/9

TCS

- for the drawers of tool trolley No 13217
- 460 x 250 x 30 mm
- 9 pieces

| Code | g |
|---|---|
| **96830124** | 1600 |

| | No | Content |
|---|---|---|
| | **10a** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 19/32 x 11/16; 5/8 x 3/4; 3/4 x 7/8; 25/32 x 13/16; 15/16 x 1; 1 1/8 x 1 5/16" |

## TCS WT 13/18 6-24 mm

- for the drawers of tool trolley No 13217
- 460 x 250 x 60 mm
- 18 pieces

| Code | g |
|---|---|
| **96830121** | 1940 |

| | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |

## TCS WT 13a/22

- for the drawers of tool trolley No 13217
- 460 x 250 x 60 mm
- 22 pieces

| Code | g |
|---|---|
| **96830125** | 2440 |

| | No | Content |
|---|---|---|
| | **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 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" |

## TCS WT 17/12

- for the drawers of tool trolley No 13217
- 460 x 250 x 30 mm
- 12 pieces

| Code | g |
|---|---|
| **96830128** | 1485 |

| | No | Content |
|---|---|---|
| | **17** | 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |

## TCS WT 240/10

- for the drawers of tool trolley No 13217
- 460 x 250 x 30 mm
- 10 pieces

| Code | g |
|---|---|
| **96830130** | 2005 |

| | No | Content |
|---|---|---|
| | **240** | 8; 10; 11; 12; 13; 14; 16; 17; 18; 19 mm |

## TCS WT 40/4008/10/9

- for the removable tray of tool trolley No 13217
- cannot be combined with transparent cover 13217 TA
- 460 x 250 x 30 mm
- 39 pieces

| Code | g |
|---|---|
| **96830132** | 985 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 4; 4.5; 5; 6; 7; 8; 10; 11; 12; 13 mm |
| | **405QR/2** | 1/4" ■ ○ 54 mm |
| | **405QR/6** | 1/4" ■ ○ 150 mm |
| | **407QR** | 1/4" ■ ○ 38 mm |
| | **412** | 1/4" ○ ○ |
| | **415QR N** | 1/4" ■ |
| | **1204/21-1** | 4 x ⊕ 4 x ⊕ 9 x ◉ 3 x ○ |
| | **3115/1** | 1/4" ■ ⬢ |
| | **4008** | 1/4" ○ sizes 1; 2 |

## TCS WT 40/52/27/13

- for the removable tray of tool trolley No 13217
- cannot be combined with transparent cover 13217 TA
- 455 x 240 x 30 mm
- 40 pieces

| Code | g |
|---|---|
| **96830117** | 4000 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ ○ 54 mm |
| | **405/6** | 1/4" ■ ○ 150 mm |
| | **407** | 1/4" ■ ○ 38 mm |
| | **412** | 1/4" ○ ○ |
| | **415QR N** | 1/4" ■ |
| | **52** | 1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ 52 mm |
| | **509/5** | 1/2" ■ ○ 130 mm |
| | **509/10** | 1/2" ■ ○ 255 mm |
| | **510** | 1/2" ■ ○ 71 mm |
| | **512QR N** | 1/2" ■ |



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## TCS WT 40/45/46/37/14

- for the removable tray of tool trolley No 13217
- cannot be combined with transparent cover 13217 TA
- 455 x 240 x 30 mm
- 51 pieces

| Code | g |
|---|---|
| **96830123** | 2500 |

| | No | Content |
|---|---|---|
| | **40aD** | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **40aDL** | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **402a** | 1/4" ○ 1/4; 5/16; 3/8; 7/16; 1/2" |
| | **405QR/2** | 1/4" ■ ○ 54 mm |
| | **405QR/6** | 1/4" ■ ○ 150 mm |
| | **407QR** | 1/4" ■ ○ 38 mm |
| | **409M** | 3/8" ■ 1/4" ○ |
| | **415QR N** | 1/4" ■ |
| | **415SGB N** | 1/4" ○ |
| | **45a** | 3/8" ○ 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 15/16; 1" |
| | **46a** | 3/8" ○ 5/8; 11/16; 3/4; 7/8" |
| | **412** | 1/4" ○ ○ |
| | **427QR/3** | 3/8" ■ ○ 76 mm |
| | **427QR/10** | 3/8" ■ ○ 240 mm |
| | **428QR** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **432M** | 1/2" ■ 3/8" ○ |
| | **435QR N** | 3/8" ■ |
| | **443** | 5/16" ○ 3/8" ○ |

## TCS WT 4622-4650

- for the drawers of tool trolley No 13217
- 460 x 250 x 60 mm
- 20 pieces

| Code | g |
|---|---|
| **96830122** | 1500 |

| | No | Content |
|---|---|---|
| | **4622SK** | size 1 (0.8 x 4.0 x 90 mm)<br>size 2 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 6.5 x 125 mm) |
| | **4632SK** | PH1; PH2; PH3 |
| | **4650** | sizes T10; T15; T20; T25; T30 |
| | **10767H/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

## TCS WT 4622-4650-1

- for the drawers of tool trolley No 13217
- 460 x 250 x 60 mm
- 24 pieces

| Code | g |
|---|---|
| **96830126** | 1610 |

| | No | Content |
|---|---|---|
| | **4622SK** | size 1 (0.8 x 4.0 x 90 mm)<br>size 2 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 6.5 x 125 mm) |
| | **4632SK** | PH1; PH2; PH3 |
| | **4650** | sizes T10; T15; T20; T25; T30 |
| | **10767a/13** | 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" |

## TCS WT 4650-4665-1

- for the drawers of tool trolley No 13217
- 460 x 250 x 60 mm
- 20 pieces

| Code | g |
|---|---|
| **96830129** | 1320 |

| | No | Content |
|---|---|---|
| | **4650** | sizes T10; T15; T20; T25; T30 |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 3 (0.6 x 3.5 x 100 mm)<br>size 5 (1.0 x 5.5 x 125 mm) |
| | **4665 VDE** | PH1; PH2; PH3 |
| | **10767H/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

## TCS WT 4650-4665

- for the drawers of tool trolley No 13217
- 460 x 250 x 60 mm
- 24 pieces

| Code | g |
|---|---|
| **96830127** | 1400 |

| | No | Content |
|---|---|---|
| | **4650** | sizes T10; T15; T20; T25; T30 |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 3 (0.6 x 3.5 x 100 mm)<br>size 5 (1.0 x 5.5 x 125 mm) |
| | **4665 VDE** | PH1; PH2; PH3 |
| | **10767a/13** | 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" |





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## TCS WT 6501-6602/7

- for the drawers of tool trolley No 13217
- 460 x 250 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96830118** | 1880 |

| | No | |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65642250** | 250 mm |
| | **66025160** | 160 mm |

## TCS WT 6501-6602/7-1

- for the drawers of tool trolley No 13217
- 460 x 250 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96830131** | 1655 |

| | No | |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65751220** | 230 mm |
| | **66025160** | 160 mm |

## TCS WT 102-109/16

- for the drawers of tool trolley No 13217
- 460 x 250 x 30 mm
- 16 pieces

| Code | g |
|---|---|
| **96830119** | 1790 |

| | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **105** | 120 x 12 mm |
| | **108** | 115 x 2; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **109** | size 6; 100 x 3.4 mm |
| | **10956** | ∅ 27 mm |
| | **10961** | 300 g |
| | **12320** | |
| | **12921M** | ∅ 32 mm |
| | **12935/3** | 3 m |
| | **13110** | 300 mm |
| | **13126-2** | |

## 13219 Tool bag

NEW

- with 23 compartments and 5 outside pockets
- robust carrying handle
- removable, padded shoulder strap for comfortable carrying
- cover with hook-and-loop fasteners protects the tools from dust, dirt and moisture
- sturdy, reinforced plastic base-bag
- made of waterproof polyester

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81620004** | 500 | 340 | 220 | 2.3 |

## 13215 Backpack trolley

NEW

- robust tool backpack with reinforced base
- flexible use as trolley and backpack
- large, smooth-running castors and the telescopic handle ensure easy transport
- extendable, padded straps turn the trolley into a backpack
- two easily removable tool trays for the most important tools in everyday work
- front pockets for documents and accessories
- padded notebook compartment (up to 15")

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81620007** | 360 | 440 | 200 | 4.3 |



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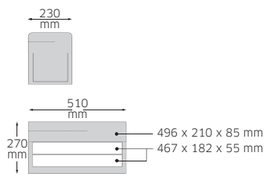
## 13216/2 Tool box

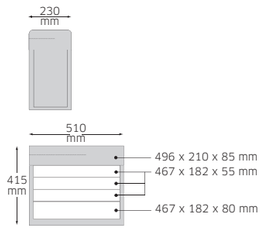
- with 2 drawers and one compartment under the lid, safety lock and dip-coated carrying handle on the lid
- wide, spring-mounted dip-coated carrying handles on the sides
- high-grade, fully extendible sturdy rails
- easily removable drawers
- the perforated panel can be arranged as required using spring loaded clips No 8050 (page 29, please order separately)



| Code | kg |
|---|---|
| **81091002** | 10.3 |

## 13216/4 Tool box

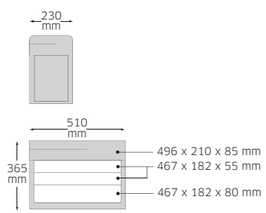
- with 4 drawers and one compartment under the lid, safety lock and sturdy textured aluminium sheeting on the lid
- wide, spring-mounted dip-coated carrying handles on the sides
- high-grade, fully extendible sturdy rails
- easily removable drawers
- the perforated panel can be arranged as required using spring loaded clips No 8050 (page 29, please order separately)



| Code | kg |
|---|---|
| **81091004** | 14 |

## 13216/3 Tool box

- with 3 drawers and one compartment under the lid, safety lock and dip-coated carrying handle on the lid
- wide, spring-mounted dip-coated carrying handles on the sides
- high-grade, fully extendible sturdy rails
- easily removable drawers
- the perforated panel can be arranged as required using spring loaded clips No 8050 (page 29, please order separately)



| Code | kg |
|---|---|
| **81091003** | 11 |

## TBT13216 Tool box trolley

- for tool boxes No 13216/2, 13216/3, 13216/4
- safe tool box locking system with quick-release mechanism
- unrestricted access to all tool box functions
- sturdy steel-sheet construction
- 2 fixed wheels and 2 castors (∅ 75 mm) with parking brakes
- convenient, fold-away push-handle with endstop
- maximum static load capacity: 150 kg
- supplied without tool box

| Code | Width mm | Height mm | Height (open) mm | Depth mm | kg |
|---|---|---|---|---|---|
| **81091009** | 570 | 216 | 914 | 328 | 7.5 |

## 83/010 Tool box, 3 trays

- lockable by padlock

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81060000** | 420 | 150 | 200 | 3.6 |

## 83/09 Tool box, 5 trays

- lockable by padlock

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81050000** | 420 | 200 | 200 | 4.7 |



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## 446/08 Tool box, 5 trays

- lockable by padlock

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81070000** | 530 | 200 | 200 | 5.6 |

## 82/013 Tool box

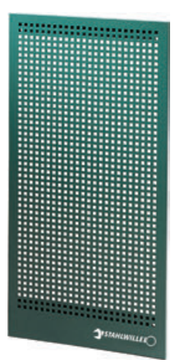
- with lift out tray
- lockable by padlock

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81080000** | 545 | 225 | 180 | 6.9 |

# Perforated panels, hooks and holding

## 8002 Perforated panel

- perforation 9 x 9 mm, made of sturdy, 1 mm thick sheet steel, with 2 strengthening ribs at rear. These ribs carry the holes for wall mounting panel
- for the individual mounting of tools, on a variety of hooks and clips No 8031-8041



| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **80020001** | 500 | 1000 | 15 | 3.8 |

## 8031 Single hook

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA

| Code | size | dimensions mm | g |
|---|---|---|---|
| **80310030** | **1** | 30 | 13 |
| **80310060** | **2** | 60 | 17 |
| **80310090** | **3** | 90 | 21 |

## 8032 Twin hook

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA

| Code | size | dimensions mm | g |
|---|---|---|---|
| **80320030** | **1** | 30 | 19 |
| **80320060** | **2** | 60 | 26 |

## 8034 Twin hook

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA

| Code | size | dimensions mm | g |
|---|---|---|---|
| **80340040** | **1** | 40 x 35 | 30 |
| **80340050** | **2** | 50 x 40 | 30 |

## 8035 Square lug

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA

| Code | size | dimensions mm | g |
|---|---|---|---|
| **80350017** | **1** | 17 x 35 | 23 |
| **80350020** | **2** | 20 x 55 | 26 |



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## 8036 Spring clip

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA

| Code | size | dimensions mm | g |
|---|---|---|---|
| **80360012** | **1** | 12 | 9 |
| **80360018** | **2** | 18 | 10 |
| **80360024** | **3** | 24 | 14 |

## 8038 Container

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA

| Code | dimensions mm | g |
|---|---|---|
| **80380030** | 30 x 72 | 15 |

## 8041 Holding device for spanners

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA

| Code | dimensions mm | g |
|---|---|---|
| **80410235** | 235 x 144 x 47 | 62 |

## 8050 Spring clip

for
- perforated panel No 8002
- mobile workbench No WB620
- tool trolleys No 95, 95VA, 98VA
- tool boxes No 13216/2, 13216/3, 13216/4

| Code | size | dimensions mm | g |
|---|---|---|---|
| **81485006** | **6** | 6 | 28 |
| **81485012** | **12** | 12 | 28 |

# Tool cases, hard shell

## 13209/1 Tool case, hard shell, base model

- sturdy aluminium frame
- 2 locks
- ergonomically shaped carrying handle
- robust jointed lid-prop
- tool-holder panel for storing tools from both sides, with 21 pockets and integrated document pouch
- ABS insert can be subdivided and includes cover with 6 pockets

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81620002** | 460 | 310 | 160 | 4.5 |

## 13209/2 Tool case, hard shell, medium model

- as for No 13209/1, but with an additional combination lock,
- tool-holder panel with 13 pockets and 26 rubber-loop holders
- separate document pouch in the lid
- ABS inlay tray with 13 pockets and 8 rubber-loop holders

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81620003** | 460 | 310 | 180 | 5.1 |

## 13209 Tool case, hard shell, premium model

- as for No 13209/1, but with an additional combination lock
- tool-holder panel with 13 pockets and 26 rubber-loop holders
- additional tool-holder panel with 11 pockets and a smaller components pouch
- separate document pouch in the lid
- ABS inlay tray with 13 pockets and 8 rubber-loop holders

| Code | Width mm | Height mm | Depth mm | kg |
|---|---|---|---|---|
| **81620001** | 460 | 310 | 180 | 5.9 |





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# Workshop sets

## 801N Large tool set

127 tools

| Code | | | kg |
|---|---|---|---|
| **97841210** | | | 28.6 |
| | **10/12** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 25 x 28; 30 x 32 mm | |
| | **12/10** | 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11 mm | |
| | **20/12** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 25 x 28; 30 x 32 mm | |
| | **29** | 10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19; 21 x 23 mm | |
| | **35c Pkw** | 17; 19; 22 mm; 1/2" ■ | |
| | **39**<br>**39/1** | 400 mm (2x)<br>600 mm (2x) | |
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 30; 32 mm | |
| | **51** | 1/2" O 13; 16 mm-5/8"; 17; 18; 19 mm; 20.8 mm-13/16"; 22; 24; 27; 30; 32 mm | |
| | **54** | 1/2" O 4; 5; 6; 8; 10; 12; 14 mm | |
| | **501** | 1/2" ■ 433 mm | |
| | **504/15** | 1/2" ■ 397 mm | |
| | **506** | 1/2" ■ 300 mm | |
| | **509/2** | 1/2" ■ O 52 mm | |
| | **509/5** | 1/2" ■ O 130 mm | |
| | **509/10** | 1/2" ■ O 255 mm | |
| | **510** | 1/2" ■ O 71 mm | |
| | **512** | 1/2" ■ | |
| | **100/8** | 200 mm | |
| | **103** | 150 mm | |
| | **104** | 120 x 4 mm | |
| | **105** | 100 x 10 mm | |
| | **4622** | size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 5 (2.0 x 12.0 x 200 mm) | |
| | **4628** | size 2 (0.6 x 3.5 x 75 mm)<br>size 4 (0.8 x 4.0 x 125 mm) | |
| | **4630** | PH1; PH2; PH3 | |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) | |
| | **65 01 6 180** | 180 mm | |
| | **65 29 6 200** | 200 mm | |
| | **65 30 6 200** | 200 mm | |
| | **65 43 4 002** | J2 180 mm | |
| | **65 45 4 002** | A2 180 mm | |
| | **65 54 4 250** | 255 mm | |
| | **65 64 2 250** | 250 mm | |
| | **66 02 6 160** | 160 mm | |
| | **10670** | 310 mm | |
| | **10676** | 85 x 12 x 315 mm | |
| | **10961** | 500 g | |
| | **11095/13** | 0.05–1 mm | |
| | **12025** | 210 mm | |
| | **12030** | 260 mm | |
| | **12035** | 210 mm | |
| | **12050** | 300 mm | |
| | **12150** | 200 mm | |
| | **12200** | 145 mm | |
| | **12250** | | |
| | **12320** | | |
| | **12375** | | |
| | **12935/3** | 3 m | |

## 802N Large tool set

129 tools

| Code | | | kg |
|---|---|---|---|
| **97840312** | | | 28.1 |
| | **12/10** | 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11 mm | |
| | **13/26** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29; 30; 32 mm | |
| | **29** | 10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19; 21 x 23 mm | |
| | **35c Pkw** | 17; 19; 22 mm; 1/2" ■ | |
| | **39**<br>**39/1** | 400 mm (2x)<br>600 mm (2x) | |
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 30; 32 mm | |
| | **51** | 1/2" O 13; 16 mm-5/8"; 17; 18; 19 mm; 20.8 mm-13/16"; 22; 24; 27; 30; 32 mm | |
| | **54** | 1/2" O 4; 5; 6; 8; 10; 12; 14 mm | |
| | **501** | 1/2" ■ 433 mm | |
| | **504/15** | 1/2" ■ 397 mm | |
| | **506** | 1/2" ■ 300 mm | |
| | **509/2** | 1/2" ■ O 52 mm | |
| | **509/5** | 1/2" ■ O 130 mm | |
| | **509/10** | 1/2" ■ O 255 mm | |
| | **510** | 1/2" ■ O 71 mm | |
| | **512** | 1/2" ■ | |
| | **100/8** | 200 mm | |
| | **103** | 150 mm | |
| | **104** | 120 x 4 mm | |
| | **105** | 100 x 10 mm | |
| | **4622** | size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 5 (2.0 x 12.0 x 200 mm) | |
| | **4628** | size 2 (0.6 x 3.5 x 75 mm)<br>size 4 (0.8 x 4.0 x 125 mm) | |
| | **4630** | PH1; PH2; PH3 | |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) | |
| | **65 01 6 180** | 180 mm | |
| | **65 29 6 200** | 200 mm | |
| | **65 30 6 200** | 200 mm | |
| | **65 43 4 002** | J2 180 mm | |
| | **65 45 4 002** | A2 180 mm | |
| | **65 54 4 250** | 255 mm | |
| | **65 64 2 250** | 250 mm | |
| | **66 02 6 160** | 160 mm | |



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| | |
|---|---|
| **10670** | 310 mm |
| **10676** | 85 x 12 x 315 mm |
| **10961** | 500 g |
| **11095/13** | 0.05–1 mm |
| **12025** | 210 mm |
| **12030** | 260 mm |
| **12035** | 210 mm |
| **12050** | 300 mm |
| **12150** | 200 mm |
| **12200** | 145 mm |
| **12250** | |
| **12320** | |
| **12375** | |
| **12935/3** | 3 m |

## 803N Large tool set

164 tools

| Code | | | kg |
|---|---|---|---|
| **97842613** | | | 17.8 |
| | **10/12** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 25 x 28; 30 x 32 mm | |
| | **10a** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 5/8 x 11/16; 3/4 x 7/8; 15/16 x 1" | |
| | **12/10** | 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11 mm | |
| | **12a/13** | 5/32; 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" | |
| | **13** | 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm | |
| | **13a** | 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4" | |
| | **21** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 17 x 19 mm | |
| | **20a** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 3/4 x 7/8; 15/16 x 1" | |
| | **23/8** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm | |
| | **230a** | 3/8 x 7/16; 1/2 x 9/16; 9/16 x 5/8; 11/16 x 3/4; 13/16 x 7/8; 15/16 x 1" | |
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 27; 30; 32 mm | |
| | **50a** | 1/2" O 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8; 15/16; 1; 1 1/16; 1 1/8; 1 3/16; 1 1/4" | |
| | **501** | 1/2" ■ 433 mm | |
| | **504/15** | 1/2" ■ 397 mm | |
| | **506** | 1/2" ■ 300 mm | |
| | **509/2** | 1/2" ■ O 52 mm | |
| | **509/5** | 1/2" ■ O 130 mm | |
| | **509/10** | 1/2" ■ O 255 mm | |
| | **510** | 1/2" ■ O 71 mm | |
| | **512** | 1/2" ■ | |
| | **100** | 150 mm | |
| | **105** | 120 x 12 mm | |
| | **108** | 150 x 4; 150 x 6 mm | |
| | **4620** | size 3 (1.0 x 5.5 x 100 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm)<br>size 6 (1.6 x 10.0 x 200 mm) | |
| | **4628** | size 2 (0.6 x 3.5 x 75 mm) | |
| | **4630** | PH1; PH2; PH3 | |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) | |

| | |
|---|---|
| **65016200** | 200 mm |
| **65095160** | 160 mm |
| **65516240** | 240 mm |
| **66026160** | 160 mm |
| **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| **10760aCV/10T** | 1/16; 5/64; 3/32; 1/8; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" |
| **10970** | 1 lb. |
| **12050** | 300 mm |

## 804N Large tool set

106 tools

| Code | | | kg |
|---|---|---|---|
| **97842714** | | | 12.7 |
| | **12/10** | 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11 mm | |
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm | |
| | **40/13/6** | 1/4" O No 40: 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm;<br>No 400; 404; 405/2; 405/6; 407; 415 | |
| | **50** | 1/2" O 10; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm | |
| | **51** | 1/2" O 16 mm-5/8";<br>20.8 mm-13/16" | |
| | **506** | 1/2" ■ 300 mm | |
| | **509/5** | 1/2" ■ O 130 mm | |
| | **509/10** | 1/2" ■ O 255 mm | |
| | **510** | 1/2" ■ O 71 mm | |
| | **512** | 1/2" ■ | |
| | **100/8** | 200 mm | |
| | **103** | 200 mm | |
| | **105-8/6 K** | No 105/120 x 10 mm<br>No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6 mm | |
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm) | |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) | |
| | **4630** | PH1; PH2 | |
| | **65016180** | 180 mm | |
| | **65296200** | 200 mm | |
| | **65516240** | 240 mm | |
| | **65642250** | 250 mm | |
| | **66026160** | 160 mm | |
| | **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm | |
| | **10955** | 35 mm ∅ | |
| | **10961** | 500 g | |
| | **11095/20** | 0.05–1 mm | |
| | **12251** | | |
| | **12321** | | |
| | **12375** | | |

1

## 811N Car tool set

84 tools

| Code | | | kg |
|---|---|---|---|
| **97841311** | | | 16.3 |
| | **10/12** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 25 x 28; 30 x 32 mm | |
| | **20/12** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 25 x 28; 30 x 32 mm | |
| | **39** | 400 mm (2x) | |
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 19; 21; 22; 23; 24; 26; 27; 30; 32 mm | |
| | **51** | 1/2" O 16 mm-5/8"; 20.8 mm-13/16" | |
| | **54** | 1/2" O 4; 5; 6; 8; 10; 12; 14 mm | |
| | **504/15** | 1/2" ■ 397 mm | |
| | **506** | 1/2" ■ 300 mm | |
| | **509/2** | 1/2" ■ O 52 mm | |
| | **509/5** | 1/2" ■ O 130 mm | |
| | **509/10** | 1/2" ■ O 255 mm | |
| | **510** | 1/2" ■ O 71 mm | |
| | **512** | 1/2" ■ | |
| | **100/8** | 200 mm | |
| | **103** | 150 mm | |
| | **104** | 120 x 4 mm | |
| | **105** | 100 x 10 mm | |
| | **4622** | size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 5 (2.0 x 12.0 x 200 mm) | |
| | **4628** | size 2 (0.6 x 3.5 x 75 mm)<br>size 4 (0.8 x 4.0 x 125 mm) | |
| | **4630** | PH1; PH2; PH3 | |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) | |
| | **65016180** | 180 mm | |
| | **65296200** | 200 mm | |
| | **65306200** | 200 mm | |
| | **65434002** | J2 180 mm | |
| | **65454002** | A2 180 mm | |
| | **65544250** | 255 mm | |
| | **65642250** | 250 mm | |
| | **66026160** | 160 mm | |
| | **10670** | 310 mm | |
| | **10676** | 85 x 12 x 315 mm | |
| | **10961** | 500 g | |
| | **12375** | | |

## 3027 Electrician tool set

85 tools

| Code | | | kg |
|---|---|---|---|
| **97843101** | | | 6.3 |
| | **13**<br>**13/9** | 6; 7 mm<br>9; 10; 11; 12; 13; 14; 17; 19; 22 mm | |
| | **40/23/6** | 1/4" O No 40: 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm<br>No 41K: 0.6 x 3.5; 1 x 5.5; 1.2 x 8 mm<br>No 44K: 3; 4; 5; 6; 8 mm<br>No 44P: PH1; PH2; PH3; PH4<br>No 400; 404; 405/2; 405/6; 407; 415 | |
| | **46**<br>**4600** | 3/8" O 12; 20.8 mm<br>3/8" O 16 mm | |
| | **425** | 3/8" ■ 165 mm | |
| | **428** | 3/8" ■ O 46 mm | |
| | **427/6** | 3/8" ■ O 160 mm | |
| | **4628** | size 2 (0.6 x 3.5 x 75 mm)<br>size 4 (0.8 x 4.0 x 125 mm)<br>size 6 (1.0 x 5.5 x 200 mm) | |
| | **4630** | PH1; PH2 | |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) | |
| | **4734** | PH2 | |
| | **10546** | size 3 | |
| | **10551** | PH1 x PH2 | |
| | **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm | |
| | **65015180** | 180 mm | |
| | **65295160** | 160 mm | |
| | **65305160** | 160 mm | |
| | **65516240** | 240 mm | |
| | **66026140** | 140 mm | |
| | **66225160** | 160 mm | |
| | **66380220** | 220 mm | |
| | **7756** | 3–48 volt | |
| | **10956** | ∅ 35 mm | |
| | **1551** | for contact sizing ▭ 2.8 mm | |
| | **1552** | for contact sizing ▭ 5.8 mm | |
| | **1560** | Content:<br>1 piece No 1501 ejection tool for contact sizing ∅ 1.5 mm<br>1 piece No 1502 ejection tool for contact sizing ∅ 3.5 mm<br>1 piece No 1503 ejection tool for contact sizing ∅ 4.0 mm ABS (trucks) resp. mounting bush No 1523<br>2 pieces No 1511 dismounting bush ∅ 1.5 mm (1 piece assembled)<br>2 pieces No 1512 dismounting bush ∅ 3.5 mm (1 piece assembled)<br>2 pieces No 1513 dismounting bush ∅ 4.0 mm<br>1 piece No 1523 mounting bush (ABS) | |



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## 841N Construction machinery set

129 tools

| Code | | | kg |
|---|---|---|---|
| **97841418** | | | 35.8 |
| | **10/9** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24 mm | |
| | **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34; 36 mm | |
| | **40/13/6** | 1/4" **O** No 40 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm;<br>No 400; 404; 405/2; 405/6; 407; 415 | |
| | **50/16/6** | 1/2" **O** No 50: 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm<br>No 506; 509/5; 509/10; 506; 510; 512 | |
| | **504/15** | 1/2" ■ 397 mm | |
| | **514** | 3/4" ■ 1/2" **O** | |
| | **55/9/6N** | 3/4" **O** No 55: 32; 34; 36; 38; 41; 46; 50; 55; 60 mm<br>No 552; 554; 556; 558; 559/8; 559/16 | |
| | **568** | 1/2" ■ 3/4" **O** | |
| | **102-5/6T** | No 104/120 x 2; 120 x 4 mm<br>No 105/120 x 10 mm<br>No 106/125 mm; 150 mm<br>No 107/125 mm | |
| | **4840** | PZ1; PZ2 | |
| | **4891** | ⊖ 4820: 0.6 x 3.5 x 75 mm<br>0.8 x 4.0 x 100 mm<br>1.0 x 5.5 x 125 mm<br>1.2 x 6.5 x 150 mm<br>⊕ 4830: PH1; PH2 | |
| | **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm | |
| | **65015180** | 180 mm | |
| | **65315170** | 170 mm | |
| | **65632250** | 250 mm | |
| | **65672280** | 280 mm | |
| | **65726240** | 240 mm | |
| | **66005160** | 160 mm | |
| | **10956** | ∅ 35 mm | |
| | **10961** | 300; 500 g | |
| | **11095/20** | 20 blades 0.05–1 mm | |
| | **12050** | 300 mm | |
| | **12050R** | 10 blades | |
| | **12374** | | |
| | **12600** | 1800 g | |
| | **12935/3** | 3 m | |

# Tool sets for aerospace industry

## 13200a Basic tool set for aircraft mechanics (piston engine)

178 tools

| Code | | | kg |
|---|---|---|---|
| **97846011** | | | 15.1 |
| | **12a/13** | 5/32; 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" | |
| | **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 25/32; 13/16; 7/8; 15/16; 1" | |
| | **230a** | 1/4 x 5/16; 5/16 x 11/32; 3/8 x 7/16; 7/16 x 1/2; 1/2 x 9/16; 9/16 x 5/8; 11/16 x 3/4; 13/16 x 7/8; 15/16 x 1" | |
| | **4025** | size 4 | |
| | **40aD/30/7QR** | 1/4" **O** No 40a: 1/8"<br>No 40aD: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"<br>No 40aDL: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"<br>No 402a: 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2"<br>No 400QR; 405/2QR (2x); 405/6QR; 407QR; 412; 415 SG-QR | |
| | **409** | 3/8" ■ 1/4" **O** | |
| | **415SGB N** | 1/4" **O** | |
| | **46a** | 3/8" **O** 7/16; 1/2; 9/16; 5/8" | |
| | **427/18** | 3/8" ■ **O** 455 mm | |
| | **431** | 1/4" ■ 3/8" **O** | |
| | **45a/22/8QR** | 3/8" **O** No 45a: 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"<br>No 47a: 5/16; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4"<br>No 427/10QR; 427/6QR; 427/3QR; 428QR; 435SG-QR; 442; 443; 453QR | |
| | **1220**<br>**1221**<br>**1222**<br>**1223** | PH0<br>PH1<br>PH2<br>PH3 | |
| | **13010** | sizes 0; 1; 2; 3; 4; 5; 6; 8; 10 | |
| | **4006/1** | 1/4" **O** | |
| | **12503** | 1/4" **O** | |
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 4 (1.6 x 10.0 x 175 mm) | |
| | **4632** | PH1; PH2; PH3 | |
| | **10760aCV/13** | 0.028; 0.035; 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4" | |
| | **65015180** | 180 mm | |
| | **65105190** | 190 mm | |
| | **65315170** | 170 mm | |
| | **65516240** | 240 mm | |
| | **65751280** | 280 mm | |
| | **66005180** | 180 mm | |
| | **105-8/6 K** | No 105/120 x 10 mm;<br>No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6 mm | |
| | **10670** | 215 mm | |
| | **10955** | ∅ 27 mm | |
| | **10961** | 300 g | |
| | **12320** | | |
| | **12321** | | |

**Continuation see next page**

| | |
|---|---|
| **12600** | 500 g |
| **12900** | |
| **12921N** | ∅ 50 mm |
| **12922E** | ∅ 6 mm |
| **12935/3** | 3 m |
| **13110** | 300 mm |
| **13126-1** | |
| **13148** | |

## 13205a Standard aircraft maintenance tool set

131 tools

| Code | | kg |
|---|---|---|
| **97846012** | | 7.8 |
| **12a/13** | 5/32; 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" | |
| **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4" | |
| **230a** | 5/16 x 11/32; 3/8 x 7/16; 7/16 x 1/2; 1/2 x 9/16; 9/16 x 5/8; 11/16 x 3/4" | |
| **4025** | size 4 | |
| **409** | 3/8" ■ 1/4" O | |
| **40aD/30/7QR** | 1/4" O No 40a: 1/8"<br>No 40aD: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"<br>No 40aDL: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"<br>No 402a: 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2"<br>No 400QR; 405/2QR (2x); 405/6QR; 407QR; 412; 415 SG-QR | |
| **1161-1166** | 0.5 x 4; 0.6 x 3.5; 0.6 x 4.5; 0.8 x 4; 0.8 x 5.5; 1 x 5.5 mm | |
| **1220-1223** | PH0; PH1; PH2; PH3 | |
| **13008** | sizes 0; 1; 2; 3; 4; 5 | |
| **13010** | sizes 0; 1; 2; 3; 4; 5; 6; 8; 10 | |
| **4006/1** | 1/4" O | |
| **12503** | 1/4" O | |
| **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 4 (1.6 x 10.0 x 175 mm) | |
| **4632** | PH1; PH2; PH3 | |
| **65015180** | 180 mm | |
| **65105190** | 190 mm | |
| **65315170** | 170 mm | |
| **65516240** | 240 mm | |
| **65751220** | 230 mm | |
| **66005180** | 180 mm | |
| **105-8/6 K** | No 105/120 x 10 mm<br>No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6 mm | |
| **10955** | ∅ 27 mm | |
| **10961** | 300 g | |
| **12025** | 210 mm | |
| **12030** | 260 mm | |
| **12035** | 210 mm | |
| **12036** | 250 mm | |
| **12053** | | |
| **12321** | | |
| **12900N** | | |
| **12921N** | ∅ 40 mm | |
| **13110** | 300 mm | |
| **13126-1** | | |

## 13207a Electricians set in tool case No 13209

110 tools

| Code | | kg |
|---|---|---|
| **98810322** | | 12.5 |
| **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4" | |
| **12a/13** | 5/32; 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" | |
| **40a** | 1/4" O; 1/8"; 5/32" | |
| **400QR** | 1/4" ■ 150 mm | |
| **40aD/12/7QR** | 1/4" O No 40a: 1/8"<br>No 40aD: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"<br>No 400QR; 405/2QR (2x); 405/6QR; 407QR; 412; 415SG-QR | |
| **4006/1** | 1/4" O | |
| **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 3 (0.6 x 3.5 x 100 mm)<br>size 5 (1.0 x 5.5 x 125 mm)<br>size 6 (1.2 x 6.5 x 150 mm) | |
| **4665 VDE** | PH0; PH1; PH2 | |
| **10760aCV/13** | 0.028; 0.035; 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4" | |
| **65015160, 65015180** | 160, 180 mm | |
| **65245160** | 160 mm | |
| **65295200** | 200 mm | |
| **65305200** | 200 mm | |
| **65315170** | 170 mm | |
| **65156125** | 125 mm | |
| **65765231** | 230 mm | |
| **66005130** | 125 mm | |
| **66025180** | 180 mm | |
| **66235160** | 160 mm | |
| **105-8/6 K** | No 105/120 x 10 mm<br>No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6 mm | |
| **10961** | 300 g | |
| **12053** | | |
| **12320** | | |
| **12600** | 500 g | |
| **12921N** | ∅ 40 mm | |
| **12922E** | ∅ 6 mm | |
| **13008** | sizes 0; 1; 2; 3; 4; 5 | |
| **13010** | sizes 0; 1; 2; 3; 4; 5 | |
| **13126-1** | | |
| **13130** | | |
| **13131** | | |
| **13209** | | |



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## 13208a Board case for aircraft in tool case No 13209

57 tools

| Code | | | kg |
|---|---|---|---|
| **98810323** | | | 9 |
| | **13a** | 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2" | |
| | **4025** | size 4; 6; 8 | |
| | **1220**<br>**1221**<br>**1222**<br>**1223** | PH0<br>PH1<br>PH2<br>PH3 | |
| | **13008** | sizes 0; 1; 2; 3; 4; 5; 6 | |
| | **13010** | sizes 0; 1; 2; 3; 4; 5; 6; 8; 10 | |
| | **4006/1** | 1/4" O | |
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 4 (1.6 x 10.0 x 175 mm) | |
| | **4632** | PH1; PH2; PH3 | |
| | **10760aCV/13** | 0.028; 0.035; 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4" | |
| | **65015180** | 180 mm | |
| | **65105190** | 190 mm | |
| | **65516240** | 240 mm | |
| | **65765231** | 230 mm | |
| | **66005180** | 180 mm | |
| | **12320** | | |
| | **13126-1** | | |
| | **13209** | | |

## 13210 Electronics set in tool case No 13209

101 tools

| Code | | | kg |
|---|---|---|---|
| **98810301** | | | 10.5 |
| | **13**<br>**13a** | 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm<br>3/16; 7/32; 1/4; 3/8; 1/2" | |
| | **16** | 3.2; 3.5; 4; 4.5; 5 mm | |
| | **4025** | size 4 | |
| | **4621** | size 5 (1.2 x 8.0 x 160 mm) | |
| | **4630** | PH0; PH1; PH2 | |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 4 (0.8 x 4.0 x 100 mm)<br>size 6 (1.2 x 6.5 x 150 mm) | |
| | **4724** | size 1 (0.6 x 3.5 x 25 mm)<br>size 2 (1.0 x 5.5 x 25 mm) | |
| | **4753** | ◉ sizes 0.7; 0.9; 1.3 mm | |
| | **4797** | ⊖ 4751: 0.3 x 1.5; 0.4 x 2; 0.4 x 2.5; 0.5 x 3 mm<br>⊕ 4752: PH00; PH0; PH1 | |
| | **10546** | size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm) | |
| | **10554** | 125–250 volt | |
| | **10760aCV/13** | 0.028; 0.035; 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4" | |
| | **10765** | 2; 2.5; 3; 4 mm | |
| | **12500N** | 6; 7 mm | |
| | **018/3** | | |
| | **109** | sizes 1; 2; 3; 4; 5; 6; 7; 8 | |
| | **65015160** | 160 mm | |
| | **65115135** | 140 mm | |
| | **65325170** | 170 mm | |
| | **65365160** | 160 mm | |
| | **66046110** | 112 mm | |
| | **66066130** | 125 mm | |
| | **66235160** | 160 mm | |
| | **12900N** | | |
| | **10971** | | |
| | **12921N** | ∅ 50 mm | |
| | **13100** | | |
| | **13148** | | |
| | | drip oiler | |
| | | magnetic lifter | |
| | | electronics tweezers | |
| | | electronics tweezers | |
| | | extractor hook set | |
| | | test equipment set for safety applications | |
| | | universal soldering iron | |
| | | solder | |
| | | solder removing pump, antistatic | |
| | | blade holders with blades | |
| | | lamp extractor | |
| | | magnifying glass | |
| | | 2 screw-holding screwdrivers | |
| | | tweezers | |
| | | stripper | |
| | | set of soldering tools | |
| | | solder removing wire | |
| | | hand vice | |
| | | inspection mirror, insulated, ∅ 40 mm | |
| | **13209** | | |





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1

## 13211a Sheetmetal set

53 tools

| Code | | | kg |
|---|---|---|---|
| **97846008** | | | 9.9 |
| | **10a** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16" | |
| | **13a** | 7/32; 11/32" | |
| | **230a** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16" | |
| | **4025** | size 8 | |
| | **442**<br>**443** | 1/4" ○ 3/8" ○<br>5/16" ○ 3/8" ○ | |
| | **453QR** | 3/8" ■ | |
| | **103** | 150 mm | |
| | **104-5/6D** | No 104/120 x 2; 120 x 3; 120 x 4; 120 x 5; 120 x 6 mm<br>No 105/120 mm | |
| | **104** | 120 x 8 mm | |
| | **108/6D** | No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm | |
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 4 (1.6 x 10.0 x 175 mm)<br>size 6 (2.5 x 14.0 x 250 mm) | |
| | **4630** | PH1; PH2; PH3 | |
| | **4734** | PH2 | |
| | **65016180** | 180 mm | |
| | **65642175** | 175 mm | |
| | **66026160** | 160 mm | |
| | **10670** | 265 mm | |
| | **10955** | ∅ 32 mm | |
| | **10970** | 3/4; 1 1/2 lb. | |
| | **12025** | 210 mm | |
| | **12030** | 260 mm | |
| | **12035** | 210 mm | |
| | **12036** | 260 mm | |
| | **12050** | 465 mm | |
| | **12200** | 145 mm | |
| | **12378** | | |
| | **12752R** | | |
| | **12800** | | |
| | **12900N** | | |
| | **12935/3** | 3 m | |
| | **13110** | 300 mm | |

## 13213a Engine mechanics set

129 tools

| Code | | | kg |
|---|---|---|---|
| **97846010** | | | 12.1 |
| | **13a**<br>**130a** | 19/32; 5/8; 11/16; 3/4"<br>1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" | |
| | **24** | 1/4 x 5/16; 5/16 x 3/8; 3/8 x 7/16; 1/2 x 9/16; 5/8 x 3/4" | |
| | **230a** | 1/4 x 5/16; 5/16 x 3/8; 3/8 x 7/16; 7/16 x 1/2; 9/16 x 5/8; 5/8 x 3/4; 11/16 x 3/4" | |
| | **405** | 1/4" ■ ○ sizes 10; 14 | |
| | **413** | 1/4" ■ | |
| | **415SGB N** | 1/4" ○ | |
| | **40aD/30/7QR** | 1/4" ○ No 40a: 1/8"<br>No 40aD: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"<br>No 40aDL: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"<br>No 402a: 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2"<br>No 400QR; 405/2QR (2x); 405/6QR; 407QR; 412; 415 SG-QR | |
| | **45a/22/8QR** | 3/8" ○ No 45a: 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"<br>No 47a: 5/16; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4"<br>No 427/10QR; 427/6QR; 427/3QR; 428QR; 435SG-QR; 442; 443; 453QR | |
| | **109** | sizes 1; 2; 3; 4; 5 | |
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 4 (1.6 x 10.0 x 175 mm)<br>size 5 (2.0 x 12.0 x 200 mm) | |
| | **4631** | PH1; PH2 | |
| | **4632** | PH1; PH2; PH3 | |
| | **10760aCV/10T** | 1/16; 5/64; 3/32; 1/8; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" | |
| | **65165200** | 200 mm | |
| | **65315170** | 170 mm | |
| | **65516240** | 240 mm | |
| | **65751220** | 230 mm | |
| | **66005160** | 160 mm | |
| | **10961** | 300 g | |
| | **11097/22** | 4-25/1000" | |
| | **12600** | 500 g | |
| | **12900N** | | |
| | **12921N** | ∅ 50 mm | |



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## 13214 Line maintenance set in tool box No 13216/4

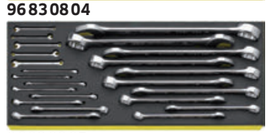
TCS QR

- for maintenance on aeroplanes and helicopters
- 122 tools

| Code | kg |
|---|---|
| **98814803** | 27.5 |

**96830804**

**96830795**



**96830805**

**96830806**

**96831794**

| 96830804 | No | Content |
|---|---|---|
| | **40** | 1/4" O 4; 4.5 mm |
| | **40D** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40L**<br>**40DL** | 1/4" O 4.5 mm<br>1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **402** | 1/4" O 6; 7; 8; 9; 10 mm |
| | **405QR/2** | 1/4" ■ O 54 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **409M** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |
| | **45** | 3/8" O 15; 17; 19; 21; 22; 24 mm |
| | **46** | 3/8" O 15; 17; 19; 21 mm |
| | **427QR/3** | 3/8" ■ O 76 mm |
| | **427QR/10** | 3/8" ■ O 240 mm |
| | **428QR** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |

| 96830804 | No | Content |
|---|---|---|
| | **432M** | 1/2" ■ 3/8" O |
| | **443** | 5/16" O 3/8" O |
| | **435QR N** | 3/8" ■ |
| | **25** | 7 x 8; 9 x 10; 12 x 13; 17 x 19 mm |
| | **12921N** | ∅ 50 mm |

| 96830795 | No | Content |
|---|---|---|
| | **65165200** | 200 mm |
| | **65325170** | 170 mm |
| | **65516240** | 240 mm |
| | **65642175** | 175 mm |
| | **65751220** | 230 mm |
| | **66005160** | 160 mm |

| 96830805 | No | Content |
|---|---|---|
| | **13** | 5.5; 6; 7; 8; 9; 10; 12; 13; 14; 15; 17; 19; 20; 21; 22; 24; 27; 30 mm |
| | **16** | 3.2; 3.5; 4; 4.5; 5 mm |

| 96830806 | No | Content |
|---|---|---|
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm) |
| | **11095/20** | 0.05–1 mm |
| | **12935/3** | 3 m |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **12900N** | 150 mm/6" |
| | **12320** | |
| | **12321** | |
| | **13126-1** | |

| 96831794 | No | Content |
|---|---|---|
| | **4632** | PH1; PH2; PH3 |
| | **415SGB N** | 1/4" O |
| | **104** | 120 x 2; 120 x 3; 120 x 4; 120 x 5 mm |
| | **109** | sizes 2; 5 |
| | **10961** | 500 g |
| | **10956** | ∅ 35 mm |

| | No | Content |
|---|---|---|
| | **453QR** | 3/8" ■ |
| | **1163** | 0.6 x 4.5 mm |
| | **12600** | 270 g |
| | **12922E** | ∅ 6 mm |
| | **8050** | size 6 (4x); size 12 (6x) |
| | **4000** | |
| | **12053** | |
| | **13216/4** | |

## 13214 WT/LR Line maintenance set in tool trolley No 13217

TCS QR

- for maintenance on aeroplanes and helicopters
- 121 tools
- tool trolley No 13217 and accessories (see pages 21, 22)

| Code | kg |
|---|---|
| **98814900** | 26.5 |

**96830100**

**96830101**

**96830102**

**96830103**

**96830104**

**96830105**

| 96830100 | No | Content |
|---|---|---|
| | **40** | 1/4" O 4; 4.5 mm |
| | **40L** | 1/4" O 4.5 mm |
| | **40D** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40DL** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **402** | 1/4" O 6; 7; 8; 9; 10 mm |
| | **405QR/2** | 1/4" ■ O 54 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **409M** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |
| | **415SGB N** | 1/4" O |
| | **45** | 3/8" O 15; 17; 19; 21; 22; 24 mm |
| | **46** | 3/8" O 15; 17; 19; 21 mm |

| 96830100 | No | Content |
|---|---|---|
| | **427QR/3** | 3/8" ■ O 76 mm |
| | **427QR/10** | 3/8" ■ O 240 mm |
| | **428QR** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432M** | 1/2" ■ 3/8" O |
| | **435QR N** | 3/8" ■ |
| | **443** | 5/16" O 3/8" O |

| 96830101 | No | Content |
|---|---|---|
| | **25** | 7 x 8; 9 x 10; 12 x 13; 17 x 19 mm |
| | **453QR** | 3/8" ■ |
| | **11095/20** | 0.05–1 mm |
| | **12600** | 270 g |
| | **12921M** | ∅ 57 mm |
| | **12922E** | ∅ 6 mm |
| | **12320** | |
| | **12321** | |
| | **13126-2** | |

| 96830102 | No | Content |
|---|---|---|
| | **65165200** | 200 mm |
| | **65325170** | 170 mm |
| | **65516240** | 240 mm |
| | **65642175** | 175 mm |
| | **65751220** | 230 mm |
| | **66005160** | 160 mm |

| 96830103 | No | Content |
|---|---|---|
| | **104** | 120 x 2; 120 x 3; 120 x 4; 120 x 5 mm |
| | **109** | sizes 2; 5 |
| | **4622** | size 1 (1.0 x 5.5 x 100 mm) size 3 (1.2 x 8.0 x 150 mm) |
| | **4632** | PH1; PH2; PH3 |
| | **10961** | 500 g |
| | **10956** | ∅ 35 mm |

| 96830104 | No | Content |
|---|---|---|
| | **13** | 30 mm |
| | **4008** | 1/4" O size 1 |
| | **12935/3** | 3 m |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **12900** | 150 mm/6" |
| | **12053** | |

| 96830105 | No | Content |
|---|---|---|
| | **13** | 5.5; 6; 7; 8; 9; 10; 12; 13; 14; 15; 17; 19; 20; 21; 22; 24; 27 |
| | **16** | 3.2; 3.5; 4; 4.5; 5 mm |

| | No |
|---|---|
| | **13217-1 LR** |

## 13214 WW Line maintenance set

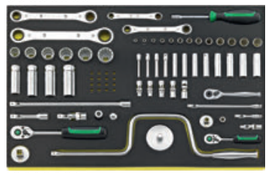
TCS QR

- for maintenance on aeroplanes and helicopters
- 121 tools, in TCS inlays (Tool Control System see pages 57-79)
- 4x3/3 inlays for 4 drawers (No 98VA for 2 drawers)
- suitable for workbench No WB620, tool trolleys 90, 95, 95VA, 98VA; magazine case No 920 and wheely box No 922N

| Code | kg |
|---|---|
| **97830803** | 13 |

**96830888**

**96832206**



**96832207**

**96832208**

| 96830888 | No | Content |
|---|---|---|
| | **104** | 120 x 2; 120 x 3; 120 x 4; 120 x 5 mm |
| | **109** | sizes 2; 5 |
| | **10961** | 500 g |
| | **10956** | ∅ 35 mm |
| | **11095/20** | 0.05-1 mm |
| | **12935/3** | 3 m |
| | **12600** | 270 g |
| | **12900N** | 150 mm/6" |
| | **12921N** | ∅ 50 mm |
| | **12922E** | ∅ 6 mm |
| | **12053** | |
| | **12320** | |
| | **12321** | |
| | **13126-1** | |

| 96832206 | No | Content |
|---|---|---|
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm) |
| | **4632** | PH1; PH2; PH3 |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **65165200** | 200 mm |
| | **65325170** | 170 mm |
| | **65516240** | 240 mm |
| | **65642175** | 175 mm |
| | **65751220** | 230 mm |
| | **66005160** | 160 mm |

| 96832207 | No | Content |
|---|---|---|
| | **25** | 7 x 8; 9 x 10; 12 x 13; 17 x 19 mm |
| | **40** | 1/4" O 4; 4.5 mm |
| | **40D** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40L**<br>**40DL** | 1/4" O 4.5 mm<br>1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **402** | 1/4" O 6; 7; 8; 9; 10 mm |
| | **405QR/2** | 1/4" ■ O 54 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **409M** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |
| | **415SGB N** | 1/4" O |
| | **45** | 3/8" O 15; 17; 19; 21; 22; 24 mm |
| | **46** | 3/8" O 15; 17; 19; 21 mm |
| | **427QR/3** | 3/8" ■ O 76 mm |
| | **427QR/10** | 3/8" ■ O 240 mm |
| | **428QR** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432M** | 1/2" ■ 3/8" O |
| | **435QR N** | 3/8" ■ |
| | **443** | 5/16" O 3/8" O |
| | **453QR** | 3/8" ■ |
| | **4000** | |

| 96832208 | No | Content |
|---|---|---|
| | **13** | 5.5; 6; 7; 8; 9; 10; 12; 13; 14; 15; 17; 19; 20; 21; 22; 24; 27; 30 mm |
| | **16** | 3.2; 3.5; 4; 4.5; 5 mm |

**Tool Control System.**
Safety-conscious inlays.

TCS

Designed to fit our Tool Trolleys and Tool Boxes. With yellow signal cut-outs to show whether all the tools are in their places.

## 13214a Line maintenance set in tool box No 13216/4

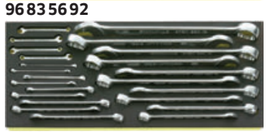
TCS QR

- for maintenance on aeroplanes and helicopters
- 123 tools

| Code | kg |
|---|---|
| **98814801** | 27.2 |

**96835692**

**96830795**



**96830796**

**96831793**

**96831794**

| 96835692 | No | Content |
|---|---|---|
| | **25aN** | 1/4 x 5/16; 5/16 x 11/32; 3/8 x 7/16; 1/2 x 9/16" |
| | **40aD** | 1/4" O 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **40aDL** | 1/4" O 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **402a** | 1/4" O 1/4; 5/16; 3/8; 7/16; 1/2" |
| | **405QR/2** | 1/4" ■ O 54 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **409M** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |
| | **45a** | 3/8" O 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 15/16; 1" |
| | **46a** | 3/8" O 5/8; 11/16; 3/4; 7/8" |
| | **427QR/3** | 3/8" ■ O 76 mm |
| | **427QR/10** | 3/8" ■ O 240 mm |
| | **428QR** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432M** | 1/2" ■ 3/8" O |
| | **435QR N** | 3/8" ■ |

| 96835692 | No | Content |
|---|---|---|
| | **443** | 5/16" O 3/8" O |
| | **12921N** | ⌀ 50 mm |

| 96830795 | No | Content |
|---|---|---|
| | **65165200** | 200 mm |
| | **65325170** | 170 mm |
| | **65516240** | 240 mm |
| | **65642175** | 175 mm |
| | **65751220** | 230 mm |
| | **66005160** | 160 mm |

| 96830796 | No | Content |
|---|---|---|
| | **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 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" |

| 96831793 | No | Content |
|---|---|---|
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm) |
| | **11095/20** | 0.05–1 mm |
| | **12935/3** | 3 m |
| | **12900N** | 150 mm/6" |
| | **10767a/13** | 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" |
| | **12320** | |
| | **12321** | |
| | **13126-1** | |

| 96831794 | No | Content |
|---|---|---|
| | **104** | 120 x 2; 120 x 3; 120 x 4; 120 x 5 mm |
| | **109** | sizes 2; 5 |
| | **415SGB N** | 1/4" O |
| | **4632** | PH1; PH2; PH3 |
| | **10961** | 500 g |
| | **10956** | ⌀ 35 mm |

| | No | Content |
|---|---|---|
| | **453QR** | 3/8" ■ |
| | **1163** | 0.6 x 4.5 mm |
| | **4000** | |
| | **8050** | size 6 (4x); size 12 (6x) |
| | **12053** | |
| | **12600** | 270 g |
| | **12922E** | ⌀ 6 mm |
| | **13216/4** | |



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## 13214a WT/LR — Line maintenance set in tool trolley No 13217

TCS QR

- for maintenance on aeroplanes and helicopters
- 122 tools
- tool trolley No 13217 and accessories see pages (see pages 21, 22)

| Code | kg |
|---|---|
| 98814905 | 27 |

96830106

96830102

96830103

96830107

96830108

96830109

| 96830106 | No | Content |
|---|---|---|
| | 40aD | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | 40aDL | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | 402a | 1/4" ○ 1/4; 5/16; 3/8; 7/16; 1/2" |
| | 405QR/2 | 1/4" ■ ○ 54 mm |
| | 405QR/6 | 1/4" ■ ○ 150 mm |
| | 407QR | 1/4" ■ ○ 38 mm |
| | 409M | 3/8" ■ 1/4" ○ |
| | 412 | 1/4" ○ ○ |
| | 415QR N | 1/4" ■ |
| | 415SGB N | 1/4" ○ |
| | 45a | 3/8" ○ 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 15/16; 1" |
| | 46a | 3/8" ○ 5/8; 11/16; 3/4; 7/8" |
| | 427QR/3 | 3/8" ■ ○ 76 mm |

| 96830106 | No | Content |
|---|---|---|
| | 427QR/10 | 3/8" ■ ○ 240 mm |
| | 428QR | 3/8" ■ ○ 46 mm |
| | 431 | 1/4" ■ 3/8" ○ |
| | 432M | 1/2" ■ 3/8" ○ |
| | 435QR N | 3/8" ■ |
| | 443 | 5/16" ○ 3/8" ○ |

| 96830102 | No | Content |
|---|---|---|
| | 65165200 | 200 mm |
| | 65325170 | 170 mm |
| | 65516240 | 240 mm |
| | 65642175 | 175 mm |
| | 65751220 | 230 mm |
| | 66005160 | 160 mm |

| 96830103 | No | Content |
|---|---|---|
| | 104 | 120 x 2; 120 x 3; 120 x 4; 120 x 5 mm |
| | 109 | sizes 2; 5 |
| | 4622 | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm) |
| | 4632 | PH1; PH2; PH3 |
| | 10961 | 500 g |
| | 10956 | ∅ 35 mm |

| 96830107 | No | Content |
|---|---|---|
| | 453 | 3/8" ■ |
| | 25aN | 1/4 x 5/16; 5/16 x 11/32; 3/8 x 7/16; 1/2 x 9/16" |
| | 11095/20 | 0.05–1 mm |
| | 12600 | 270 g |
| | 12921M | ∅ 57 mm |
| | 12922E | ∅ 6 mm |
| | 12320 | |
| | 12321 | |
| | 13126-2 | |

| 96830108 | No | Content |
|---|---|---|
| | 4008-1 | 1/4" ○ size 1 |
| | 13a | 1 1/8" |
| | 12935/3 | 3 m |
| | 12900N | 150 mm/6" |
| | 10767a/13 | 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" |
| | 12053 | |

| 96830109 | No | Content |
|---|---|---|
| | 13a | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 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" |

| | No |
|---|---|
| | 13217-1 LR |

## 13214a WW Line maintenance set

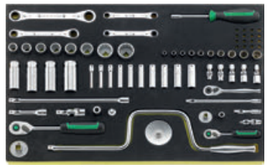
TCS QR

- for maintenance on aeroplanes and helicopters
- 122 tools, in TCS inlays (Tool Control System see pages 57-79)
- 4x3/3 inlays for 4 drawers (No 98VA for 2 drawers)
- suitable for workbench No WB620, tool trolleys 90, 95, 95VA, 98VA, magazine case No 920 and wheely box No 922N

1

| Code | kg |
|---|---|
| **97830802** | 12.5 |

**96830885**



**96830886**

**96830887**

**96830888**

| 96830885 | No | Content |
|---|---|---|
| | **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 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" |

| 96830886 | No | Content |
|---|---|---|
| | **40aD** | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **40aDL** | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **402a** | 1/4" ○ 1/4; 5/16; 3/8; 7/16; 1/2" |
| | **405QR/2** | 1/4" ■ ○ 54 mm |
| | **405QR/6** | 1/4" ■ ○ 150 mm |
| | **407QR** | 1/4" ■ ○ 38 mm |
| | **409M** | 3/8" ■ 1/4" ○ |
| | **415QR N** | 1/4" ■ |
| | **415SGB N** | 1/4" ○ |
| | **412** | 1/4" ○ ○ |
| | **45a** | 3/8" ○ 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 15/16; 1" |
| | **46a** | 3/8" ○ 5/8; 11/16; 3/4; 7/8" |
| | **427QR/3** | 3/8" ■ ○ 76 mm |
| | **427QR/10** | 3/8" ■ ○ 240 mm |
| | **428QR** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **432M** | 1/2" ■ 3/8" ○ |
| | **435QR N** | 3/8" ■ |
| | **443** | 5/16" ○ 3/8" ■ |
| | **453QR** | 3/8" ■ |
| | **4000** | |
| | **25aN** | 1/4 x 5/16; 5/16 x 11/32; 3/8 x 7/16; 1/2 x 9/16" |

| 96830887 | No | Content |
|---|---|---|
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 8.0 x 150 mm) |
| | **4632** | PH1; PH2; PH3 |
| | **10767a/13** | 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" |
| | **65165200** | 200 mm |
| | **65325170** | 170 mm |
| | **65516240** | 240 mm |
| | **65642175** | 175 mm |
| | **65751220** | 230 mm |
| | **66005160** | 160 mm |

| 96830888 | No | Content |
|---|---|---|
| | **104** | 120 x 2; 120 x 3; 120 x 4;<br>120 x 5 mm |
| | **109** | sizes 2; 5 |
| | **10961** | 500 g |
| | **10956** | ∅ 35 mm |
| | **11095/20** | 0.05-1 mm |
| | **12935/3** | 3 m |
| | **12600** | 270 g |
| | **12900N** | 150 mm/6" |
| | **12921N** | ∅ 50 mm |
| | **12922E** | ∅ 6 mm |
| | **12053** | |
| | **12320** | |
| | **12321** | |
| | **13126-1** | |

## 13221 WT/TS AOG-Kit for aeroplanes in tool trolley No 13217

TCS QR

- 163 tools, in TCS inlays (Tool Control System see page 57)
- tool trolley No 13217 and accessories see pages 21, 22

| Code | kg |
|---|---|
| **98814915** | 29 |

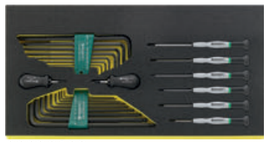
**96830133**

**96830134**

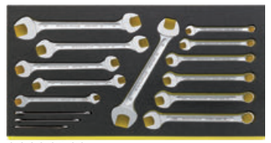
**96830135**

**96830136**

**96830137**



**96830138**



**96830139**

**96830140**

| 96830133 | No | Content |
|---|---|---|
| | **40D** | 1/4" ○ 5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40DL**<br>**40aDL** | 1/4" ○ 5; 6; 7; 8; 10; 11; 12; 13 mm<br>1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **405QR/2** | 1/4" ■ ○ 54 mm |
| | **405QR/6** | 1/4" ■ ○ 150 mm |
| | **407QR** | 1/4" ■ ○ 45 mm |
| | **409** | 3/8" ■ 1/4" ○ |
| | **412** | 1/4" ○ ○ |

| 96830133 | No | Content |
|---|---|---|
| | **415QR N** | 1/4" ■ |
| | **415B** | 1/4" ○ |
| | **45** | 3/8" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |
| | **45a** | 3/8" ○ 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 15/16; 1" |
| | **427QR/3** | 3/8" ■ ○ 76 mm |
| | **427QR/6** | 3/8" ■ ○ 160 mm |
| | **428QR** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **435QR N** | 3/8" ■ |
| | **3115** | 1/4" ■ ⬢ |
| | **13010** | sizes 4; 5; 6; 8; 10 |
| | **4008** | 1/4" ○ size 1 |
| | **13128** | |

| 96830134 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65185130** | 130 mm |
| | **65355200** | 200 mm |
| | **65515240** | 245 mm |
| | **65712165** | 165 mm |
| | **65751220** | 230 mm |
| | **65765231** | 230 mm |
| | **66076110** | 112 mm |
| | **90432513** | |

| 96830135 | No | Content |
|---|---|---|
| | **11095/20** | 0.05–1 mm |
| | **12321** | |
| | **12375** | |
| | **12900N** | 150 mm/6" |
| | **12921M** | ∅ 57 mm |
| | **12922E** | ∅ 6 mm |
| | **12935/3** | 3 m |
| | **13110** | |
| | **13130** | |

| 96830136 | No | Content |
|---|---|---|
| | **105** | 120 x 10 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6 mm |
| | **10956** | ∅ 27 mm |
| | **10961** | 300 g |
| | **12320** | |
| | **12600** | 270 g |
| | **12800** | |

| 96830137 | No | Content |
|---|---|---|
| | **10** | 27 x 32 mm |
| | **17** | 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |

**Continuation see next page**

| 96830138 | No | Content |
|---|---|---|
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4744** | PZ1 |
| | **4751** | size 4 (0.3 x 1.5 mm)<br>size 6 (0.4 x 2.0 mm)<br>size 7 (0.4 x 2.5 mm)<br>size 8 (0.5 x 3.0 mm) |
| | **4752** | PH0; PH1 |
| | **10767a/8** | 5/64; 3/32; 1/8; 5/32; 3/16; 7/32; 1/4; 5/16" |
| | **10767H/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

| 96830139 | No | Content |
|---|---|---|
| | **10** | 4 x 5; 6 x 7; 8 x 9; 10 x 11;<br>12 x 13; 14 x 15; 16 x 17; 18 x 21;<br>19 x 22 mm |
| | **13a** | 3/8; 7/16; 1/2; 9/16; 5/8; 11/16" |

| 96830140 | No | Content |
|---|---|---|
| | **23** | 6 x 7; 8 x 9; 10 x 11; 12 x 13;<br>14 x 15; 16 x 17; 18 x 19;<br>20 x 22 mm |
| | **4622SK** | size 1 (0.8 x 4.0 x 90 mm)<br>size 3 (1.2 x 6.5 x 125 mm) |
| | **4632SK** | PH1; PH2; PH3 |
| | **4636** | No 4; 8 |

| | No |
|---|---|
| | **13217-3 TS** |

## 13224a WT/TS AOG-Kit for aeroplanes in tool trolley No 13217

TCS QR

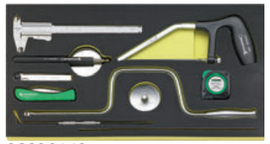
- 154 tools, in TCS inlays (Tool Control System see page 57)
- tool trolley No 13217 and accessories see pages 21, 22

| Code | kg |
|---|---|
| **98814910** | 28.4 |

**96830110**

**96830111**

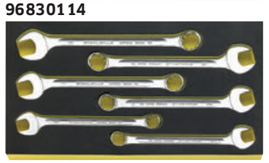
**96830112**



**96830113**

**96830114**

**96830115**



**96830116**

| 96830110 | No | Content |
|---|---|---|
| | **40aD** | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **40aDL** | 1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16" |
| | **402a**<br>**402aK** | 1/4" ○ 1/4; 5/16; 3/8; 7/16; 1/2"<br>1/4" ○ 9/16" |
| | **405W/2** | 1/4" ■ ○ 54 mm |
| | **405QR/2** | 1/4" ■ ○ 54 mm |
| | **405QR/6** | 1/4" ■ ○ 150 mm |
| | **407QR** | 1/4" ■ ○ 45 mm |

| 96830110 | No | Content |
|---|---|---|
| | **409M** | 3/8" ■ 1/4" ○ |
| | **412** | 1/4" ○ ○ |
| | **415QR N** | 1/4" ■ |
| | **45a** | 3/8" ○ 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 15/16; 1" |
| | **46a** | 3/8" ○ 5/8; 11/16; 3/4; 7/8" |
| | **427W/3** | 1/4" ■ ○ 76 mm |
| | **427QR/3** | 3/8" ■ ○ 76 mm |
| | **427QR/10** | 3/8" ■ ○ 240 mm |
| | **428QR** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **432M** | 1/2" ■ 3/8" ○ |
| | **435QR N** | 3/8" ■ |
| | **443** | 5/16" ○ 3/8" ○ |

| 96830111 | No | Content |
|---|---|---|
| | **104** | 120 x 2; 120 x 3; 120 x 4; 120 x 5 mm |
| | **109** | sizes 2; 5 |
| | **10961** | 300 g |
| | **10956** | ∅ 27 mm |
| | **12600** | 270 g |
| | **12922E** | ∅ 6 mm |
| | **12800** | |

| 96830112 | No | Content |
|---|---|---|
| | **65165200** | 200 mm |
| | **65325170** | 170 mm |
| | **65642175** | 175 mm |
| | **65726240** | 240 mm |
| | **65751220** | 230 mm |
| | **65765231** | 230 mm |
| | **66005160** | 160 mm |

| 96830113 | No | Content |
|---|---|---|
| | **453QR** | 3/8" ■ |
| | **11095/20** | 0.05–1 mm |
| | **12935/3** | 3 m |
| | **12900N** | 150 mm/6" |
| | **12921M** | ∅ 57 mm |
| | **13110** | 300 mm |
| | **12053** | |
| | **12320** | |
| | **12321** | |

| 96830114 | No | Content |
|---|---|---|
| | **12a** | 5/32; 7/32; 1/4" |
| | **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 25/32" |
| | **25aN** | 1/4 x 5/16; 5/16 x 11/32; 3/8 x 7/16; 1/2 x 9/16" |

| 96830115 | No | Content |
|---|---|---|
| | **415B** | 1/4" ○ |
| | **1204/21-1** | 4 x ⊕; 4 x ⊕; 9 x ◉; 3 x ◉ |
| | **4000** | |
| | **4622SK** | size 1 (0.8 x 4.0 x 90 mm)<br>size 3 (1.2 x 6.5 x 125 mm) |
| | **4632SK** | PH1; PH2; PH3 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |
| | **10767a/13** | 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" |
| | **13126-1** | |

| 96830116 | No | Content |
|---|---|---|
| | **13a** | 13/16; 7/8; 15/16; 1; 1 1/16; 1 1/8" |

| | No |
|---|---|
| | **13217-2 TS** |

## Tool Trolley 13217.

Ideally equipped.

**Sophisticated.**
Concealed under the lid are a removable tray with handles and two transparent drawer covers.

**Flexible.**
Easily removable drawers with endstops and three different drawer heights. Drawers can be inserted in any order.

**Ingress protection to IP67.**
Also available as a dust and waterproof IP67 version – with additional seals, closures and a pressure equalizing valve.

# Organisation is peace-of-mind.
# STAHLWILLE's modular standard inlay system.

1

Made in Germany

Tool trays from STAHLWILLE ensure perfect tool management within the Tool Trolley or Tool Box. All the tools are neatly arranged and instantly at hand, and always securely held in the same place. The Tool Trolley or Tool Box can be equipped as required with 1/6, 1/3, 2/3 or 3/3 inlays.

**1/6 inlay**
175 x 175 mm

**1/3 inlay**
175 x 350 mm

**2/3 inlay**
350 x 350 mm

**3/3 inlay**
530 x 350 mm

## FLEXIBLE.

Multi-functional – suites of tools in plastic inlays are suitable for workbench no. WB620, tool trolleys no. 90, 95, 95VA, 98VA, magazine case No. 920 and wheely box No. 922N.

## LOGICAL.

The drawers of the Tool Trolleys can be optimally used if different sized inlays together with a few spare inlays are kept in store. In addition, these inlays are made of Skydrol resistant and permanently oil resistant engineering plastic to protect your high-grade tools against damage.

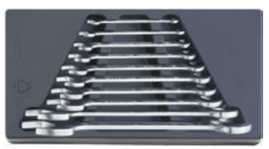
# Tool sets in plastic inlays for workbench No WB620, tool trolleys No 90, 95, 95VA, 98VA; magazine case No 920 and wheely box No 922N (modular system)



## 806/10 Tool set

- 99 tools, in plastic inlays (modular system see page 46-56)
- 9x1/3 and 1x3/3 inlays for 4 drawers (No 98VA for 2 drawers)
- suitable for workbench No WB620, tool trolleys No 90, 95, 95VA, 98VA, magazine case No 920 and wheely box No 922N

| Code | kg |
|---|---|
| **98830001** | 13.8 |


**96838126**

**96838127**

**96838128**

**96838110**

**96838112**

**96838113**

**96838121**

**96838123**

**96838125**

**96838237**

| 96838126 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

| 96838127 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm |

| 96838128 | No | Content |
|---|---|---|
| | **13** | 16; 17; 18; 19; 20; 21; 22; 24 mm |

| 96838110 | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

| 96838112 | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

| 96838113 | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

| 96838121 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65642250** | 250 mm |
| | **66025160** | 160 mm |

| 96838123 | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6; 100 x 3.4 mm |

| 96838125 | No | Content |
|---|---|---|
| | **10956** | ∅ 35 mm |
| | **10961** | 500 g |

| 96838237 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm) |
| | **4630** | PH1; PH2; PH3 |



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## 808/9 Tool set

- 102 tools, in plastic inlays (modular system see page 46-56)
- 9x1/3 and 1x3/3 inlays for 4 drawers (No 98VA for 2 drawers)
- suitable for workbench No WB620, tool trolleys No 90, 95, 95VA, 98VA; magazine case No 920 and wheely box No 922N



| Code | kg |
|---|---|
| **98830002** | 12.1 |

**96838130**

**96838105**

**96838106**

**96838110**

**96838111**

**96838238**

**96838132**

**96838124**

**96838131**

| 96838130 | No | Content |
|---|---|---|
| | **10** | 5.5 x 7; 8 x 10; 10 x 12; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 18 x 21; 19 x 22; 22 x 24 mm |

| 96838105 | No | Content |
|---|---|---|
| | **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm |

| 96838106 | No | Content |
|---|---|---|
| | **14** | 16; 17; 18; 19; 20; 21; 22; 24 mm |

| 96838110 | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ ○ 54 mm |
| | **405/6** | 1/4" ■ ○ 150 mm |
| | **407** | 1/4" ■ ○ 38 mm |
| | **412** | 1/4" ○ ○ |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

| 96838111 | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ ○ 76 mm |
| | **427/6** | 3/8" ■ ○ 160 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |
| | **435** | 3/8" ■ |

| 96838238 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm) |
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm) |
| | **4632** | PH1; PH2; PH3 |

| 96838132 | No | Content |
|---|---|---|
| | **65015200** | 200 mm |
| | **65295160** | 160 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65642250** | 250 mm |
| | **66025160** | 160 mm |

| 96838124 | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **105** | 120 x 12 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |

| 96838131 | No | Content |
|---|---|---|
| | **10956** | ∅ 35 mm |
| | **10970** | 1 lb. |

### The modular tool tray system

**1/6 tray (175 x 175 mm)**

**1/3 tray (175 x 350 mm)**

**2/3 tray (350 x 350 mm)**

**1/3 tray (530 x 350 mm)**



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## ES 10/10, 5.5x7-22x24 mm

- 175 x 350 x 60 mm
- 10 pieces

| Code | g |
|---|---|
| **96838130** | 1100 |

| | No | Content |
|---|---|---|
| | **10** | 5.5 x 7; 8 x 10; 10 x 12; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 18 x 21; 19 x 22; 22 x 24 mm |

## ES 10/10, 6x7-30x32 mm

- 175 x 350 x 70 mm
- 10 pieces

| Code | g |
|---|---|
| **96838126** | 1515 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

## ES 13/10, 6-15 mm

- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96838127** | 525 |

| | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm |

## ES 13/8, 16-24 mm

- 175 x 350 x 54 mm
- 8 pieces

| Code | g |
|---|---|
| **96838128** | 1440 |

| | No | Content |
|---|---|---|
| | **13** | 16; 17; 18; 19; 20; 21; 22; 24 mm |

## ES 13/5, 27-32 mm

- 530 x 350 x 30 mm
- 5 pieces

| Code | g |
|---|---|
| **96838104** | 2280 |

| | No | Content |
|---|---|---|
| | **13** | 27; 28; 29; 30; 32 mm |

## ES 14/10, 6-15 mm

- 175 x 350 x 39 mm
- 10 pieces

| Code | g |
|---|---|
| **96838105** | 700 |

| | No | Content |
|---|---|---|
| | **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm |

## ES 14/8, 16-24 mm

- 175 x 350 x 51 mm
- 8 pieces

| Code | g |
|---|---|
| **96838106** | 1820 |

| | No | Content |
|---|---|---|
| | **14** | 16; 17; 18; 19; 20; 21; 22; 24 mm |

## ES 20/8, 6x7-19x22 mm

- 175 x 350 x 30 mm
- 8 pieces

| Code | g |
|---|---|
| **96838167** | 1266 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22 mm |

## ES 20/10, 6x7–30x32 mm

- 530 x 350 x 44 mm
- 10 pieces

| Code | g |
|---|---|
| **96838107** | 2620 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

## ES 24/7, 8x10–19x22 mm

- 175 x 350 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96838171** | 860 |

| | No | Content |
|---|---|---|
| | **24** | 8 x 10; 10 x 11; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 19 x 22 mm |

## ES 25/7, 7x8–17x19 mm

- 175 x 350 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96838108** | 1020 |

| | No | Content |
|---|---|---|
| | **25** | 7 x 8; 9 x 10; 10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19 mm |

## ES 29/6, 8x9–18x19 mm

- 175 x 350 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96838109** | 1185 |

| | No | Content |
|---|---|---|
| | **29** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19 mm |

## ES 10750/10, 6x7–20x22 mm

- 175 x 350 x 30 mm
- 10 pieces

| Code | g |
|---|---|
| **96838168** | 1132 |

| | No | Content |
|---|---|---|
| | **10750** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm |
| | **10750 1/2** | sizes 6; 7 |

## ES TX/32

- 175 x 350 x 40 mm
- 32 pieces

| Code | g |
|---|---|
| **96838166** | 931 |

| | No | Content |
|---|---|---|
| | **21TX** | sizes E6 x E8; E10 x E12; E14 x E18; E20 x E24 |
| | **45TX** | 3/8" O sizes E8; E10; E12; E14 |
| | **50TX** | 1/2" O sizes E16; E18; E20 |
| | **412** | 1/4" O O |
| | **442** | 1/4" O 3/8" O |
| | **543** | 5/16" O 1/2" O |
| | **1440** | size T10 |
| | **1441** | size T15 |
| | **1442** | size T20 |
| | **1443** | size T25 |
| | **1444** | size T27 |
| | **1445** | size T30 |
| | **1432** | size T40 |
| | **1433** | size T45 |
| | **1434** | size T50 |
| | **10766/9** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |



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## ES 1/4" + 10760CV

- 175 x 350 x 41 mm
- 27 pieces

| Code | g |
|---|---|
| **96838110** | 1035 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ ○ 54 mm |
| | **405/6** | 1/4" ■ ○ 150 mm |
| | **407** | 1/4" ■ ○ 38 mm |
| | **412** | 1/4" ○ ○ |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

## ES 456/16/6

- 175 x 350 x 40 mm
- 22 pieces

| Code | g |
|---|---|
| **96838111** | 1555 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ ○ 76 mm |
| | **427/6** | 3/8" ■ ○ 160 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |
| | **435** | 3/8" ■ |

## ES 52/17

- 175 x 350 x 47 mm
- 17 pieces

| Code | g |
|---|---|
| **96838112** | 1760 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

## ES 1/2" - 512/6

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838113** | 1915 |

| | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ ○ 52 mm |
| | **509/5** | 1/2" ■ ○ 130 mm |
| | **509/10** | 1/2" ■ ○ 255 mm |
| | **510** | 1/2" ■ ○ 71 mm |
| | **512** | 1/2" ■ |

## ES 54/54KK

- 175 x 350 x 38 mm
- 14 pieces

| Code | g |
|---|---|
| **96838114** | 1630 |

| | No | Content |
|---|---|---|
| | **54** | 1/2" ○ 4; 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **54KK** | 1/2" ○ 5; 6; 8; 10 mm |

## ES 54KK/5

- 175 x 175 x 30 mm
- 5 pieces

| Code | g |
|---|---|
| **96838165** | 505 |

| | No | Content |
|---|---|---|
| | **54KK** | 1/2" ○ 5; 6; 7; 8; 10 mm |

## ES 1054/2054

- 175 x 175 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96838164** | 900 |

| No | Content |
|---|---|
| **1054** | 1/2" O 8; 10; 12 mm |
| **2054** | 1/2" O 5; 6; 14 mm |

## ES 2309K/3

- 175 x 175 x 40 mm
- 3 pieces

| Code | g |
|---|---|
| **96838260** | 800 |

| No | Content |
|---|---|
| **2309K** | 1/2" O 17; 19; 21 mm |

## ES 54X/54TX

- 175 x 350 x 38 mm
- 16 pieces

| Code | g |
|---|---|
| **96838115** | 1600 |

| No | Content |
|---|---|
| **54X** | 1/2" O M5; M6; M8; M10; M12; M14; M16 |
| **54TX** | 1/2" O sizes T20; T25; T27; T30; T40; T45; T50; T55; T60 |

## ES 55/6/4

- 530 x 350 x 83 mm
- 10 pieces

| Code | g |
|---|---|
| **96838174** | 7875 |

| No | Content |
|---|---|
| **55** | 3/4" O 34; 36; 41; 46; 50; 55 mm |
| **552** | 3/4" ■ |
| **556** | 3/4" ■ |
| **558** | 510 mm |
| **559/8** | 3/4" ■ O 200 mm |

## ES 1054/2054TX/6

- 175 x 175 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96838163** | 900 |

| No | Content |
|---|---|
| **1054TX** | 1/2" O sizes T30; T50; T55; T60 |
| **2054TX** | 1/2" O sizes T40; T45 |

## ES 721/15/3/2

- 530 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838172** | 5060 |

| No | Content |
|---|---|
| **2309K** | 1/2" O 17; 19; 21 mm |
| **721/15 Quick** | 30–150 N·m |
| **35c Pkw** | 17; 19; 22 mm; ■ 1/2" |
| **10599/2** | 245 mm |

## ES 2309/4

- 175 x 175 x 40 mm
- 4 pieces

| Code | g |
|---|---|
| **96838162** | 1145 |

| No | Content |
|---|---|
| **2309** | 1/2" O 17; 19; 21; 22 mm |



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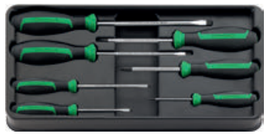
## ES 4620/4628/4630/7



- 175 x 350 x 39 mm
- 7 pieces

| Code | g |
|---|---|
| **96838236** | 530 |

| No | Content |
|---|---|
| **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| **4630** | PH1; PH2 |

## ES 4622-4734/9

- 175 x 350 x 39 mm
- 9 pieces

| Code | g |
|---|---|
| **96838234** | 865 |

| No | Content |
|---|---|
| **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 4 (1.6 x 10.0 x 175 mm) |
| **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| **4632** | PH1; PH2 |
| **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| **4734** | PH2 |

## ES 4620/4630/8

- 175 x 350 x 39 mm
- 8 pieces

| Code | g |
|---|---|
| **96838237** | 770 |

| No | Content |
|---|---|
| **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm) |
| **4630** | PH1; PH2; PH3 |

## ES 4622SK/4632SK/6

- 175 x 350 x 39 mm
- 6 pieces

| Code | g |
|---|---|
| **96838219** | 770 |

| No | Content |
|---|---|
| **4622SK** | size 1 (0.8 x 4.0 x 90 mm)<br>size 2 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 6.5 x 125 mm)<br>size 4 (1.2 x 8.0 x 150 mm) |
| **4632SK** | PH1; PH2 |

## ES 4620/4622/4632/8

- 175 x 350 x 39 mm
- 8 pieces

| Code | g |
|---|---|
| **96838238** | 770 |

| No | Content |
|---|---|
| **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm) |
| **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm) |
| **4632** | PH1; PH2; PH3 |

## ES 4650/9

- 175 x 350 x 39 mm
- 9 pieces

| Code | g |
|---|---|
| **96838217** | 645 |

| No | Content |
|---|---|
| **4650** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |

## ES 4656/9

- 175 x 350 x 39 mm
- 9 pieces

| Code | g |
|---|---|
| **96838218** | 645 |

| | No | Content |
|---|---|---|
| | **4656** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |

## ES 4660/4665 VDE/6

- 175 x 350 x 39 mm
- 6 pieces

| Code | g |
|---|---|
| **96838235** | 525 |

| | No | Content |
|---|---|---|
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 3 (0.6 x 3.5 x 100 mm)<br>size 5 (1.0 x 5.5 x 125 mm)<br>size 6 (1.2 x 6.5 x 150 mm) |
| | **4665 VDE** | PH1; PH2 |

## ES 4820/4830/6

- 175 x 350 x 33 mm
- 6 pieces

| Code | g |
|---|---|
| **96838134** | 480 |

| | No | Content |
|---|---|---|
| | **4820** | size 0.6 x 3.5 x 75 mm<br>size 0.8 x 4.0 x 100 mm<br>size 1.0 x 5.5 x 125 mm<br>size 1.2 x 6.5 x 150 mm |
| | **4830** | PH1; PH2 |

## ES 4820/4830/8

- 175 x 350 x 30 mm
- 8 pieces

| Code | g |
|---|---|
| **96838135** | 735 |

| | No | Content |
|---|---|---|
| | **4820** | size 0.6 x 3.5 x 75 mm<br>size 0.8 x 4.0 x 100 mm<br>size 1.0 x 5.5 x 125 mm<br>size 1.2 x 6.5 x 150 mm<br>size 1.6 x 8.0 x 175 mm |
| | **4830** | PH1; PH2; PH3 |

## ES 4856/9

- 175 x 350 x 30 mm
- 9 pieces

| Code | g |
|---|---|
| **96838136** | 705 |

| | No | Content |
|---|---|---|
| | **4856** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |

## ES 12500N/7

- 175 x 350 x 39 mm
- 7 pieces

| Code | g |
|---|---|
| **96838300** | 1060 |

| | No | Content |
|---|---|---|
| | **12500N** | 7; 8; 9; 10; 11; 12; 13 mm |

## ES 10769/7

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838120** | 450 |

| | No | Content |
|---|---|---|
| | **10769** | sizes T10; T15; T20; T25; T27; T30; T40 |



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## ES 10769B/7

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838129** | 420 |

| | No | Content |
|---|---|---|
| | **10769B** | sizes T10; T15; T20; T25; T27; T30; T40 |

## ES 10768/6

- 350 x 350 x 37 mm
- 6 pieces

| Code | g |
|---|---|
| **96838119** | 780 |

| | No | Content |
|---|---|---|
| | **10768** | 3; 4; 5; 6; 8; 10 mm |

## ES 6501-6602/7A

- 530 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838121** | 2085 |

| | No | |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65642250** | 250 mm |
| | **66025160** | 160 mm |

## ES 6501-6602/7B

- 530 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838132** | 2055 |

| | No | |
|---|---|---|
| | **65015200** | 200 mm |
| | **65295160** | 160 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65642250** | 250 mm |
| | **66025160** | 160 mm |

## ES 6543-6546/4

- 175 x 350 x 30 mm
- 4 pieces

| Code | g |
|---|---|
| **96838122** | 700 |

| | No | |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65444021** | J21 170 mm |
| | **65454002** | A2 180 mm |
| | **65464021** | A21 170 mm |

## ES 102/108/109/4

- 175 x 350 x 30 mm
- 4 pieces

| Code | g |
|---|---|
| **96838123** | 555 |

| | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6; 100 x 3.4 mm |



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## ES 102/105/108/8

- 175 x 350 x 33 mm
- 8 pieces

| Code | g |
|---|---|
| **96838124** | 900 |

| | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **105** | 120 x 12 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |

## ES 10956/10970/2

- 175 x 350 x 45 mm
- 2 pieces

| Code | g |
|---|---|
| **96838131** | 1075 |

| | No | |
|---|---|---|
| | **10956** | ∅ 35 mm |
| | **10970** | 1 lb. |

## ES 10670–13110/11

- 530 x 350 x 35 mm
- 11 pieces

| Code | g |
|---|---|
| **96838173** | 2120 |

| | No | |
|---|---|---|
| | **10670** | 265 mm |
| | **12025** | 210 mm |
| | **12030** | 260 mm |
| | **12035** | 210 mm |
| | **12036** | 260 mm |
| | **12050** | 465 mm |
| | **12320** | |
| | **12321** | |
| | **12377** | |
| | **12935/3** | 3 m |
| | **13110** | 300 mm |

## Empty inlay

- 175 x 350 x30 mm

| Code | g |
|---|---|
| **83812047** | 110 |

## Empty inlay

- 175 x 175 x 28 mm

| Code | g |
|---|---|
| **83812080** | 55 |

## ES 10956/10961/2

- 175 x 350 x 45 mm
- 2 pieces

| Code | g |
|---|---|
| **96838125** | 1130 |

| | No | |
|---|---|---|
| | **10956** | ∅ 35 mm |
| | **10961** | 500 g |

### The modular tool tray system

**1/6 tray (175 x 175 mm)**

**1/3 tray (175 x 350 mm)**



**2/3 tray (350 x 350 mm)**

**1/3 tray (530 x 350 mm)**



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# The modular tool inlay system.
# **Tool Control System – built-in safety.**

Made in Germany

Originally developed by STAHLWILLE to meet high safety requirements for the aerospace industry, today users from all trades and industries appreciate the advantages of the Tool Control System (TCS). STAHLWILLE's Tool Control System (TCS) combines the highest levels of protection against damage, adds safety and efficiency and rounds off with the reassuring feeling that none of the tools has been left in a place that could, at some point in the future, become a safety risk.

**1/3 inlay**
175 x 350 mm

**2/3 inlay**
350 x 350 mm

**3/3 inlay**
530 x 350 mm

TCS

## UNMISTAKEABLE.

Thanks to the noticeable yellow background, a quick glance at the tray shows instantly if everything is where it should be. The inlays are chemical-resistant and extremely flexible.

## TAILOR-MADE.

Thanks to computer-aided production, every tool cut-out fits perfectly. Additional »push-out« recesses allow convenient removal of tools.

# Tool sets in TCS inlays for workbench No WB620, tool trolleys No 90, 95, 95VA, 98VA; magazine case No 920 and wheelybox No 922N

1

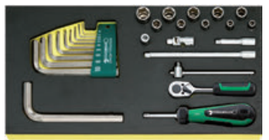
## 806/9 TCS TCS tool set

TCS

- 98 tools, in TCS inlays (Tool Control System see page 57-79)
- 7x1/3, 1x2/3 and 1x3/3 inlays for 4 drawers (No 98VA for 2 drawers)
- suitable for workbench No WB620, tool trolleys No 90, 95, 95VA, 98VA; magazine case No 920 and wheely box No 922N

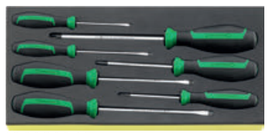
| Code | kg |
|---|---|
| **98830004** | 13.2 |

**96838175**



**96838176**

**96838177**



**96838278**

**96838179**

**96838180**

**96838181**

**96838183**

**96838182**

| 96838175 | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

| 96838176 | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

| 96838177 | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

| 96838278 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4630** | PH1; PH2; PH3 |

| 96838179 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65516240** | 240 mm |
| | **66025160** | 160 mm |

| 96838180 | No | Content |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65642250** | 250 mm |

| 96838181 | No | Content |
|---|---|---|
| | **10956** | ∅ 35 mm |
| | **10961** | 500 g |
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6; 100 x 3.4 mm |

| 96838182 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

| 96838183 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |



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## TCS 10/11, 6x7-34x36 mm

- 175 x 350 x 82 mm
- 11 pieces

| Code | g |
|---|---|
| **96830167** | 2056 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32; 34 x 36 mm |

## TCS 10/10, 6x7-30x32 mm

- 350 x 350 x 30 mm
- 10 pieces

| Code | g |
|---|---|
| **96838182** | 1550 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

## TCS 10/10, 6x7-30x32 mm MF

- 175 x 350 x 75 mm
- 10 pieces

| Code | g |
|---|---|
| **96830353** | 1437 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

## TCS 10+13+24/30

- 530 x 350 x 75 mm
- 30 pieces

| Code | g |
|---|---|
| **96830605** | 3724 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24 mm |
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm |
| | **24** | 10 x 11 mm |

## TCS 10/10, 6x7-24x27 mm

- 175 x 350 x 66 mm
- 10 pieces

| Code | g |
|---|---|
| **96838187** | 1287 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24; 24 x 27 mm |

## TCS 10/10, 6x7-24x27 mm MF

- 175 x 350 x 70 mm
- 10 pieces

| Code | g |
|---|---|
| **96830358** | 1320 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24; 24 x 27 mm |

## TCS 10a/9

- 175 x 350 x 70 mm
- 9 pieces

| Code | g |
|---|---|
| **96838779** | 1555 |

| No | Content |
|---|---|
| **10a** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 19/32 x 11/16; 5/8 x 3/4; 3/4 x 7/8; 25/32 x 13/16; 15/16 x 1; 1 1/8 x 1 5/16" |

## TCS 13/17, 6–24 mm

- 350 x 350 x 60 mm
- 17 pieces

| Code | g |
|---|---|
| **96830164** | 1615 |

| No | Content |
|---|---|
| **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm |

## TCS 13/17, 6–24 mm MF

- 350 x 350 x 60 mm
- 17 pieces

| Code | g |
|---|---|
| **96830351** | 1700 |

| No | Content |
|---|---|
| **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm |

## TCS 13/18, 6–24 mm

- 530 x 350 x 35 mm
- 18 pieces

| Code | g |
|---|---|
| **96838183** | 2040 |

| No | Content |
|---|---|
| **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |

## TCS 13/21, 6–34 mm

- 530 x 350 x 75 mm
- 21 pieces

| Code | g |
|---|---|
| **96830174** | 3710 |

| No | Content |
|---|---|
| **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm |

## TCS 13/25, 5.5-34 mm

- 530 x 350 x 80 mm
- 25 pieces

| Code | g |
|---|---|
| **96832096** | 4500 |

| No | Content |
|---|---|
| **13** | 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 27; 29. 30; 32; 34 mm |



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## TCS 12+13+14/29

- 530 x 350 x 80 mm
- 29 pieces

| Code | g |
|---|---|
| **96830193** | 3752 |

| | No | Content |
|---|---|---|
| | **12** | 5.5; 12; 14 mm (2x) |
| | **13** | 7; 11 mm (2x); 6; 8; 9; 10; 12; 13; 14; 15; 16; 17; 18; 19; 20; 22; 24; 30; 32; 36 mm (1x) |
| | **14** | 17 mm |

## TCS 13a/19

- 350 x 350 x 55 mm
- 19 pieces

| Code | g |
|---|---|
| **96838778** | 2000 |

| | No | Content |
|---|---|---|
| | **13a** | 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 25/32; 13/16; 7/8; 15/16; 1" |

## TCS 13a/23

- 530 x 350 x 35 mm
- 23 pieces

| Code | g |
|---|---|
| **96830885** | 2800 |

| | No | Content |
|---|---|---|
| | **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 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" |

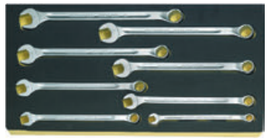
## TCS 14/5, 17–21 mm

- 175 x 350 x 30 mm
- 5 pieces

| Code | g |
|---|---|
| **96838188** | 1065 |

| | No | Content |
|---|---|---|
| | **14** | 17; 18; 19; 20; 21 mm |

## TCS 14/8, 8–16 mm



- 175 x 350 x 30 mm
- 8 pieces

| Code | g |
|---|---|
| **96838189** | 660 |

| | No | Content |
|---|---|---|
| | **14** | 8; 10; 11; 12; 13; 14; 15; 16 mm |

## TCS 14/18, 6-24 mm

- 350 x 350 x 60 mm
- 18 pieces

| Code | g |
|---|---|
| **96838750** | 2348 |

| | No | Content |
|---|---|---|
| | **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |



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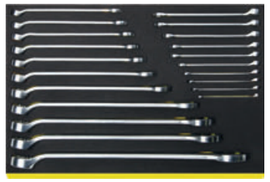
## TCS 14/21, 6-36 mm



- 530 x 350 x 75 mm
- 21 pieces

| Code | g |
|---|---|
| **96838771** | 4988 |

| | No | Content |
|---|---|---|
| | **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 36 mm |

## TCS 17/12

- 175 x 350 x 45 mm
- 12 pieces

| Code | g |
|---|---|
| **96830649** | 1460 |

| | No | Content |
|---|---|---|
| | **17** | 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |

## TCS 20/8, 6x7-19x22 mm

- 175 x 350 x 45 mm
- 8 pieces

| Code | g |
|---|---|
| **96838192** | 1338 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22 mm |

## TCS 20/8, 6x7-19x22 mm MF

- 175 x 350 x 45 mm
- 8 pieces

| Code | g |
|---|---|
| **96830356** | 1323 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22 mm |

## TCS 20/10, 6x7-30x32 mm

- 350 x 350 x 45 mm
- 10 pieces

| Code | g |
|---|---|
| **96830166** | 2500 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

## TCS 24/7, 8x10-19x22 mm

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838758** | 780 |

| | No | Content |
|---|---|---|
| | **24** | 8 x 10; 10 x 11; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 19 x 22 mm |

## TCS 25/7

- 175 x 350 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96838751** | 1015 |

| | No | Content |
|---|---|---|
| | **25** | 7 x 8; 9 x 10; 10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19 mm |

## TCS 240/6

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838774** | 1163 |

| | No | Content |
|---|---|---|
| | **240** | 10; 11; 13; 14; 17; 19 mm |



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## TCS 29/6, 8x9-18x19 mm

TCS

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838764** | 1079 |

| | No | Content |
|---|---|---|
| | **29** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19 mm |

## TCS 29/7, 8x9-20x22 mm

TCS

- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96830195** | 1520 |

| | No | Content |
|---|---|---|
| | **29** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm |

## TCS 4025/3

NEW

TCS

- 175 x 350 x 30 mm
- 3 pieces

| Code | g |
|---|---|
| **96838797** | 920 |

| | No | Content |
|---|---|---|
| | **4025** | sizes 6; 8; 10 |

## TCS 4026/3

NEW

TCS

- 175 x 350 x 30 mm
- 3 pieces

| Code | g |
|---|---|
| **96838796** | 908 |

| | No | Content |
|---|---|---|
| | **4026** | sizes 6; 8; 10 |

## TCS 10750/10, 6x7-20x22 mm

TCS

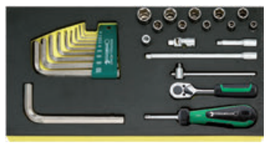
- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96838756** | 1130 |

| | No | Content |
|---|---|---|
| | **10750** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm |
| | **10750 ½** | sizes 6; 7 |

## TCS 1/4" + 10760CV

TCS



- 175 x 350 x 43 mm
- 27 pieces

| Code | g |
|---|---|
| **96838176** | 987 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

## TCS 1/4" + 10760CV QR

NEW

TCS QR

- 175 x 350 x 43 mm
- 27 pieces

| Code | g |
|---|---|
| **96830364** | 987 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400QR** | 1/4" ■ 150 mm |
| | **404QR** | 1/4" ■ 116 mm |
| | **405QR/2** | 1/4" ■ O 54 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |
| | **10760 CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

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## TCS 40/41/44/8

- 175 x 350 x 45 mm
- 33 pieces

| Code | g |
|---|---|
| **96830217** | 715 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **41K** | 1/4" O, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" O, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" O, ⊕ PH1; PH2; PH3; PH4 |
| | **PZ1221**<br>**PZ1222** | 1/4" ⬢, ⊕ PZ1<br>1/4" ⬢, ⊕ PZ2 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **409** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |

## TCS 40/35/9

- 175 x 350 x 40 mm
- 44 pieces

| Code | g |
|---|---|
| **96830601** | 1045 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40L** | 1/4" O 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **41K** | 1/4" O, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" O, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" O, ⊕ PH1; PH2; PH3; PH4 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2**<br>**405/4** | 1/4" ■ O 54 mm<br>1/4" ■ O 100 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **409** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |

## TCS 40/41/44/8QR

- 175 x 350 x 45 mm
- 33 pieces

| Code | g |
|---|---|
| **96830365** | 715 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **41K** | 1/4" O, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" O, ● 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" O, ⊕ PH1; PH2; PH3; PH4 |
| | **PZ1221**<br>**PZ1222** | 1/4" O, ⊕ PZ1<br>1/4" O, ⊕ PZ2 |
| | **400QR** | 1/4" ■ 150 mm |
| | **404QR** | 1/4" ■ 116 mm |
| | **405QR/2** | 1/4" ■ O 54 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **409** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |

## TCS 40/35/9QR

- 175 x 350 x 40 mm
- 44 pieces

| Code | g |
|---|---|
| **96830366** | 1045 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40L** | 1/4" O 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **41K** | 1/4" O, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" O, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" O, ⊕ PH1; PH2; PH3; PH4 |
| | **400QR** | 1/4" ■ 150 mm |
| | **404QR** | 1/4" ■ 116 mm |
| | **405QR/2**<br>**405QR/4** | 1/4" ■ O 54 mm<br>1/4" ■ O 100 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **409** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |



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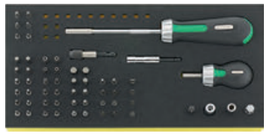
## TCS 4008/8/52



- 175 x 350 x 50 mm
- 60 pieces

| Code | g |
|---|---|
| **96838773** | 665 |

| No | Content |
|---|---|
| **412** | 1/4" O O |
| **412/1** | 1/4" O 10 mm ● |
| **442** | 1/4" O 3/8" O |
| **1200/1** | 1/4" O ● |
| **3825/1** | 1/4" O ● |
| **3115/1** | 1/4" ■ ● |
| **4008** | 1/4" O size 1 |
| **4008** | 1/4" O size 2 |
| **1300** | 3 mm (2x) |
| **1301** | 4 mm (2x) |
| **1302** | 5 mm (2x) |
| **1303** | 6 mm (2x) |
| **1304** | 8 mm (2x) |
| **1220** | PH0 (2x) |
| **1221** | PH1 (2x) |
| **1222** | PH2 (2x) |
| **1223** | PH3 (2x) |
| **PZ1221** | PZ1 (2x) |
| **PZ1222** | PZ2 (2x) |
| **PZ1223** | PZ3 (2x) |
| **1414** | size T10 (2x) |
| **1415** | size T15 (2x) |
| **1416** | size T20 (2x) |
| **1417** | size T25 (2x) |
| **1419** | size T30 (2x) |
| **1420** | size T40 (2x) |
| **1440** | size T10 (2x) |
| **1441** | size T15 (2x) |
| **1442** | size T20 (2x) |
| **1443** | size T25 (2x) |
| **1445** | size T30 (2x) |
| **1446** | size T40 (2x) |
| **1161** | size 0.5 x 4.0 mm |
| **1163** | size 0.6 x 4.5 mm |
| **1165** | size 0.8 x 5.5 mm |
| **1166/1** | size 1.2 x 6.5 mm |

**Tool Control System.**
The safety inlay system.

Designed to fit our Tool Trolleys and Tool Boxes
With yellow signal cut-outs to show whether all
the tools are in their places.

## TCS 456/16/6

- 175 x 350 x 45 mm
- 22 pieces

| Code | g |
|---|---|
| **96838752** | 1465 |

| No | Content |
|---|---|
| **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| **425** | 3/8" ■ 165 mm |
| **427/3** | 3/8" ■ O 76 mm |
| **427/6** | 3/8" ■ O 160 mm |
| **427/10** | 3/8" ■ O 240 m |
| **428** | 3/8" ■ O 46 mm |
| **435** | 3/8" ■ |

## TCS 456/16/6QR

NEW

- 175 x 350 x 45 mm
- 22 pieces

| Code | g |
|---|---|
| **96830367** | 1465 |

| No | Content |
|---|---|
| **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| **425QR** | 3/8" ■ 165 mm |
| **427QR/3** | 3/8" ■ O 76 mm |
| **427QR/6** | 3/8" ■ O 160 mm |
| **427QR/10** | 3/8" ■ O 240 mm |
| **428QR** | 3/8" ■ O 46 mm |
| **435QR N** | 3/8" ■ |

## TCS 49/1049/2049/45TX/49TX

- 175 x 350 x 40 mm
- 24 pieces

| Code | g |
|---|---|
| **96838772** | 1188 |

| No | Content |
|---|---|
| **49** | 3/8" O 4; 5; 6; 7; 8; 10 mm |
| **1049** | 3/8" O 7 mm |
| **2049** | 3/8" O 4; 5; 6; 8; 10 mm |
| **45TX** | 3/8" O sizes E5; E6; E7; E8; E10; E12 |
| **49TX** | 3/8" O sizes T10; T15; T20; T25; T30; T40 |

1

## TCS 456/16/7

- 175 x 350 x 40 mm
- 23 pieces

| Code | g |
|---|---|
| **96830218** | 1400 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427/3** | 3/8" ■ ○ 76 mm |
| | **427/5** | 3/8" ■ ○ 125 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **432** | 1/2" ■ 3/8" ○ |
| | **435** | 3/8" ■ |

## TCS 456/16/4 MF QR

- 175 x 350 x 45 mm
- 20 pieces

| Code | g |
|---|---|
| **96830371** | 1123 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427QR/6** | 3/8" ■ ○ 160 mm |
| | **427QR/10** | 3/8" ■ ○ 240 mm |
| | **428QR** | 3/8" ■ ○ 46 mm |
| | **435QR N** | 3/8" ■ |

## TCS 456/16/7QR

- 175 x 350 x 40 mm
- 23 pieces

| Code | g |
|---|---|
| **96830370** | 1400 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427QR/3** | 3/8" ■ ○ 76 mm |
| | **427QR/6** | 3/8" ■ ○ 160 mm |
| | **427QR/10** | 3/8" ■ ○ 240 mm |
| | **428QR** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **432** | 1/2" ■ 3/8" ○ |
| | **435QR N** | 3/8" ■ |

## TCS 456/31/8

- 350 x 350 x 32 mm
- 39 pieces

| Code | g |
|---|---|
| **96830602** | 2701 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **46** | 3/8" ○ 10; 11; 12; 13 mm |
| | **47** | 3/8" ○ 10; 11; 12; 13; 14; 15; 16 mm |
| | **1049** | 3/8" ○ 9 mm |
| | **49X** | 3/8" ○ sizes M6; M8; M10 |
| | **427/3** | 3/8" ■ ○ 76 mm |
| | **427/5** | 3/8" ■ ○ 125 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **432** | 1/2" ■ 3/8" ○ |
| | **435** | 3/8" ■ |
| | **452QR** | 3/8" ■ |

## TCS 456/16/4 MF

- 175 x 350 x 45 mm
- 20 pieces

| Code | g |
|---|---|
| **96830357** | 1123 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427/5** | 3/8" ■ ○ 125 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |
| | **435** | 3/8" ■ |



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## TCS 1/2"-512/6

TCS

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838175** | 1845 |

| | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

## TCS 1/2" - 512/9QR

NEW

TCS QR

- 175 x 350 x 40 mm
- 9 pieces

| Code | g |
|---|---|
| **96830363** | 2364 |

| | No | Content |
|---|---|---|
| | **506QR** | 1/2" ■ 300 mm |
| | **509QR/2** | 1/2" ■ O 52 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm (2x) |
| | **510QR** | 1/2" ■ O 80 mm |
| | **512QR N** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2" O |

## TCS 1/2" - 512/6QR

NEW

TCS QR

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96830362** | 1845 |

| | No | Content |
|---|---|---|
| | **506QR** | 1/2" ■ 300 mm |
| | **509QR/2** | 1/2" ■ O 52 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm |
| | **510QR** | 1/2" ■ O 80 mm |
| | **512QR N** | 1/2" ■ |

## TCS 52/14/4

TCS

- 175 x 350 x 50 mm
- 18 pieces

| Code | g |
|---|---|
| **96838781** | 2510 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24; 27; 30 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

## TCS 1/2"-512/9

TCS

- 175 x 350 x 40 mm
- 9 pieces

| Code | g |
|---|---|
| **96830603** | 2364 |

| | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm (2x) |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2" O |

## TCS 52/14/4QR

NEW

TCS QR

- 175 x 350 x 50 mm
- 18 pieces

| Code | g |
|---|---|
| **96830352** | 2510 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24; 27; 30 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm |
| | **510QR** | 1/2" ■ O 80 mm |
| | **512QR N** | 1/2 ■ |

## TCS 50/52/30/6 MF

- 350 x 350 x 70 mm
- 36 pieces

| Code | g |
|---|---|
| **96830354** | 4604 |

| | No | Content |
|---|---|---|
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm |
| | **52** | 1/2" O 12; 13; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34 mm |
| | **54** | 1/2" O 5; 6; 7; 8; 10; 12 mm |
| | **506** | 1/2" ■ 300 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |

## TCS 50/52/30/6 MF QR

- 350 x 350 x 70 mm
- 36 pieces

| Code | g |
|---|---|
| **96830360** | 4604 |

| | No | Content |
|---|---|---|
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm |
| | **52** | 1/2" O 12; 13; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34 mm |
| | **54** | 1/2" O 5; 6; 7; 8; 10; 12 mm |
| | **506QR** | 1/2" ■ 300 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm |
| | **510QR** | 1/2" ■ O 71 mm |
| | **512QR N** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |

## TCS 50/51/52/32

- 175 x 350 x 50 mm
- 32 pieces

| Code | g |
|---|---|
| **96838191** | 2950 |

| | No | Content |
|---|---|---|
| | **50** | 1/2" O 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm |
| | **51** | 1/2" O 22; 27 mm |
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

## TCS 51/11

- 175 x 350 x 50 mm
- 11 pieces

| Code | g |
|---|---|
| **96838776** | 2345 |

| | No | Content |
|---|---|---|
| | **51** | 1/2" O 10; 13; 15; 17; 18; 19; 22; 24; 27; 30; 32 mm |

## TCS 52/17

- 175 x 350 x 40 mm
- 17 pieces

| Code | g |
|---|---|
| **96838177** | 1605 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

## TCS 52/18 MF

- 175 x 350 x 55 mm
- 18 pieces

| Code | g |
|---|---|
| **96830359** | 1850 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34 mm |



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## TCS 40/456/52/78/19

- 530 x 350 x 60 mm
- 97 pieces

| Code | g |
|---|---|
| **96832095** | 7000 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **40TX** | 1/4" O sizes E8; E10 |
| | **44K** | 1/4" O, ⬢ 3; 4; 5; 6; 8 mm |
| | **44KTXB** | 1/4" O sizes T8; T10; T15; T20; T25; T27; T30; T40 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2**<br>**405/4** | 1/4" ■ O 54 mm<br>1/4" ■ O 100 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **45TX** | 3/8" O sizes E8; E10; E12; E14 |
| | **49** | 3/8" O 5; 6; 8 mm |
| | **49TX** | 3/8" O sizes T25; T45 |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **435** | 3/8" ■ |
| | **456** | 3/8" O 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm |
| | **54** | 1/2" O 10; 12 mm |
| | **54TX** | 1/2" O sizes T40; T50; T55; T60 |
| | **506** | 1/2" ■ 300 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **1054TX**<br>**2054TX** | 1/2" O sizes T50; T55<br>1/2" O sizes T40; T45 |

## TCS 40/45/50/89/19

- 530 x 350 x 70 mm
- 108 pieces

| Code | g |
|---|---|
| **96830192** | 7770 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **40TX** | 1/4" O sizes E4; E5; E6; E7; E8 |
| | **44** | 1/4" O 3; 4; 5; 6 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **409M** | 3/8" ■ 1/4" O |
| | **415** | 1/4" ■ |
| | **415SGB N** | 1/4" O |
| | **45** | 3/8" O 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |
| | **45TX** | 3/8" O E10; E12; E14 |
| | **46** | 3/8" O 20.8 mm-13/16" |
| | **49** | 3/8" O 4; 5; 6; 7; 8; 10 mm |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **432M** | 1/2" ■ 3/8" O |
| | **435** | 3/8" ■ |
| | **50** | 1/2" O 19; 21; 22; 24; 27; 30; 32 mm |
| | **50TX** | 1/2" O sizes E11; E16; E18; E20; E24 |
| | **52** | 1/2" O 16; 17; 18; 19; 22; 24; 27; 30; 32 mm |
| | **54** | 1/2" O 6; 7; 8; 10 mm |
| | **54TX** | 1/2" O sizes T45; T50; T55; T60 |
| | **54X** | 1/2" O sizes M6; M8; M12; M14 |
| | **506** | 1/2" ■ 300 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **514M** | 3/4" ■ 1/2" O |
| | **1410**<br>**1411**<br>**1412**<br>**1413**<br>**1427** | size T6<br>size T7<br>size T8<br>size T9<br>size T25 (65 mm) |
| | **1440**<br>**1441**<br>**1442**<br>**1443**<br>**1444**<br>**1445**<br>**1446** | size T10<br>size T15<br>size T20<br>size T25<br>size T27<br>size T30<br>size T40 |





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## TCS 50a/17

- 175 x 350 x 40 mm
- 17 pieces

| Code | g |
|---|---|
| **96838780** | 1685 |

| | No | Content |
|---|---|---|
| | **50a** | 1/2" **O** 3/8; 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" |

## TCS 54/2309K/12506

- 175 x 350 x 40 mm
- 13 pieces

| Code | g |
|---|---|
| **96830163** | 1830 |

| | No | Content |
|---|---|---|
| | **54** | 1/2" **O** 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **2309K** | 1/2" **O** 17; 19 mm |
| | **12506** | 6; 7 mm |

## TCS 50TX/54TX/17

- 175 x 350 x 40 mm
- 17 pieces

| Code | g |
|---|---|
| **96838763** | 1415 |

| | No | Content |
|---|---|---|
| | **50TX** | 1/2" **O** sizes E10; E11; E12; E14; E16; E18; E20; E24 |
| | **54TX** | 1/2" **O** sizes T20; T25; T27; T30; T40; T45; T50; T55; T60 |

## TCS 54/54X/16

- 175 x 350 x 35 mm
- 16 pieces

| Code | g |
|---|---|
| **96838762** | 1745 |

| | No | Content |
|---|---|---|
| | **54** | 1/2" **O** 4; 5; 6; 7; 8; 10; 12; 14; 17 mm |
| | **54X** | 1/2" **O** sizes M5; M6; M8; M10; M12; M14; M16 |

## TCS 54/54TX/18

- 175 x 350 x 40 mm
- 18 pieces

| Code | g |
|---|---|
| **96838782** | 1665 |

| | No | Content |
|---|---|---|
| | **54** | 1/2" **O** 4; 5; 6; 7; 8; 10; 12; 14; 17 mm |
| | **54TX** | 1/2" **O** sizes T20; T25; T27; T30; T40; T45; T50; T55; T60 |

## TCS 1054/2054/10

- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96838760** | 1272 |

| | No | Content |
|---|---|---|
| | **1054** | 1/2" **O** 8; 10; 12 mm |
| | **2054** | 1/2" **O** 5; 6 mm |
| | **1054TX** | 1/2" **O** sizes T30; T50; T55 |
| | **2054TX** | 1/2" **O** sizes T40; T45 |



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## TCS 55/11/6

- 530 x 350 x 90 mm
- 17 pieces

| Code | g |
|---|---|
| **96830221** | 10100 |

| | No | Content |
|---|---|---|
| | **55** | 3/4" O 22; 24; 27; 30; 32; 34; 36; 38; 41; 46; 50 mm |
| | **552** | 3/4" ■ |
| | **556** | 3/4" ■ |
| | **558** | 510 mm |
| | **559/8** | 3/4" ■ O 200 mm |
| | **559/16** | 3/4" ■ O 400 mm |
| | **568** | 1/2" ■ 3/4" O |

## TCS TX/57 MF N

- 350 x 350 x 75 mm
- 55 pieces

| Code | g |
|---|---|
| **96830450** | 2060 |

| | No | Content |
|---|---|---|
| | **21TX** | sizes E6 x E8; E10 x E12; E14 x E18; E20 x E24 |
| | **40TX** | 1/4" O sizes E4; E5; E6; E7; E8 |
| | **45TX** | 3/8" O sizes E10; E12; E14 |
| | **49TX** | 3/8" O sizes T40; T45 |
| | **50TX** | 1/2" O sizes E16; E18; E20; E24 |
| | **54TX** | 1/2" O sizes T50; T55; T60 |
| | **415SGB N** | 1/4" O |
| | **412** | 1/4" O O |
| | **442** | 1/4" O 3/8" O |
| | **1410** | size T6 |
| | **1411** | size T7 |
| | **1412** | size T8 |
| | **1413** | size T9 |
| | **1440** | size T10 |
| | **1441** | size T15 |
| | **1442** | size T20 |
| | **1443** | size T25 |
| | **1444** | size T27 |
| | **1445** | size T30 |
| | **1446** | size T40 |
| | **1427** | size T25 (65 mm) |
| | **4650** | sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30 |
| | **10766/9** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |

## TCS 50IMP/19/2

- 175 x 350 x 50 mm
- 21 pieces

| Code | g |
|---|---|
| **96838791** | 3055 |

| | No | Content |
|---|---|---|
| | **50IMP** | 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 23; 24; 25; 27; 30; 32 mm |
| | **509/5IMP** | 1/2" ■ O 125 mm |
| | **510IMP** | 1/2" ■ O 68 mm |

## TCS 50IMP/51IMP/19

- 170 x 350 x 50 mm
- 19 pieces

| Code | g |
|---|---|
| **96838777** | 3960 |

| | No | Content |
|---|---|---|
| | **50IMP** | 1/2" O 10; 13; 15; 16; 17; 18; 19; 21; 22; 24; 27 mm |
| | **51IMP** | 1/2" O 13; 15; 17; 18; 19; 21; 22; 24 mm |

## TCS 54IMP/2307TX/15

- 175 x 350 x 40 mm
- 15 pieces

| Code | g |
|---|---|
| **96838792** | 1285 |

| | No | Content |
|---|---|---|
| | **54IMP** | 1/2" O 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **2307TX** | 1/2" O sizes T30; T40; T45; T50; T55; T60 |

## TCS 4620/4630

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838278** | 590 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4630** | PH1; PH2; PH3 |

## TCS 4620/4640

- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838784** | 410 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4640** | PZ1; PZ2; PZ3 |

## TCS 4620/4660VDE+10767

- 530 x 350 x 35 mm
- 27 pieces

| Code | g |
|---|---|
| **96831168** | 2200 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm)<br>size 6 (1.6 x 10.0 x 200 mm)<br>size 7 (2.0 x 12.0 x 200 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **4632** | PH4 |
| | **4640** | PZ0; PZ1; PZ2 |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm) |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734**<br>**4744** | PH2<br>PZ1 |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

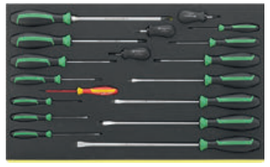
## TCS 4620-4734/8

- 175 x 350 x 40 mm
- 8 pieces

| Code | g |
|---|---|
| **96838769** | 503 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |

## TCS 4620/4660VDE



- 530 x 350 x 40 mm
- 18 pieces

| Code | g |
|---|---|
| **96831179** | 1689 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm)<br>size 6 (1.6 x 10.0 x 200 mm)<br>size 7 (2.0 x 12.0 x 200 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **4632** | PH4 |
| | **4640** | PZ0; PZ1; PZ2 |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm) |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734**<br>**4744** | PH2<br>PZ1 |



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## TCS 4621/4734/16

- 530 x 350 x 40 mm
- 16 pieces

| Code | g |
|---|---|
| **96832098** | 1490 |

| No | Content |
|---|---|
| **4621** | size 0 (0.4 x 2.5 x 80 mm)<br>size 1 (0.5 x 3.5 x 90 mm)<br>size 2 (0.6 x 4.0 x 100 mm)<br>size 4 (1.0 x 6.5 x 140 mm)<br>size 5 (1.2 x 8.0 x 160 mm) |
| **4631** | PH1; PH2 |
| **4632** | PH1; PH2; PH3 |
| **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| **4734** | PH2 |
| **10506** | 0.8 x 4.0 x 300 mm |
| **10518** | 1.0 x 5.5 x 410 mm |
| **12600** | 500 g |
| **12922E** | ∅ 6 mm |

## TCS 4622/4650+10760+10766

- 530 x 350 x 40 mm
- 36 pieces

| Code | g |
|---|---|
| **96831196** | 1895 |

| No | Content |
|---|---|
| **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 4 (1.6 x 10.0 x 175 mm)<br>size 5 (2.0 x 12.0 x 200 mm) |
| **4630** | PH1 |
| **4632** | PH3 |
| **4650** | sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30 |
| **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| **4734** | PH2 |
| **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| **10766/9** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |

## TCS 4622/4632

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838783** | 845 |

| No | Content |
|---|---|
| **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 4 (1.6 x 10.0 x 175 mm) |
| **4632** | PH2; PH3 |

## TCS 4650

- 175 x 350 x 35 mm
- 8 pieces

| Code | g |
|---|---|
| **96838767** | 340 |

| No | Content |
|---|---|
| **4650** | sizes T8; T9; T10; T15; T20; T25; T27; T30 |

## TCS 4660/4665 VDE

- 175 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838766** | 391 |

| No | Content |
|---|---|
| **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 3 (0.6 x 3.5 x 100 mm)<br>size 5 (1.0 x 5.5 x 125 mm)<br>size 6 (1.2 x 6.5 x 150 mm) |
| **4665 VDE** | PH1; PH2 |

## TCS 4665/4670 VDE

- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838785** | 622 |

| No | Content |
|---|---|
| **4665 VDE**<br>**4670 VDE** | PH0; PH1; PH2; PH3<br>PZ0; PZ1; PZ2 |

## TCS 4724/4840+10767

- 530 x 350 x 45 mm
- 24 pieces

| Code | g |
|---|---|
| **96830706** | 1755 |

| | No | Content |
|---|---|---|
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734**<br>**4744** | PH2<br>PZ1 |
| | **4820** | size 0.6 x 3.5 x 75 mm<br>size 0.8 x 4.0 x 100 mm<br>size 1.2 x 6.5 x 150 mm<br>size 1.6 x 10.0 x 200 mm<br>size 2.0 x 12.0 x 250 mm |
| | **4830**<br>**4840** | PH1; PH2; PH3<br>PZ1 |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **7756** | |
| | **12922E** | ∅ 6 mm |

## TCS 4856

- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838755** | 447 |

| | No | Content |
|---|---|---|
| | **4856** | sizes T8; T9; T10; T15; T20; T25; T30 |

## TCS 12500N/5

- 175 x 350 x 45 mm
- 5 pieces

| Code | g |
|---|---|
| **96838757** | 730 |

| | No | Content |
|---|---|---|
| | **12500N** | 7; 8; 10; 12; 13 mm |

## TCS 4820/4830

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838184** | 555 |

| | No | Content |
|---|---|---|
| | **4820** | size 0.6 x 3.5 x 75 mm<br>size 0.8 x 4.0 x 100 mm<br>size 1.0 x 5.5 x 125 mm<br>size 1.2 x 6.5 x 150 mm |
| | **4830** | PH1; PH2; PH3 |

## TCS 12507-2K/5

- 175 x 350 x 40 mm
- 5 pieces

| Code | g |
|---|---|
| **96838761** | 792 |

| | No | Content |
|---|---|---|
| | **12507-2K** | 7; 8; 10; 12; 13 mm |



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## TCS 10760-10771/26

- 175 x 350 x 35 mm
- 26 pieces

| Code | g |
|---|---|
| **96838788** | 1000 |

| | No | Content |
|---|---|---|
| | **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |

## TCS 10768-2K/6

- 350 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838753** | 792 |

| | No | Content |
|---|---|---|
| | **10768-2K** | 3; 4; 5; 6; 8; 10 mm |

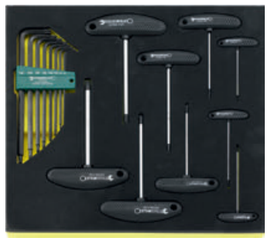
## TCS 10765/10768/12507/19

- 530 x 350 x 30 mm
- 19 pieces

| Code | g |
|---|---|
| **96830621** | 1610 |

| | No | Content |
|---|---|---|
| | **10765/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10768** | 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **12507-2K** | 8; 10; 13 mm |

## TCS 10769+10771/17



- 350 x 350 x 30 mm
- 17 pieces

| Code | g |
|---|---|
| **96832099** | 940 |

| | No | Content |
|---|---|---|
| | **10769** | sizes T9; T10; T15; T20; T25; T30; T40; T45; T50 |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |

## TCS 10768/8

- 350 x 350 x 40 mm
- 8 pieces

| Code | g |
|---|---|
| **96838786** | 800 |

| | No | Content |
|---|---|---|
| | **10768** | 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

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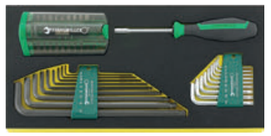
## TCS 1202/4000/10766/38



- 175 x 350 x 45 mm
- 38 pieces

| Code | g |
|---|---|
| **96838768** | 863 |

| No | Content |
|---|---|
| **1202** | 1/4" ⬢, ⊖ sizes 0.6 x 3.5; 0.8 x 4.0; 1.0 x 5.5; 1.2 x 6.5 mm<br>1/4" ⬢, ⊕ PH1; PH2; PH3<br>1/4" ⬢, ⊕ PZ1; PZ2; PZ3<br>1/4" ⬢, ⊛ sizes T15; T20; T25; T30<br>1/4" ⬢, ⬢ 4; 5; 6 mm<br>1/4" ○ ⬢ bitholder |
| **4000** | 1/4" ○ |
| **10766/9** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |
| **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

## TCS 4751/4752

- 175 x 350 x 35 mm
- 9 pieces

| Code | g |
|---|---|
| **96838787** | 275 |

| No | Content |
|---|---|
| **4751** | size 4 (0.3 x 1.5 x 40 mm)<br>size 6 (0.4 x 2.0 x 60 mm)<br>size 7 (0.4 x 2.5 x 75 mm)<br>size 8 (0.5 x 3.0 x 75 mm) |
| **4752** | PH00; PH0; PH1 |
| **65406120** | |
| **66046110** | |

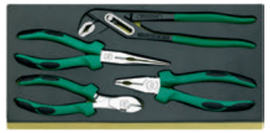
## TCS 6501-6602/3

- 175 x 350 x 40 mm
- 3 pieces

| Code | g |
|---|---|
| **96838775** | 1125 |

| No | |
|---|---|
| **65015200** | 200 mm |
| **65516300** | 302 mm |
| **66025180** | 180 mm |

## TCS 6501-6602/4

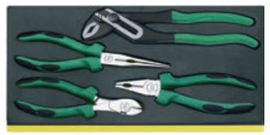


- 175 x 350 x 35 mm
- 4 pieces

| Code | g |
|---|---|
| **96838179** | 1070 |

| No | |
|---|---|
| **65015180** | 180 mm |
| **65295200** | 200 mm |
| **65516240** | 240 mm |
| **66025160** | 160 mm |

## TCS 6501-6602/4N

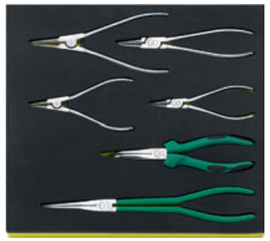


- 175 x 350 x 35 mm
- 4 pieces

| Code | g |
|---|---|
| **96830622** | 1145 |

| No | |
|---|---|
| **65015180** | 180 mm |
| **65295200** | 200 mm |
| **65726240** | 240 mm |
| **66025160** | 160 mm |

## TCS 6534-6545/6



- 350 x 350 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96832100** | 1070 |

| No | |
|---|---|
| **65345280** | 280 mm |
| **65355200** | 200 mm |
| **65434001**<br>**65434002** | J1 140 mm<br>J2 180 mm |
| **65454001**<br>**65454002** | A1 140 mm<br>A2 180 mm |



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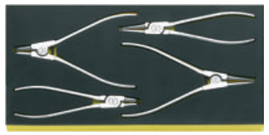
## TCS 6543-6564/3

- 175 x 350 x 30 mm
- 3 pieces

| Code | g |
|---|---|
| **96838180** | 975 |

| | No | |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65642250** | 250 mm |

## TCS 6543-6546/4



- 175 x 350 x 30 mm
- 4 pieces

| Code | g |
|---|---|
| **96830608** | 626 |

| | No | |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65444021** | J21 170 mm |
| | **65454002** | A2 180 mm |
| | **65464021** | A21 170 mm |

## TCS 6501-6600/3 VDE

- 175 x 350 x 40 mm
- 3 pieces

| Code | g |
|---|---|
| **96838770** | 725 |

| | No | |
|---|---|---|
| | **65017180** | 180 mm |
| | **65297200** | 200 mm |
| | **66007160** | 160 mm |

## TCS 102-108/11

- 175 x 350 x 33 mm
- 11 pieces

| Code | g |
|---|---|
| **96838754** | 1665 |

| | No | Content |
|---|---|---|
| | **102** | 150; 200; 250 mm |
| | **105** | 120 x 10; 120 x 12 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |

## TCS 102-108/10959/10961/16

- 530 x 350 x 45 mm
- 16 pieces

| Code | g |
|---|---|
| **96830609** | 3715 |

| | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 40 mm |
| | **10961** | 500 g |
| | **12373** | |
| | **12600** | 500 g |
| | **12718** | |
| | **12935/3** | 3 m |
| | **65642250** | 250 mm |
| | **39Pkw** | 400 mm |

## TCS 102–108/10961/10

- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96830361** | 1569 |

| | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **105** | 120 x 12 mm |
| | **108** | 115 x 2; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 175 x 4; 200 x 8 mm |
| | **10961** | 500 g |



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## TCS 102-108/10959/10961/13

- 530 x 350 x 60 mm
- 13 pieces

| Code | g |
|---|---|
| **96830177** | 5800 |

| | No | Content |
|---|---|---|
| | **102** | 200; 300 mm |
| | **103** | 175 mm |
| | **105** | 120 x 12 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 50 mm |
| | **10961** | 500; 800; 1000 g |

## TCS 102-108/10959/12718/13

- 530 x 350 x 40 mm
- 13 pieces

| Code | g |
|---|---|
| **96830226** | 3730 |

| | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8; 200 x 8 mm |
| | **10959** | ∅ 40 mm |
| | **10961** | 500; 800 g |
| | **12718** | |

## TCS 102-108/10959/10961 MF

- 530 x 350 x 40 mm
- 12 pieces

| Code | g |
|---|---|
| **96830355** | 3343 |

| | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 40 mm |
| | **10961** | 500; 800 g |
| | **12718** | |

## TCS 102-108/10956/10961/18

- 530 x 350 x 55 mm
- 18 pieces

| Code | g |
|---|---|
| **96830620** | 3653 |

| | No | Content |
|---|---|---|
| | **102** | 150 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10956** | ∅ 50 mm |
| | **10961** | 300; 500 g |
| | **10672** | 20 x 315 mm |
| | **12374** | |
| | **12900N** | 150 mm/6" |
| | **12965N** | |



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## TCS 102-109/10956/10961/6

- 175 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838181** | 1605 |

| | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6; 100 x 3.4 mm |
| | **10956** | ∅ 35 mm |
| | **10961** | 500 g |

## TCS 11095-13110/8

- 175 x 350 x 40 mm
- 8 pieces

| Code | g |
|---|---|
| **96838789** | 700 |

| | No | |
|---|---|---|
| | **11095/20** | 0.05 - 1.00 mm |
| | **12000** | ISO |
| | **12321** | |
| | **12322** | |
| | **12665/52** | 0.25 - 6 mm |
| | **12900N** | 150 mm/6" |
| | **12935/3** | 3 m |
| | **13110** | 300 mm |

## TCS 12025-13110/11

- 530 x 350 x 35 mm
- 11 pieces

| Code | g |
|---|---|
| **96838759** | 2410 |

| | No | |
|---|---|---|
| | **12025** | 210 mm |
| | **12030** | 260 mm |
| | **12035** | 210 mm |
| | **12036** | 260 mm |
| | **12050** | 300 mm |
| | **12320** | |
| | **12321** | |
| | **12718** | |
| | **12935/3** | 3 m |
| | **12965N** | |
| | **13110** | 300 mm |

## TCS 10356-12965/5

- 175 x 350 x 40 mm
- 5 pieces

| Code | g |
|---|---|
| **96838790** | 595 |

| | No | Content |
|---|---|---|
| | **10356** | 40 mm |
| | **10356R** | 10 pieces |
| | **12053** | 158 mm |
| | **12320** | |
| | **12965** | |

## TCS 1/3 MF

- 175 x 350 x 30 mm
- empty inlay

| Code | g |
|---|---|
| **83820360** | 30 |

# It's the first impression that counts.
# **Point-of-sale system solutions.**

1

When the POS system was being developed, there was one main focal point: to generate the greatest possible benefit for the trade. The high-grade, visually appealing system features numerous sophisticated details designed to make life easier for the trade – and boost sales. Typical for STAHLWILLE.

X

## MODULAR.

As individual as your sales area. Whether you have a 1 m shelf system or a large curved corner solution – the POS system can be integrated anywhere.

100%

## TOOL APPEAL.

The high-grade presentation system not only enhances the shop space – it appeals to customers directly and actively helps with sales.

## UNMISTAKEABLE.

One touch is all it takes to experience the benefits of a premium product »hands on«. Nothing beats the tactile impression left by a perfectly balanced, high-quality tool.

## EXTENSIVE.

The broad range of accessories available for the system makes it easy to fine-tune it on-site if needed. There are also specially designed holders for ratchets, extensions and many more items.

## INFORMATIVE.

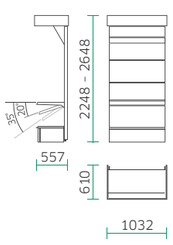
You can find more details on the POS system in our special POS brochure – visit www.stahlwille.de/broschueren-und-flyer/de/stahlwille-pos.pdf

## CHANGEABLE.

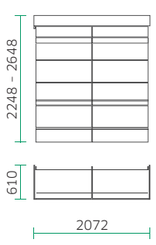
The slanted top-mounted signs are effective eye-catchers and can be fitted and changed in seconds – thanks to the convenient magnetic film.

## SIMPLE.

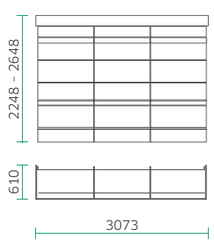
Step-by-step video guidance – to ensure uncomplicated, smooth assembly – visit www.stahlwille.de/videos/pos-montage



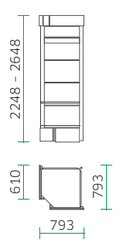

**1 m system**



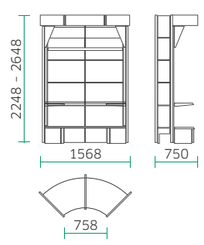

**2 m system**




**3 m system**




**Corner display unit**




**Curved back wall**

STAHLWILLE OPEN RING 24
STAHLWILLE OPEN BOX 12

# 2 SPANNERS


Double open ended spanners
>> Page 86

Combination spanners
>> Page 89

Double ended ring spanners
>> Page 94

Double ended open ring spanners
>> Page 98

Ratchet wrenches
>> Page 99

Double ended flexi-joint spanners
>> Page 101

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>> Page 102

Striking face ring spanners
>> Page 103

Striking face open ended spanners
>> Page 104

Single-end spanners
>> Page 104

Box spanners
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# Strong, extremely tough and durable.
# **STAHLWILLE spanners.**

Made in Germany

There are many spanners available. But hardly any that are as well thought out as STAHLWILLE spanners. The non-slip finish means all our spanners fit comfortably in the hand, even when used for long periods of time and when higher forces are applied. By combining high-quality special steels, which are subject to continuous quality controls, with a sophisticated forging process, we make them particularly durable and robust.

## LIGHTER.

The thumb groove along the spanner handle eliminates material where there is no stress and concentrates it where it is needed. Similar to the principle of an H-beam in construction, extreme load-bearing capacity and maximum flexural strength are achieved with lower weight.

## MORE CHOICE.

As one of only a few manufacturers, STAHLWILLE offers a comprehensively diverse range of metric, imperial, spline drive and TORX® spanners.

## STRONGER.

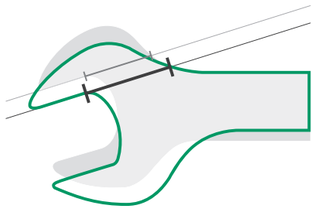
The AS-Drive® profile enables high force transmission without damaging the fasteners. While the force acts on the flats of the screws, the corners are left free and are not rounded off. Thanks to the forged double hex, they are tougher than any fastener.

## SLIMMER.

Extremely thin-walled rings facilitate work in confined spaces. In addition, the rings are higher than standard nuts – which prevents the spanner seizing on the nut.

## MORE ROBUST.

When force is applied to a spanner, the greatest force acts on the area between the jaw and the shank, which is why STAHLWILLE spanners are reinforced at this point. The special design makes the load zones more resilient, which reduces the risk of breakage to a minimum.

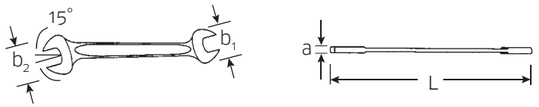



## MORE ACCURATE.

Our very tight manufacturing tolerances and reproducible dimensional accuracy ensure that one STAHLWILLE spanner is as close-fitting as the next. In this way, both open-jaw and ring spanners will always firmly hug the fastener head – for excellent power-lock.

## 10 Double open ended spanners

- DIN 3110, ISO 10102
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $b_1$ mm | $b_2$ mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **40030405** | **4 x 5** | 100 | 12.5 | 14 | 3.4 | 11 | 10 |
| **40035507** | **5.5 x 7** | 120 | 14.8 | 17 | 3.7 | 17 | 10 |
| **40030607** | **6 x 7** | 120 | 15.5 | 17 | 3.7 | 17 | 10 |
| **40030708** | **7 x 8** | 140 | 17 | 18 | 4.0 | 25 | 10 |
| **40030809** | **8 x 9** | 140 | 18 | 21 | 4.0 | 27 | 10 |
| **40030810** | **8 x 10** | 140 | 18 | 23 | 4.5 | 33 | 10 |
| **40031011** | **10 x 11** | 155 | 23 | 26 | 4.8 | 47 | 10 |
| **40031012** | **10 x 12** | 170 | 23 | 28 | 5.3 | 51 | 10 |
| **40031013** | **10 x 13** | 171 | 23 | 30 | 5.3 | 57 | 10 |
| **40031113** | **11 x 13** | 170 | 26 | 30 | 5.3 | 55 | 10 |
| **40031213** | **12 x 13** | 170 | 28 | 30 | 5.3 | 75 | 10 |
| **40031214** | **12 x 14** | 170 | 28 | 32 | 5.3 | 63 | 10 |
| **40031314** | **13 x 14** | 190 | 30 | 32 | 5.3 | 70 | 10 |
| **40031315** | **13 x 15** | 190 | 30 | 35 | 5.3 | 73 | 10 |
| **40031317** | **13 x 17** | 205 | 30 | 38 | 5.8 | 92 | 10 |
| **40031415** | **14 x 15** | 190 | 32 | 35 | 5.3 | 81 | 10 |
| **40031417** | **14 x 17** | 205 | 32 | 38 | 5.8 | 99 | 10 |
| **40031617** | **16 x 17** | 205 | 36 | 38 | 5.8 | 100 | 10 |
| **40031618** | **16 x 18** | 220 | 36 | 40 | 6.7 | 125 | 10 |
| **40031719** | **17 x 19** | 220 | 38 | 42 | 6.7 | 131 | 10 |
| **40031819** | **18 x 19** | 220 | 40 | 42.5 | 6.7 | 147 | 10 |
| **40031821** | **18 x 21** | 235 | 40 | 47 | 7.3 | 170 | 10 |
| **40031922** | **19 x 22** | 235 | 42 | 49 | 7.3 | 179 | 10 |
| **40032022** | **20 x 22** | 235 | 45 | 49 | 7.3 | 185 | 10 |
| **40032123** | **21 x 23** | 250 | 47 | 51 | 7.8 | 225 | 5 |
| **40032124** | **21 x 24** | 250 | 47 | 53 | 7.8 | 215 | 5 |
| **40032224** | **22 x 24** | 250 | 49 | 53 | 7.8 | 225 | 5 |
| **40032426** | **24 x 26** | 270 | 53 | 57.5 | 8.3 | 293 | 5 |
| **40032427** | **24 x 27** | 280 | 53 | 60 | 8.3 | 299 | 5 |
| **40032528** | **25 x 28** | 285 | 55 | 62 | 8.3 | 309 | 5 |
| **40032730** | **27 x 30** | 300 | 60 | 66 | 9.4 | 412 | 5 |
| **40032732** | **27 x 32** | 300 | 60 | 70 | 9.4 | 418 | 5 |
| **40033032** | **30 x 32** | 300 | 66 | 70 | 9.4 | 450 | 5 |
| **40033034** | **30 x 34** | 300 | 66 | 75 | 9.4 | 480 | 5 |
| **40033236** | **32 x 36** | 325 | 70 | 80 | 10 | 546 | 5 |
| **40033436** | **34 x 36** | 325 | 75 | 80 | 10 | 619 | 1 |
| **40033641** | **36 x 41** | 375 | 80 | 88 | 11 | 800 | 1 |
| **40034146** | **41 x 46** | 425 | 88 | 94.5 | 12 | 980 | 1 |

## 10a Double open ended spanners

- Chrome Alloy Steel, chrome plated

| Code | " | L mm | $b_1$ mm | $b_2$ mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **40431620** | **1/4 x 5/16** | 140 | 16 | 18 | 4 | 21 | 10 |
| **40432024** | **5/16 x 3/8** | 140 | 18 | 23 | 4.5 | 34 | 10 |
| **40432428** | **3/8 x 7/16** | 155 | 23 | 26 | 4.8 | 48 | 10 |
| **40432832** | **7/16 x 1/2** | 170 | 26 | 30 | 5.3 | 58 | 10 |
| **40433234** | **1/2 x 9/16** | 190 | 30 | 32 | 5.3 | 73 | 10 |
| **40433436** | **9/16 x 5/8** | 205 | 32 | 36 | 5.8 | 96 | 10 |
| **40433538** | **19/32 x 11/16** | 205 | 35 | 40 | 5.8 | 105 | 10 |
| **40433638** | **5/8 x 11/16** | 205 | 36 | 40 | 5.8 | 101 | 10 |
| **40433640** | **5/8 x 3/4** | 220 | 36 | 42 | 6.7 | 135 | 10 |
| **40433840** | **11/16 x 3/4** | 220 | 40 | 42 | 6.7 | 135 | 10 |
| **40433842** | **11/16 x 13/16** | 235 | 40 | 47 | 7.3 | 167 | 10 |
| **40434044** | **3/8 x 7/8** | 235 | 42 | 49 | 7.3 | 177 | 10 |
| **40434142** | **25/32 x 13/16** | 235 | 45 | 47 | 7.3 | 190 | 10 |
| **40434446** | **7/8 x 15/16** | 250 | 49 | 53 | 7.8 | 235 | 10 |
| **40434648** | **15/16 x 1** | 270 | 53 | 55 | 8.3 | 270 | 5 |
| **40435258** | **1 1/8 x 1 5/16** | 300 | 64 | 75 | 9.4 | 502 | 5 |

## 10, 10a Sets double open ended spanners

- roll-up wallet made of extremely tough textile with Velcro fastener

| Code | No | Content mm/" | g |
|---|---|---|---|
| **96400304** | **10/5** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 17 x 19 | 490 |
| **96400305** | **10/8** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 | 745 |
| **96400314** | **10/9[1]** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24 | 918 |
| **96400307** | **10/10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 | 1540 |
| **96400306** | **10/12** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 25 x 28; 30 x 32 | 2125 |
| **96404306** | **10a/7** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 5/8 x 3/4; 11/16 x 13/16; 7/8 x 15/16; 1 1/8 x 1 5/16 | 1242 |
| **96404307** | **10a/11** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 9/16 x 5/8; 19/32 x 11/16; 5/8 x 3/4; 11/16 x 13/16; 3/4 x 7/8; 25/32 x 13/16; 7/8 x 15/16; 1 1/8 x 1 5/16 | 2100 |

[1]) packed in carton



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## ES 10/10, 5.5x7-22x24 mm

- 175 x 350 x 60 mm
- 10 pieces

| Code | g |
|---|---|
| **96838130** | 1100 |

| | No | Content |
|---|---|---|
| | **10** | 5.5 x 7; 8 x 10; 10 x 12; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 18 x 21; 19 x 22; 22 x 24 mm |

## ES 10/10, 6x7-30x32 mm

- 175 x 350 x 70 mm
- 10 pieces

| Code | g |
|---|---|
| **96838126** | 1515 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

## TCS 10/10, 6x7-30x32 mm

- 350 x 350 x 30 mm
- 10 pieces

| Code | g |
|---|---|
| **96838182** | 1550 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

## TCS 10/10, 6x7-30x32 mm MF

- 175 x 350 x 75 mm
- 10 pieces

| Code | g |
|---|---|
| **96830353** | 1437 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

## TCS 10/10, 6x7-24x27 mm

- 175 x 350 x 66 mm
- 10 pieces

| Code | g |
|---|---|
| **96838187** | 1287 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24; 24 x 27 mm |

## TCS 10/10, 6x7-24x27 mm MF

- 175 x 350 x 70 mm
- 10 pieces

| Code | g |
|---|---|
| **96830358** | 1320 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24; 24 x 27 mm |

## TCS 10/11, 6x7-34x36 mm

- 175 x 350 x 82 mm
- 11 pieces

| Code | g |
|---|---|
| **96830167** | 2056 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32; 34 x 36 mm |





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2

## TCS 10+13+24/30

- 530 x 350 x 75 mm
- 30 pieces

| Code | g |
|---|---|
| **96830605** | 3724 |

| | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24 mm |
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm |
| | **24** | 10 x 11 mm |

## TCS 10a/9

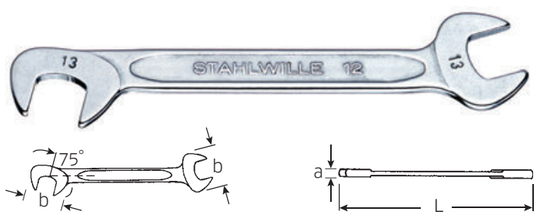
- 175 x 350 x 70 mm
- 9 pieces

| Code | g |
|---|---|
| **96838779** | 1555 |

| | No | Content |
|---|---|---|
| | **10a** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 19/32 x 11/16; 5/8 x 3/4; 3/4 x 7/8; 25/32 x 13/16; 15/16 x 1; 1 1/8 x 1 5/16" |

## 12 Small double open ended spanners ELECTRIC

- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **40063232** | **3.2** | 70 | 10.5 | 2 | 5 | 10 |
| **40063535** | **3.5** | 70 | 10.5 | 2 | 5 | 10 |
| **40060404** | **4** | 70 | 10.5 | 2 | 5 | 10 |
| **40064545** | **4.5** | 70 | 10.5 | 2 | 5 | 10 |
| **40060505** | **5** | 78 | 12.6 | 2 | 7 | 10 |
| **40065555** | **5.5** | 78 | 12.6 | 2 | 7 | 10 |
| **40060606** | **6** | 78 | 12.6 | 2 | 6 | 10 |
| **40060707** | **7** | 91 | 14.7 | 2 | 9 | 10 |
| **40060808** | **8** | 96 | 16.8 | 3 | 16 | 10 |
| **40060909** | **9** | 103 | 18.9 | 3 | 19 | 10 |
| **40061010** | **10** | 105 | 21 | 3 | 22 | 10 |
| **40061111** | **11** | 116 | 24.2 | 3 | 27 | 10 |
| **40061212** | **12** | 116 | 24.2 | 3 | 27 | 10 |
| **40061313** | **13** | 131 | 28.3 | 3 | 37 | 10 |
| **40061414** | **14** | 131 | 28.3 | 3 | 36 | 10 |

## 12a Small double open ended spanners ELECTRIC

- Chrome Alloy Steel, chrome plated

| Code | " | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **40461010** | 5/32 | 70 | 10.5 | 2 | 5 | 10 |
| **40461212** | 3/16 | 70 | 10.5 | 2 | 5 | 10 |
| **40461313** | 13/64 | 78 | 12.6 | 2 | 7 | 10 |
| **40461414** | 7/32 | 78 | 12.6 | 2 | 6 | 10 |
| **40461515** | 15/64 | 78 | 12.6 | 2 | 6 | 10 |
| **40461616** | 1/4 | 91 | 14.7 | 2 | 9 | 10 |
| **40461818** | 9/32 | 91 | 14.7 | 2 | 9 | 10 |
| **40462020** | 5/16 | 96 | 16.8 | 3 | 16 | 10 |
| **40462222** | 11/32 | 103 | 18.9 | 3 | 19 | 10 |
| **40462424** | 3/8 | 105 | 21 | 3 | 22 | 10 |
| **40462828** | 7/16 | 116 | 24.2 | 3 | 28 | 10 |
| **40463232** | 1/2 | 131 | 28.3 | 3 | 37 | 10 |
| **40463434** | 9/16 | 131 | 28.3 | 3 | 36 | 10 |

## 12, 12a Sets small double open ended spanners ELECTRIC

- roll-up wallet made of extremely tough textile with Velcro fastener

| Code | No | Content mm/" | g |
|---|---|---|---|
| **96400653** | **12/10** | 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11 | 161 |
| **96400651** | **12/15** | 3.2; 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 | 296 |
| **96404654** | **12a/13** | 5/32; 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16 | 320 |

**STAHLWILLE roll-up wallets.**
Robust and resilient.

The spanners are supplied in convenient roll-up wallets and this ensures the tools are well protected but only take up the minimum possible space.



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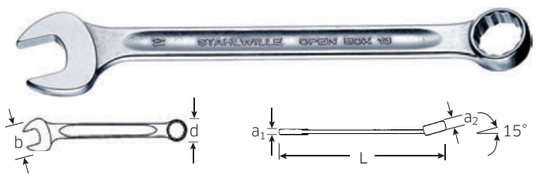
## 13 Combination spanners OPEN-BOX

- DIN 3113 Form A/ISO 7738 Form A
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | t mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **40085500** | **5.5** | 100 | 14.8 | 9.2 | 3.5 | 5.8 | 13 | 15 | 10 |
| **40080606** | **6** | 105 | 15.5 | 9.9 | 3.6 | 6 | 15 | 15 | 10 |
| **40080707** | **7** | 110 | 15.5 | 9.9 | 3.9 | 6 | 20 | 10 | 10 |
| **40080808** | **8** | 115 | 18 | 12.4 | 4.2 | 7 | 21 | 21 | 10 |
| **40080909** | **9** | 120 | 21 | 13.4 | 4.5 | 7 | 10 | 27 | 10 |
| **40081010** | **10** | 125 | 23 | 14.8 | 4.8 | 7 | 10 | 35 | 10 |
| **40081111** | **11** | 135 | 26 | 16.4 | 4.8 | 8 | 10 | 43 | 10 |
| **40081212** | **12** | 140 | 28 | 17.8 | 5.3 | 8.5 | 10 | 46 | 10 |
| **40081313** | **13** | 160 | 30 | 19.1 | 5.3 | 8.5 | 10 | 57 | 10 |
| **40081414** | **14** | 165 | 32 | 20.6 | 5.3 | 8.5 | 10 | 68 | 10 |
| **40081515** | **15** | 170 | 35 | 21.9 | 5.3 | 8.5 | 10 | 80 | 10 |
| **40081616** | **16** | 180 | 37 | 23.2 | 5.8 | 10 | 10 | 89 | 10 |
| **40081717** | **17** | 190 | 38 | 24.6 | 5.8 | 10 | 10 | 100 | 10 |
| **40081818** | **18** | 200 | 40 | 26 | 6.7 | 11.5 | 10 | 126 | 10 |
| **40081919** | **19** | 230 | 42 | 27.5 | 6.7 | 11.5 | 10 | 140 | 10 |
| **40082020** | **20** | 230 | 45 | 29 | 7 | 13 | 10 | 176 | 10 |
| **40082121** | **21** | 260 | 47 | 30.3 | 7.3 | 13 | 10 | 216 | 10 |
| **40082222** | **22** | 260 | 49 | 31.8 | 7.3 | 13 | 10 | 220 | 10 |
| **40082323** | **23** | 280 | 53 | 33.5 | 7.8 | 14 | 5 | 251 | 5 |
| **40082424** | **24** | 280 | 53 | 34.9 | 7.8 | 14 | 5 | 254 | 5 |
| **40082525** | **25** | 300 | 55 | 36.3 | 8.4 | 14.5 | 5 | 281 | 5 |
| **40082626** | **26** | 300 | 57.5 | 37.8 | 8.4 | 14.5 | 5 | 325 | 5 |
| **40082727** | **27** | 300 | 60 | 39.2 | 8.4 | 14.5 | 5 | 335 | 5 |
| **40082828** | **28** | 320 | 62 | 40.6 | 8.4 | 14.5 | 5 | 368 | 5 |
| **40082929** | **29** | 330 | 64 | 41.9 | 8.9 | 16 | 5 | 385 | 5 |
| **40083030** | **30** | 330 | 66 | 43.2 | 8.9 | 16 | 5 | 404 | 5 |
| **40083232** | **32** | 360 | 70 | 45.8 | 9.4 | 16.5 | 5 | 484 | 5 |
| **40083434** | **34** | 450 | 75 | 48 | 9.4 | 17 | 1 | 683 | 1 |
| **40083636** | **36** | 460 | 80 | 50.8 | 10 | 18 | 1 | 780 | 1 |
| **40083838** | **38** | 480 | 87 | 53.6 | 11 | 19 | 1 | 915 | 1 |
| **40084141** | **41** | 480 | 88 | 57.8 | 11 | 19 | 1 | 1020 | 1 |
| **40084646** | **46** | 500 | 94.5 | 65.2 | 13 | 20 | 1 | 1330 | 1 |
| **40085050** | **50** | 530 | 103 | 73 | 14 | 21 | 1 | 1600 | 1 |
| **40085555** | **55** | 560 | 114 | 81 | 15 | 22 | 1 | 2065 | 1 |
| **40086060** | **60** | 590 | 125 | 89.8 | 16 | 24 | 1 | 2725 | 1 |

## 13a Combination spanners OPEN-BOX

- Chrome Alloy Steel, chrome plated

| Code | " | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **40481212** | **3/16** | 95 | 14 | 9.8 | 3 | 3.2 | 10 | 5 |
| **40481313** | **13/64** | 95 | 14 | 9.8 | 3 | 3.2 | 10 | 5 |
| **40481414** | **7/32** | 95 | 14 | 9.8 | 3 | 3.2 | 10 | 5 |
| **40481515** | **15/64** | 95 | 14 | 9.8 | 3 | 3.2 | 10 | 5 |
| **40481616** | **1/4** | 105 | 15.5 | 10.2 | 3.6 | 6 | 14 | 10 |
| **40481818** | **9/32** | 110 | 17 | 11.3 | 3.9 | 6 | 15 | 10 |
| **40482020** | **5/16** | 115 | 18 | 12.4 | 4.2 | 7 | 20 | 10 |
| **40482222** | **11/32** | 120 | 21 | 13.4 | 4.5 | 7 | 26 | 10 |
| **40482424** | **3/8** | 125 | 23 | 14.3 | 4.8 | 7 | 32 | 10 |
| **40482828** | **7/16** | 135 | 26 | 16.4 | 4.8 | 8 | 41 | 10 |
| **40483232** | **1/2** | 160 | 30 | 18.8 | 5.3 | 8.5 | 57 | 10 |
| **40483434** | **9/16** | 165 | 32 | 20.6 | 5.3 | 8.5 | 70 | 10 |
| **40483535** | **19/32** | 170 | 35 | 21.9 | 5.3 | 8.5 | 74 | 10 |
| **40483636** | **5/8** | 180 | 37 | 23.2 | 5.8 | 10 | 88 | 10 |
| **40483838** | **11/16** | 200 | 40 | 25.3 | 6.7 | 11.5 | 116 | 10 |
| **40484040** | **3/4** | 230 | 42 | 27.5 | 6.7 | 11.5 | 144 | 10 |
| **40484141** | **25/32** | 235 | 45 | 29 | 7 | 13 | 175 | 5 |
| **40484242** | **13/16** | 260 | 47 | 30 | 7.3 | 13 | 204 | 5 |
| **40484444** | **7/8** | 260 | 49 | 31.8 | 7.3 | 13 | 217 | 5 |
| **40484646** | **15/16** | 280 | 53 | 34.9 | 7.8 | 14 | 255 | 5 |
| **40484848** | **1** | 300 | 55 | 37.2 | 8.4 | 14.5 | 286 | 5 |
| **40485050** | **1 1/16** | 300 | 60 | 39.2 | 8.4 | 14.5 | 327 | 5 |
| **40485252** | **1 1/8** | 330 | 64 | 41.4 | 8.9 | 16 | 380 | 5 |
| **40485454** | **1 3/16** | 332 | 66 | 43.2 | 8.9 | 16.5 | 398 | 1 |
| **40485656** | **1 1/4** | 360 | 70 | 45.8 | 9.4 | 16.5 | 504 | 5 |
| **40485858** | **1 5/16** | 450 | 74 | 47 | 9.6 | 17 | 617 | 1 |
| **40486060** | **1 3/8** | 460 | 80 | 49.3 | 10 | 18 | 796 | 1 |
| **40486262** | **1 7/16** | 461 | 80 | 51.4 | 10 | 18 | 760 | 1 |
| **40486464** | **1 1/2** | 480 | 87 | 53.6 | 11 | 19 | 950 | 1 |
| **40486666** | **1 5/8** | 480 | 88 | 58 | 11 | 19 | 1021 | 1 |
| **40486969** | **1 13/16** | 500 | 94.5 | 65.3 | 13 | 20 | 1343 | 1 |
| **40487070** | **1 7/8** | 530 | 103 | 68.4 | 14 | 21 | 1640 | 1 |
| **40487272** | **2** | 530 | 103 | 74 | 14 | 21 | 1700 | 1 |

## ES 13/8, 16-24 mm

- 175 x 350 x 54 mm
- 8 pieces

| Code | g |
|---|---|
| **96838128** | 1440 |

| | No | Content |
|---|---|---|
| | **13** | 16; 17; 18; 19; 20; 21; 22; 24 mm |

## ES 13/10, 6-15 mm

- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96838127** | 525 |

| | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm |

## ES 13/5, 27-32 mm

- 530 x 350 x 30 mm
- 5 pieces

| Code | g |
|---|---|
| **96838104** | 2280 |

| | No | Content |
|---|---|---|
| | **13** | 27; 28; 29; 30; 32 mm |

## 13, 13a Sets combination spanners OPEN-BOX

| Code | No | Content mm/" | ⚖ g |
|---|---|---|---|
| **96400813** | **13/6** | 7; 8; 10; 13; 17; 19 | 650 |
| **96400801** | **13/9** | 9; 10; 11; 12; 13; 14; 17; 19; 22 | 758 |
| **96400808** | **13/10KT [1]** | 8; 9; 10; 11; 12; 13; 14; 15; 17; 19 | 746 |
| **96400802** | **13/11** | 8; 9; 10; 11; 12; 13; 14; 15; 17; 19; 22 | 915 |
| **96400803** | **13/15** | 6; 7; 8; 9; 10; 11; 12; 13; 17; 19; 22; 24; 27; 30; 32 | 2236 |
| **96400816** | **13/16 [2]** | 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 | 1620 |
| **96400804** | **13/17** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 | 1480 |
| **96400805** | **13/26 [2]** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29; 30; 32 | 4705 |
| **96404803** | **13a/8 [2]** | 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8 | 900 |
| **96404812** | **13a/10KT [1]** | 1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4 | 750 |
| **96404804** | **13a/20 [2]** | 1/4; 9/32; 5/16; 11/32; 3/8; 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 1/4 | 3180 |

Standard packing: Roll-up wallet made of extremely tough textile with Velcro fastener.
[1]) carton with clear view cover
[2]) packed in carton

## TCS 13/17, 6–24 mm

- 350 x 350 x 60 mm
- 17 pieces

| Code | ⚖ g |
|---|---|
| **96830164** | 1615 |

| | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm |

## TCS 13/17, 6–24 mm MF

- 350 x 350 x 60 mm
- 17 pieces

| Code | ⚖ g |
|---|---|
| **96830351** | 1700 |

| | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm |

## TCS 13/18, 6–24 mm

- 530 x 350 x 35 mm
- 18 pieces

| Code | ⚖ g |
|---|---|
| **96838183** | 2040 |

| | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |

## TCS 13/21, 6–34 mm

- 530 x 350 x 75 mm
- 21 pieces

| Code | ⚖ g |
|---|---|
| **96830174** | 3710 |

| | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm |



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## TCS 13/25, 5.5-34 mm

- 530 x 350 x 80 mm
- 25 pieces

| Code | g |
|---|---|
| **96832096** | 4500 |

| | No | Content |
|---|---|---|
| | **13** | 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 27; 29. 30; 32; 34 mm |

## TCS 12+13+14/29

- 530 x 350 x 80 mm
- 29 pieces

| Code | g |
|---|---|
| **96830193** | 3752 |

| | No | Content |
|---|---|---|
| | **12** | 5.5; 12; 14 mm (2x) |
| | **13** | 7; 11 mm (2x); 6; 8; 9; 10; 12; 13; 14; 15; 16; 17; 18; 19; 20; 22; 24; 30; 32; 36 mm (1x) |
| | **14** | 17 mm |

## TCS 13a/19

- 350 x 350 x 55 mm
- 19 pieces

| Code | g |
|---|---|
| **96838778** | 2000 |

| | No | Content |
|---|---|---|
| | **13a** | 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 25/32; 13/16; 7/8; 15/16; 1" |

## TCS 13a/23

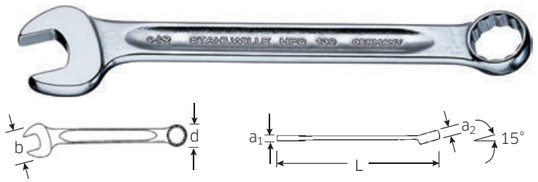
- 530 x 350 x 35 mm
- 23 pieces

| Code | g |
|---|---|
| **96830885** | 2800 |

| | No | Content |
|---|---|---|
| | **13a** | 3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 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" |

## 130a Combination spanners

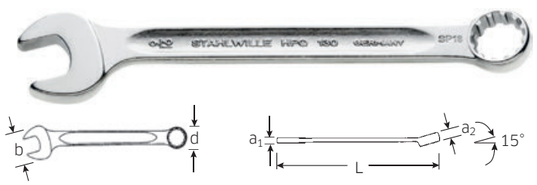
- Fed. Spec. GGG-W-636 E
- HPQ® high performance steel, chrome plated




| Code | " | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **40571616** | **1/4** | 105 | 14.2 | 9.8 | 3.6 | 6 | 15 | 10 |
| **40571818** | **9/32** | 110 | 15.5 | 10.9 | 4.1 | 6 | 16 | 10 |
| **40572020** | **5/16** | 115 | 17 | 12 | 4.5 | 7 | 20 | 10 |
| **40572222** | **11/32** | 120 | 19 | 13.1 | 4.9 | 7 | 25 | 10 |
| **40572424** | **3/8** | 125 | 20.5 | 14.1 | 5.2 | 7 | 32 | 10 |
| **40572828** | **7/16** | 135 | 23 | 16.2 | 6 | 8 | 42 | 10 |
| **40573232** | **1/2** | 150 | 27 | 18.2 | 6.5 | 8.5 | 61 | 10 |
| **40573434** | **9/16** | 165 | 30.5 | 20.6 | 7 | 8.5 | 78 | 10 |

## 130aSP Combination spanners

- with spline-drive profile
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated




| Code | Spline size | " | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **40581616** | **8** | **1/4** | 105 | 14.2 | 10 | 3.6 | 5.6 | 13 | 5 |
| **40582020** | **10** | **5/16** | 115 | 17 | 12.2 | 4.5 | 6.4 | 21 | 5 |
| **40582424** | **12** | **3/8** | 125 | 20.5 | 14.8 | 5.2 | 7 | 31 | 5 |
| **40582828** | **14** | **7/16** | 135 | 23 | 16.5 | 6 | 8 | 43 | 5 |
| **40583232** | **16** | **1/2** | 150 | 27 | 18.7 | 6.5 | 8.5 | 59 | 5 |
| **40583434** | **18** | **9/16** | 165 | 30.5 | 20.8 | 7 | 8.5 | 84 | 5 |





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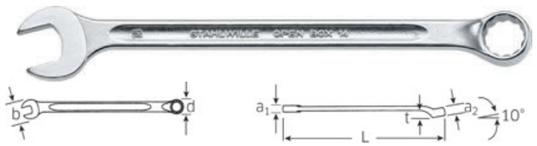
## 14 Combination spanners OPEN-BOX, long

- DIN 3113 Form B/ ISO 7738 Form B
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | t mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **40100606** | **6** | 125 | 14 | 9.5 | 4.5 | 6 | 7 | 18 | 10 |
| **40100707** | **7** | 135 | 16 | 10.8 | 5 | 7 | 8 | 25 | 10 |
| **40100808** | **8** | 145 | 17.5 | 12.1 | 5 | 7 | 8 | 28 | 10 |
| **40100909** | **9** | 155 | 19 | 13.3 | 5.5 | 8 | 9 | 34 | 10 |
| **40101010** | **10** | 165 | 21 | 14.6 | 5.5 | 8 | 9 | 43 | 10 |
| **40101111** | **11** | 180 | 23.5 | 15.9 | 6 | 9 | 10 | 55 | 10 |
| **40101212** | **12** | 180 | 25.5 | 17.3 | 6 | 9 | 10 | 61 | 10 |
| **40101313** | **13** | 195 | 27.5 | 18.6 | 6.5 | 10 | 11 | 85 | 10 |
| **40101414** | **14** | 210 | 29.5 | 20.1 | 6.5 | 10 | 11 | 88 | 10 |
| **40101515** | **15** | 215 | 31 | 21.4 | 7 | 11 | 13 | 109 | 10 |
| **40101616** | **16** | 230 | 33 | 22.7 | 7 | 11 | 14 | 108 | 10 |
| **40101717** | **17** | 240 | 35 | 24.1 | 7.5 | 12 | 15 | 155 | 10 |
| **40101818** | **18** | 255 | 37 | 25.5 | 7.5 | 12 | 16 | 151 | 10 |
| **40101919** | **19** | 265 | 39.5 | 27 | 8 | 13 | 18 | 190 | 10 |
| **40102020** | **20** | 280 | 41.5 | 28.5 | 8 | 13 | 19 | 219 | 10 |
| **40102121** | **21** | 280 | 43 | 29.8 | 8.5 | 13 | 19 | 244 | 10 |
| **40102222** | **22** | 300 | 45 | 31.3 | 8.5 | 14 | 20 | 268 | 10 |
| **40102424** | **24** | 330 | 50 | 34.3 | 9.5 | 14 | 22 | 363 | 5 |
| **40102727** | **27** | 385 | 56 | 38.6 | 10.5 | 16 | 24 | 502 | 5 |
| **40103030** | **30** | 415 | 63 | 42.6 | 12 | 18 | 26 | 645 | 5 |
| **40103232** | **32** | 430 | 67 | 45.2 | 12 | 18 | 27 | 666 | 5 |
| **40103434** | **34** | 460 | 72 | 48 | 13 | 18 | 27 | 900 | 1 |
| **40103636** | **36** | 480 | 74 | 50.8 | 13 | 19 | 28 | 951 | 1 |
| **40104141** | **41** | 560 | 84 | 57.8 | 14 | 20 | 32 | 1322 | 1 |

## 14 Sets combination spanners OPEN-BOX, long

| Code | No | Content mm | g |
|---|---|---|---|
| **96401008** | **14/6²)** | 10; 13; 17; 19; 22; 24 | 1175 |
| **96401009** | **14/9²)** | 10; 11; 13; 17; 19; 22; 24; 27; 30 | 2395 |
| **96401007** | **14/10 KT¹)** | 8; 10; 11; 12; 13; 14; 16; 17; 18; 19 | 1235 |
| **96401006** | **14/11** | 8; 9; 10; 11; 12; 13; 14; 15; 17; 19; 22 | 1137 |
| **96401004** | **14/15** | 6; 7; 8; 9; 10; 11; 12; 13; 17; 19; 22; 24; 27; 30; 32 | 3370 |
| **96401010** | **14/15N²)** | 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30 | 3135 |
| **96401005** | **14/17** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 | 1874 |

Standard packing: Roll-up wallet made of extremely tough textile with Velcro fastener.
¹) packed in plastic with transparent cover
²) packed in carton

## ES 14/10, 6–15 mm

- 175 x 350 x 39 mm
- 10 pieces

| Code | g |
|---|---|
| **96838105** | 700 |

| No | Content |
|---|---|
| **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm |

## ES 14/8, 16–24 mm

- 175 x 350 x 51 mm
- 8 pieces

| Code | g |
|---|---|
| **96838106** | 1820 |

| No | Content |
|---|---|
| **14** | 16; 17; 18; 19; 20; 21; 22; 24 mm |

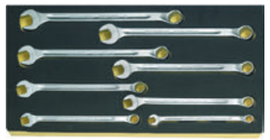
## TCS 14/5, 17–21 mm

- 175 x 350 x 30 mm
- 5 pieces

| Code | g |
|---|---|
| **96838188** | 1065 |

| No | Content |
|---|---|
| **14** | 17; 18; 19; 20; 21 mm |

## TCS 14/8, 8–16 mm



- 175 x 350 x 30 mm
- 8 pieces

| Code | g |
|---|---|
| **96838189** | 660 |

| No | Content |
|---|---|
| **14** | 8; 10; 11; 12; 13; 14; 15; 16 mm |



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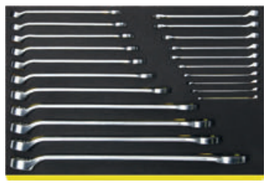
## TCS 14/18, 6-24 mm

- 350 x 350 x 60 mm
- 18 pieces

| Code | g |
|---|---|
| **96838750** | 2348 |

| | No | Content |
|---|---|---|
| | **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |

## TCS 14/21, 6-36 mm



- 530 x 350 x 75 mm
- 21 pieces

| Code | g |
|---|---|
| **96838771** | 4988 |

| | No | Content |
|---|---|---|
| | **14** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 36 mm |

**Tool Control System.**
Safety-conscious inlays.

Designed to fit our Tool Trolleys and Tool Boxes. With yellow signal cut-outs to show whether all the tools are in their places.

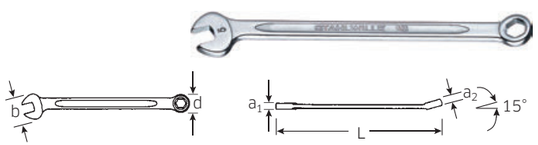
## 4014 Combination spanners

- Chrome-Vanadium, chrome plated

| Code | mm | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | t mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **40146565** | **65** | 710 | 133 | 98 | 22 | 33 | 49.5 | 4500 | 1 |
| **40147070** | **70** | 760 | 143 | 105 | 24 | 35 | 53.5 | 5500 | 1 |
| **40147575** | **75** | 810 | 153 | 110 | 26 | 38 | 57.5 | 6500 | 1 |
| **40148080** | **80** | 860 | 163 | 119 | 28 | 41 | 63.5 | 8000 | 1 |

## 16 Combination spanners OPEN-BOX

- ISO 3318
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **40093232** | **3.2** | 75 | 10 | 6.6 | 3 | 3.2 | 6 | 10 |
| **40093535** | **3.5** | 75 | 10 | 6.6 | 3 | 3.2 | 6 | 10 |
| **40094040** | **4** | 85 | 12.5 | 7.8 | 3 | 3.2 | 9 | 10 |
| **40094545** | **4.5** | 85 | 12.5 | 7.8 | 3 | 3.2 | 8 | 10 |
| **40095050** | **5** | 95 | 14 | 9.8 | 3 | 3.2 | 11 | 10 |

## 16/5 Set combination spanners OPEN-BOX; 3.2-5 mm

- in bag made of extremely tough textile with Velcro fastener

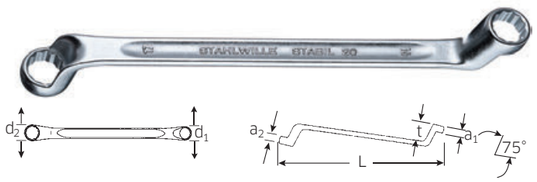
| Code | Content mm | g |
|---|---|---|
| **96400902** | 3.2; 3.5; 4; 4.5; 5 | 46 |

## 20 Double ended ring spanners

AS DIN

### StahlwilleSTABIL®

- offset
- DIN 838/ISO 10104
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | t mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **41040607** | **6 x 7** | 165 | 10.5 | 11.8 | 6 | 7 | 18 | 46 | 10 |
| **41040809** | **8 x 9** | 180 | 13.1 | 14.5 | 7 | 8 | 20 | 62 | 10 |
| **41040810** | **8 x 10** | 180 | 13.1 | 15.8 | 7 | 9 | 21 | 61 | 10 |
| **41041011** | **10 x 11** | 200 | 15.8 | 17.2 | 9 | 9 | 23 | 93 | 10 |
| **41041013** | **10 x 13** | 220 | 15.8 | 20 | 9 | 10 | 25 | 122 | 10 |
| **41041213** | **12 x 13** | 220 | 18.6 | 20 | 9 | 10 | 25 | 126 | 10 |
| **41041317** | **13 x 17** | 245 | 20 | 25.3 | 10 | 12 | 27 | 169 | 10 |
| **41041415** | **14 x 15** | 245 | 21.3 | 22.6 | 10 | 12 | 27 | 163 | 10 |
| **41041617** | **16 x 17** | 255 | 23.9 | 25.3 | 11 | 12 | 27 | 181 | 10 |
| **41041719** | **17 x 19** | 270 | 25.3 | 28 | 12 | 13 | 29 | 220 | 10 |
| **41041819** | **18 x 19** | 275 | 26.6 | 28 | 12 | 13 | 29 | 220 | 10 |
| **41041821** | **18 x 21** | 300 | 26.6 | 30.7 | 12 | 13 | 31 | 279 | 10 |
| **41041922** | **19 x 22** | 300 | 28 | 32.1 | 13 | 14 | 31 | 315 | 10 |
| **41042022** | **20 x 22** | 300 | 29.4 | 32.1 | 13 | 14 | 31 | 317 | 5 |
| **41042123** | **21 x 23** | 315 | 30.7 | 33.4 | 13 | 14 | 31 | 312 | 5 |
| **41042124** | **21 x 24** | 330 | 30.7 | 34.7 | 13 | 14 | 34 | 384 | 5 |
| **41042224** | **22 x 24** | 330 | 32.1 | 34.7 | 14 | 14 | 34 | 368 | 5 |
| **41042426** | **24 x 26** | 330 | 34.7 | 37.3 | 14 | 15 | 34 | 427 | 5 |
| **41042427** | **24 x 27** | 330 | 34.7 | 38.6 | 14 | 15 | 34 | 447 | 5 |
| **41042528** | **25 x 28** | 350 | 36 | 40 | 14 | 15 | 34 | 414 | 5 |
| **41042730** | **27 x 30** | 360 | 38.3 | 42.6 | 15 | 15 | 37 | 595 | 5 |
| **41042732** | **27 x 32** | 360 | 39.3 | 47.2 | 15 | 16 | 37 | 596 | 5 |
| **41043032** | **30 x 32** | 365 | 42.6 | 45.4 | 15 | 16 | 37 | 640 | 5 |
| **41043034** | **30 x 34** | 365 | 42.6 | 48 | 15 | 16 | 37 | 660 | 1 |
| **41043641** | **36 x 41** | 440 | 53 | 60 | 17 | 18 | 40 | 1015 | 1 |
| **41044650** | **46 x 50** | 535 | 65.2 | 73 | 19 | 20 | 45 | 1709 | 1 |

## 20a Double ended ring spanners

AS DIN

### StahlwilleSTABIL®

- offset
- Chrome Alloy Steel, chrome plated

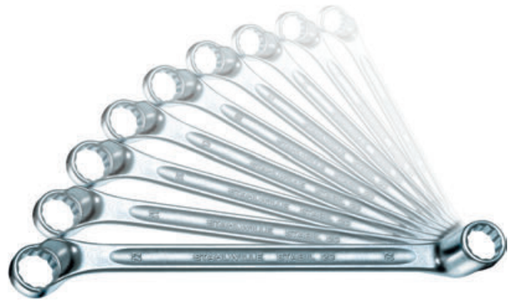
| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | t mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **41441620** | **1/4 x 5/16** | 180 | 11.8 | 13.1 | 7 | 7 | 20 | 55 | 10 |
| **41442428** | **3/8 x 7/16** | 200 | 15.8 | 17.2 | 9 | 9 | 23 | 88 | 10 |
| **41443234** | **1/2 x 9/16** | 220 | 20 | 21.3 | 9 | 10 | 25 | 120 | 10 |
| **41443436** | **9/16 x 5/8** | 245 | 21.3 | 25.3 | 10 | 12 | 27 | 168 | 10 |
| **41443538** | **19/32 x 11/16** | 255 | 23.9 | 25.3 | 11 | 12 | 27 | 175 | 10 |
| **41443640** | **5/8 x 3/4** | 270 | 23.9 | 28 | 12 | 13 | 29 | 235 | 10 |
| **41443842** | **11/16 x 13/16** | 300 | 25.3 | 30.7 | 12 | 13 | 31 | 280 | 5 |
| **41444044** | **3/4 x 7/8** | 300 | 28 | 32.1 | 13 | 14 | 31 | 299 | 5 |
| **41444142** | **25/32 x 13/16** | 300 | 29.4 | 32.1 | 13 | 14 | 31 | 333 | 5 |
| **41444446** | **7/8 x 15/16** | 330 | 32.1 | 34.7 | 14 | 14 | 34 | 363 | 5 |
| **41444648** | **15/16 x 1** | 330 | 34.7 | 37.3 | 14 | 15 | 34 | 419 | 5 |
| **41445258** | **1 1/8 x 1 5/16** | 365 | 42.6 | 45.4 | 15 | 16 | 37 | 581 | 1 |

## 20, 20a Sets double ended ring spanners

AS DIN

### StahlwilleSTABIL®

- offset
- packed in carton



| Code | No | Content mm/" | g |
|---|---|---|---|
| **96410408** | **20/7N** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19 | 930 |
| **96410405** | **20/8** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 | 1220 |
| **96410409** | **20/9** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24 | 1615 |
| **96410407** | **20/10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 | 2331 |
| **96410406** | **20/12** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 25 x 28; 30 x 32 | 3137 |
| **96414402** | **20a/6** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 5/8 x 3/4; 11/16 x 13/16; 7/8 x 15/16 | 1200 |
| **96414405** | **20a/10** | 1/4 x 5/16; 3/8 x 7/16; 1/2 x 9/16; 9/16 x 5/8; 19/32 x 11/16; 5/8 x 3/4; 11/16 x 13/16; 3/4 x 7/8; 25/32 x 13/16; 7/8 x 15/16 | 2200 |

## ES 20/8, 6x7–19x22 mm

- 175 x 350 x 30 mm
- 8 pieces

| Code | g |
|---|---|
| **96838167** | 1266 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22 mm |



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## ES 20/10, 6x7-30x32 mm

- 530 x 350 x 44 mm
- 10 pieces

| Code | g |
|---|---|
| **96838107** | 2620 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

## TCS 20/8, 6x7-19x22 mm

- 175 x 350 x 45 mm
- 8 pieces

| Code | g |
|---|---|
| **96838192** | 1338 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22 mm |

## TCS 20/8, 6x7-19x22 mm MF

- 175 x 350 x 45 mm
- 8 pieces

| Code | g |
|---|---|
| **96830356** | 1323 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22 mm |

## TCS 20/10, 6x7-30x32 mm

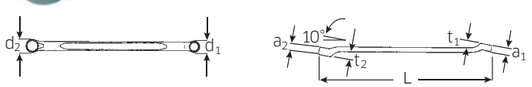
- 350 x 350 x 45 mm
- 10 pieces

| Code | g |
|---|---|
| **96830166** | 2500 |

| | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

## 23 Double ended ring spanners CORONA

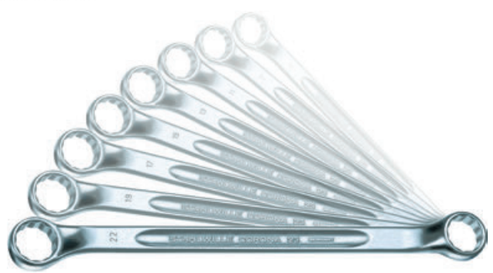
- shallow offset
- DIN 897/ISO 10104
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41070607** | **6 x 7** | 170 | 9.5 | 10.8 | 6 | 7 | 7 | 8 | 41 | 10 |
| **41070809** | **8 x 9** | 179 | 12.1 | 13.3 | 7 | 8 | 8 | 9 | 49 | 10 |
| **41071011** | **10 x 11** | 188 | 14.6 | 15.9 | 8.5 | 9.5 | 9 | 10 | 66 | 10 |
| **41071213** | **12 x 13** | 203 | 17.3 | 18.6 | 9.5 | 10.5 | 10 | 11 | 78 | 10 |
| **41071415** | **14 x 15** | 219 | 20.1 | 21.4 | 10.5 | 11.5 | 11 | 13 | 109 | 10 |
| **41071617** | **16 x 17** | 248 | 22.7 | 24.1 | 11.5 | 12.5 | 14 | 15 | 144 | 10 |
| **41071719** | **17 x 19** | 250 | 24.1 | 27 | 12.5 | 13.5 | 15 | 18 | 162 | 10 |
| **41071819** | **18 x 19** | 251 | 25.5 | 27 | 12.5 | 13.5 | 16 | 18 | 157 | 10 |
| **41072022** | **20 x 22** | 280 | 28.5 | 31.3 | 13.5 | 14.5 | 19 | 20 | 223 | 5 |
| **41072123** | **21 x 23** | 328 | 29.8 | 32.9 | 13.5 | 14.5 | 19 | 22 | 281 | 5 |
| **41072427** | **24 x 27** | 376 | 34.3 | 38.6 | 14.5 | 16 | 22 | 24 | 426 | 5 |
| **41073032** | **30 x 32** | 429 | 42.6 | 45.2 | 18 | 18 | 26 | 27 | 608 | 5 |

## 23/8 Set double ended ring spanners CORONA; 6x7-20x22 mm

- shallow offset
- packed in carton



| Code | Content mm | g |
|---|---|---|
| **96410704** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 | 870 |





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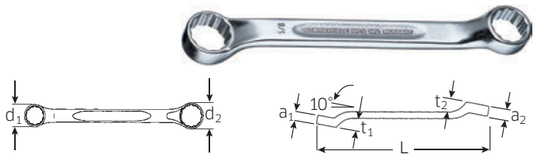
## 180a Double ended ring spanners

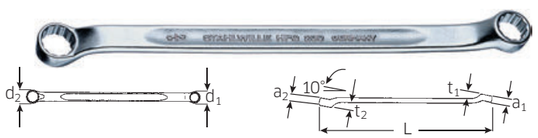
- short
- shallow offset
- Fed. Spec. GGG-W-636 E
- S.B.A.C. Techn. Spec. T.S. 48 up to 1/2"
- HPQ® high performance steel, chrome plated




| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41 60 16 20** | **1/4 x 5/16** | 107 | 10.2 | 11.8 | 7 | 8 | 7.2 | 7.4 | 26 | 10 |
| **41 60 24 28** | **3/8 x 7/16** | 122 | 14.6 | 16.7 | 6.7 | 7.8 | 9 | 10 | 42 | 10 |
| **41 60 32 34** | **1/2 x 9/16** | 141 | 18.5 | 20.7 | 8.7 | 9.5 | 11 | 12 | 62 | 10 |
| **41 60 34 36** | **9/16 x 5/8** | 148 | 20.7 | 22.6 | 9.5 | 10.5 | 11.5 | 12.5 | 90 | 10 |

## 230a Double ended ring spanners

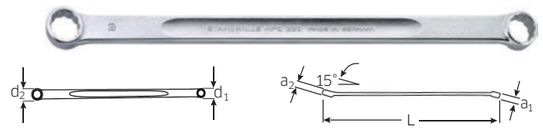
- shallow offset
- SAE AS 954 (dimensions and test loads)
- Fed. Spec. GGG-W-636E
- S.B.A.C. Techn. Spec. T.S. 48 up to 1/2"
- HPQ® high performance steel, chrome plated




| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41 61 16 20** | **1/4 x 5/16** | 180 | 10.2 | 11.9 | 5.2 | 6 | 7.9 | 8.8 | 45 | 10 |
| **41 61 20 22** | **5/16 x 11/32** | 195 | 11.9 | 13.5 | 7 | 8 | 8 | 9 | 45 | 10 |
| **41 61 20 24** | **5/16 x 3/8** | 195 | 11.9 | 14.6 | 6 | 7.9 | 10.8 | 12.4 | 54 | 10 |
| **41 61 24 28** | **3/8 x 7/16** | 215 | 14.6 | 16.7 | 7.9 | 8.7 | 11.4 | 11.7 | 74 | 10 |
| **41 61 28 32** | **7/16 x 1/2** | 225 | 16.7 | 19.5 | 8.7 | 9.1 | 11.9 | 12.6 | 105 | 10 |
| **41 61 32 34** | **1/2 x 9/16** | 235 | 19.5 | 20.7 | 9.1 | 9.5 | 12.2 | 12.9 | 110 | 10 |
| **41 61 34 36** | **9/16 x 5/8** | 245 | 20.7 | 22.6 | 9.5 | 11.5 | 13.8 | 13.9 | 122 | 10 |
| **41 61 36 40** | **5/8 x 3/4** | 274 | 22.6 | 27.5 | 11.1 | 12 | 14.8 | 15.8 | 160 | 10 |
| **41 61 38 40** | **11/16 x 3/4** | 275 | 25.4 | 27.5 | 11.1 | 12 | 15.2 | 15.8 | 190 | 10 |
| **41 61 42 44** | **13/16 x 7/8** | 301 | 29.5 | 31.7 | 13.5 | 14.5 | 19 | 20 | 260 | 5 |
| **41 61 46 48** | **15/16 x 1** | 340 | 34.1 | 36.5 | 14.5 | 15 | 22 | 23 | 375 | 5 |
| **41 61 48 50** | **1 x 1 1/16** | 368 | 36.5 | 38.6 | 15 | 16 | 23 | 24 | 460 | 5 |
| **41 61 52 56** | **1 1/8 x 1 1/4** | 403 | 40.8 | 45 | 16 | 18 | 25 | 27 | 620 | 5 |

## 220 Double ended ring spanners

- extra long
- 15° angled
- HPQ® high performance steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **41 03 55 07** | **5.5 x 7** | 185 | 8.8 | 11 | 5.3 | 5.8 | 28 | 5 |
| **41 03 06 08** | **6 x 8** | 205 | 9.8 | 12.1 | 5.6 | 6 | 34 | 5 |
| **41 03 09 11** | **9 x 11** | 250 | 14.2 | 16.7 | 8 | 8.7 | 80 | 5 |
| **41 03 10 11** | **10 x 11** | 250 | 15.5 | 16.7 | 8 | 8.7 | 80 | 5 |
| **41 03 12 14** | **12 x 14** | 290 | 18.3 | 20.7 | 9.5 | 9.5 | 162 | 5 |
| **41 03 13 14** | **13 x 14** | 290 | 18.7 | 20.7 | 9.5 | 9.5 | 160 | 5 |
| **41 03 17 19** | **17 x 19** | 365 | 25 | 27.5 | 11 | 12 | 296 | 5 |
| **41 03 18 19** | **18 x 19** | 365 | 25.5 | 27.5 | 11 | 12 | 295 | 5 |
| **41 03 19 22** | **19 x 22** | 408 | 27.5 | 31.5 | 13 | 14.3 | 520 | 5 |
| **41 03 20 22** | **20 x 22** | 409 | 28.5 | 31.5 | 13 | 14.3 | 515 | 5 |

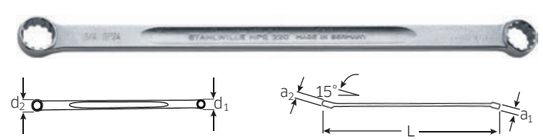
## 220a Double ended ring spanners

- extra long
- 15° angled
- SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **41 43 14 16** | **7/32 x 1/4** | 184 | 9 | 9.9 | 5.3 | 5.8 | 29 | 5 |
| **41 43 16 20** | **1/4 x 5/16** | 205 | 9.9 | 12.2 | 5.6 | 6 | 33 | 5 |
| **41 43 24 28** | **3/8 x 7/16** | 250 | 14 | 16 | 8 | 8.7 | 79 | 5 |
| **41 43 32 34** | **1/2 x 9/16** | 290 | 18.5 | 21 | 9.5 | 9.5 | 160 | 5 |
| **41 43 36 40** | **5/8 x 3/4** | 363 | 22.6 | 27 | 11 | 12 | 298 | 5 |
| **41 43 38 40** | **11/16 x 3/4** | 365 | 25 | 27 | 11 | 12 | 291 | 5 |

## 220aSP Double ended ring spanners

- extra long
- with spline-drive profile
- 15° angled
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated




| Code | Spline size | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **41 16 07 09** | **7 x 9** | 7/32 x 9/32 | 185 | 9.4 | 11.5 | 5.3 | 5.8 | 28 | 5 |
| **41 16 08 10** | **8 x 10** | 1/4 x 5/16 | 205 | 10.4 | 12.4 | 5.6 | 6 | 33 | 5 |
| **41 16 12 14** | **12 x 14** | 3/8 x 7/16 | 250 | 14.9 | 17 | 8 | 8.7 | 79 | 5 |
| **41 16 16 18** | **16 x 18** | 1/2 x 9/16 | 290 | 19 | 21 | 9.5 | 9.5 | 161 | 5 |
| **41 16 18 20** | **18 x 20** | 9/16 x 5/8 | 315 | 21 | 23 | 10 | 11 | 205 | 5 |
| **41 16 22 24** | **22 x 24** | 11/16 x 3/4 | 365 | 25 | 27.5 | 11 | 12 | 310 | 5 |
| **41 16 26 30** | **26 x 30** | 13/16 x 15/16 | 410 | 29.5 | 34 | 13 | 14.3 | 496 | 5 |
| **41 16 28 32** | **28 x 32** | 7/8 x 1 | 430 | 32 | 36.5 | 13.5 | 15 | 582 | 5 |



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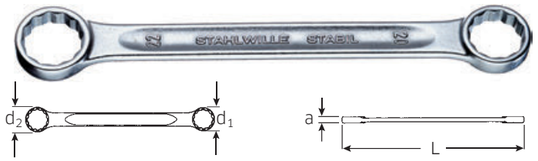
## 21 Double ended ring spanners

AS mm

### StahlwilleSTABIL®

- straight
- DIN 837/ISO 10103
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **41050607** | **6 x 7** | 100 | 9.6 | 11 | 4.5 | 14 | 10 |
| **41050809** | **8 x 9** | 115 | 12.5 | 14 | 5.5 | 19 | 10 |
| **41050810** | **8 x 10** | 115 | 12.5 | 15.4 | 6 | 18 | 10 |
| **41051011** | **10 x 11** | 150 | 15.4 | 16.6 | 6 | 30 | 10 |
| **41051213** | **12 x 13** | 170 | 18.2 | 19.5 | 6.5 | 42 | 10 |
| **41051317** | **13 x 17** | 165 | 19.5 | 25 | 8 | 57 | 10 |
| **41051415** | **14 x 15** | 170 | 21 | 22.5 | 7.5 | 55 | 10 |
| **41051617** | **16 x 17** | 185 | 23.8 | 25 | 8 | 68 | 10 |
| **41051719** | **17 x 19** | 185 | 25 | 27.6 | 8 | 78 | 10 |
| **41051819** | **18 x 19** | 210 | 26.3 | 27.6 | 9 | 84 | 10 |
| **41051821** | **18 x 21** | 210 | 26.3 | 30.5 | 9 | 107 | 5 |
| **41051922** | **19 x 22** | 210 | 27.6 | 32.4 | 9 | 109 | 5 |
| **41052022** | **20 x 22** | 210 | 29 | 32.4 | 9 | 109 | 5 |
| **41052124** | **21 x 24** | 235 | 30.5 | 34.7 | 10 | 128 | 5 |
| **41052427** | **24 x 27** | 290 | 34.7 | 38.5 | 11 | 225 | 5 |
| **41052732** | **27 x 32** | 320 | 38.5 | 45.5 | 12 | 283 | 5 |
| **41053032** | **30 x 32** | 325 | 43 | 45.5 | 12 | 289 | 5 |
| **41053034** | **30 x 34** | 325 | 43 | 48.5 | 12 | 307 | 5 |

## 21 Sets double ended ring spanners

AS mm

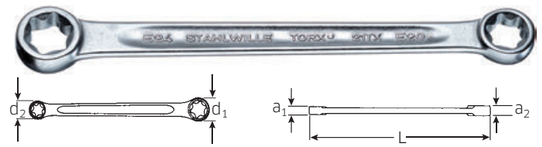
### StahlwilleSTABIL®

- packed in carton

| Code | No | Content mm | g |
|---|---|---|---|
| **96410503** | **21/7** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 | 397 |
| **96410501** | **21/10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 | 943 |

## 21TX Double ended ring spanners

- for external TORX® screws
- straight
- Chrome Alloy Steel, chrome plated

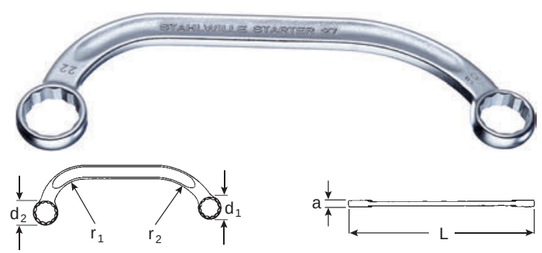



| Code | size | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **41250608** | **E6 x E8** | 115.5 | 9.6 | 11.6 | 4.5 | 5.5 | 17 | 10 |
| **41251012** | **E10 x E12** | 149.5 | 13.7 | 15.7 | 6.5 | 7.5 | 33 | 10 |
| **41251418** | **E14 x E18** | 185 | 17.8 | 22.5 | 8 | 9.5 | 71 | 10 |
| **41252024** | **E20 x E24** | 227 | 24.7 | 29.2 | 10.5 | 12.5 | 129 | 10 |

## 27 Double ended ring spanners STARTER

AS mm

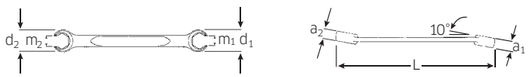
- ISO 3318
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | a mm | $r_1$ mm | $r_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **41091012** | **10 x 12** | 150 | 16.5 | 19.5 | 6.5 | 35 | 60 | 53 | 10 |
| **41091113** | **11 x 13** | 150 | 16.5 | 19.5 | 6.5 | 35 | 60 | 50 | 10 |
| **41091416** | **14 x 16** | 179 | 21 | 24.5 | 7.5 | 36 | 64 | 91 | 10 |
| **41091417** | **14 x 17** | 179 | 21 | 24.5 | 7.5 | 36 | 64 | 89 | 10 |
| **41091517** | **15 x 17** | 184 | 22.5 | 25 | 7.5 | 38 | 66 | 96 | 10 |
| **41091618** | **16 x 18** | 200 | 25.3 | 27.5 | 8.5 | 47 | 68 | 130 | 5 |
| **41091922** | **19 x 22** | 225 | 28 | 32 | 9 | 48 | 67 | 164 | 5 |

## 24 Double ended open ring spanners, angled

- hexagon
- DIN 3118/ISO 3318
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | $m_1$ mm | $m_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41 08 08 10** | **8 x 10** | 145 | 17.5 | 19.5 | 7 | 8.5 | 6.3 | 7.1 | 39 | 10 |
| **41 08 09 11** | **9 x 11** | 155 | 18.5 | 21.5 | 8.5 | 9 | 6.7 | 8.6 | 54 | 10 |
| **41 08 10 11** | **10 x 11** | 155 | 19.5 | 21.5 | 8.5 | 9 | 7.1 | 8.6 | 55 | 10 |
| **41 08 10 12** | **10 x 12** | 160 | 19.5 | 22.5 | 8.5 | 9.5 | 7.1 | 9 | 59 | 10 |
| **41 08 11 13** | **11 x 13** | 170 | 21.5 | 24 | 9 | 10 | 8.6 | 10 | 80 | 10 |
| **41 08 12 14** | **12 x 14** | 180 | 24 | 26 | 9.5 | 10.5 | 9 | 11 | 89 | 10 |

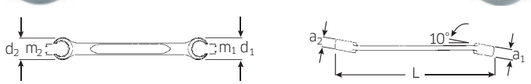
## 24a Double ended open ring spanners, angled

- hexagon
- Chrome Alloy Steel, chrome plated

| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | $m_1$ mm | $m_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41 48 16 20** | **1/4 x 5/16** | 105 | 16.5 | 18 | 5.5 | 7 | 3.7 | 5 | 32 | 10 |
| **41 48 20 24** | **5/16 x 3/8** | 145 | 17.5 | 19.5 | 7 | 8.5 | 6.3 | 7.1 | 39 | 10 |
| **41 48 24 28** | **3/8 x 7/16** | 155 | 19.5 | 21.5 | 8.5 | 9 | 7.1 | 8.6 | 57 | 10 |
| **41 48 32 34** | **1/2 x 9/16** | 180 | 24 | 26 | 9.5 | 10.5 | 9.5 | 11 | 87 | 10 |

## 24 Double ended open ring spanners, angled

- bi-hexagon
- DIN 3118/ISO 3318
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | $m_1$ mm | $m_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41 08 14 17** | **14 x 17** | 200 | 26 | 30 | 10.5 | 12 | 11 | 14 | 115 | 10 |
| **41 08 16 19** | **16 x 19*** | 220 | 29 | 33 | 12 | 13 | 13 | 15.8 | 155 | 5 |
| **41 08 17 19** | **17 x 19** | 220 | 30 | 33 | 12 | 13 | 14 | 15.8 | 150 | 10 |
| **41 08 19 22** | **19 x 22** | 230 | 33 | 37 | 13 | 15 | 15.8 | 17 | 192 | 5 |
| **41 08 22 24** | **22 x 24** | 245 | 37 | 40.5 | 15 | 16 | 17 | 18 | 251 | 5 |
| **41 08 24 27** | **24 x 27** | 270 | 40.5 | 44.5 | 16 | 17.5 | 18 | 20 | 310 | 5 |
| **41 08 27 36** | **27 x 36** | 300 | 42 | 54 | 16 | 19 | 20 | 27 | 414 | 5 |
| **41 08 30 32** | **30 x 32** | 300 | 48.5 | 50.5 | 20 | 22 | 22 | 24 | 455 | 5 |

* to be discontinued

## 24a Double ended open ring spanners, angled

- bi-hexagon
- Chrome Alloy Steel, chrome plated

| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | $m_1$ mm | $m_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41 48 36 40** | **5/8 x 3/4** | 218 | 29 | 33 | 12 | 13 | 12.7 | 15.8 | 148 | 5 |
| **41 48 40 48** | **3/4 x 1** | 232 | 33 | 40.2 | 13 | 16 | 15.8 | 19 | 199 | 5 |

## ES 24/7, 8x10–19x22 mm

- 175 x 350 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96 83 81 71** | 860 |

| No | Content |
|---|---|
| **24** | 8 x 10; 10 x 11; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 19 x 22 mm |

## TCS 24/7, 8x10-19x22 mm

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96 83 87 58** | 780 |

| No | Content |
|---|---|
| **24** | 8 x 10; 10 x 11; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 19 x 22 mm |

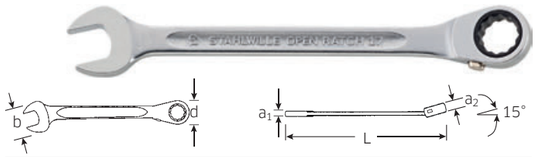
STAHLWILLE
**»AS-Drive«**

STAHLWILLE combination spanners and double-ended ring spanners are made with the AS Drive*, which permits high transmission of forces to the flats of nuts and bolts without damaging them.

* Anti-Slip drive

## 17 Combination ratcheting spanners OPEN-RATCH

- reversible
- bi-hexagon
- 72 teeth
- for work in confined spaces, tight ratchet angle of only 5°
- ring end offset by 15°
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | b mm | d mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **41 17 08 08** | **8** | 144 | 17.0 | 18.0 | 4.7 | 7.4 | 38 | 5 |
| **41 17 09 09** | **9** | 150 | 18.8 | 19.5 | 5.3 | 7.4 | 49 | 5 |
| **41 17 10 10** | **10** | 158 | 21.7 | 21.0 | 5.7 | 8.4 | 60 | 5 |
| **41 17 11 11** | **11** | 165 | 23.0 | 22.0 | 6.1 | 8.4 | 68 | 5 |
| **41 17 12 12** | **12** | 173 | 25.2 | 23.5 | 6.4 | 8.4 | 84 | 5 |
| **41 17 13 13** | **13** | 182 | 26.5 | 25.0 | 6.6 | 8.4 | 89 | 5 |
| **41 17 14 14** | **14** | 190 | 29.5 | 26.5 | 7.3 | 8.4 | 110 | 5 |
| **41 17 15 15** | **15** | 202 | 31.3 | 28.0 | 7.5 | 8.4 | 128 | 5 |
| **41 17 16 16** | **16** | 215 | 33.4 | 29.0 | 7.7 | 10.0 | 153 | 5 |
| **41 17 17 17** | **17** | 229 | 36.3 | 30.5 | 7.9 | 10.0 | 195 | 5 |
| **41 17 18 18** | **18** | 240 | 38.0 | 32.0 | 8.4 | 11.5 | 198 | 5 |
| **41 17 19 19** | **19** | 252 | 39.0 | 34.0 | 8.7 | 11.5 | 224 | 5 |

from 01.04.2020 also available in 21, 22 and 24 mm

## 17 Sets combination ratcheting spanners OPEN-RATCH

- roll-up wallet made of extremely tough textile with Velcro fastener

| Code | No | Content mm | g |
|---|---|---|---|
| **96 41 17 05** | **17/5** | 8; 10; 13; 17; 19 | 732 |
| **96 41 17 12** | **17/12** | 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 | 1745 |

## TCS 17/12

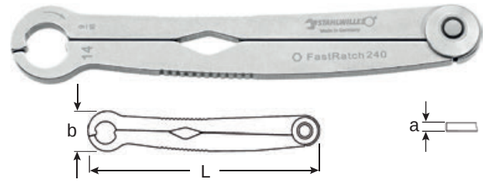
- 175 x 350 x 45 mm
- 12 pieces

| Code | g |
|---|---|
| **96 83 06 49** | 1460 |

| | No | Content |
|---|---|---|
| | **17** | 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |

## 240 Ratchet wrenches FastRatch

- patent
- specially suitable for union nuts
- using a single wrench, it is possible to tighten/loosen both metric and imperial nuts and bolts
- made of hardened and tempered stainless steel



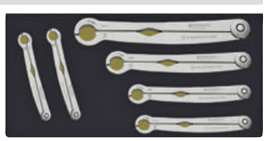

| Code | mm/" | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **41 10 08 08** | **8 5/16** | 121.4 | 16 | 4 | 60 | 1 |
| **41 10 10 10** | **10 3/8** | 133.3 | 20 | 4 | 70 | 1 |
| **41 10 11 11** | **11 7/16** | 140.4 | 23 | 5 | 103 | 1 |
| **41 10 12 12** | **12 15/32** | 146.3 | 25 | 5 | 100 | 1 |
| **41 10 13 13** | **13 1/2** | 168.4 | 26.8 | 6 | 154 | 1 |
| **41 10 14 14** | **14 9/16** | 174.6 | 29.6 | 6 | 180 | 1 |
| **41 10 16 16** | **16 5/8** | 191.3 | 32.8 | 7 | 270 | 1 |
| **41 10 17 17** | **17 21/32** | 201.7 | 34.3 | 7 | 292 | 1 |
| **41 10 18 18** | **18 11/16** | 212.8 | 36.2 | 7 | 310 | 1 |
| **41 10 19 19** | **19 3/4** | 238.5 | 38.5 | 7 | 367 | 1 |

## 240 Sets ratchet wrenches FastRatch

- roll-up wallet made of extremely tough textile with Velcro fastener

| Code | No | Content mm | g |
|---|---|---|---|
| **96 41 10 03** | **240/4** | 8; 10; 11; 14 | 510 |
| **96 41 10 05** | **240/5** | 10; 11; 14; 17; 19 | 1122 |
| **96 41 10 06** | **240/6** | 8; 10; 13; 14; 17; 19 | 1230 |

## TCS 240/6



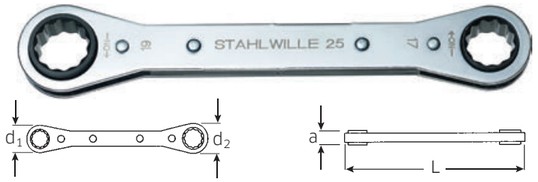
- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96 83 87 74** | 1163 |

| | No | Content |
|---|---|---|
| | **240** | 10; 11; 13; 14; 17; 19 mm |

## 25 Ratchet ring spanners

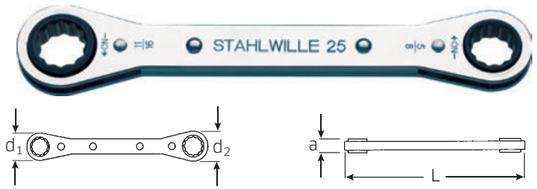
- with bi-hexagon
- straight
- 22 teeth
- chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **41 13 07 08** | **7 x 8** | 109 | 15 | 17 | 9 | 55 | 1 |
| **41 13 09 10** | **9 x 10** | 139 | 20 | 23 | 9 | 80 | 1 |
| **41 13 10 11** | **10 x 11** | 170 | 26 | 30 | 12 | 144 | 1 |
| **41 13 12 13** | **12 x 13** | 170 | 26 | 30 | 12 | 135 | 1 |
| **41 13 14 15** | **14 x 15** | 170 | 26 | 30 | 12 | 126 | 1 |
| **41 13 16 18** | **16 x 18** | 205 | 33 | 36 | 12 | 196 | 1 |
| **41 13 17 19** | **17 x 19** | 205 | 33 | 36 | 12 | 188 | 1 |

## 25aN Ratchet ring spanners

- as No 25, but made of solid steel
- Fed. Spec. GGG-W-001405




| Code | " | L mm | $d_1$ mm | $d_2$ mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **41 56 16 20** | **1/4 x 5/16** | 109 | 15 | 17 | 9 | 60 | 1 |
| **41 56 20 22** | **5/16 x 11/32** | 109 | 15 | 17 | 9 | 60 | 1 |
| **41 56 24 28** | **3/8 x 7/16** | 139 | 20 | 23 | 9 | 90 | 1 |
| **41 56 32 34** | **1/2 x 9/16** | 174 | 26 | 30 | 12 | 160 | 1 |
| **41 56 36 38** | **5/8 x 11/16** | 205 | 33 | 36 | 12 | 257 | 1 |
| **41 56 40 44** | **3/4 x 7/8** | 235 | 36 | 40 | 13 | 296 | 1 |
| **41 56 42 46** | **13/16 x 15/16** | 235 | 36 | 40 | 12 | 281 | 1 |

## 25, 25a Sets ratchet ring spanners

- roll-up wallet made of extremely tough textile with Velcro fastener

| Code | No | Content mm/" | g |
|---|---|---|---|
| **96 41 13 02** | **25/4** | 9 x 10; 12 x 13; 14 x 15; 17 x 19 | 556 |
| **96 41 13 01** | **25/7** | 7 x 8; 9 x 10; 10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19 | 1150 |
| **96 41 56 02** | **25a/4N** | 3/8 x 7/16; 1/2 x 9/16; 5/8 x 11/16; 3/4 x 7/8 | 1000 |
| **96 41 56 01** | **25a/7N** | 1/4 x 5/16; 5/16 x 11/32; 3/8 x 7/16; 1/2 x 9/16; 5/8 x 11/16; 3/4 x 7/8; 13/16 x 15/16 | 1271 |

### ES 25/7, 7x8–17x19 mm

- 175 x 350 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96 83 81 08** | 1020 |

| | No | Content |
|---|---|---|
| | **25** | 7 x 8; 9 x 10; 10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19 mm |

### TCS 25/7

- 175 x 350 x 30 mm
- 7 pieces

| Code | g |
|---|---|
| **96 83 87 51** | 1015 |

| | No | Content |
|---|---|---|
| | **25** | 7 x 8; 9 x 10; 10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19 mm |



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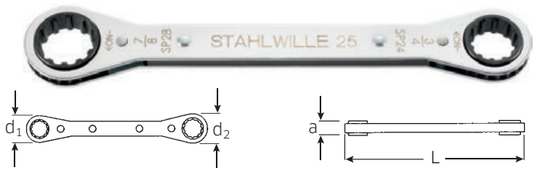
## 25aSP Ratchet ring spanners

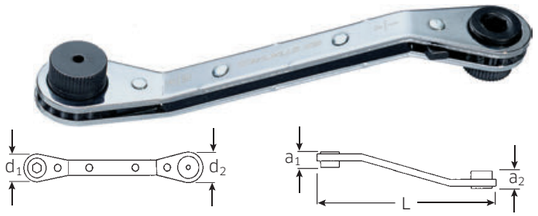
- straight
- with spline-drive profile
- 22 teeth
- chrome plated




| Code | Spline size | " | L mm | $d_1$ mm | $d_2$ mm | a mm | g | |
|---|---|---|---|---|---|---|---|---|
| **41 57 08 10** | **8 x 10** | 1/4 x 5/16 | 109 | 15 | 17 | 9 | 59 | 1 |
| **41 57 12 14** | **12 x 14** | 3/8 x 7/16 | 139 | 20 | 23 | 9 | 84 | 1 |
| **41 57 16 18** | **16 x 18** | 1/2 x 9/16 | 174 | 26 | 30 | 12 | 153 | 1 |
| **41 57 20 22** | **20 x 22** | 5/8 x 11/16 | 205 | 33 | 36 | 12 | 250 | 1 |
| **41 57 24 28** | **24 x 28** | 3/4 x 7/8 | 235 | 36 | 40 | 13 | 279 | 1 |

## 25B Ratcheting bit holder

- reversible
- for hexagon bits
- magnetic location
- reversible heads angled
- chrome plated

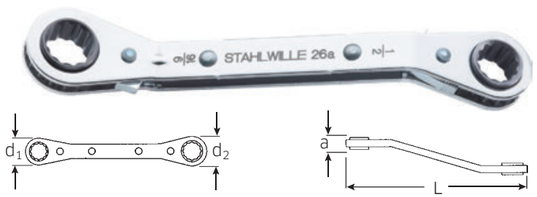



| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **41 54 16 20** | 1/4 x 5/16 | 138 | 20 | 23 | 15 | 17 | 105 | 1 |

## 26a Ratchet ring spanners

AS PART

- reversible
- with bi-hexagon
- angled
- 22 teeth
- chrome plated

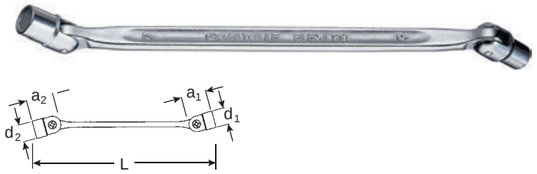



| Code | " | L mm | $d_1$ mm | $d_2$ mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **41 55 16 20** | **1/4 x 5/16** | 109 | 15 | 17 | 9 | 55 | 1 |
| **41 55 24 28** | **3/8 x 7/16** | 139 | 20 | 23 | 9 | 80 | 1 |
| **41 55 32 34** | **1/2 x 9/16** | 170 | 26 | 30 | 12 | 140 | 1 |

## 29 Double ended flexi-joint spanner FLEXI

AS PART

- hexagon
- Chrome Alloy Steel, chrome plated

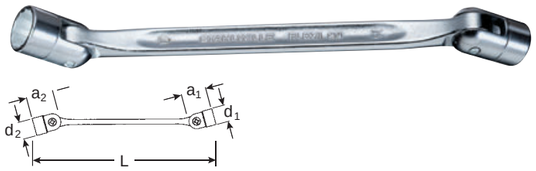



| Code | mm | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **43 01 06 07** | **6 x 7** | 180 | 9.5 | 11 | 23 | 23 | 51 | 10 |

## 29 Double ended flexi-joint spanners FLEXI

AS PART

- bi-hexagon
- Chrome Alloy Steel, chrome plated




| Code | mm | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **43 01 08 09** | **8 x 9** | 201 | 26 | 27.5 | 11.9 | 13.4 | 81 | 10 |
| **43 01 10 11** | **10 x 11** | 202 | 30.5 | 32 | 14.7 | 15.9 | 102 | 10 |
| **43 01 10 13** | **10 x 13** | 230.5 | 30 | 33.5 | 14.7 | 18.4 | 137 | 10 |
| **43 01 12 13** | **12 x 13** | 228 | 33 | 33.5 | 17.2 | 18.4 | 153 | 10 |
| **43 01 14 15** | **14 x 15** | 227 | 35 | 37 | 19.7 | 20.9 | 197 | 10 |
| **43 01 16 17** | **16 x 17** | 247 | 38.5 | 39 | 22.2 | 23.7 | 234 | 10 |
| **43 01 16 18** | **16 x 18** | 249 | 38.5 | 40 | 22.2 | 24.7 | 267 | 5 |
| **43 01 17 19** | **17 x 19** | 250 | 39 | 41 | 23.7 | 26.3 | 277 | 5 |
| **43 01 18 19** | **18 x 19** | 246.5 | 40 | 41 | 24.7 | 26.3 | 294 | 5 |
| **43 01 20 22** | **20 x 22** | 287.5 | 45.5 | 48 | 27.3 | 29.8 | 430 | 5 |
| **43 01 21 23** | **21 x 23** | 286.5 | 46.5 | 50 | 28.6 | 31.1 | 447 | 5 |
| **43 01 24 27** | **24 x 27** | 349.5 | 50.5 | 60.5 | 32.4 | 36.1 | 716 | 5 |

## 29a Double ended flexi-joint spanners FLEXI

AS PART

- bi-hexagon
- Chrome Alloy Steel, chrome plated

| Code | " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **43 41 24 28** | **3/8 x 7/16** | 202 | 14 | 16 | 30.5 | 32 | 98 | 5 |
| **43 41 32 34** | **1/2 x 9/16** | 227 | 18.1 | 20 | 35 | 37 | 195 | 5 |
| **43 41 36 38** | **5/8 x 11/16** | 249.5 | 22.1 | 24 | 39 | 40 | 269 | 5 |





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## 29/7 Set double ended flexi-joint spanners FLEXI; 8x9-20x22 mm

- packed in carton

| Code | Content mm | g |
|---|---|---|
| **96430101** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 | 1503 |

### ES 29/6, 8x9–18x19 mm

- 175 x 350 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96838109** | 1185 |

| | No | Content |
|---|---|---|
| | **29** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19 mm |

### TCS 29/6, 8x9-18x19 mm

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838764** | 1079 |

| | No | Content |
|---|---|---|
| | **29** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19 mm |

### TCS 29/7, 8x9–20x22 mm

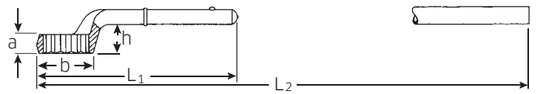
- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96830195** | 1520 |

| | No | Content |
|---|---|---|
| | **29** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm |

## 5 Heavy-duty ring spanners

- without tubular handle
- Chrome Alloy Steel, chrome plated

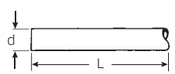



| Code | mm | $L_1$ mm | $L_2$ mm | b mm | a mm | h mm | handle | g | |
|---|---|---|---|---|---|---|---|---|---|
| **42020024** | **24** | 180 | 555 | 38 | 17 | 29.5 | 5 1/2 -1 | 381 | 1 |
| **42020027** | **27** | 190 | 560 | 41 | 17 | 31.5 | 1 | 421 | 1 |
| **42020030** | **30** | 200 | 565 | 47 | 18 | 33.5 | 1 | 525 | 1 |
| **42020032** | **32** | 235 | 730 | 49 | 18 | 34 | 2 | 712 | 1 |
| **42020036** | **36** | 245 | 735 | 54 | 20 | 35.5 | 2 | 816 | 1 |
| **42020038** | **38** | 250 | 740 | 56 | 21 | 37.5 | 2 | 810 | 1 |
| **42020041** | **41** | 265 | 750 | 62 | 22 | 39.5 | 2 | 910 | 1 |
| **42020042** | **42** | 265 | 750 | 62 | 22 | 39.5 | 2 | 919 | 1 |
| **42020046** | **46** | 280 | 910 | 69 | 23 | 40 | 3 | 1192 | 1 |
| **42020050** | **50** | 290 | 920 | 76 | 25.5 | 42.5 | 3 | 1426 | 1 |
| **42020055** | **55** | 300 | 925 | 81 | 28 | 45.5 | 3 | 1505 | 1 |
| **42020060** | **60** | 345 | 1050 | 90 | 30.5 | 49 | 4 | 2260 | 1 |
| **42020065** | **65** | 355 | 1060 | 98 | 33 | 53 | 4 | 2495 | 1 |
| **42020070** | **70** | 365 | 1065 | 105 | 35.5 | 55 | 4 | 2700 | 1 |
| **42020075** | **75** | 375 | 1070 | 110 | 38 | 57.6 | 4 | 2905 | 1 |
| **42020080** | **80** | 385 | 1075 | 125 | 40.5 | 59 | 4 | 3745 | 1 |
| **42020085** | **85** | 385 | 1075 | 125 | 40.5 | 59 | 4 | 3648 | 1 |
| **42020090** | **90** | 410 | 1100 | 140 | 45 | 63 | 4 | 5238 | 1 |
| **42020095** | **95** | 410 | 1100 | 140 | 45 | 63 | 4 | 4630 | 1 |
| **42020100** | **100** | 412 | 1100 | 143 | 45 | 63 | 4 | 4895 | 1 |

No 5a available on request
$L_2$ = length with handle No 5 1/2

## 5 1/2 Tubular handles

- for heavy-duty ring spanners No 5



| Code | size | L mm | d mm | mm | " | g | |
|---|---|---|---|---|---|---|---|
| **48030001** | **1** | 460 | 19 | 24-30 | 1-1 3/16 | 605 | 1 |
| **48030002** | **2** | 610 | 22 | 32-42 | 1 1/4-1 11/16 | 1562 | 1 |
| **48030003** | **3** | 760 | 25 | 46-55 | 1 3/4-2 1/4 | 2820 | 1 |
| **48030004** | **4** | 860 | 30 | 60-100 | 2 3/8-3 7/8 | 3705 | 1 |



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## 8 Striking face ring spanners

### StahlwilleSTABIL®

- Chrome Alloy Steel, green painted

| Code | mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **42010032** | **32** | 195 | 47 | 24 | 661 | 1 |
| **42010036** | **36** | 195 | 52.4 | 26 | 684 | 1 |
| **42010041** | **41** | 200 | 59 | 29 | 896 | 1 |
| **42010046** | **46** | 250 | 65 | 32 | 1218 | 1 |
| **42010050** | **50** | 280 | 70 | 35 | 1555 | 1 |
| **42010055** | **55** | 300 | 76 | 38 | 2087 | 1 |
| **42010060** | **60** | 300 | 82.5 | 42 | 2394 | 1 |
| **42010065** | **65** | 325 | 90.5 | 45 | 3209 | 1 |
| **42010070** | **70** | 355 | 97 | 48 | 3649 | 1 |
| **42010075** | **75** | 360 | 103.5 | 51 | 4428 | 1 |
| **42010080** | **80** | 440 | 110 | 57 | 5895 | 1 |
| **42010085** | **85** | 440 | 117 | 57 | 6033 | 1 |
| **42010090** | **90** | 445 | 124 | 60 | 6885 | 1 |
| **42010095** | **95** | 450 | 131 | 67 | 7875 | 1 |
| **42010100** | **100** | 455 | 137 | 72 | 10224 | 1 |
| **42010105** | **105** | 460 | 146 | 73 | 10202 | 1 |
| **42010110** | **110** | 500 | 156 | 82 | 14492 | 1 |
| **42010115** | **115** | 505 | 162 | 82 | 14376 | 1 |
| **42010120** | **120** | 510 | 174 | 82 | 15308 | 1 |

additional spanner sizes in accordance with DIN 7444 on request

## 4205a Striking face ring spanners

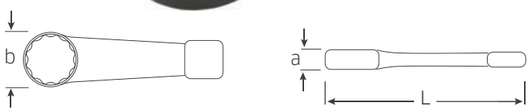
- special steel, grey

| Code | " | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **42450056** | **1 1/4** | 190 | 52 | 17 | 350 | 1 |
| **42450058** | **1 5/16** | 190 | 52 | 17 | 350 | 1 |
| **42450064** | **1 1/2** | 205 | 58 | 18 | 500 | 1 |
| **42450066** | **1 5/8** | 230 | 66 | 20 | 700 | 1 |
| **42450067** | **1 11/16** | 230 | 66 | 20 | 700 | 1 |
| **42450069** | **1 13/16** | 240 | 74 | 22 | 975 | 1 |
| **42450070** | **1 7/8** | 240 | 74 | 22 | 975 | 1 |
| **42450072** | **2** | 255 | 80 | 24 | 1075 | 1 |
| **42450073** | **2 1/16** | 255 | 80 | 24 | 1075 | 1 |
| **42450075** | **2 3/16** | 270 | 86 | 25 | 1320 | 1 |
| **42450076** | **2 1/4** | 270 | 86 | 25 | 1340 | 1 |
| **42450078** | **2 3/8** | 280 | 93 | 26 | 1600 | 1 |
| **42450079** | **2 7/16** | 280 | 93 | 26 | 1600 | 1 |
| **42450081** | **2 9/16** | 300 | 102 | 30 | 2300 | 1 |
| **42450082** | **2 5/8** | 300 | 102 | 30 | 2300 | 1 |
| **42450084** | **2 3/4** | 330 | 110 | 33 | 2900 | 1 |
| **42450085** | **2 13/16** | 330 | 110 | 33 | 2900 | 1 |
| **42450087** | **2 15/16** | 330 | 110 | 33 | 2900 | 1 |

additional spanner sizes on request

## 4205 Striking face ring spanners

- DIN 7444
- special steel, grey




| Code | mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **42050024** | **24** | 160 | 42.5 | 15 | 200 | 1 |
| **42050026** | **26** | 160 | 42.5 | 15 | 200 | 1 |
| **42050027** | **27** | 180 | 46 | 16 | 260 | 1 |
| **42050028** | **28** | 180 | 47 | 15.5 | 240 | 1 |
| **42050030** | **30** | 190 | 51.5 | 16.5 | 365 | 1 |
| **42050032** | **32** | 195 | 53 | 16.5 | 353 | 1 |
| **42050033** | **33** | 195 | 53 | 16.5 | 350 | 1 |
| **42050036** | **36** | 205 | 60 | 19.5 | 505 | 1 |
| **42050037** | **37** | 205 | 60 | 19.5 | 500 | 1 |
| **42050038** | **38** | 205 | 60 | 19.5 | 500 | 1 |
| **42050041** | **41** | 225 | 66 | 20.5 | 730 | 1 |
| **42050042** | **42** | 225 | 66 | 20.5 | 671 | 1 |
| **42050046** | **46** | 240 | 75 | 22.5 | 915 | 1 |
| **42050047** | **47** | 240 | 75 | 22.5 | 975 | 1 |
| **42050048** | **48** | 240 | 75 | 22.5 | 920 | 1 |
| **42050050** | **50** | 250 | 80 | 23.5 | 1120 | 1 |
| **42050052** | **52** | 250 | 80 | 23.5 | 1075 | 1 |
| **42050055** | **55** | 270 | 87.5 | 25 | 1375 | 1 |
| **42050056** | **56** | 270 | 87.5 | 25 | 1320 | 1 |
| **42050060** | **60** | 270 | 93.5 | 26 | 1565 | 1 |
| **42050064** | **64** | 290 | 101 | 29 | 2020 | 1 |
| **42050065** | **65** | 290 | 101 | 29 | 2100 | 1 |
| **42050070** | **70** | 320 | 109.5 | 33 | 2930 | 1 |
| **42050075** | **75** | 325 | 114.5 | 34 | 2780 | 1 |
| **42050080** | **80** | 345 | 126 | 35 | 4100 | 1 |
| **42050085** | **85** | 360 | 129 | 37 | 3835 | 1 |
| **42050090** | **90** | 400 | 152 | 41.5 | 5180 | 1 |
| **42050095** | **95** | 400 | 152 | 41.5 | 4900 | 1 |
| **42050100** | **100** | 400 | 152 | 41.5 | 6560 | 1 |
| **42050105** | **105** | 435 | 172 | 47.5 | 6300 | 1 |
| **42050110** | **110** | 435 | 172 | 47.5 | 7960 | 1 |
| **42050115** | **115** | 435 | 172 | 47.5 | 7495 | 1 |
| **42050120** | **120** | 480 | 182 | 54 | 9900 | 1 |
| **42050130** | **130** | 520 | 202 | 58 | 12640 | 1 |
| **42050135** | **135** | 520 | 202 | 58 | 12120 | 1 |
| **42050145** | **145** | 580 | 228 | 64 | 18250 | 1 |
| **42050160** | **160** | 580 | 228 | 64 | 18800 | 1 |
| **42050165** | **165** | 650 | 265 | 70 | 28500 | 1 |
| **42050170** | **170** | 650 | 265 | 70 | 27500 | 1 |
| **42050175** | **175** | 650 | 265 | 70 | 27750 | 1 |
| **42050180** | **180** | 650 | 265 | 70 | 26340 | 1 |
| **42050210** | **210** | 750 | 320 | 80 | 41000 | 1 |





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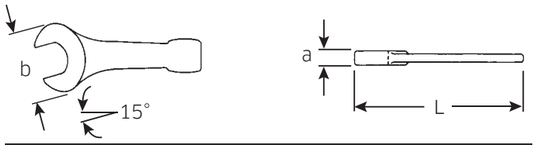
## 4204 Striking face open ended spanners

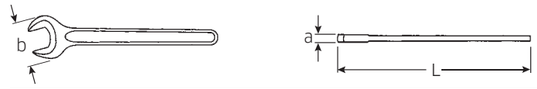
- DIN 133
- special tool steel, grey finish




| Code | mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **42040027** | **27** | 180 | 56 | 16 | 321 | 1 |
| **42040030** | **30** | 190 | 62 | 17 | 451 | 1 |
| **42040032** | **32** | 190 | 62 | 17 | 395 | 1 |
| **42040036** | **36** | 215 | 76 | 17.5 | 698 | 1 |
| **42040041** | **41** | 235 | 86 | 18.5 | 923 | 1 |
| **42040046** | **46** | 255 | 98 | 20 | 1245 | 1 |
| **42040050** | **50** | 275 | 105 | 21 | 1445 | 1 |
| **42040055** | **55** | 300 | 116 | 23 | 2057 | 1 |
| **42040060** | **60** | 320 | 128 | 24.5 | 2559 | 1 |
| **42040065** | **65** | 342 | 138 | 27 | 3285 | 1 |
| **42040070** | **70** | 375 | 154 | 30 | 4573 | 1 |
| **42040075** | **75** | 375 | 154 | 30 | 4163 | 1 |
| **42040080** | **80** | 408 | 174 | 34 | 6059 | 1 |
| **42040085** | **85** | 408 | 174 | 34 | 5871 | 1 |
| **42040090** | **90** | 445 | 194 | 38 | 7390 | 1 |
| **42040095** | **95** | 445 | 194 | 38 | 7600 | 1 |
| **42040100** | **100** | 485 | 215 | 44 | 11500 | 1 |
| **42040105** | **105** | 485 | 215 | 44 | 11200 | 1 |

## 4004 Single-end spanners

- DIN 894 up to 85 mm
- special tool steel, grey finish




| Code | mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **40040240** | **24** | 215 | 50 | 8.9 | 147 | 10 |
| **40040270** | **27** | 238 | 56 | 9.8 | 193 | 10 |
| **40040300** | **30** | 261 | 62 | 10.8 | 275 | 5 |
| **40040320** | **32** | 273 | 66 | 11.8 | 315 | 5 |
| **40040360** | **36** | 300 | 74 | 12.8 | 421 | 1 |
| **40040410** | **41** | 335 | 83.5 | 12.8 | 555 | 1 |
| **40040460** | **46** | 369 | 93 | 14.8 | 770 | 1 |
| **40040500** | **50** | 412 | 102 | 17 | 1003 | 1 |
| **40040550** | **55** | 457 | 112 | 18 | 1235 | 1 |
| **40040600** | **60** | 492 | 122 | 18 | 1650 | 1 |
| **40040650** | **65** | 528 | 132 | 19 | 1900 | 1 |
| **40040700** | **70** | 572 | 142 | 20 | 2035 | 1 |
| **40040750** | **75** | 608 | 152 | 21 | 2758 | 1 |
| **40040800** | **80** | 645 | 162 | 22 | 2963 | 1 |
| **40040850** | **85** | 690 | 173 | 23 | 3510 | 1 |
| **40040900** | **90** | 690 | 173 | 23 | 3425 | 1 |
| **40040950** | **95** | 847 | 195 | 25 | 5943 | 1 |
| **40041000** | **100** | 847 | 195 | 25 | 5500 | 1 |
| **40041050** | **105** | 1000 | 217 | 28 | 8400 | 1 |
| **40041100** | **110** | 1000 | 217 | 28 | 9000 | 1 |
| **40041150** | **115** | 1000 | 225 | 28 | 8500 | 1 |
| **40041200** | **120** | 1000 | 225 | 28 | 8500 | 1 |
| **40041250** | **125** | 1000 | 225 | 28 | 7934 | 1 |
| **40041300** | **130** | 1000 | 225 | 28 | 8500 | 1 |
| **40041350** | **135** | 1000 | 225 | 28 | 8000 | 1 |

## 4025 Single-end spanners, adjustable

NEW

- right-handed
- DIN 3117/ISO 6787 (B shape)
- ASME B107.100
- jaw offset 22.5°
- Chrome Vanadium, chrome plated

| Code | size | max. mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **40250104** | **4** | 13 | 115 | 35 | 9.5 | 52 | 5 |
| **40250106** | **6** | 24 | 161 | 50 | 10.8 | 155 | 5 |
| **40250108** | **8** | 30 | 207 | 62 | 14 | 310 | 5 |
| **40250110** | **10** | 34 | 259 | 74 | 15.8 | 490 | 5 |
| **40250112** | **12** | 39 | 311 | 84 | 19 | 805 | 5 |
| **40250115** | **15** | 44 | 386 | 106 | 25 | 1320 | 1 |
| **40250118** | **18** | 53 | 462 | 124 | 30 | 2040 | 1 |

## TCS 4025/3

NEW

TCS

- 175 x 350 x 30 mm
- 3 pieces

| Code | g |
|---|---|
| **96838797** | 920 |

| | No | Content |
|---|---|---|
| | **4025** | sizes 6; 8; 10 |



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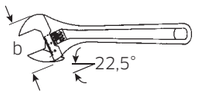
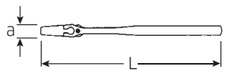
## 4026 Single-end spanners, adjustable

NEW

- left-handed
- DIN 3117/ISO 6787 (B shape)
- ASME B 107.100
- jaw offset 22.5°
- Chrome-Vanadium, gunmetal finish




| Code | size | max. mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|---|
| **40260104** | **4** | 13 | 115 | 35 | 9.5 | 52 | 5 |
| **40260106** | **6** | 24 | 161 | 50 | 10.8 | 155 | 5 |
| **40260108** | **8** | 30 | 207 | 62 | 14 | 310 | 5 |
| **40260110** | **10** | 34 | 259 | 74 | 15.8 | 490 | 5 |
| **40260112** | **12** | 39 | 311 | 84 | 19 | 805 | 5 |
| **40260115** | **15** | 44 | 386 | 106 | 25 | 1320 | 1 |
| **40260118** | **18** | 53 | 462 | 124 | 30 | 2040 | 1 |

## TCS 4026/3

NEW

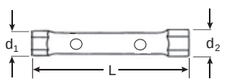
- 175 x 350 x 30 mm
- 3 pieces

| Code | g |
|---|---|
| **96838796** | 908 |

| | No | Content |
|---|---|---|
| | **4026** | sizes 6; 8; 10 |

## 10750 Box spanners

- DIN 896 Type B
- made of seamlessly drawn precision steel tubing
- recessed at both ends
- Chrome Alloy Steel, surface polished and chrome plated



| Code | mm | L mm | $d_1$ mm | $d_2$ mm | g | |
|---|---|---|---|---|---|---|
| **43330607** | **6 x 7** | 110 | 10.5 | 11.5 | 26 | 10 |
| **43330809** | **8 x 9** | 110 | 13 | 14.5 | 38 | 10 |
| **43331011** | **10 x 11** | 125 | 16 | 17 | 50 | 10 |
| **43331213** | **12 x 13** | 145 | 19 | 20.5 | 78 | 10 |
| **43331415** | **14 x 15** | 145 | 21.5 | 22.5 | 78 | 10 |
| **43331617** | **16 x 17** | 155 | 24 | 26 | 127 | 10 |
| **43331719** | **17 x 19** | 160 | 26 | 28.5 | 199 | 10 |
| **43331819** | **18 x 19** | 160 | 27.5 | 28.5 | 199 | 10 |
| **43332022** | **20 x 22** | 170 | 29.5 | 32 | 232 | 5 |
| **43332123** | **21 x 23** | 170 | 30.5 | 33 | 251 | 5 |
| **43332426** | **24 x 26** | 190 | 34.5 | 37 | 300 | 5 |
| **43332427** | **24 x 27** | 190 | 34.5 | 38.5 | 301 | 5 |
| **43333032** | **30 x 32** | 205 | 42 | 45 | 382 | 5 |
| **43333236** | **32 x 36** | 225 | 45 | 50 | 535 | 2 |
| **43333641** | **36 x 41** | 225 | 50 | 56 | 648 | 2 |
| **43334146** | **41 x 46** | 245 | 56 | 62 | 845 | 2 |
| **43334650** | **46 x 50** | 245 | 62 | 68 | 878 | 2 |
| **43335560** | **55 x 60** | 245 | 70 | 76 | 1178 | 2 |

## 10750 Sets box spanners

- DIN 896 Type B
- made of seamlessly drawn precision steel tubing
- recessed at both ends
- Chrome Alloy Steel, surface polished and chrome plated

| Code | No | Content mm | g |
|---|---|---|---|
| **96431202** | **10750/7** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 | 830 |
| **96431205** | **10750/11** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 30 x 32 | 1830 |

## ES 10750/10, 6x7–20x22 mm

- 175 x 350 x 30 mm
- 10 pieces

| Code | g |
|---|---|
| **96838168** | 1132 |

| | No | Content |
|---|---|---|
| | **10750** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm |
| | **10750 1/2** | sizes 6; 7 |

## TCS 10750/10, 6x7-20x22 mm

- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96838756** | 1130 |

| | No | Content |
|---|---|---|
| | **10750** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm |
| | **10750 1/2** | sizes 6; 7 |

## 10750 1/2 Tommy bars

- for No 10750
- stepped



| Code | size | for No 10750 mm | Length mm | g | |
|---|---|---|---|---|---|
| **48010006** | **6** | 6 x 7–14 x 15 | 180 | 49 | 1 |
| **48010007** | **7** | 16 x 17–24 x 27 | 320 | 305 | 1 |
| **48010008** | **8** | 30 x 32–55 x 60 | 630 | 1400 | 1 |

# 3 SOCKET SETS AND SOCKETS


1/4"-drive
>> Page 110

3/8"-drive
>> Page 126

1/2"-drive
>> Page 139

3/4"-drive
>> Page 157

1"-drive
>> Page 160

CROW-RING-, CROW-FOOT spanners, adaptors
>> Page 161

Empty boxes and trays
>> Page 164

# Reliable and safe.
# Sets of socket spanners and inserts.

Made in Germany

It does not matter whether it is ratchets, adapters or inserts – users can be sure they will get premium quality every time. STAHLWILLE tool cases made of robust ABS plastic facilitate everyday work thanks to their low weight and many well thought-out details. STAHLWILLE sockets are made of HPQ® high-performance steel and are extremely resilient but thin-walled and gentle on fastener heads. And the broad range of ratchets, drives and adapters always ensures the perfect choice of tools for the job.

## ROBUST.

Particularly resilient to loads thanks to the torsion resistant body construction and hard-wearing ABS plastic.

## SAFE.

A high-grade, chemical-resistant hard-foam inlay ensures tools are held firmly in place. The catches are easy to operate but still secure.

## UNMISTAKEABLE.

The laser-cut map on the inside of the lid provides an excellent overview of the tools contained in the case.

AS DRIVE

## GENTLE.

The special AS Drive* permits high transmission of forces to the flats of nuts and bolts without damaging them.

* Anti-Slip drive

HPQ

## RESILIENT.

High Performance Quality (HPQ®)
High-performance steel – extremely resilient, yet thin-walled and ideal for working in confined spaces.

## FAST.

QuickRelease enables rapid tool changes and secures them reliably during work operations.



## FOD* COMPLIANT.

The preferred choice in safety-relevant fields such as aerospace, thanks to the screwless design.

* Foreign Object Damage

## EFFICIENT.

Eighty teeth provide a ratchet angle of only 4.5° – facilitating efficient working in confined spaces. In contrast to conventional fine-tooth ratchets, no less than eight teeth engage at once here, ensuring maximum load capacity and, at the same time, smooth action and durability.

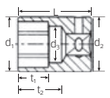
## VERSATILE.

The STAHLWILLE fine tooth ratchet family has convincing features: the 2-component or steel-handled grip, the bit ratchet, fine-tooth flexible-joint ratchet or the Hi-Lok version.

## 40D Sockets

AS DRIVE HPQ

- DIN 3124/ISO 2725-1, E DIN EN 3709, ASME B 107.5M
- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01030005** | **5** | 7.9 | 10.7 | 4 | 23 | 4.5 | 15 | 9 | 10 |
| **01030055** | **5.5** | 8.5 | 10.7 | 4.5 | 23 | 6 | 15 | 9 | 10 |
| **01030006** | **6** | 9.2 | 10.7 | 5 | 23 | 6 | 15 | 9 | 10 |
| **01030007** | **7** | 10.7 | 10.7 | 6 | 23 | 6.5 | 13.4 | 10 | 10 |
| **01030008** | **8** | 11.6 | 11.6 | 7 | 23 | 8 | 13.1 | 11 | 10 |
| **01030009** | **9** | 12.8 | 12.8 | 8 | 23 | 8 | 12.8 | 13 | 10 |
| **01030010** | **10** | 14.3 | 14.3 | 9 | 23 | 8 | 14.9 | 16 | 10 |
| **01030011** | **11** | 15.5 | 15.5 | 10 | 23 | 9 | 14.6 | 19 | 10 |
| **01030012** | **12** | 16.5 | 16.5 | 11 | 23 | 9.5 | 14.3 | 23 | 10 |
| **01030013** | **13** | 17.8 | 17.8 | 12 | 23 | 9.5 | 14 | 25 | 10 |
| **01030014** | **14** | 18.8 | 18.8 | 13 | 24 | 10 | 14.7 | 30 | 10 |

## 40aD Sockets

AS DRIVE HPQ

- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01530010** | **5/32** | 6.7 | 10.7 | 3.2 | 23 | 3.5 | 15 | 7 | 10 |
| **01530012** | **3/16** | 7.6 | 10.7 | 4 | 23 | 4.5 | 15 | 7 | 10 |
| **01530014** | **7/32** | 8.6 | 10.7 | 5 | 23 | 6 | 15 | 9 | 10 |
| **01530016** | **1/4** | 9.4 | 10.7 | 5.5 | 23 | 6 | 15 | 8 | 10 |
| **01530018** | **9/32** | 10.7 | 10.7 | 6.6 | 23 | 6.5 | 13.2 | 8 | 10 |
| **01530020** | **5/16** | 11.6 | 11.6 | 7 | 23 | 8 | 13.1 | 11 | 10 |
| **01530022** | **11/32** | 12.7 | 12.7 | 8.1 | 23 | 8 | 13.3 | 13 | 10 |
| **01530024** | **3/8** | 13.7 | 13.7 | 8.3 | 23 | 8 | 13.3 | 16 | 10 |
| **01530028** | **7/16** | 15.8 | 15.8 | 10 | 23 | 9 | 14.6 | 21 | 10 |
| **01530032** | **1/2** | 17.3 | 17.3 | 11.5 | 23 | 9.5 | 14.1 | 26 | 10 |
| **01530034** | **9/16** | 18.8 | 18.8 | 13.1 | 24 | 10 | 14.7 | 30 | 10 |

## 40aD/10CL Set sockets with clip strip

AS DRIVE HPQ

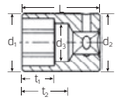
- content 10 pieces: 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
- 1 clip strip No 40CL-2

| Code | g |
|---|---|
| **96015310** | 200 |

## 40 Sockets

AS DRIVE HPQ

- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3709 (test loads)
- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01010003** | **3** | 5.6 | 10.7 | 2.5 | 23 | 2 | 15 | 7 | 10 |
| **01010032** | **3.2** | 5.6 | 10.7 | 2.5 | 23 | 2 | 15 | 8 | 10 |
| **01010035** | **3.5** | 6 | 10.7 | 2.5 | 23 | 2.5 | 15 | 8 | 10 |
| **01010004** | **4** | 6.7 | 10.7 | 3.2 | 23 | 3.5 | 15 | 9 | 10 |
| **01010045** | **4.5** | 7.3 | 10.7 | 3.7 | 23 | 4 | 15 | 9 | 10 |
| **01010005** | **5** | 7.9 | 10.7 | 4 | 23 | 4.5 | 15 | 8 | 10 |
| **01010055** | **5.5** | 8.5 | 10.7 | 4.5 | 23 | 6 | 15 | 9 | 10 |
| **01010006** | **6** | 9.2 | 10.7 | 5 | 23 | 6 | 15 | 9 | 10 |
| **01010007** | **7** | 10.7 | 10.7 | 6 | 23 | 6.5 | 13.4 | 10 | 10 |
| **01010008** | **8** | 11.6 | 11.6 | 7 | 23 | 8 | 13.1 | 11 | 10 |
| **01010009** | **9** | 12.8 | 12.8 | 8 | 23 | 8 | 12.8 | 14 | 10 |
| **01010010** | **10** | 14.3 | 14.3 | 9 | 23 | 8 | 14.9 | 17 | 10 |
| **01010011** | **11** | 15.5 | 15.5 | 10 | 23 | 9 | 14.6 | 19 | 10 |
| **01010012** | **12** | 16.5 | 16.5 | 11 | 23 | 9.5 | 14.3 | 24 | 10 |
| **01010013** | **13** | 17.8 | 17.8 | 12 | 23 | 9.5 | 14 | 26 | 10 |
| **01010014** | **14** | 18.8 | 18.8 | 13 | 24 | 10 | 14.7 | 30 | 10 |

## 40a Sockets

AS DRIVE HPQ

- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01410008** | **1/8** | 5.6 | 10.7 | 2.5 | 23 | 2 | 15 | 7 | 10 |
| **01410010** | **5/32** | 6.7 | 10.7 | 3.2 | 23 | 3.5 | 15 | 9 | 10 |
| **01410012** | **3/16** | 7.6 | 10.7 | 4 | 23 | 4.5 | 15 | 9 | 10 |
| **01410014** | **7/32** | 8.6 | 10.7 | 5 | 23 | 6 | 15 | 9 | 10 |
| **01410016** | **1/4** | 9.4 | 10.7 | 5.5 | 23 | 6 | 15 | 9 | 10 |
| **01410018** | **9/32** | 10.7 | 10.7 | 6.6 | 23 | 6.5 | 13.2 | 10 | 10 |
| **01410020** | **5/16** | 11.6 | 11.6 | 7 | 23 | 8 | 13.1 | 12 | 10 |
| **01410022** | **11/32** | 12.7 | 12.7 | 8.1 | 23 | 8 | 13.3 | 14 | 10 |
| **01410024** | **3/8** | 13.7 | 13.7 | 8.3 | 23 | 8 | 13.3 | 16 | 10 |
| **01410028** | **7/16** | 15.8 | 15.8 | 10 | 23 | 9 | 14.6 | 15 | 10 |
| **01410032** | **1/2** | 17.3 | 17.3 | 11.5 | 23 | 9.5 | 14.1 | 27 | 10 |
| **01410034** | **9/16** | 18.8 | 18.8 | 13.1 | 24 | 10 | 14.7 | 31 | 10 |

STAHLWILLE
**AS drive**

AS DRIVE

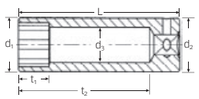
STAHLWILLE sockets are equipped with the AS Drive* profile, which permits high transmission of forces to the flats of nuts and bolts without damaging them.

* Anti-Slip drive

## 40DL Sockets

AS HPQ

- extra deep
- E DIN EN 3710, E DIN EN 3709, DIN 3124/ISO 2725-1, ASME B 107.5M
- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01240005** | **5** | 7.9 | 10.7 | 4 | 50 | 4.5 | 42 | 15 | 5 |
| **01240055** | **5.5** | 8.5 | 10.7 | 4.5 | 50 | 6 | 42 | 16 | 5 |
| **01240006** | **6** | 9.2 | 10.7 | 5 | 50 | 6 | 42 | 18 | 5 |
| **01240007** | **7** | 10.7 | 10.7 | 6 | 50 | 6.5 | 40.9 | 21 | 5 |
| **01240008** | **8** | 11.6 | 11.6 | 7 | 50 | 8 | 40.1 | 23 | 5 |
| **01240009** | **9** | 12.8 | 12.8 | 8 | 50 | 8 | 39.8 | 30 | 5 |
| **01240010** | **10** | 14.3 | 14.3 | 9 | 50 | 9 | 41.9 | 35 | 5 |
| **01240011** | **11** | 15.5 | 15.5 | 10 | 50 | 10.5 | 41.6 | 40 | 5 |
| **01240012** | **12** | 16.5 | 16.5 | 11 | 50 | 12 | 41.3 | 47 | 5 |
| **01240013** | **13** | 17.8 | 17.8 | 12 | 50 | 12 | 41 | 50 | 5 |
| **01240014** | **14** | 18.8 | 18.8 | 13 | 50 | 15 | 40.7 | 57 | 5 |

## 40aDL Sockets

AS HPQ

- extra deep
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E
- HPQ® high performance steel, chrome plated

| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01640010** | **5/32** | 6.7 | 10.7 | 3.2 | 50 | 4.5 | 42 | 13 | 5 |
| **01640012** | **3/16** | 7.6 | 10.7 | 4 | 50 | 4.5 | 42 | 15 | 5 |
| **01640014** | **7/32** | 8.6 | 10.7 | 5 | 50 | 6 | 42 | 16 | 5 |
| **01640016** | **1/4** | 9.4 | 10.7 | 5.2 | 50 | 6 | 42 | 19 | 5 |
| **01640018** | **9/32** | 10.7 | 10.7 | 6.5 | 50 | 8 | 40.2 | 20 | 5 |
| **01640020** | **5/16** | 11.6 | 11.6 | 7 | 50 | 8 | 40.1 | 24 | 5 |
| **01640022** | **11/32** | 12.7 | 12.7 | 8.1 | 50 | 9 | 39.7 | 26 | 5 |
| **01640024** | **3/8** | 13.7 | 13.7 | 8.3 | 50 | 9 | 39.7 | 33 | 5 |
| **01640028** | **7/16** | 15.8 | 15.8 | 10 | 50 | 10.5 | 41.6 | 42 | 5 |
| **01640032** | **1/2** | 17.3 | 17.3 | 11.5 | 50 | 12 | 41.1 | 44 | 5 |
| **01640034** | **9/16** | 18.8 | 18.8 | 13.1 | 50 | 15 | 40.7 | 55 | 5 |

## 40aDL/7 Set sockets

AS HPQ

- extra deep
- content 7 pieces: 3/16; 1/4; 5/16; 3/8; 7/16; 1/2; 9/16"
- packed in carton

| Code | g |
|---|---|
| **96016401** | 241 |

## 40aDL/10CL Set sockets with clip strip

AS HPQ

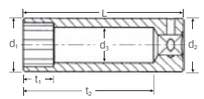
- content 10 pieces: 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
- 1 clip strip No 40CL-2

| Code | g |
|---|---|
| **96016410** | 350 |

## 40aDV Sockets

AS HPQ

- SAE AS 954, S.B.A.C. AS 40605/40606
- HPQ® high performance steel, chrome plated

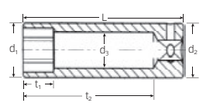


| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01650014** | **7/32** | 8.6 | 10.7 | 5 | 31.8 | 6 | 23.8 | 12 | 10 |
| **01650016** | **1/4** | 9.4 | 10.7 | 5.2 | 31.8 | 6 | 23.8 | 13 | 10 |
| **01650018** | **9/32** | 10.7 | 10.7 | 6.6 | 31.8 | 6.5 | 22 | 13 | 10 |
| **01650020** | **5/16** | 11.6 | 11.6 | 7 | 31.8 | 8 | 21.9 | 15 | 10 |

## 40L Sockets

AS HPQ

- extra deep
- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3710, E DIN EN 3709 (test loads)
- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01020032** | **3.2** | 5.6 | 10.7 | 2.5 | 50 | 2 | 37.5 | 12 | 10 |
| **01020004** | **4** | 6.7 | 10.7 | 3.2 | 50 | 3.5 | 42 | 14 | 10 |
| **01020045** | **4.5** | 7.3 | 10.7 | 3.7 | 50 | 4 | 42 | 15 | 10 |
| **01020005** | **5** | 7.9 | 10.7 | 4 | 50 | 4.5 | 42 | 16 | 10 |
| **01020055** | **5.5** | 8.5 | 10.7 | 4.5 | 50 | 6 | 42 | 17 | 10 |
| **01020006** | **6** | 9.2 | 10.7 | 5 | 50 | 6 | 42 | 18 | 10 |
| **01020007** | **7** | 10.7 | 10.7 | 6 | 50 | 6.5 | 40.9 | 24 | 10 |
| **01020008** | **8** | 11.6 | 11.6 | 7 | 50 | 8 | 40.1 | 27 | 10 |
| **01020009** | **9** | 12.8 | 12.8 | 8 | 50 | 8 | 39.8 | 31 | 10 |
| **01020010** | **10** | 14.3 | 14.3 | 9 | 50 | 9 | 41.9 | 38 | 10 |
| **01020011** | **11** | 15.5 | 15.5 | 10 | 50 | 10.5 | 41.6 | 43 | 10 |
| **01020012** | **12** | 16.5 | 16.5 | 11 | 50 | 12 | 41.3 | 49 | 10 |
| **01020013** | **13** | 17.8 | 17.8 | 12 | 50 | 12 | 41 | 56 | 10 |

6,3
1/4"

DIN
3120

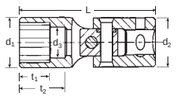
ISO
1174-1

3

## 402 UNIFLEX sockets

HPQ AS

- HPQ® high performance steel, chrome plated



| Code | mm | d1 mm | d2 mm | d3 mm | L mm | t1 mm | t2 mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01140006** | **6** | 9.2 | 12.7 | 5 | 32 | 5.5 | 10 | 16 | 5 |
| **01140007** | **7** | 10.4 | 12.7 | 6 | 33.5 | 6 | 11.5 | 16 | 5 |
| **01140008** | **8** | 11.6 | 12.7 | 6.7 | 35 | 8 | 13 | 17 | 5 |
| **01140009** | **9** | 13 | 12.7 | 8 | 36 | 8 | 12 | 20 | 5 |
| **01140010** | **10** | 14.2 | 12.7 | 9 | 38 | 12 | 14 | 21 | 5 |

## 402a UNIFLEX sockets

HPQ AS

- SAE AS 954, ASME B 107.1
- HPQ® high performance steel, chrome plated

| Code | " | d1 mm | d2 mm | d3 mm | L mm | t1 mm | t2 mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01540014** | **7/32** | 8.6 | 12.7 | 4.8 | 32 | 5.5 | 10 | 17 | 5 |
| **01540016** | **1/4** | 9.6 | 12.7 | 5.2 | 32 | 5.5 | 10 | 16 | 5 |
| **01540018** | **9/32** | 11 | 12.7 | 6.4 | 32 | 6.5 | 10 | 19 | 5 |
| **01540020** | **5/16** | 11.6 | 12.7 | 6.7 | 35 | 8 | 13 | 17 | 5 |
| **01540022** | **11/32** | 12.7 | 12.7 | 8 | 35 | 7.5 | 11.5 | 19 | 5 |
| **01540024** | **3/8** | 13.6 | 12.7 | 9 | 38 | 8.6 | 13.1 | 20 | 5 |
| **01540028** | **7/16** | 15.7 | 12.7 | 10.5 | 39.5 | 10.7 | 15 | 23 | 5 |
| **01540032** | **1/2** | 17.3 | 12.7 | 12 | 41.5 | 11.1 | 16.5 | 27 | 5 |

## 402a/5 Set UNIFLEX sockets

HPQ AS

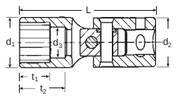
Content 5 pieces:
No 402a: 1/4; 5/16; 3/8; 7/16; 1/2"

| Code | g |
|---|---|
| **96015401** | 101 |

## 402aK UNIFLEX sockets

HPQ AS

- short version
- HPQ® high performance steel, chrome plated

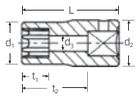


| Code | " | d1 mm | d2 mm | d3 mm | L mm | t1 mm | t2 mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01541024** | **3/8** | 13.6 | 12.7 | 6.7 | 34 | 9.1 | 12.0 | 19 | 5 |
| **01541034** | **9/16** | 19 | 12.7 | 13.1 | 37.5 | 10.3 | 11.8 | 25 | 5 |

## 40TX Sockets

HPQ

- for external TORX® screws
- HPQ® high performance steel, chrome plated

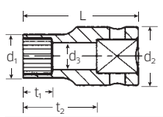


| Code | size | mm | d1 mm | d2 mm | d3 mm | L mm | t1 mm | t2 mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **01270004** | **E4** | 3.8 | 5.6 | 10.7 | 2 | 23 | 4.5 | 15 | 8 | 10 |
| **01270005** | **E5** | 4.7 | 6.7 | 10.7 | 2.8 | 23 | 5 | 15 | 7 | 10 |
| **01270006** | **E6** | 5.7 | 8 | 10.7 | 3.6 | 23 | 5.5 | 15 | 10 | 10 |
| **01270007** | **E7** | 6.2 | 9.6 | 10.7 | 3.8 | 23 | 6.5 | 15 | 10 | 10 |
| **01270008** | **E8** | 7.5 | 10.5 | 11.6 | 4.3 | 23 | 7 | 15 | 10 | 10 |
| **01270010** | **E10** | 9.4 | 12.7 | 12.7 | 5.6 | 23 | 9 | 15 | 17 | 10 |

## 40aSP Sockets

HPQ

- for external spline-drive screws
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated



| Code | Spline size | " | d1 mm | d2 mm | d3 mm | L mm | t1 mm | t2 mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **01011007** | **7** | **7/32** | 8.6 | 10.7 | 5 | 22.2 | 6 | 14.2 | 7 | 1 |
| **01011008** | **8** | **1/4** | 9.5 | 10.7 | 5.6 | 22.2 | 7 | 14.2 | 10 | 1 |
| **01011009** | **9** | **9/32** | 11.2 | 11.2 | 6.6 | 22.2 | 8 | 12.4 | 10 | 1 |
| **01011010** | **10** | **5/16** | 11.6 | 11.6 | 7.1 | 22.2 | 8 | 12.2 | 12 | 1 |
| **01011012** | **12** | **3/8** | 13.8 | 13.8 | 8.6 | 23 | 8.7 | 12.6 | 18 | 1 |
| **01011014** | **14** | **7/16** | 15.7 | 15.7 | 10.4 | 25 | 10.7 | 14.1 | 24 | 1 |

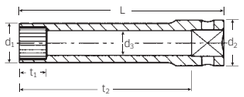


KG3 Print ES DE EN 2019-11-25.indd 112 25.11.2019 17:38:46

## 40aLSP Sockets

HPQ

- for external spline-drive screws
- long, extra deep bolt clearance
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated

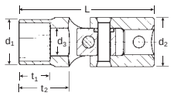


| Code | Spline size | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **01021007** | **7** | **7/32** | 8.6 | 10.7 | 5 | 50.8 | 6 | 42.8 | 18 | 1 |
| **01021008** | **8** | **1/4** | 9.5 | 10.7 | 5.6 | 50.8 | 8 | 42.8 | 24 | 1 |
| **01021010** | **10** | **5/16** | 11.6 | 11.6 | 7.1 | 50.8 | 8 | 40.8 | 27 | 1 |

## 402aSP Uniflex sockets

HPQ

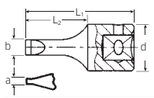
- for external spline-drive screws
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated



| Code | Spline size | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **01542016** | **8** | **1/4** | 9.5 | 12.7 | 5.6 | 32 | 6.4 | 9.8 | 16 | 5 |
| **01542020** | **10** | **5/16** | 11.6 | 12.7 | 7.1 | 35 | 8 | 13 | 18 | 5 |

## 41K Screwdriver sockets

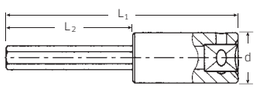
- for slotted screws
- blades to DIN 5264
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | a mm | b mm | g | |
|---|---|---|---|---|---|---|---|---|
| **01280006** | **0.6x3.5** | 28 | 16 | 11.6 | 0.6 | 3.5 | 10 | 5 |
| **01280008** | **0.8x4** | 28 | 16 | 11.6 | 0.8 | 4 | 10 | 5 |
| **01280010** | **1x5.5** | 28 | 16 | 11.6 | 1 | 5.5 | 11 | 5 |
| **01280012** | **1.2x8** | 28 | 16 | 11.6 | 1.2 | 8 | 12 | 5 |

## 44 INHEX sockets

- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **01050003** | **3** | 55 | 30 | 10.7 | 20 | 5 |
| **01050004** | **4** | 55 | 30 | 10.7 | 20 | 5 |
| **01050005** | **5** | 55 | 30 | 10.7 | 25 | 5 |
| **01050006** | **6** | 55 | 30 | 11.6 | 30 | 5 |

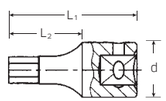
## 44a INHEX sockets

- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated

| Code | " | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **01450004** | **1/16** | 55 | 30 | 10.7 | 11 | 5 |
| **01450005** | **5/64** | 55 | 30 | 10.7 | 12 | 5 |
| **01450006** | **3/32** | 55 | 30 | 10.7 | 14 | 5 |
| **01450007** | **7/64** | 55 | 30 | 10.7 | 17 | 5 |
| **01450008** | **1/8** | 55 | 30 | 10.7 | 12 | 5 |
| **01450009** | **9/64** | 55 | 30 | 10.7 | 13 | 5 |
| **01450010** | **5/32** | 55 | 30 | 10.7 | 14 | 5 |
| **01450012** | **3/16** | 55 | 30 | 10.7 | 17 | 5 |
| **01450014** | **7/32** | 55 | 30 | 10.7 | 19 | 5 |
| **01450016** | **1/4** | 55 | 30 | 11.6 | 24 | 5 |

## 44K INHEX sockets

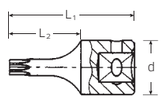
- for socket head screws
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **01120003** | **3** | 28 | 16 | 11.6 | 10 | 5 |
| **01120004** | **4** | 28 | 16 | 11.6 | 10 | 5 |
| **01120005** | **5** | 28 | 16 | 11.6 | 10 | 5 |
| **01120006** | **6** | 28 | 16 | 11.6 | 10 | 5 |
| **01120008** | **8** | 28 | 16 | 11.6 | 15 | 5 |

## 44KTX Screwdriver sockets

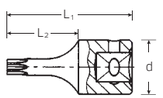
- for inside TORX® screws
- Chrome Alloy Steel, chrome plated



| Code | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **01350008** | **T8** | 2.3 | 28 | 16 | 11.6 | 10 | 5 |
| **01350009** | **T9** | 2.5 | 28 | 16 | 11.6 | 10 | 5 |
| **01350010** | **T10** | 2.7 | 28 | 16 | 11.6 | 10 | 5 |
| **01350015** | **T15** | 3.3 | 28 | 16 | 11.6 | 10 | 5 |
| **01350020** | **T20** | 3.8 | 28 | 16 | 11.6 | 11 | 5 |
| **01350025** | **T25** | 4.4 | 28 | 16 | 11.6 | 11 | 5 |
| **01350027** | **T27** | 5.0 | 28 | 16 | 11.6 | 11 | 5 |
| **01350030** | **T30** | 5.5 | 28 | 16 | 11.6 | 12 | 5 |
| **01350040** | **T40** | 6.6 | 28 | 16 | 11.6 | 12 | 5 |

## 44KTXB Screwdriver sockets

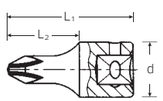
- with hollow point
- for inside TORX® screws (TORX® TAMPER RESISTANT)
- Chrome Alloy Steel, chrome plated



| Code | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **01351008** | **T8** | 2.3 | 28 | 16 | 11.6 | 10 | 5 |
| **01351009** | **T9** | 2.5 | 28 | 16 | 11.6 | 10 | 5 |
| **01351010** | **T10** | 2.7 | 28 | 16 | 11.6 | 10 | 5 |
| **01351015** | **T15** | 3.3 | 28 | 16 | 11.6 | 10 | 5 |
| **01351020** | **T20** | 3.8 | 28 | 16 | 11.6 | 10 | 5 |
| **01351025** | **T25** | 4.4 | 28 | 16 | 11.6 | 11 | 5 |
| **01351027** | **T27** | 5.0 | 28 | 16 | 11.6 | 10 | 5 |
| **01351030** | **T30** | 5.5 | 28 | 16 | 11.6 | 11 | 5 |
| **01351040** | **T40** | 6.6 | 28 | 16 | 11.6 | 10 | 5 |

## 44P Screwdriver sockets

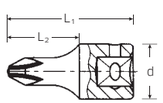
- for recessed head screws Phillips-Recess®
- tips to DIN 5260
- Chrome Alloy Steel, chrome plated



| Code | PH size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **01290001** | **1** | 28 | 16 | 11.6 | 12 | 5 |
| **01290002** | **2** | 28 | 16 | 11.6 | 11 | 5 |
| **01290003** | **3** | 28 | 16 | 11.6 | 12 | 5 |
| **01290004** | **4** | 28 | 16 | 11.6 | 14 | 5 |

## 44PZ Screwdriver sockets

- for POZIDRIV/SUPADRIV® screws
- Chrome Alloy Steel, chrome plated



| Code | PZ size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **01300001** | **1** | 28 | 16 | 11.6 | 10 | 5 |
| **01300002** | **2** | 28 | 16 | 11.6 | 11 | 5 |

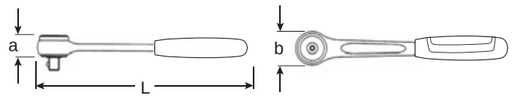
## 40CL Clip strips

- for socket retention
- supplied without sockets

| Code | size | L mm | g |
|---|---|---|---|
| **80400001** | **1** | 200 | 36 |
| **80400002** | **2** | 300 | 52 |

# Drive tools and accessories

- 1/4" □
- finish: Chrome Alloy Steel, chrome plated




## 411 Ratchet, fine tooth

- reversible
- 60 teeth
- with 2-component handle
- for use in confined spaces, re-engages after movement of 6°
- DIN 3122/ISO 3315

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11231011** | 118 | 24 | 19.5 | 100 | 1 |

## 415 Ratchet

- reversible
- 22 teeth
- with 2-component handle
- DIN 3122/ISO 3315

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11111010** | 117 | 22 | 13 | 80 | 5 |

## 415QR QuickRelease ratchet

QR

- reversible
- 22 teeth
- with QuickRelease safety lock
- with 2-component handle
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11110020** | 117 | 22 | 13 | 79 | 1 |

## 415QR N QuickRelease ratchet, fine tooth

QR FOD 80 4.5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with 2-component handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11111020** | 117 | 22.6 | 10.7 | 79 | 1 |



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## 415SG-QR N QuickRelease ratchet, fine tooth

- reversible
- 80 teeth
- with QuickRelease safety lock
- with steel handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11 11 10 30** | 117 | 22.6 | 10.7 | 86 | 1 |

## 418QR Mini QuickRelease ratchet, fine tooth

NEW

- 90 mm short version
- reversible
- 80 teeth
- with QuickRelease safety lock
- with steel handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11 11 10 50** | 90 | 22.5 | 12.2 | 74 | 1 |

## 415QRL N QuickRelease ratchet, fine tooth

- long
- reversible
- 80 teeth
- with QuickRelease safety lock
- with 2-component handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11 11 10 40** | 153 | 22.6 | 10.7 | 94 | 1 |

## 415B Bit ratchet

- reversible
- 22 teeth
- with 2-component handle
- with inside hexagon 1/4"
- DIN 3126/ISO 1173 D 6.3
- for bit screwdriver sockets 1/4"
- internal hex drive with a collar-thrust spring (registered design)
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11 13 10 11** | 117 | 22 | 12 | 76 | 5 |

## 415SGB N Bit ratchet, fine tooth

- reversible
- 80 teeth
- with steel handle
- inside hexagon 1/4"
- DIN 3126/ISO 1173 D 6.3
- for bit screwdriver sockets 1/4"
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11 13 20 20** | 117 | 22.6 | 10.7 | 85 | 5 |

## 418B Mini bit ratchet, fine tooth

NEW

- 90 mm short version
- reversible
- 80 teeth
- with steel handle
- inside hexagon 1/4"
- DIN 3126/ISO 1173 D 6.3
- for bit screwdriver sockets 1/4"
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11 13 30 30** | 90 | 22.5 | 11 | 70 | 1 |

## 416QR QuickRelease fine-tooth flexible-joint ratchet

- reversible
- 80 teeth
- with QuickRelease safety lock
- with 2-component handle
- handle may be raised or lowered by approx. 90°, lockable in following positions:
  - -straight
  - -30° up
  - -60° up
  - -30° down
- release the lock by pressing the button in the handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11 26 10 10** | 170 | 22.5 | 12 | 170 | 1 |



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## 415QR N/7 Set of wrenches

QR

- in sturdy, stackable ABS plastic case

Content 7 pieces:
1 ratchet No 415QR N
3 extensions
No 405QR/2 (54 mm),
No 405QR/4 (102 mm),
No 405QR/6 (150 mm)
1 universal joint No 407QR
1 drive handle No 400QR
1 T-handle No 404QR

| Code | g |
|---|---|
| **96014010** | 758 |

## 4110 Spare parts set for ratchet No 411

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| Code | g |
|---|---|
| **19200001** | 47 |

## 4150 Spare parts set for ratchet No 415

Content 9 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs;
2 screws M 1.7 x 8; 1 cover plate

| Code | g |
|---|---|
| **19010000** | 26 |

## 4150QR Spare parts set for ratchet No 415QR

QR

Content 11 pieces:
1 pinion; 1 pawl; 2 levers with pin; 1 ball; 2 compression springs;
2 screws M 1.7 x 8; 2 cover plates

| code | g |
|---|---|
| **19011020** | 24 |

## 4150QR N Spare parts set for ratchet No 415QR N, 415QRL N, 415SG-QR N, 416QR, 418QR

QR

Content 9 pieces:
1 pinion; 1 locking disc; 1 lever; 1 pin; 1 ball; 1 compression spring;
2 circlips; 1 cover plate

| Code | g |
|---|---|
| **19012020** | 21 |

## 4150B Spare parts set for ratchet No 415B

Content 9 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs;
2 screws M 1.7 x 8; 1 cover plate

| Code | g |
|---|---|
| **19010011** | 20 |

## 4151 Spare parts set for ratchet No 415SGB N

NEW

Content 9 pieces:
1 pinion; 1 locking disc; 1 lever; 1 pin; 1 ball; 1 compression spring;
2 circlips; 1 cover plate

| Code | g |
|---|---|
| **19010012** | 22 |

## 400 Drive handle

- DIN 3122/ISO 3315

| Code | L mm | g | |
|---|---|---|---|
| **11050010** | 150 | 70 | 5 |

## 400QR QuickRelease drive handle

QR

- DIN 3122/ISO 3315
- with QuickRelease safety lock
- patent

| Code | L mm | g | |
|---|---|---|---|
| **11051010** | 150 | 80 | 1 |

## 400 Drall Drive handle

- with 1/4" square drive in end of handle
- DIN 3122/ISO 3315

| Code | L mm | g | |
|---|---|---|---|
| **11050011** | 150 | 105 | 5 |

## 401 Drive handle

- flexible shaft (right hand rotation only)
- maximum torque 5 N·m

| Code | L mm | g | |
|---|---|---|---|
| **11053002** | 240 | 130 | 5 |



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## 403 Flexible handle

- DIN 3122/ISO 3315
- with 2-component handle

| Code | L mm | g | |
|---|---|---|---|
| **11061010** | 154.5 | 70 | 1 |

## 404 Sliding T-handle

- DIN 3122/ISO 3315

| Code | L mm | g | |
|---|---|---|---|
| **11070000** | 116 | 38 | 5 |

## 404QR QuickRelease sliding T-handle

QR

- with QuickRelease safety locks
- patent

| Code | L mm | g | |
|---|---|---|---|
| **11071000** | 116 | 50 | 1 |

## 413QR QuickRelease speeder brace

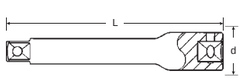
QR

- with steel handle
- for greater axial power transmission, detachable palm head
- working radius 70 mm
- with QuickRelease safety lock
- patent

| Code | L mm | g | |
|---|---|---|---|
| **11100005** | 440 | 354 | 1 |

## 405 Extensions

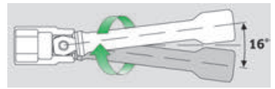
- DIN 3123/ISO 3316



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **11010001** | **2** | 54 | 11.6 | 29 | 5 |
| **11010006** | **4** | 100 | 11.6 | 46 | 5 |
| **11010002** | **6** | 150 | 11.6 | 65 | 5 |
| **11010010** | **10** | 254 | 11.6 | 115 | 1 |
| **11010014** | **14** | 356 | 11.6 | 155 | 1 |

## 405W Wobble-Drive extensions

- swivel angle 8° each side
- max. torque 40 N·m



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **11010011** | **2** | 54 | 11.6 | 28 | 1 |
| **11010016** | **4** | 100 | 11.6 | 45 | 1 |
| **11010012** | **6** | 150 | 11.6 | 55 | 1 |
| **11010020** | **10** | 254 | 11.6 | 110 | 1 |
| **11010024** | **14** | 356 | 11.6 | 155 | 1 |

## 405QR QuickRelease extensions

QR

- patent
- DIN 3123/ISO 3316

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **11011001** | **2** | 54 | 11.6 | 28 | 1 |
| **11011006** | **4** | 102 | 11.6 | 49 | 1 |
| **11011002** | **6** | 150 | 11.6 | 65 | 1 |
| **11011013** | **13** | 330 | 11.6 | 145 | 1 |
| **11011005** | **14** | 356 | 11.6 | 150 | 1 |

## 406 Extension, flexible

- right hand rotation only
- maximum torque 5 N·m

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **11040000** | 152 | 11.6 | 61 | 5 |

## 407 Universal joint

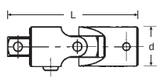
- DIN 3123/ISO 3316

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **11020000** | 37 | 12.8 | 23 | 5 |

## 407QR QuickRelease universal joint

QR

- with QuickRelease safety lock
- patent



| Code | L mm | g | |
|---|---|---|---|
| **11021000** | 45 | 35 | 1 |

## 5513 Set of adaptors

content 5 pieces:
- No 409, 1/4" socket x 3/8" plug
- No 431, 3/8" socket x 1/4" plug
- No 432, 3/8" socket x 1/2" plug
- No 513, 1/2" socket x 3/8" plug
- No 514, 1/2" socket x 3/4" plug

| Code | g |
|---|---|
| **96 12 10 03** | 648 |

## 409 Extending adaptor

HPQ

- 1/4" socket x 3/8" plug (6.3 x 10)
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **11 03 00 02** | 25 | 12.8 | 18 | 5 |

## 409M/432M/514M/3 Set extending adaptors

content 3 pieces:
- 1/4" socket x 3/8" plug
- 3/8" socket x 1/2" plug
- 1/2" socket x 3/4" plug

| Code | g |
|---|---|
| **96 12 10 02** | 120 |

## 409M Extending adaptor

- 1/4" socket x 3/8" plug (6.3 x 10)

| Code | L mm | ∅ mm | g | |
|---|---|---|---|---|
| **11 03 00 10** | 13 | 28 | 14 | 1 |

## 410 Extending adaptor

HPQ

- 1/4" socket x 1/2" plug (6.3 x 12.5)
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **11 03 00 03** | 28 | 16.5 | 36 | 5 |

## 412 Bit holder

HPQ

- ○ 1/4" inside hexagon
- DIN 3126/ISO 1173 D 6.3
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **11 18 00 10** | 25 | 11.6 | 14 | 5 |

## 412-1 Bit holder

HPQ

- ○ 1/4" inside hexagon
- DIN 3126/ISO 1173 D 6.3
- outer size of handle, octagon 10 mm for use in tools with 10 mm internal hex drive or internal double hexagon (e.g. "FLEXI" double-ended flexi-joint spanners, T-handle universal joint spanners, box spanners, ratchet ring spanners etc.)
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)
- HPQ® high performance steel

| Code | ⬢ mm | L mm | d mm | g | |
|---|---|---|---|---|---|
| **11 18 00 20** | 10 | 20 | 11.6 | 11 | 5 |

## 417/1 Locking adaptor

- with hexagon key wrench No 10760aCV 3/32"

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **96 11 27 01** | 42 | 13 | 23 | 1 |



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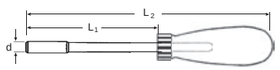
## 4008 Ratcheting bit holder

- easy change of direction (anticlockwise, clockwise and fixed) by simply twisting the locking ring
- ergonomically designed, non-slip 2-component handle for optimum force transmission
- storage compartment for 6 bits in the handle; push button to open (size 1)
- for bit screwdriver inserts with external hex 1/4" DIN 3126/ISO 1173 Type C 6.3
- 1/4" sockets can be used with adaptor No 3115/1 (external hex and square drive 1/4")
- easy bit change thanks to internal hex. drive with magnet
- knurled spin section for faster screw advance
- heavy-duty mechanism with 48 teeth (7.5° working angle)

4008-1



4008-2

| Code | size | ○ | " | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|---|
| **18120001** | **1** | D 6.3 | 1/4 | 127 | 250 | 10 | 220 | 1 |
| **18120002** | **2** | D 6.3 | 1/4 | 25 | 95 | 10 | 137 | 1 |

inside ○ DIN 3126/ISO 1173

## 4008/27/1R Ratcheting bit holder set

- in sturdy, stackable ABS plastic case

Content 29 pieces:
1 ratcheting bit holder No 4008-1
3 bits ⊕ 1221-1223: PH1; PH2; PH3
3 bits ⊕ PZ1221-PZ1223: PZ1; PZ2; PZ3
6 bits ⚙ 1440-1446: T10; T15; T20; T25; T30; T40
3 bits ◉ 1301-1303: 4 mm; 5 mm; 6 mm
3 bits ⊖ 1163: 0.6 x 4.5; 1165: 0.8 x 5.5; 1166/1: 1.2 x 6.5 mm
1 square drive extension No 3115/1 with 1/4" outer hex. and outer square drives for attaching 1/4" □
9 sockets No 40, 1/4" □ 4; 5; 5.5; 6; 7; 8; 10; 11; 13 mm

| Code | g |
|---|---|
| **96182203** | 955 |

# Tools for Hi-Lok bolts

## 40aD/8/1H Socket set

- for Hi-Lok bolts
- in sturdy, stackable ABS plastic case

Content 9 pieces:
5 sockets with bi-hexagon No 40aD: 7/32; 1/4; 5/16; 11/32; 3/8"
3 offset screwdrivers No 10759a: 1/16; 5/64; 3/32"
1 ratchet No 415SGH N

| Code | g |
|---|---|
| **96016303** | 556 |

## 415SGH N Hi-Lok-ratchet, fine tooth

FOD 80 4.5°

- reversible
- 80 teeth
- patent
- axially drilled pinion, locking facility for sockets
- for use on Hi-Lok bolts in the aerospace industry
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11110010** | 117 | 22.6 | 10.7 | 88 | 5 |

## 4152 Spare parts set for ratchet No 415SGH N

NEW

Content 9 pieces:
1 pinion; 1 locking disc; 1 lever; 1 pin; 1 ball; 1 compression spring; 2 circlips; 1 cover plate

| Code | g |
|---|---|
| **19010013** | 21 |

## 414H Hi-Lok extensions

- with lock-on facility as on ratchet No 415SGH N
- patent

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **11240011** | **2** | 54 | 13 | 34 | 1 |
| **11240012** | **4** | 102 | 13 | 49 | 1 |
| **11240013** | **6** | 152 | 13 | 66 | 1 |

## 10759 Hi-Lok offset screwdrivers

- with hexagon end for ratchet No 415SGH N
- round shaft on screwdriver enables locking of ball retainer
- patent

| Code | size | mm | L mm | g | |
|---|---|---|---|---|---|
| **43062002** | **1** | 2 | 50 | 5 | 5 |
| **43064002** | **2** | 2 | 100 | 8 | 5 |

## 10759a Hi-Lok offset screwdrivers

- with hexagon end for ratchet No 415SGH N
- round shaft on screwdriver enables locking of ball retainer
- patent

| Code | size | " | L mm | g | |
|---|---|---|---|---|---|
| **43560004** | **1** | 1/16 | 50 | 5 | 5 |
| **43564004** | **2** | 1/16 | 100 | 8 | 5 |
| **43560005** | **1** | 5/64 | 50 | 5 | 5 |
| **43564005** | **2** | 5/64 | 100 | 8 | 5 |
| **43560006** | **1** | 3/32 | 50 | 5 | 5 |
| **43564006** | **2** | 3/32 | 100 | 8 | 5 |



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6,3
1/4"

DIN
3120

ISO
1174-1

3

## 40/9/4 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 13 pieces:
9 sockets with hexagon No 40: 4; 5; 5.5; 6; 7; 8; 10; 11; 13 mm
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407

| Code | g |
|---|---|
| **96011119** | 696 |

## 40D/9/4 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 13 pieces:
8 sockets with bi-hexagon No 40D: 4; 5; 5.5; 6; 7; 8; 10; 11; 13 mm
1 socket with hexagon No 40: 4 mm
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407

| Code | g |
|---|---|
| **96011304** | 696 |

## 40/13/6 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 19 pieces:
13 sockets with hexagon No 40: 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404

| Code | g |
|---|---|
| **96011124** | 850 |

## 40/13/6QR Socket set 1/4" □

QR

- in sturdy, stackable ABS plastic case

Content 19 pieces:
13 sockets with hexagon No 40: 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
1 ratchet No 415QR N
2 extensions No 405QR/2 (54 mm), No 405QR/6 (150 mm)
1 universal joint No 407QR
1 drive handle No 400QR
1 T-handle No 404QR

| Code | g |
|---|---|
| **96011180** | 876 |

## 40/23/7 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 30 pieces:
12 sockets with hexagon No 40: 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
4 INHEX sockets No 44: 3; 4; 5; 6 mm
3 bits ⊕ 1221: PH1; 1222: PH2; 1223: PH3
4 bits ⊖ 1162: 0.6 x 3.5 mm, 1164: 0.8 x 4 mm; 1166: 1 x 5.5 mm; 1168: 1.6 x 8 mm
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404
1 bit-holder No 412

| Code | g |
|---|---|
| **96011134** | 1138 |

## 40D/23/7 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 30 pieces:
2 sockets with hexagon No 40: 4; 4.5 mm
10 sockets with bi-hexagon No 40D: 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
4 INHEX sockets No 44: 3; 4; 5; 6 mm
3 bits ⊕ No 1221: PH1; 1222: PH2; 1223: PH3
4 bits ⊖ 1162: 0.6 x 3.5 mm; 1164: 0.8 x 4 mm; 1166: 1.0 x 5.5 mm; 1168: 1.6 x 8 mm
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404
1 bit-holder No 412

| Code | g |
|---|---|
| **96011305** | 1200 |

## 40/23/6 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 29 pieces:
11 sockets with hexagon No 40: 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
3 screwdriver sockets ⊖ No 41K: 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
5 INHEX sockets No 44K: 3; 4; 5; 6; 8 mm
4 screwdriver sockets ⊕ No 44P: PH1; PH2; PH3; PH4
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404

| Code | g |
|---|---|
| **96011136** | 998 |



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## 40/23/6QR Socket set 1/4" □

QR

- in sturdy, stackable ABS plastic case

Content 29 pieces:
11 sockets with hexagon No 40:
5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
3 screwdriver sockets ⊖ No 41K:
0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
5 INHEX sockets No 44K:
3; 4; 5; 6; 8 mm
4 screwdriver sockets ⊕ No 44P: PH1; PH2; PH3; PH4
1 ratchet No 415QR N
2 extensions No 405QR/2 (54 mm), No 405QR/6 (150 mm)
1 universal joint No 407QR
1 drive handle No 400QR
1 T-handle No 404QR

| Code | g |
|---|---|
| **96011137** | 998 |

## 40/24/6QR Socket set 1/4" □

QR

- in sturdy, stackable ABS plastic case

Content 30 pieces:
12 sockets with hexagon No 40:
4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
3 screwdriver sockets ⊖ No 41K:
0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
5 INHEX sockets No 44K:
3; 4; 5; 6; 8 mm
2 screwdriver sockets ⊕ No 44P: PH1; PH2
2 screwdriver sockets ⊕ No 44PZ: PZ1; PZ2
1 ratchet No 415QR N
2 extensions No 405QR/2 (54 mm), No 405QR/6 (150 mm)
1 universal joint No 407QR
1 drive handle No 400QR
1 T-handle No 404QR

| Code | g |
|---|---|
| **96011182** | 1018 |

## 40D/23/6 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 29 pieces:
11 sockets with bi-hexagon No 40D:
5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
3 screwdriver sockets ⊖ No 41K:
0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
5 INHEX sockets No 44K:
3; 4; 5; 6; 8 mm
4 screwdriver sockets ⊕ No 44P: PH1; PH2; PH3; PH4
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404

| Code | g |
|---|---|
| **96011306** | 998 |

## 40ma/25/8 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 33 pieces:
25 sockets with hexagon
-No 40: 3.2; 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
-No 40a: 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 extension, flexible No 406 (152 mm)
1 universal joint No 407
1 drive handle No 400
1 flexible handle No 403
1 T-handle No 404

| Code | g |
|---|---|
| **96011162** | 1316 |

## 40/24/6 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 30 pieces:
12 sockets with hexagon No 40:
4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
3 screwdriver sockets ⊖ No 41K:
0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
5 INHEX sockets No 44K:
3; 4; 5; 6; 8 mm
2 screwdriver sockets ⊕ No 44P: PH1; PH2
2 screwdriver sockets ⊕ No 44PZ: PZ1; PZ2
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404

| Code | g |
|---|---|
| **96011138** | 998 |

## 40ma/25/8QR Socket set 1/4" □

QR

- in sturdy, stackable ABS plastic case

Content 33 pieces:
25 sockets with hexagon
-No 40: 3.2; 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
-No 40a: 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
1 ratchet No 415QR N
2 extensions No 405QR/2 (54 mm), No 405QR/6 (150 mm)
1 extension, flexible No 406 (152 mm)
1 universal joint No 407QR
1 drive handle No 400QR
1 flexible handle No 403
1 T-handle No 404QR

| Code | g |
|---|---|
| **96010107** | 1324 |



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6,3
1/4"

DIN
3120

ISO
1174-1

3

## 40/44/17/5 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 22 pieces:
13 sockets with hexagon No 40: 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
4 INHEX sockets No 44: 3; 4; 5; 6 mm
1 ratchet No 415
1 extension No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404

| Code | g |
|---|---|
| **96011113** | 896 |

## 40/44/17/5QR Socket set 1/4" □

QR

- in sturdy, stackable ABS plastic case

Content 22 pieces:
13 sockets with hexagon No 40: 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
4 INHEX sockets No 44: 3; 4; 5; 6 mm
1 ratchet 415QR N
1 extension No 405QR/6 (150 mm)
1 universal joint No 407QR
1 drive handle 400QR
1 T-handle No 404QR

| Code | g |
|---|---|
| **96011181** | 914 |

## 40/45/36/12 Socket set 1/4"; 3/8" □

- in sturdy, stackable ABS plastic case

Content 48 pieces:
12 sockets with bi-hexagon No 45: 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
8 sockets with hexagon No 40: 4; 4.5; 5; 5.5; 6; 7; 8; 9 mm
1 socket with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8"
3 bits ⊕ 1221: PH1; 1222: PH2; 1223: PH3
1 bit ⊕ PZ1222: PZ2
6 bits ⊖ 1160: 0.5 x 3 mm; 1162: 0.6 x 3.5 mm; 1164: 0.8 x 4 mm; 1166: 1.0 x 5.5 mm; 1166/1: 1.2 x 6.5 mm; 1168: 1.6 x 8 mm
5 bits ◉ 1300: 3 mm; 1301: 4 mm; 1302: 5 mm; 1303: 6 mm; 1304: 8 mm
2 ratchets No 415, No 435
3 extensions No 427/3 (76 mm), No 405/6 (150 mm), No 427/10 (240 mm)
2 universal joints No 407, No 428
1 drive handle No 400
1 T-handle No 425
2 bit-holder No 412, No 442
1 reducing adaptor No 431

| Code | g |
|---|---|
| **96012047** | 2712 |

## 40/52/27/11 Socket set 1/4"; 1/2" □

- in sturdy, stackable ABS plastic case

Content 38 pieces:
9 sockets with hexagon No 40: 4; 5; 5.5; 6; 7; 8; 9; 10; 11 mm
10 sockets with hexagon No 52: 13; 16; 17; 18; 19; 21; 22; 24; 27; 30 mm
3 INHEX sockets No 44: 3; 4; 5 mm
5 INHEX sockets No 54: 6; 8; 10; 12; 14 mm
2 ratchets No 415, No 512
4 extensions No 405/2 (54 mm), No 509/5 (130 mm), No 405/6 (150 mm), No 509/10 (255 mm)
2 universal joints No 407, No 510
1 drive handle No 400
2 T-handles No 404, No 506

| Code | g |
|---|---|
| **96011160** | 4915 |

## 40/20/4QR SCI Socket set 1/4" □

QR

- in softcase with foam inlay

Content 24 pieces:
10 sockets with hexagon No 40: 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
2 bits ⊕ 1221: PH1; 1222: PH2
3 bits ◉ 1301: 4 mm; 1302: 5 mm; 1303: 6 mm
5 bits ✱ 1414: T10; 1415: T15; 1416: T20; 1417: T25; 1419: T30
1 ratchet No 415QR N
2 extensions No 405QR/2 (54 mm), No 405QR/6 (150 mm)
1 bit-holder No 412

| Code | g |
|---|---|
| **96010127** | 605 |

## 88TX Socket set TORX® 1/4" □

- in sturdy, stackable ABS plastic case

Content 36 pieces:
10 sockets with hexagon No 40: sizes 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
6 sockets for external TORX® screws No 40TX: sizes E4; E5; E6; E7; E8; E10
5 INHEX sockets No 44K: sizes 3; 4; 5; 6; 8 mm
9 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9; T10; T15; T20; T25; T27; T30; T40
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404

| Code | g |
|---|---|
| **98819801** | 1190 |



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## 86TX Socket set TORX® 1/4; 1/2" □

- in sturdy, stackable ABS plastic case

Content 63 pieces:
9 sockets with hexagon No 40: 4; 5; 5.5; 6; 7; 8; 9; 10; 11 mm
10 sockets with hexagon No 52: 13; 16; 17; 18; 19; 21; 22; 24; 27; 30 mm
5 sockets for external TORX® screws No 40TX: sizes E4; E5; E6; E7; E8
7 sockets for external TORX® screws No 50TX: sizes E10; E12; E14; E16; E18; E20; E24
3 INHEX sockets No 44: 3; 4; 5 mm
5 INHEX sockets No 54: 6; 8; 10; 12; 14 mm
6 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9; T10; T15; T20; T25
7 screwdriver sockets for internal TORX® screws No 54TX: sizes T27; T30; T40; T45; T50; T55; T60
2 ratchets No 415, No 512
4 extensions No 405/2 (54 mm), No 509/5 (130 mm), No 405/6 (150 mm), No 509/10 (255 mm)
2 universal joints No 407, No 510
1 drive handle No 400
2 T-handles No 404, No 506

| Code | g |
|---|---|
| **96013702** | 6500 |

## 89TX Socket set TORX® 1/4; 3/8; 1/2" □

- in sturdy, stackable ABS plastic case

Content 35 pieces:
3 sockets for external TORX® screws No 40TX: sizes E4; E5; E6
2 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9
4 sockets for external TORX® screws No 45TX: sizes E7; E8; E10; E12
5 screwdriver sockets for internal TORX® screws No 49TX: sizes T10; T15; T20; T25; T27
6 sockets for external TORX® screws No 50TX: sizes E11; E14; E16; E18; E20; E24
6 screwdriver sockets for internal TORX® screws No 54TX: sizes T30; T40; T45; T50; T55; T60
7 bits ⊛ 1440: T10; 1441: T15; 1442: T20; 1443: T25; 1444: T27; 1445: T30; 1446: T40
1 bit-holder No 442
1 TORX® controller: sizes E6; E7; E8; E10; E12; E14; E16; T10; T15; T20; T25; T27; T30; T40; T45; T47; T50; T55; T60

| Code | g |
|---|---|
| **98811908** | 2420 |

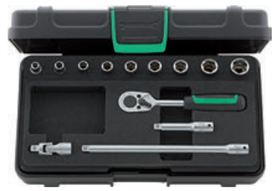
## 40TX/44KTX/15/6 Socket set TORX® 1/4" □

- in sturdy, stackable ABS plastic case

Content 21 pieces:
6 sockets for external TORX® screws No 40TX: sizes E4; E5; E6; E7; E8; E10
9 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9; T10; T15; T20; T25; T27; T30; T40
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407
1 drive handle No 400
1 T-handle No 404

| Code | g |
|---|---|
| **96013701** | 850 |

## 40a/9/4 Socket set 1/4" □



- in sturdy, stackable ABS plastic case

Content 13 pieces:
9 sockets with hexagon No 40a: 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2"
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407

| Code | g |
|---|---|
| **96015107** | 702 |

## 40aD/9/4 Socket set 1/4" □

- in sturdy, stackable ABS plastic case

Content 13 pieces:
9 sockets with bi-hexagon No 40aD: 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2"
1 ratchet No 415
2 extensions No 405/2 (54 mm), No 405/6 (150 mm)
1 universal joint No 407

| Code | g |
|---|---|
| **96016302** | 700 |



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6,3
1/4"

DIN
3120

ISO
1174-1

3

## 40aD/12/7QR Socket set 1/4" □

QR

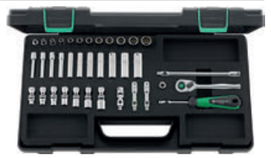
- in sturdy, stackable ABS plastic case

Content 19 pieces:
1 socket with hexagon No 40a: 1/8"
11 sockets with bi-hexagon
No 40aD: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
1 ratchet No 415SG-QR
3 extensions
No 405QR/2 (2x) (54 mm), No 405QR/6 (150 mm)
1 universal joint No 407QR
1 drive handle No 400QR
1 bit-holder No 412

| Code | g |
|---|---|
| **96015208** | 872 |

## 40aD/30/7QR Socket set 1/4" □

QR



- in sturdy, stackable ABS plastic case

Content 37 pieces:
1 socket with hexagon No 40a: size 1/8"
11 sockets with bi-hexagon
No 40aD: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
11 sockets with bi-hexagon, long No 40aDL: 5/32; 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
7 UNIFLEX sockets with bi-hexagon No 402a: 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2"
1 ratchet No 415SG-QR
3 extensions No 405/2QR (2x) (54 mm), No 405/6QR (150 mm)
1 universal joint No 407QR
1 drive handle No 400QR
1 bit-holder No 412

| Code | g |
|---|---|
| **96015205** | 1920 |

## ES 1/4" + 10760CV

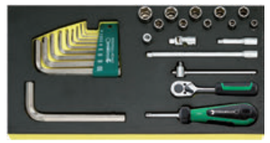
- 175 x 350 x 41 mm
- 27 pieces

| Code | g |
|---|---|
| **96838110** | 1035 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

## TCS 1/4" + 10760CV

TCS



- 175 x 350 x 43 mm
- 27 pieces

| Code | g |
|---|---|
| **96838176** | 987 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

## TCS 1/4" + 10760CV QR

NEW

QR TCS

- 175 x 350 x 43 mm
- 27 pieces

| Code | g |
|---|---|
| **96830364** | 987 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400QR** | 1/4" ■ 150 mm |
| | **404QR** | 1/4" ■ 116 mm |
| | **405QR/2** | 1/4" ■ O 54 mm |
| | **405QR/6** | 1/4" ■ O 150 mm |
| | **407QR** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415QR N** | 1/4" ■ |
| | **10760 CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |



KG3 Print ES DE EN 2019-11-25.indd 124 25.11.2019 17:39:37

## TCS 40/41/44/8

- 175 x 350 x 45 mm
- 33 pieces

| Code | g |
|---|---|
| **96830217** | 715 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **41K** | 1/4" ○, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" ○, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" ○, ⊕ PH1; PH2; PH3; PH4 |
| | **PZ1221**<br>**PZ1222** | 1/4" ⬢, ⊕ PZ1<br>1/4" ⬢, ⊕ PZ2 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ ○ 54 mm |
| | **405/6** | 1/4" ■ ○ 150 mm |
| | **407** | 1/4" ■ ○ 38 mm |
| | **409** | 3/8" ■ 1/4" ○ |
| | **412** | 1/4" ○ ○ |
| | **415** | 1/4" ■ |

## TCS 40/35/9

- 175 x 350 x 40 mm
- 44 pieces

| Code | g |
|---|---|
| **96830601** | 1045 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40L** | 1/4" ○ 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **41K** | 1/4" ○, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" ○, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" ○, ⊕ PH1; PH2; PH3; PH4 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2**<br>**405/4** | 1/4" ■ ○ 54 mm<br>1/4" ■ ○ 100 mm |
| | **405/6** | 1/4" ■ ○ 150 mm |
| | **407** | 1/4" ■ ○ 38 mm |
| | **409** | 3/8" ■ 1/4" ○ |
| | **412** | 1/4" ○ ○ |
| | **415** | 1/4" ■ |

## TCS 40/41/44/8QR

- 175 x 350 x 45 mm
- 33 pieces

| Code | g |
|---|---|
| **96830365** | 715 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **41K** | 1/4" ○, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" ○, ● 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" ○, ⊕ PH1; PH2; PH3; PH4 |
| | **PZ1221**<br>**PZ1222** | 1/4" ○, ⊕ PZ1<br>1/4" ○, ⊕ PZ2 |
| | **400QR** | 1/4" ■ 150 mm |
| | **404QR** | 1/4" ■ 116 mm |
| | **405QR/2** | 1/4" ■ ○ 54 mm |
| | **405QR/6** | 1/4" ■ ○ 150 mm |
| | **407QR** | 1/4" ■ ○ 38 mm |
| | **409** | 3/8" ■ 1/4" ○ |
| | **412** | 1/4" ○ ○ |
| | **415QR N** | 1/4" ■ |

## TCS 40/35/9QR

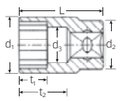
- 175 x 350 x 40 mm
- 44 pieces

| Code | g |
|---|---|
| **96830366** | 1045 |

| | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40L** | 1/4" ○ 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **41K** | 1/4" ○, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" ○, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" ○, ⊕ PH1; PH2; PH3; PH4 |
| | **400QR** | 1/4" ■ 150 mm |
| | **404QR** | 1/4" ■ 116 mm |
| | **405QR/2**<br>**405QR/4** | 1/4" ■ ○ 54 mm<br>1/4" ■ ○ 100 mm |
| | **405QR/6** | 1/4" ■ ○ 150 mm |
| | **407QR** | 1/4" ■ ○ 38 mm |
| | **409** | 3/8" ■ 1/4" ○ |
| | **412** | 1/4" ○ ○ |
| | **415QR N** | 1/4" ■ |

## 45 Sockets

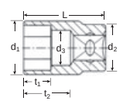
- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3709
- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02010007** | **7** | 10.5 | 16.5 | 6 | 24 | 6 | 12.5 | 19 | 10 |
| **02010008** | **8** | 11.7 | 16.5 | 7 | 25 | 7 | 13.5 | 19 | 10 |
| **02010009** | **9** | 13 | 16.5 | 8 | 25 | 7 | 13.5 | 19 | 10 |
| **02010010** | **10** | 14.3 | 16.5 | 9 | 27 | 8.5 | 15.5 | 20 | 10 |
| **02010011** | **11** | 15.6 | 16.5 | 10 | 27 | 8.5 | 13.7 | 21 | 10 |
| **02010012** | **12** | 16.9 | 17.5 | 11 | 28 | 9.5 | 14.4 | 24 | 10 |
| **02010013** | **13** | 18 | 17.5 | 12 | 30 | 11.5 | 16.1 | 30 | 10 |
| **02010014** | **14** | 19.4 | 17.5 | 13 | 30 | 11.5 | 15.8 | 28 | 10 |
| **02010015** | **15** | 20.6 | 19 | 14 | 31 | 12.5 | 19.2 | 40 | 10 |
| **02010016** | **16** | 21.7 | 19 | 15 | 31 | 13.5 | 18.9 | 33 | 10 |
| **02010017** | **17** | 23 | 19 | 16 | 31 | 12.5 | 18.6 | 44 | 10 |
| **02010018** | **18** | 24.2 | 19 | 17 | 32 | 13.5 | 19.3 | 39 | 5 |
| **02010019** | **19** | 25.2 | 19 | 18 | 32 | 13.5 | 19 | 39 | 5 |
| **02010020** | **20** | 26.2 | 20 | 19 | 34 | 15.5 | 20.7 | 51 | 5 |
| **02010021** | **21** | 27.7 | 21 | 20 | 34 | 15.5 | 20.5 | 53 | 5 |
| **02010022** | **22** | 28.7 | 21 | 21 | 35 | 17 | 21.2 | 61 | 5 |
| **02010024** | **24** | 31.5 | 24 | 21 | 35 | 18 | 21.2 | 92 | 5 |

## 456 Sockets

- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3709 (test loads)
- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02110007** | **7** | 10.5 | 16.5 | 6 | 24 | 6 | 12.5 | 19 | 10 |
| **02110008** | **8** | 11.7 | 16.5 | 7 | 25 | 7 | 13.5 | 19 | 10 |
| **02110009** | **9** | 13 | 16.5 | 8 | 25 | 7 | 13.5 | 20 | 10 |
| **02110010** | **10** | 14.3 | 16.5 | 9 | 27 | 8.5 | 15.5 | 20 | 10 |
| **02110011** | **11** | 15.6 | 16.5 | 10 | 27 | 8.5 | 13.7 | 21 | 10 |
| **02110012** | **12** | 16.9 | 17.5 | 11 | 28 | 9.5 | 14.4 | 24 | 10 |
| **02110013** | **13** | 18 | 17.5 | 12 | 30 | 11.5 | 16.1 | 25 | 10 |
| **02110014** | **14** | 19.4 | 17.5 | 13 | 30 | 11.5 | 15.8 | 29 | 10 |
| **02110015** | **15** | 20.6 | 19 | 14 | 31 | 12.5 | 19.2 | 30 | 10 |
| **02110016** | **16** | 21.7 | 19 | 15 | 31 | 13.5 | 18.9 | 34 | 10 |
| **02110017** | **17** | 23 | 19 | 16 | 31 | 12.5 | 18.6 | 45 | 10 |
| **02110018** | **18** | 24.2 | 19 | 17 | 32 | 13.5 | 19.3 | 42 | 10 |
| **02110019** | **19** | 25.2 | 19.6 | 18 | 32 | 13.5 | 19 | 43 | 10 |
| **02110020** | **20** | 26.2 | 20.5 | 19 | 34 | 15.5 | 20.7 | 53 | 10 |
| **02110021** | **21** | 27.7 | 21.8 | 20 | 34 | 15.5 | 20.5 | 59 | 10 |
| **02110022** | **22** | 28.7 | 21 | 21 | 35 | 17 | 21.2 | 59 | 10 |

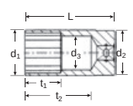
## 45a Sockets

- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02410016** | **1/4** | 9.7 | 16.5 | 5.2 | 24 | 6 | 12.5 | 18 | 10 |
| **02410020** | **5/16** | 11.7 | 16.5 | 7 | 25 | 7 | 13.5 | 19 | 10 |
| **02410022** | **11/32** | 12.5 | 16.5 | 8.1 | 25 | 7 | 13.5 | 19 | 10 |
| **02410024** | **3/8** | 13.7 | 16.5 | 8.4 | 27 | 8.5 | 15.5 | 20 | 10 |
| **02410028** | **7/16** | 15.7 | 16.5 | 10 | 28 | 9.5 | 15.1 | 20 | 10 |
| **02410032** | **1/2** | 18 | 17.5 | 11.5 | 30 | 11.5 | 16.5 | 24 | 10 |
| **02410034** | **9/16** | 20.2 | 19 | 13.1 | 31 | 12.7 | 16.8 | 28 | 10 |
| **02410035** | **19/32** | 20.6 | 19 | 14 | 31 | 13 | 19.2 | 36 | 5 |
| **02410036** | **5/8** | 21.7 | 19 | 15 | 31 | 13.5 | 18.9 | 31 | 5 |
| **02410038** | **11/16** | 23.4 | 19 | 16.3 | 32 | 14.7 | 19.5 | 34 | 5 |
| **02410040** | **3/4** | 25.2 | 19 | 18 | 32 | 15.9 | 19 | 41 | 5 |
| **02410042** | **13/16** | 27.2 | 20.5 | 19.4 | 34 | 16.5 | 20.5 | 52 | 5 |
| **02410044** | **7/8** | 28.7 | 22 | 21 | 35 | 18 | 21 | 59 | 5 |
| **02410046** | **15/16** | 31.5 | 24 | 22.6 | 35 | 18.5 | 20.7 | 95 | 5 |
| **02410048** | **1** | 33 | 25.5 | 24.2 | 35 | 18.5 | 20.2 | 97 | 5 |

## 460a Sockets

- SAE AS 954-E, S.B.A.C. AS 40610/40611, ASME B 107.1
- HPQ® high performance steel, chrome plated



| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02620016** | **1/4** | 9.9 | 16.5 | 5.2 | 32 | 7 | 20.5 | 21 | 5 |
| **02620020** | **5/16** | 11.5 | 16.5 | 7 | 32 | 8.5 | 20.5 | 22 | 5 |
| **02620024** | **3/8** | 13.7 | 16.5 | 8.5 | 38 | 9 | 26.5 | 29 | 5 |
| **02620028** | **7/16** | 15.7 | 16.5 | 10 | 38 | 11 | 24.5 | 33 | 5 |
| **02620032** | **1/2** | 17.5 | 17.8 | 11.5 | 44 | 12 | 30 | 44 | 5 |

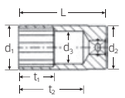
STAHLWILLE
**High Performance Quality.**

High Performance Quality (HPQ®) high-performance steel – extremely resilient, yet thin-walled and ideal for working in confined spaces.

## 46 Sockets

AS CERT HPQ

- extra deep
- DIN 3124/ISO 2725-1, E DIN EN 3710, E DIN EN 3709, ASME B 107.5M
- HPQ® high performance steel, chrome plated



| Code | mm/" | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02020008** | **8** | 11.7 | 16.5 | 7 | 54 | 9 | 42.5 | 36 | 10 |
| **02020010** | **10** | 14.3 | 16.5 | 9 | 54 | 20 | 42.5 | 41 | 10 |
| **02020011** | **11** | 15.6 | 16.5 | 10 | 54 | 20 | 40.7 | 51 | 10 |
| **02020012** | **12** | 16.9 | 17.5 | 11 | 54 | 20 | 40.4 | 57 | 10 |
| **02020013** | **13** | 18 | 17.5 | 12 | 54 | 20 | 40.1 | 61 | 10 |
| **02020014** | **14** | 19.4 | 17.5 | 13 | 60 | 25 | 45.8 | 75 | 10 |
| **02020015** | **15** | 20.6 | 19 | 14 | 60 | 25 | 48.2 | 85 | 10 |
| **02020016** | **16** | 21.7 | 19.5 | 15 | 60 | 25 | 47.9 | 81 | 10 |
| **02020017** | **17** | 23 | 21 | 16 | 65 | 30 | 52.6 | 97 | 10 |
| **02020018** | **18** | 24.2 | 22 | 17 | 65 | 30 | 52.3 | 121 | 10 |
| **02020019** | **19** | 25.2 | 23 | 18 | 65 | 30 | 52 | 112 | 10 |
| **02020208** | **20.8-13/16 [1]** | 27.2 | 25 | - | 65 | 18 | - | 151 | 10 |
| **02020021** | **21** | 27.7 | 25.5 | 20 | 65 | 30 | 51.5 | 137 | 5 |
| **02020022** | **22** | 28.7 | 26.5 | 21 | 65 | 30 | 51.2 | 178 | 5 |

[1]) with rubber insert for spark plugs

## 46a Sockets

AS CERT HPQ

- extra deep
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E
- HPQ® high performance steel, chrome plated

| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02420016** | **1/4** | 9.7 | 16.5 | 5.2 | 54 | 9 | 42.5 | 33 | 5 |
| **02420020** | **5/16** | 11.7 | 16.5 | 7 | 54 | 9 | 42.5 | 35 | 5 |
| **02420022** | **11/32** | 12.5 | 16.5 | 8.1 | 54 | 9 | 42.5 | 186 | 5 |
| **02420024** | **3/8** | 13.7 | 16.5 | 8.4 | 54 | 20 | 42.5 | 45 | 5 |
| **02420028** | **7/16** | 15.7 | 16.5 | 10 | 54 | 20 | 40.7 | 53 | 5 |
| **02420032** | **1/2** | 18 | 17.5 | 11.5 | 54 | 20 | 40.2 | 64 | 5 |
| **02420034** | **9/16** | 20.2 | 19 | 13.1 | 60 | 25 | 45.8 | 80 | 5 |
| **02420035** | **19/32** | 20.6 | 19 | 14 | 60 | 25 | 48.2 | 84 | 5 |
| **02420036** | **5/8** | 21.7 | 19.5 | 15 | 60 | 25 | 47.9 | 81 | 5 |
| **02420038** | **11/16** | 23.4 | 21.5 | 16.3 | 65 | 30 | 52.5 | 114 | 5 |
| **02420040** | **3/4** | 25.2 | 23 | 18 | 65 | 30 | 52 | 137 | 5 |
| **02420042** | **13/16** | 27.2 | 25 | 19.4 | 65 | 30 | 51.6 | 130 | 5 |
| **02420044** | **7/8** | 28.7 | 26.5 | 21 | 65 | 30 | 51.2 | 184 | 5 |
| **02420046** | **15/16** | 31.5 | 29 | 22.6 | 65 | 30 | 50.7 | 195 | 5 |
| **02420048** | **1** | 33 | 31 | 24.2 | 65 | 30 | 50.2 | 205 | 5 |

## 5100 Rubber insert

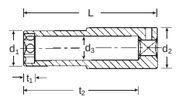
- for 20.8 mm (No 46; 51; 51S)

| Code | g | |
|---|---|---|
| **09010001** | 6 | 5 |

## 3466 Spark plug socket

AS CERT HPQ

- extra deep
- with magnet
- HPQ® high performance steel, chrome plated

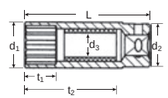


| Code | mm/" | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02140036** | **16-5/8** | 21.8 | 25.5 | 15 | 85 | 7 | 72.9 | 180 | 5 |

## 4600 Spark plug socket

AS CERT HPQ

- extra deep
- with rubber insert
- HPQ® high performance steel, chrome plated

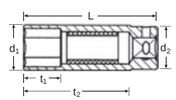


| Code | mm/" | $d_1$ mm | $d_2$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **02120036** | **16-5/8** | 21.7 | 19.5 | 60 | 15 | 47.8 | 84 | 10 |

## 4606 Spark plug socket

AS CERT HPQ

- extra deep
- with rubber insert
- HPQ® high performance steel, chrome plated



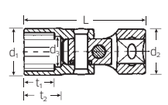
| Code | mm/" | $d_1$ mm | $d_2$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **02130018** | **18-11/16** | 24.2 | 22 | 65 | 18 | 52.8 | 132 | 10 |

assembly of spark plugs on motorcycles, mopeds

## 47 UNIFLEX sockets

AS CERT HPQ

- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02040010** | **10** | 14.3 | 17.5 | 9 | 45.5 | 7 | 12 | 51 | 1 |
| **02040011** | **11** | 15.6 | 17.5 | 10 | 47.5 | 11 | 14 | 55 | 1 |
| **02040012** | **12** | 16.9 | 17.5 | 11 | 48 | 11 | 14.5 | 54 | 1 |
| **02040013** | **13** | 18.3 | 17.5 | 12 | 48 | 12 | 14.5 | 53 | 1 |
| **02040014** | **14** | 19.4 | 17.5 | 13 | 48.5 | 13 | 14.5 | 55 | 1 |
| **02040015** | **15** | 20.6 | 17.5 | 14 | 48.5 | 13 | 14.5 | 56 | 1 |
| **02040016** | **16** | 21.8 | 17.5 | 15 | 51.5 | 14 | 17 | 58 | 1 |
| **02040017** | **17** | 23 | 17.5 | 16 | 53.5 | 15 | 18.5 | 65 | 1 |
| **02040018** | **18** | 24.2 | 17.5 | 17 | 54.5 | 16 | 18.5 | 61 | 1 |
| **02040019** | **19** | 25.5 | 17.5 | 18 | 57 | 16 | 21 | 68 | 1 |



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## 47a — UNIFLEX sockets

HPQ AS mini

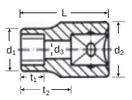
- SAE AS 954-E
- HPQ® high performance steel, chrome plated

| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02440020** | 5/16 | 11.7 | 17.5 | 7 | 45.5 | 7 | 12.5 | 50 | 1 |
| **02440024** | 3/8 | 13.7 | 17.5 | 8.5 | 45.5 | 7 | 12 | 50 | 1 |
| **02440028** | 7/16 | 15.8 | 17.5 | 10 | 47.5 | 11 | 14 | 50 | 1 |
| **02440032** | 1/2 | 18.3 | 17.5 | 11.5 | 47.5 | 11.5 | 14 | 57 | 1 |
| **02440034** | 9/16 | 19.7 | 17.5 | 13.1 | 48.5 | 13 | 14.5 | 55 | 1 |
| **02440036** | 5/8 | 21.6 | 17.5 | 15 | 51.5 | 14 | 17 | 59 | 1 |
| **02440038** | 11/16 | 23.5 | 17.5 | 16.3 | 53.5 | 16 | 18.5 | 58 | 1 |
| **02440040** | 3/4 | 25.5 | 17.5 | 18 | 57 | 16 | 21 | 67 | 1 |

## 45TX — Sockets

HPQ

- for external TORX® screws
- HPQ® high performance steel, chrome plated



| Code | size | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **02270005** | **E5** | 4.7 | 7 | 16.5 | 2.8 | 28 | 5 | 16.5 | 23 | 10 |
| **02270006** | **E6** | 5.7 | 8 | 16.5 | 3.6 | 28 | 5.5 | 16.5 | 23 | 10 |
| **02270007** | **E7** | 6.2 | 9 | 16.5 | 3.8 | 28 | 6.5 | 16.5 | 24 | 10 |
| **02270008** | **E8** | 7.5 | 10.5 | 16.5 | 4.3 | 28 | 7 | 16.5 | 22 | 10 |
| **02270010** | **E10** | 9.4 | 13 | 16.5 | 5.6 | 28 | 8 | 16.5 | 27 | 10 |
| **02270012** | **E12** | 11.1 | 14.9 | 16.5 | 7.2 | 28 | 9.5 | 16.5 | 30 | 10 |
| **02270014** | **E14** | 12.9 | 16.5 | 17.3 | 8 | 28 | 10 | 16.5 | 34 | 10 |

## 45TX/7 — Set sockets

HPQ

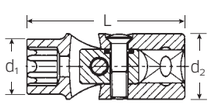
- for external TORX® screws
- packed in carton

Content 7 pieces:
E5; E6; E7; E8; E10; E12; E14

| Code | g |
|---|---|
| **96022702** | 219 |

## 47TX — UNIFLEX sockets

- for external TORX® screws
- Chrome Alloy Steel, chrome plated

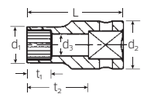


| Code | size | mm | $d_1$ mm | $d_2$ mm | L mm | g | |
|---|---|---|---|---|---|---|---|
| **02070008** | **E8** | 7.5 | 11.5 | 19 | 43 | 56 | 1 |
| **02070010** | **E10** | 9.4 | 13.8 | 19 | 44 | 61 | 1 |
| **02070012** | **E12** | 11.1 | 16 | 19 | 46 | 66 | 1 |
| **02070014** | **E14** | 12.9 | 17.8 | 19 | 48 | 75 | 1 |

## 45aSP — Sockets

HPQ

- for external Spline-Drive screws
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated

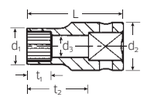


| Code | Spline size | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **02011012** | **12** | 3/8 | 13.7 | 16.5 | 8.6 | 26.5 | 9 | 15 | 24 | 1 |
| **02011014** | **14** | 7/16 | 16 | 17.3 | 10.4 | 28 | 11 | 14.5 | 37 | 1 |
| **02011016** | **16** | 1/2 | 18 | 18.3 | 12.2 | 28 | 11.5 | 14 | 28 | 1 |

## 45aPSP — Socket

HPQ

- for external Spline-Drive screws
- MS-33787, MIL-W-8982
- for disassembling jet engines, series CFM 56
- HPQ® high performance steel, gunmetal finish

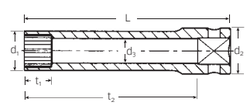


| Code | Spline size | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **22410028** | **14** | 7/16 | 18.8 | 18.8 | 10.4 | 28 | 11 | 14.5 | 36 | 10 |

## 46aSP — Sockets

HPQ

- for external Spline-Drive screws
- extra deep
- bolt clearance
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated

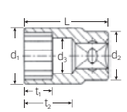


| Code | Spline size | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02021012** | **12** | 3/8 | 13.7 | 16.5 | 8.6 | 54 | 42.5 | 52 | 1 |
| **02021014** | **14** | 7/16 | 16 | 17.3 | 10.4 | 54 | 42.5 | 63 | 1 |

## 45aP — Socket

AS mini HPQ

- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- for disassembling jet engines, series CFM 56
- HPQ® high performance steel, gunmetal finish



| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02430020** | 5/16 | 11.9 | 16.5 | 8.1 | 25 | 7 | 13.5 | 19 | 10 |



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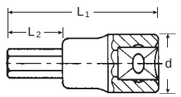
## 49 INHEX sockets

- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **02050003** | **3** | 52 | 20 | 17.8 | 38 | 5 |
| **02050004** | **4** | 52 | 20 | 17.8 | 40 | 5 |
| **02050005** | **5** | 52 | 20 | 17.8 | 44 | 5 |
| **02050006** | **6** | 52 | 20 | 17.8 | 46 | 5 |
| **02050007** | **7** | 52 | 20 | 17.8 | 51 | 5 |
| **02050008** | **8** | 52 | 20 | 17.8 | 55 | 5 |
| **02050010** | **10** | 52 | 20 | 17.8 | 62 | 5 |

## 49a INHEX sockets

- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated

| Code | " | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **02450008** | **1/8** | 52 | 20 | 17.8 | 39 | 5 |
| **02450009** | **9/64** | 52 | 20 | 17.8 | 40 | 5 |
| **02450010** | **5/32** | 52 | 20 | 17.8 | 40 | 5 |
| **02450012** | **3/16** | 52 | 20 | 17.8 | 44 | 5 |
| **02450014** | **7/32** | 52 | 20 | 17.8 | 46 | 5 |
| **02450016** | **1/4** | 52 | 20 | 17.8 | 48 | 5 |
| **02450020** | **5/16** | 52 | 20 | 17.8 | 55 | 5 |
| **02450024** | **3/8** | 52 | 20 | 17.8 | 61 | 5 |

## 2049 INHEX sockets

- for socket head screws
- extra long
- DIN 7422
- Chrome Alloy Steel, chrome plated

| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **02151004** | **4** | 100 | 68 | 17.8 | 45 | 5 |
| **02151005** | **5** | 100 | 68 | 17.8 | 50 | 5 |
| **02151006** | **6** | 100 | 68 | 17.8 | 50 | 5 |
| **02151208** | **8** | 120 | 88 | 17.8 | 85 | 5 |
| **02151210** | **10** | 120 | 88 | 17.8 | 106 | 5 |

## 1049/3049 INHEX sockets

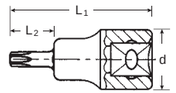
- for socket head screws
- DIN 7422
- special lengths
- Chrome Alloy Steel, chrome plated

| Code | No | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **02151007** | **1049/7** | 7 | 100 | 68 | 17.8 | 66 | 5 |
| **02152408** | **3049/8** | 8 | 24 | 6.5 | 19 | 28 | 5 |
| **02151009** | **1049/9 [1])** | 9 | 57 | 25 | 17.8 | 62 | 5 |

[1]) for brake calliper retainers on BMW and MINI

## 49TX Screwdriver sockets

- for inside TORX® screws
- Chrome Alloy Steel, chrome plated



| Code | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **02100009** | **T9** | 2.5 | 49 | 17 | 17.8 | 45 | 5 |
| **02100010** | **T10** | 2.7 | 49 | 17 | 17.8 | 45 | 5 |
| **02100015** | **T15** | 3.3 | 49 | 17 | 17.8 | 45 | 5 |
| **02100020** | **T20** | 3.8 | 49 | 17 | 17.8 | 46 | 5 |
| **02100025** | **T25** | 4.4 | 49 | 17 | 17.8 | 46 | 5 |
| **02100027** | **T27** | 5 | 49 | 17 | 17.8 | 46 | 5 |
| **02100030** | **T30** | 5.5 | 49 | 17 | 17.8 | 47 | 5 |
| **02100040** | **T40** | 6.6 | 49 | 17 | 17.8 | 48 | 5 |
| **02100045** | **T45** | 7.8 | 49 | 17 | 17.8 | 49 | 5 |

## 49TX/8 Set screwdriver sockets

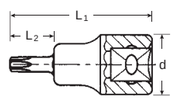
- for inside TORX® screws
- packed in carton

Content 8 pieces:
No 49TX: T9; T10; T15; T20; T25; T27; T30; T40

| Code | g |
|---|---|
| **96021001** | 456 |

## 49X Screwdriver sockets

- for tri-square socket head screws (XZN®)
- DIN 2324
- Chrome Alloy Steel, chrome plated



| Code | size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **02060005** | **M5** | 52 | 20 | 17.8 | 45 | 5 |
| **02060006** | **M6** | 52 | 20 | 17.8 | 47 | 5 |
| **02060008** | **M8** | 52 | 20 | 17.8 | 56 | 5 |
| **02060010** | **M10** | 52 | 20 | 17.8 | 63 | 5 |

## 3049X Screwdriver sockets

- for tri-square socket head screws (XZN®)
- extra long
- DIN 2324
- Chrome Alloy Steel, chrome plated

| Code | size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **02261206** | **M6** | 120 | 88 | 17.8 | 72 | 1 |
| **02261208** | **M8** | 120 | 88 | 17.8 | 80 | 5 |
| **02261210** | **M10** | 120 | 88 | 17.8 | 106 | 5 |



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## 45CL Clip strips

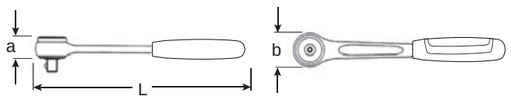
- for socket retention
- supplied without sockets

| Code | size | L mm | g |
|---|---|---|---|
| **80450001** | **1** | 200 | 40 |
| **80450002** | **2** | 300 | 58 |

# Drive tools and accessories



- 3/8" □
- finish: Chrome Alloy Steel, chrome plated




## 422 Ratchet, fine tooth

- reversible
- 60 teeth
- with 2-component handle
- for use in confined spaces, re-engages after movement of 6°
- DIN 3122/ISO 3315

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **12231011** | 194 | 32 | 24 | 236 | 1 |

## 435 Ratchet

- reversible
- 30 teeth
- with 2-component handle
- DIN 3122/ISO 3315

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **12111010** | 193 | 29 | 18 | 235 | 5 |

## 435QR QuickRelease ratchet

QR

- reversible
- 30 teeth
- with QuickRelease safety lock
- with 2-component handle
- DIN 3122/ISO 3315

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **12110020** | 193 | 29 | 18 | 244 | 1 |

## 435QR N QuickRelease ratchet, fine tooth

QR FOD 80 4.5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with 2-component handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **12111020** | 193 | 30 | 15 | 235 | 1 |

## 435SG-QR N QuickRelease ratchet, fine tooth

QR FOD 80 4.5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with steel handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **12111030** | 193 | 30 | 15 | 272 | 1 |

## 452QR QuickRelease fine-tooth flexible-joint ratchet

QR FOD 80 4.5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with 2-component handle
- handle may be raised or lowered by approx. 90°, lockable in following positions:
  - -straight
  - -30° up
  - -60° up
  - -30° down
- release the lock by pressing the button in the handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **12261010** | 300 | 28.2 | 14.5 | 350 | 1 |

## 445 Ratchet adaptor

- reversible
- 20 teeth

| Code | L mm | ∅ mm | g | |
|---|---|---|---|---|
| **12140000** | 43 | 30 | 135 | 1 |



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## 435QR N/6 Set of wrenches

QR

- in sturdy, stackable ABS plastic case

Content 6 pieces:
1 ratchet No 435QR N
3 extensions
No 427QR/3 (76 mm),
No 427QR/6 (160 mm), No 427QR/10 (240 mm)
1 universal joint No 428QR
1 T-handle No 425QR

| Code | g |
|---|---|
| **96 02 40 10** | 1375 |

## 7350/5 Spare parts set for ratchet No 422

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| Code | g |
|---|---|
| **59 25 10 05** | 85 |

## 4350 Spare parts set for ratchet No 435

Content 8 pieces:
1 pinion, 1 pawl, 1 lever with pin, 1 ball, 2 compression springs, 2 screws

| Code | g |
|---|---|
| **19 02 00 00** | 50 |

## 4350QR Spare parts set for ratchet No 435QR

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

| code | g |
|---|---|
| **19 02 00 20** | 51 |

## 4350QR N Spare parts set for ratchets No 435QR N, 435SG-QR N, 452QR

QR

Content 9 pieces:
1 pinion; 1 locking disc; 1 lever; 1 pin; 1 ball; 1 compression spring;
2 circlips; 1 cover plate

| code | g |
|---|---|
| **19 02 10 20** | 48 |

## 421 Speeder brace

- working radius 85 mm
- DIN 3122/ISO 3315

| Code | L mm | g | |
|---|---|---|---|
| **12 10 00 10** | 386.5 | 385 | 5 |

## 453QR QuickRelease speeder brace

QR

- with steel handle
- for greater axial power transmission, detachable palm head
- working radius 85 mm
- DIN 3122/ISO 3315
- with QuickRelease safety lock
- patent

| Code | L mm | g | |
|---|---|---|---|
| **12 10 00 05** | 408 | 650 | 1 |

## 424 Flexible handle

- DIN 3122/ISO 3315
- with 2-component handle

| Code | L mm | g | |
|---|---|---|---|
| **12 06 10 10** | 253.5 | 222 | 1 |

## 425 Sliding T-handle

- DIN 3122/ISO 3315

| Code | L mm | g | |
|---|---|---|---|
| **12 07 00 00** | 165 | 130 | 5 |

## 425QR QuickRelease sliding T-handle

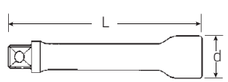
QR

- with QuickRelease safety lock
- patent

| Code | L mm | g | |
|---|---|---|---|
| **12 07 10 00** | 165 | 148 | 1 |

## 427 Extensions

- DIN 3123/ISO 3316



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **12 01 00 05** | **1.5** | 38 | 17 | 36 | 5 |
| **12 01 00 01** | **3** | 76 | 17 | 69 | 5 |
| **12 01 00 06** | **5** | 125 | 17 | 104 | 5 |
| **12 01 00 02** | **6** | 160 | 17 | 127 | 5 |
| **12 01 00 03** | **10** | 240 | 17 | 188 | 5 |
| **12 01 00 04** | **18** | 455 | 17 | 345 | 5 |



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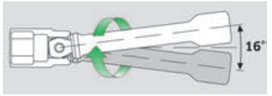
## 427W Wobble-Drive extensions

- swivel angle 15° each side
- max. torque 80 N·m



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **12010007** | **3** | 76 | 17 | 67 | 5 |
| **12010008** | **5** | 125 | 17 | 104 | 5 |
| **12010009** | **6** | 160 | 17 | 127 | 5 |

## 427QR QuickRelease extensions

QR

- patent
- DIN 3123/ISO 3316

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **12011001** | **3** | 76 | 17 | 66 | 1 |
| **12011002** | **6** | 160 | 17 | 127 | 1 |
| **12011003** | **10** | 240 | 17 | 185 | 1 |

## 433/1 Locking adaptor

- with hexagon key wrench No 10760aCV 1/8"

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **96122701** | 52 | 18 | 57 | 1 |

## 434 Extension, flexible

- right hand rotation only
- maximum torque 7 N·m

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12040000** | 194 | 14 | 109 | 5 |

## 1225 Special extension

- offset

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12250001** | 150 | 17 | 128 | 5 |

## 13220 Special extension

- for removing boroscope plugs
- with boroscope plug locking
- external hexagon 16 mm

| Code | L mm | g | |
|---|---|---|---|
| **12270020** | 355 | 330 | 1 |

## 428 Universal joint

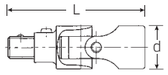
- DIN 3123/ISO 3316

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12020000** | 46 | 18.8 | 55 | 5 |

## 428QR QuickRelease universal joint

QR

- patent
- DIN 3123/ISO 3316
- with QuickRelease safety lock



| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12021000** | 60 | 19 | 66 | 1 |

## 5513 Set of adaptors

content 5 pieces:

- No 409, 1/4" socket x 3/8" plug
- No 431, 3/8" socket x 1/4" plug
- No 432, 3/8" socket x 1/2" plug
- No 513, 1/2" socket x 3/8" plug
- No 514, 1/2" socket x 3/4" plug

| Code | g |
|---|---|
| **96121003** | 648 |

## 431 Reducing adaptor

HPQ

- 3/8" socket x 1/4" plug (10 x 6.3)
- maximum torque 62 N·m
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12030001** | 28 | 17.2 | 26 | 5 |



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## 432 Extending adaptor

HPQ

- 3/8" socket x 1/2" plug (10 x 12.5)
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12030003** | 31 | 17.2 | 36 | 5 |

## 409M/432M/514M/3 Set extending adaptors

content 3 pieces:
- 1/4" socket x 3/8" plug
- 3/8" socket x 1/2" plug
- 1/2" socket x 3/4" plug

| Code | g |
|---|---|
| **96121002** | 120 |

## 432M Extending adaptor

- 3/8" socket x 1/2" plug (10 x 12.5)

| Code | L mm | ∅ mm | g | |
|---|---|---|---|---|
| **12030010** | 16 | 32 | 22 | 1 |

## 442 Bit holder

- O 1/4" inside hexagon
- DIN 3126/ISO 1173 D 6.3
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12180026** | 32 | 16.5 | 30 | 5 |

## 443 Bit holder

- O 5/16" inside hexagon
- DIN 3126/ISO 1173 D 8
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12180030** | 32 | 16.5 | 39 | 5 |

## 45/11/4 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 15 pieces:
11 sockets with bi-hexagon No 45: 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 universal joint No 428

| Code | g |
|---|---|
| **96021109** | 1444 |

## 456/11/4 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 15 pieces:
11 sockets with hexagon No 456: 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 universal joint No 428

| Code | g |
|---|---|
| **96022133** | 1458 |

## 45/14/5i Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 19 pieces:
14 sockets with bi-hexagon No 45: sizes 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96024132** | 1678 |

## 456/14/5i Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 19 pieces:
14 sockets with hexagon No 456: 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96023132** | 1758 |



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## 45/14/5iQR Socket set 3/8" □

QR

- in sturdy, stackable ABS plastic case

Content 19 pieces:
14 sockets with bi-hexagon No 45:
8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
1 ratchet No 435QR N
2 extensions No 427QR/3 (76 mm), No 427QR/10 (240 mm)
1 T-handle No 425QR
1 universal joint No 428QR

| Code | g |
|---|---|
| **96021180** | 1738 |

## 45/49/19/5 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 24 pieces:
11 sockets with bi-hexagon No 45:
8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
1 socket with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8"
7 INHEX sockets No 49: 3; 4; 5; 6; 7; 8; 10 mm
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96021223** | 2428 |

3

## 45/13/5 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 18 pieces:
12 sockets with bi-hexagon No 45:
8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
1 socket with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8"
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96021234** | 1678 |

## 456/49/19/5 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 24 pieces:
11 sockets with hexagon No 456:
8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
1 socket with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8"
7 INHEX sockets No 49: 3; 4; 5; 6; 7; 8; 10 mm
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96021236** | 2456 |

## 456/13/5 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 18 pieces:
12 sockets with hexagon No 456:
8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
1 socket with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8"
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96021202** | 1698 |

## 40/45/36/12 Socket set 1/4"; 3/8" □

- in sturdy, stackable ABS plastic case

Content 48 pieces:
12 sockets with bi-hexagon No 45:
10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
8 sockets with hexagon No 40:
4; 4.5; 5; 5.5; 6; 7; 8; 9 mm
1 socket with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8"
3 bits ⊕ 1221: PH1; 1222: PH2; 1223: PH3
1 bit ⊕ PZ1222: PZ2
6 bits ⊖ 1160: 0.5 x 3 mm; 1162: 0.6 x 3.5 mm; 1164: 0.8 x 4 mm; 1166: 1.0 x 5.5 mm; 1166/1: 1.2 x 6.5 mm; 1168: 1.6 x 8 mm
5 bits ◉ 1300: 3 mm; 1301: 4 mm; 1302: 5 mm; 1303: 6 mm; 1304: 8 mm
2 ratchets No 415, No 435
3 extensions No 427/3 (76 mm), No 405/6 (150 mm), No 427/10 (240 mm)
2 universal joints No 407, No 428
1 drive handle No 400
1 T-handle No 425
2 bit-holder No 412, No 442
1 reducing adaptor No 431

| Code | g |
|---|---|
| **96012047** | 2712 |



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## 89 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 44 pieces:
15 sockets with bi-hexagon No 45: 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
2 sockets with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8", No 46: 20.8 mm - 13/16"
7 INHEX sockets No 49: 3; 4; 5; 6; 7; 8; 10 mm
15 combination spanners No 13: 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96023128** | 4710 |

## 45ma/28/5 Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 33 pieces:
28 sockets with bi-hexagon
-No 45: 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm
-No 45a: 1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8"
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96021122** | 2660 |

## 45ma/28/5QR Socket set 3/8" □

QR

- in sturdy, stackable ABS plastic case

Content 33 pieces:
28 sockets with bi-hexagon
-No 45: 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm
-No 45a: 1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8"
1 ratchet No 435QR N
2 extensions No 427QR/3 (76 mm), No 427QR/10 (240 mm)
1 T-handle No 425QR
1 universal joint No 428QR

| Code | g |
|---|---|
| **96020107** | 2710 |

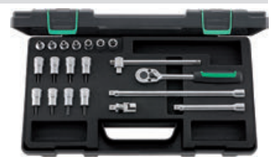
## 45/41/9 Socket set 3/8" □

- in sturdy sheet steel case

Content 50 pieces:
11 sockets with bi-hexagon No 45: 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
9 sockets with bi-hexagon, long, No 46: 10; 11; 12; 13; 14; 15; 17; 18; 19 mm
2 sockets with bi-hexagon, long, with rubber insert No 4600: size 16 mm - 5/8"; No 46: size 20.8 mm - 13/16"
10 UNIFLEX sockets with bi-hexagon No 47: sizes 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
5 INHEX sockets No 49: size 4; 5; 6; 8; 10 mm
4 bits ⊕ 1231: PH1; 1232: PH2; 1233: PH3; 1234: PH4
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 flexible handle No 424
1 T-handle No 425
1 universal joint No 428
1 flexible extension No 434
1 bit-holder No 443

| Code | g |
|---|---|
| **96020108** | 6521 |

## 45TX/49TX/15/5 Socket set TORX® 3/8" □



- in sturdy, stackable ABS plastic case

Content 20 pieces:
7 sockets for external TORX® screws No 45TX: sizes E5; E6; E7; E8; E10; E12; E14
8 screwdriver sockets for internal TORX® screws No 49TX: sizes T9; T10; T15; T20; T25; T27; T30; T40
1 ratchet No 435
2 extensions No 427/5 (125 mm), No 427/10 (240 mm)
1 universal joint No 428
1 T-handle No 425

| Code | g |
|---|---|
| **96023703** | 2222 |

## 45/49/32/5TX Socket set 3/8" □

- in sturdy, stackable ABS plastic case

Content 37 pieces:
11 sockets with bi-hexagon No 45: 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
7 sockets for external TORX® screws No 45TX: E5; E6; E7; E8; E10; E12; E14
6 INHEX sockets No 49: 4; 5; 6; 7; 8; 10 mm
8 screwdriver sockets for internal TORX® screws No 49TX: sizes T9; T10; T15; T20; T25; T27; T30; T40
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | g |
|---|---|
| **96022119** | 2860 |



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## 89TX Socket set TORX® 1/4; 3/8; 1/2"

- in sturdy, stackable ABS plastic case

Content 35 pieces:
3 sockets for external TORX® screws No 40TX: sizes E4; E5; E6
2 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9
4 sockets for external TORX® screws No 45TX: sizes E7; E8; E10; E12
5 screwdriver sockets for internal TORX® screws No 49TX: sizes T10; T15; T20; T25; T27
6 sockets for external TORX® screws No 50TX: sizes E11; E14; E16; E18; E20; E24
6 screwdriver sockets for internal TORX® screws No 54TX: sizes T30; T40; T45; T50; T55; T60
7 bits ⊛ 1440: T10; 1441: T15; 1442: T20; 1443: T25; 1444: T27; 1445: T30; 1446: T40
1 bit-holder No 442
1 TORX® controller: sizes E6; E7; E8; E10; E12; E14; E16; T10; T15; T20; T25; T27; T30; T40; T45; T47; T50; T55; T60

| Code | ⚖ g |
|---|---|
| **98811908** | 2420 |

## 45a/12/5 Socket set 3/8"

- in sturdy, stackable ABS plastic case

Content 17 pieces:
11 sockets with bi-hexagon No 45a: 1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16"
1 socket with bi-hexagon, long, with rubber insert No 4600: size 16 mm - 5/8"
1 ratchet No 435
2 extensions No 427/3 (76 mm), No 427/10 (240 mm)
1 T-handle No 425
1 universal joint No 428

| Code | ⚖ g |
|---|---|
| **96025204** | 1652 |

## 45a/14/8QR Socket set 3/8"

QR

- in sturdy, stackable ABS plastic case

Content 22 pieces:
14 sockets with bi-hexagon No 45a: 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"
1 ratchet No 435SG-QR
3 extensions No 427/3QR (76 mm), No 427/6QR (160 mm), No 427/10QR (240 mm)
1 universal joint No 428QR
2 bit-holders No 442, No 443
1 speeder brace No 453

| Code | ⚖ g |
|---|---|
| **96025206** | 3272 |

## 45a/33/13 Socket set 3/8"

- in sturdy sheet steel case

Content 46 pieces:
10 sockets with bi-hexagon No 45a: 1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4"
2 sockets with bi-hexagon, long, with rubber insert No 4600: 16 mm - 5/8", No 46: 20.8 mm - 13/16"
7 sockets with bi-hexagon, long No 46a: 3/8; 7/16; 1/2; 9/16; 11/16; 3/4; 7/8"
7 UNIFLEX sockets with bi-hexagon No 47a: 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4"
3 INHEX sockets No 49a: 1/8; 5/32; 3/16"
4 bits ⊕ 1231: PH1; 1232: PH2; 1233: PH3; 1234: PH4
2 ratchets No 415, No 435
1 ratchet adaptor No 445
3 extensions No 427/3 (76 mm), No 427/6 (160 mm), No 427/10 (240 mm)
1 flexible extension No 434 (194 mm)
1 extending adaptor No 409
1 speeder brace No 421
1 flexible handle No 424
1 T-handle No 425
1 universal joint No 428
1 bit-holder No 443

| Code | ⚖ g |
|---|---|
| **96024113** | 6540 |

## 45a/22/8QR Socket set 3/8"

QR

- in sturdy, stackable ABS plastic case

Content 30 pieces:
14 sockets with bi-hexagon No 45a: 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 UNIFLEX sockets with bi-hexagon No 47a: 5/16; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4"
1 ratchet No 435SG-QR
3 extensions No 427/3QR (76 mm), No 427/6QR (160 mm), No 427/10QR (240 mm)
1 universal joint No 428QR
2 bit-holders No 442, No 443
1 speeder brace No 453

| Code | ⚖ g |
|---|---|
| **96025207** | 3685 |



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## ES 456/16/6

- 175 x 350 x 40 mm
- 22 pieces

| Code | g |
|---|---|
| **96838111** | 1555 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/6** | 3/8" ■ O 160 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **435** | 3/8" ■ |

## TCS 456/16/6

TCS

- 175 x 350 x 45 mm
- 22 pieces

| Code | g |
|---|---|
| **96838752** | 1465 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/6** | 3/8" ■ O 160 mm |
| | **427/10** | 3/8" ■ O 240 m |
| | **428** | 3/8" ■ O 46 mm |
| | **435** | 3/8" ■ |

## TCS 456/16/6QR

NEW

TCS QR

- 175 x 350 x 45 mm
- 22 pieces

| Code | g |
|---|---|
| **96830367** | 1465 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **425QR** | 3/8" ■ 165 mm |
| | **427QR/3** | 3/8" ■ O 76 mm |
| | **427QR/6** | 3/8" ■ O 160 mm |
| | **427QR/10** | 3/8" ■ O 240 mm |
| | **428QR** | 3/8" ■ O 46 mm |
| | **435QR N** | 3/8" ■ |

## TCS 456/16/7

TCS

- 175 x 350 x 40 mm
- 23 pieces

| Code | g |
|---|---|
| **96830218** | 1400 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/5** | 3/8" ■ O 125 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **435** | 3/8" ■ |

## TCS 456/16/7QR

NEW

TCS QR

- 175 x 350 x 40 mm
- 23 pieces

| Code | g |
|---|---|
| **96830370** | 1400 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427QR/3** | 3/8" ■ O 76 mm |
| | **427QR/6** | 3/8" ■ O 160 mm |
| | **427QR/10** | 3/8" ■ O 240 mm |
| | **428QR** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **435QR N** | 3/8" ■ |

## TCS 49/1049/2049/45TX/49TX

TCS

- 175 x 350 x 40 mm
- 24 pieces

| Code | g |
|---|---|
| **96838772** | 1188 |

| | No | Content |
|---|---|---|
| | **49** | 3/8" O 4; 5; 6; 7; 8; 10 mm |
| | **1049**<br>**2049** | 3/8" O 7 mm<br>3/8" O 4; 5; 6; 8; 10 mm |
| | **45TX** | 3/8" O sizes E5; E6; E7; E8; E10; E12 |
| | **49TX** | 3/8" O sizes T10; T15; T20; T25; T30; T40 |

## TCS 456/16/4MF

- 175 x 350 x 45 mm
- 20 pieces

| Code | g |
|---|---|
| **96830357** | 1123 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427/5** | 3/8" ■ ○ 125 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |
| | **435** | 3/8" ■ |

## TCS 456/16/4MF QR

- 175 x 350 x 45 mm
- 20 pieces

| Code | g |
|---|---|
| **96830371** | 1123 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **427QR/6** | 3/8" ■ ○ 160 mm |
| | **427QR/10** | 3/8" ■ ○ 240 mm |
| | **428QR** | 3/8" ■ ○ 46 mm |
| | **435QR N** | 3/8" ■ |

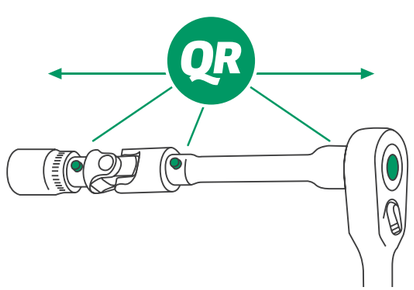
## TCS 456/31/8

- 350 x 350 x 32 mm
- 39 pieces

| Code | g |
|---|---|
| **96830602** | 2701 |

| | No | Content |
|---|---|---|
| | **456** | 3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **46** | 3/8" ○ 10; 11; 12; 13 mm |
| | **47** | 3/8" ○ 10; 11; 12; 13; 14; 15; 16 mm |
| | **1049** | 3/8" ○ 9 mm |
| | **49X** | 3/8" ○ M6; M8; M10 |
| | **427/3** | 3/8" ■ ○ 76 mm |
| | **427/5** | 3/8" ■ ○ 125 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |
| | **431** | 1/4" ■ 3/8" ○ |
| | **432** | 1/2" ■ 3/8" ○ |
| | **435** | 3/8" ■ |
| | **452QR** | 3/8" ■ |

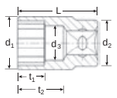
**QuickRelease safety lock.**
Fast and safe.



The QuickRelease technology ensures tools cannot be inadvertently lost – while enabling rapid, safe tool changes.

## 50 Sockets

- DIN 3124/ISO 2725-1, E DIN EN 3709, ASME B 107.5 M
- HPQ® high performance steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03010008** | **8** | 13 | 22 | 7 | 38 | 9 | 22 | 56 | 10 |
| **03010009** | **9** | 13.7 | 22 | 8 | 38 | 9 | 22 | 57 | 10 |
| **03010010** | **10** | 14.5 | 22 | 9 | 38 | 9 | 22 | 50 | 10 |
| **03010011** | **11** | 15.8 | 22 | 10 | 38 | 9.5 | 22 | 50 | 10 |
| **03010012** | **12** | 17 | 22 | 11 | 38 | 13 | 22 | 58 | 10 |
| **03010013** | **13** | 18.3 | 22 | 12 | 38 | 13 | 22 | 50 | 10 |
| **03010014** | **14** | 19.9 | 22.7 | 13 | 38 | 13 | 20.5 | 60 | 10 |
| **03010015** | **15** | 21.2 | 22.7 | 14 | 38 | 13.5 | 20.2 | 62 | 10 |
| **03010016** | **16** | 22.4 | 23.7 | 15 | 38 | 13.5 | 19.6 | 63 | 10 |
| **03010017** | **17** | 24 | 23.7 | 15.2 | 38 | 15 | 19.6 | 66 | 10 |
| **03010018** | **18** | 24.7 | 23.7 | 17 | 38 | 15.5 | 19.1 | 71 | 10 |
| **03010019** | **19** | 26.2 | 25 | 18 | 38 | 16 | 21.7 | 78 | 10 |
| **03010020** | **20** | 27.2 | 25 | 19 | 42 | 15 | 25.5 | 89 | 10 |
| **03010021** | **21** | 28.7 | 26 | 20 | 42 | 16 | 25.2 | 100 | 10 |
| **03010022** | **22** | 29.7 | 26 | 21 | 42 | 16.5 | 24.9 | 113 | 10 |
| **03010023** | **23** | 30.7 | 26 | 20 | 42 | 18 | 25.4 | 114 | 5 |
| **03010024** | **24** | 32 | 26 | 21 | 42 | 18.5 | 24.9 | 117 | 5 |
| **03010025** | **25** | 33.2 | 25 | 22 | 42 | 18.5 | 24.6 | 119 | 5 |
| **03010026** | **26** | 34.4 | 25 | 23 | 42 | 18.5 | 24.3 | 122 | 5 |
| **03010027** | **27** | 36.2 | 26 | 24 | 45 | 19.5 | 27 | 150 | 5 |
| **03010028** | **28** | 37.4 | 27 | 25 | 45 | 19.5 | 26.7 | 158 | 5 |
| **03010030** | **30** | 39.7 | 28 | 27 | 45 | 20.5 | 26.1 | 171 | 5 |
| **03010031** | **31** | 42.2 | 28 | 28 | 47 | 22 | 27.9 | 215 | 5 |
| **03010032** | **32** | 42.2 | 28 | 29 | 47 | 22 | 27.6 | 189 | 5 |
| **03010034** | **34** | 45 | 28 | 31 | 47 | 22 | 27 | 210 | 5 |
| **03010036** | **36** | 48 | 31 | 34 | 52 | 24 | 30.9 | 286 | 5 |

## 52 Sockets

- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3709 (test loads)
- HPQ® high performance steel, chrome plated

| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03030008** | **8** | 13 | 22 | 7 | 38 | 9 | 22 | 56 | 10 |
| **03030009** | **9** | 13.7 | 22 | 8 | 38 | 9 | 22 | 56 | 10 |
| **03030010** | **10** | 14.5 | 22 | 9 | 38 | 9 | 22 | 51 | 10 |
| **03030011** | **11** | 15.8 | 22 | 10 | 38 | 9.5 | 22 | 58 | 10 |
| **03030012** | **12** | 17 | 22 | 11 | 38 | 13 | 22 | 52 | 10 |
| **03030013** | **13** | 18.3 | 22 | 12 | 38 | 13 | 22 | 51 | 10 |
| **03030014** | **14** | 19.9 | 22.7 | 13 | 38 | 13 | 20.5 | 59 | 10 |
| **03030015** | **15** | 21.2 | 22.7 | 14 | 38 | 13.5 | 20.2 | 60 | 10 |
| **03030016** | **16** | 22.4 | 23.7 | 15 | 38 | 13.5 | 19.6 | 65 | 10 |
| **03030017** | **17** | 24 | 23.7 | 15.2 | 38 | 15 | 19.6 | 70 | 10 |
| **03030018** | **18** | 24.7 | 23.7 | 17 | 38 | 15.5 | 19.1 | 73 | 10 |
| **03030019** | **19** | 26.2 | 25 | 18 | 38 | 16 | 21.7 | 80 | 10 |
| **03030020** | **20** | 27.2 | 25 | 19 | 42 | 15 | 25.5 | 95 | 10 |
| **03030021** | **21** | 28.7 | 26 | 20 | 42 | 16 | 25.2 | 110 | 10 |
| **03030022** | **22** | 29.7 | 26 | 21 | 42 | 16.5 | 24.9 | 115 | 10 |
| **03030023** | **23** | 30.7 | 26 | 20 | 42 | 18 | 25.4 | 119 | 5 |
| **03030024** | **24** | 32 | 26 | 21 | 42 | 18.5 | 24.9 | 125 | 5 |
| **03030025** | **25** | 33.2 | 26 | 22 | 42 | 18.5 | 24.6 | 128 | 5 |
| **03030026** | **26** | 34.4 | 25 | 23 | 42 | 18.5 | 24.3 | 132 | 5 |
| **03030027** | **27** | 36.2 | 26 | 24 | 45 | 19.5 | 27 | 161 | 5 |
| **03030028** | **28** | 37.4 | 27 | 25 | 45 | 19.5 | 26.7 | 166 | 5 |
| **03030030** | **30** | 39.7 | 28 | 27 | 45 | 20.5 | 26.1 | 186 | 5 |
| **03030032** | **32** | 42.2 | 28 | 29 | 47 | 22 | 27.6 | 200 | 5 |
| **03030034** | **34** | 45 | 28 | 31 | 47 | 22 | 27 | 235 | 5 |
| **03030036** | **36** | 48 | 31 | 34 | 52 | 24 | 30.9 | 305 | 5 |

## 50a Sockets

- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03410024** | **3/8** | 14.3 | 22 | 8.3 | 38 | 9 | 22 | 51 | 10 |
| **03410028** | **7/16** | 16.3 | 22 | 9.9 | 38 | 9 | 22 | 52 | 10 |
| **03410032** | **1/2** | 18.3 | 22 | 11.5 | 38 | 13 | 22 | 53 | 10 |
| **03410034** | **9/16** | 20.3 | 22.7 | 13.1 | 38 | 13 | 20.2 | 58 | 10 |
| **03410035** | **19/32** | 21.3 | 22.7 | 13.5 | 38 | 13.5 | 20.1 | 61 | 10 |
| **03410036** | **5/8** | 22.4 | 23.7 | 15 | 38 | 13.5 | 19.6 | 65 | 10 |
| **03410038** | **11/16** | 24.2 | 23.7 | 16.5 | 38 | 15.5 | 19.2 | 68 | 10 |
| **03410040** | **3/4** | 26.2 | 25 | 18 | 38 | 16 | 21.7 | 78 | 10 |
| **03410041** | **25/32** | 27 | 25 | 18.6 | 41 | 16 | 24.6 | 90 | 5 |
| **03410042** | **13/16** | 28.2 | 25 | 19.4 | 41 | 16.5 | 24.3 | 95 | 5 |
| **03410044** | **7/8** | 29.7 | 26 | 21 | 42 | 18 | 24.9 | 111 | 5 |
| **03410046** | **15/16** | 32 | 26 | 22.6 | 42 | 18.5 | 24.4 | 121 | 5 |
| **03410048** | **1** | 33.7 | 27 | 24.2 | 42 | 18.5 | 24 | 135 | 5 |
| **03410050** | **1 1/16** | 36.2 | 26 | 25.8 | 45 | 19.5 | 26.5 | 155 | 5 |
| **03410052** | **1 1/8** | 38.1 | 28 | 27.4 | 45 | 20 | 26 | 167 | 5 |
| **03410054** | **1 3/16** | 39 | 28 | 28 | 45 | 20.5 | 25.9 | 178 | 5 |
| **03410056** | **1 1/4** | 40 | 28 | 30.5 | 45 | 21 | 25.1 | 196 | 5 |
| **03410058** | **1 5/16** | 41.8 | 28 | 32.1 | 47 | 22 | 26.7 | 170 | 5 |
| **03410060** | **1 3/8** | 46 | 28 | 33.7 | 50 | 23 | 29.2 | 232 | 5 |
| **03410062** | **1 7/16** | 49.4 | 31 | 34 | 54 | 26 | 33.1 | 320 | 5 |
| **03410064** | **1 1/2** | 51 | 31 | 35 | 54 | 26 | 32.8 | 325 | 5 |

## ES 52/17

- 175 x 350 x 47 mm
- 17 pieces

| Code | g |
|---|---|
| **96838112** | 1760 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" **O** 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

## TCS 52/17

- 175 x 350 x 40 mm
- 17 pieces

| Code | g |
|---|---|
| **96838177** | 1605 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

## TCS 52/18MF

- 175 x 350 x 55 mm
- 18 pieces

| Code | g |
|---|---|
| **96830359** | 1850 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34 mm |

## TCS 50/51/52/32

- 175 x 350 x 50 mm
- 32 pieces

| Code | g |
|---|---|
| **96838191** | 2950 |

| | No | Content |
|---|---|---|
| | **50** | 1/2" O 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm |
| | **51** | 1/2" O 22; 27 mm |
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

## TCS 50a/17

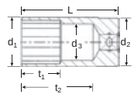
- 175 x 350 x 40 mm
- 17 pieces

| Code | g |
|---|---|
| **96838780** | 1685 |

| | No | Content |
|---|---|---|
| | **50a** | 1/2" O 3/8; 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" |

## 51 Sockets

- extra deep
- DIN 3124/ISO 2725-1, E DIN EN 3710, E DIN EN 3709, ASME B 107.5M
- HPQ® high performance steel, chrome plated



| Code | O mm/" | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03020010** | **10** | 14.5 | 22 | 9 | 83 | 19 | 67 | 90 | 10 |
| **03020013** | **13** | 18.3 | 22 | 12 | 83 | 35 | 67 | 122 | 10 |
| **03020014** | **14** | 19.9 | 22.7 | 13 | 83 | 35 | 65.2 | 129 | 10 |
| **03020015** | **15** | 21.2 | 22.7 | 14 | 83 | 35 | 64.9 | 125 | 10 |
| **03020016** | **16** | 22.4 | 23.7 | 15 | 83 | 35 | 64.6 | 145 | 10 |
| **03020216** | **16-5/8 [1]** | 22.4 | 23.7 | 15.4 | 83 | 19 | 64.5 | 137 | 10 |
| **03020017** | **17** | 24 | 23.7 | 16 | 83 | 35 | 64.3 | 145 | 10 |
| **03020018** | **18** | 24.7 | 23.7 | 17 | 83 | 35 | 64.1 | 170 | 10 |
| **03020019** | **19** | 26.2 | 25 | 18 | 83 | 35 | 66.7 | 165 | 10 |
| **03020208** | **20.8-13/16 [1]** | 27.7 | 26 | 20 | 83 | 22 | 66.2 | 194 | 10 |
| **03020021** | **21** | 28.7 | 26.5 | 20 | 83 | 35 | 66.2 | 231 | 10 |
| **03020022** | **22** | 29.7 | 27.5 | 21 | 83 | 35 | 65.5 | 200 | 10 |
| **03020024** | **24** | 32 | 30 | 21 | 83 | 35 | 66.1 | 251 | 5 |
| **03020026** | **26** | 34.4 | 32.5 | 23 | 83 | 35 | 65.3 | 334 | 5 |
| **03020027** | **27 [2]** | 36.2 | 34 | 27 | 83 | 20 | 60 | 280 | 5 |
| **03020030** | **30 [2]** | 39.7 | 37.5 | 30.2 | 83 | 35 | 65 | 341 | 5 |
| **03020032** | **32** | 42.4 | 40 | 29 | 83 | 35 | 63.9 | 435 | 5 |

[1]) with rubber insert for spark plugs
[2]) for diesel injector (Audi, Daihatsu, Ford, Mazda, Mercedes, Mitsubishi, Nissan, Opel, Peugeot, Toyota, VW, Volvo)

## 51a Sockets

- extra deep
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E
- HPQ® high performance steel, chrome plated

| Code | O " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03420024** | **3/8** | 14.3 | 22 | 8.3 | 83 | 19 | 67 | 93 | 5 |
| **03420028** | **7/16** | 16.3 | 22 | 9.9 | 83 | 19 | 67 | 102 | 5 |
| **03420032** | **1/2** | 18.3 | 22 | 11.5 | 83 | 35 | 67 | 122 | 5 |
| **03420034** | **9/16** | 20.3 | 22.7 | 13.1 | 83 | 35 | 65.2 | 131 | 5 |
| **03420036** | **5/8** | 22.4 | 23.7 | 15 | 83 | 35 | 64.6 | 135 | 5 |
| **03420038** | **11/16** | 24.2 | 23.7 | 16.5 | 83 | 35 | 64.2 | 158 | 5 |
| **03420040** | **3/4** | 26.2 | 25 | 18 | 83 | 35 | 66.7 | 188 | 5 |
| **03420042** | **13/16** | 27.7 | 26 | 19.5 | 83 | 35 | 66.3 | 170 | 5 |
| **03420044** | **7/8** | 29.7 | 27.5 | 21 | 83 | 35 | 65.9 | 200 | 5 |
| **03420046** | **15/16** | 32 | 30 | 22.6 | 83 | 35 | 65.7 | 281 | 5 |
| **03420048** | **1** | 33.7 | 32 | 24.2 | 83 | 35 | 65 | 260 | 5 |
| **03420050** | **1 1/16** | 36.2 | 34 | 25.8 | 83 | 35 | 64.5 | 359 | 5 |
| **03420052** | **1 1/8** | 38.1 | 36 | 27.4 | 83 | 35 | 64 | 300 | 5 |
| **03420054** | **1 3/16** | 39 | 37 | 28 | 83 | 35 | 63.9 | 377 | 5 |
| **03420056** | **1 1/4** | 40 | 38 | 30.5 | 83 | 35 | 63.1 | 340 | 5 |
| **03420058** | **1 5/16** | 41.8 | 40 | 32.1 | 83 | 35 | 62.7 | 375 | 5 |
| **03420060** | **1 3/8** | 46 | 44 | 33.7 | 83 | 35 | 62.2 | 506 | 5 |
| **03420062** | **1 7/16** | 49.4 | 47 | 34 | 83 | 35 | 62.1 | 635 | 5 |
| **03420064** | **1 1/2** | 51 | 49 | 35 | 83 | 35 | 61.8 | 675 | 5 |

## 5100 Rubber insert

- for 20.8 mm (No 46; 51; 51S)

| Code | g | |
|---|---|---|
| **09010001** | 6 | 5 |



KG3 Print ES DE EN 2019-11-25.indd 140 25.11.2019 17:40:55

## 51/8 Set sockets

HPQ AS

- long
- in softcase with foam inlay

Content 8 pieces:
No 51: 13; 17; 19; 22; 24; 27; 30; 32 mm

| Code | g |
|---|---|
| **96030212** | 2378 |

## TCS 51/11

TCS

- 175 x 350 x 50 mm
- 11 pieces

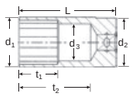
| Code | g |
|---|---|
| **96838776** | 2345 |

| | No | Content |
|---|---|---|
| | **51** | 1/2" O 10; 13; 15; 17; 18; 19; 22; 24; 27; 30; 32 mm |

## 51S Sockets

HPQ AS

- extra deep
- DIN 3124/ISO 2725-1, E DIN EN 3710, E DIN EN 3709 (test loads)
- HPQ® high performance steel, chrome plated



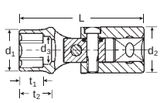
| Code | mm/" | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03240017** | **17** | 24 | 23.7 | 16 | 83 | 35 | 64.3 | 157 | 10 |
| **03240019** | **19** | 26.2 | 25 | 18 | 83 | 35 | 66.7 | 190 | 10 |
| **03240208** | **20.8-13/16 [1])** | 27.7 | 26 | 20 | 83 | 22 | 66.2 | 196 | 10 |
| **03240022** | **22** | 29.7 | 27.5 | 21 | 83 | 35 | 65.9 | 210 | 10 |

[1]) with rubber insert for spark plugs and for tightening and untightening wheel nuts on Japanese cars

## 53 UNIFLEX sockets

HPQ

- Chrome Alloy Steel, chrome plated

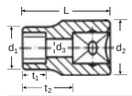


| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **03040010** | **10** | 14.7 | 25 | 9 | 70 | 20 | 136 | 1 |
| **03040013** | **13** | 18.4 | 25 | 12 | 70 | 20 | 140 | 1 |
| **03040016** | **16** | 22.4 | 25 | 15 | 69 | 17 | 141 | 1 |
| **03040017** | **17** | 23.5 | 25 | 16 | 70 | 18 | 141 | 1 |
| **03040018** | **18** | 25 | 25 | 17 | 70 | 18 | 145 | 1 |
| **03040019** | **19** | 26.3 | 25 | 18 | 70 | 17.5 | 148 | 1 |

## 50TX Sockets

HPQ

- for external TORX® screws
- HPQ® high performance steel, chrome plated



| Code | size | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **03270010** | **E10** | 9.4 | 13 | 22 | 5.6 | 38 | 9.5 | 22 | 55 | 10 |
| **03270011** | **E11** | 10.1 | 14 | 22 | 6 | 38 | 9.5 | 22 | 55 | 10 |
| **03270012** | **E12** | 11.1 | 14.9 | 22 | 7.2 | 38 | 9.5 | 22 | 60 | 10 |
| **03270014** | **E14** | 12.9 | 16.7 | 22 | 8 | 38 | 11 | 22 | 56 | 10 |
| **03270016** | **E16** | 14.7 | 19 | 22 | 9.3 | 38 | 12.5 | 22 | 60 | 10 |
| **03270018** | **E18** | 16.6 | 21 | 26.5 | 10.4 | 38 | 13.5 | 22 | 92 | 10 |
| **03270020** | **E20** | 18.4 | 23.5 | 26.5 | 12 | 38 | 15 | 22 | 98 | 10 |
| **03270024** | **E24** | 22.1 | 27.8 | 26 | 14.1 | 41.2 | 17.5 | 23.6 | 123 | 10 |

## 50TX/7 Set sockets

HPQ

- for external TORX® screws
- in carton packing

Content 7 pieces:
No 50TX: E10; E12; E14; E16; E18; E20; E24

| Code | g |
|---|---|
| **96032703** | 623 |

## 50TX/8 Set sockets

HPQ

- for external TORX® screws
- in sturdy, stackable ABS plastic case

Content 8 pieces:
No 50TX: E10; E11; E12; E14; E16; E18; E20; E24

| Code | g |
|---|---|
| **96033704** | 980 |

## TCS 50TX/54TX/17

TCS

- 175 x 350 x 40 mm
- 17 pieces

| Code | g |
|---|---|
| **96838763** | 1415 |

| | No | Content |
|---|---|---|
| | **50TX** | 1/2" O sizes E10; E11; E12; E14; E16; E18; E20; E24 |
| | **54TX** | 1/2" O sizes T20; T25; T27; T30; T40; T45; T50; T55; T60 |

12,5
1/2"

DIN
3120

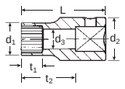
ISO
1174-1

3

## 50aPSP — Sockets

HPQ

- for external Spline-Drive screws
- MS-33787
- HPQ® high performance steel, gunmetal finish

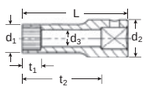


| Code | Spline size | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **03012024** | **12** | 3/8 | 15.5 | 22 | 8.6 | 38 | 9.5 | 22 | 55 | 5 |
| **03012028** | **14** | 7/16 | 18 | 23.7 | 10.4 | 38 | 11 | 22 | 65 | 5 |
| **03012034** | **18** | 9/16 | 22 | 23.7 | 13.5 | 38 | 12 | 20 | 71 | 5 |

## 50aPLSP — Socket

HPQ

- for external Spline-Drive screws
- extra deep
- bolt clearance
- MS-33787
- HPQ® high performance steel, gunmetal finish

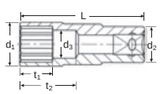


| Code | Spline size | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **03013028** | 14 | 7/16 | 18 | 23.7 | 10.4 | 50 | 11 | 34 | 83 | 5 |

## 51aP — Socket

HPQ

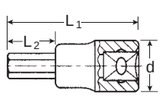
- extra deep
- bolt clearance
- for the brakes on A320/A321
- HPQ® high performance steel, gunmetal finish



| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03421041** | 25/32 | 28 | 23 | 17.9 | 80 | 21 | 36 | 182 | 1 |

## 54 — INHEX sockets

- for hexagon socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03050004** | **4** | 60 | 22 | 22.7 | 68 | 5 |
| **03050005** | **5** | 60 | 22 | 22.7 | 68 | 5 |
| **03050006** | **6** | 60 | 22 | 22.7 | 71 | 5 |
| **03050007** | **7** | 60 | 22 | 22.7 | 75 | 5 |
| **03050008** | **8** | 60 | 22 | 22.7 | 70 | 5 |
| **03050010** | **10** | 60 | 22 | 22.7 | 97 | 5 |
| **03050012** | **12** | 60 | 20 | 23.7 | 122 | 5 |
| **03050014** | **14** | 60 | 20 | 23.7 | 135 | 5 |
| **03050017** | **17** | 60 | 20 | 27.5 | 186 | 5 |
| **03050019** | **19** | 60 | 20 | 31 | 242 | 5 |

## 54a — INHEX sockets

- for hexagon socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated

| Code | " | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03450014** | 7/32 | 60 | 22 | 22.7 | 70 | 5 |
| **03450016** | 1/4 | 60 | 22 | 22.7 | 75 | 5 |
| **03450020** | 5/16 | 60 | 22 | 22.7 | 81 | 5 |
| **03450024** | 3/8 | 60 | 22 | 22.7 | 90 | 5 |
| **03450028** | 7/16 | 60 | 22 | 22.7 | 103 | 5 |
| **03450032** | 1/2 | 60 | 20 | 23.7 | 125 | 5 |
| **03450034** | 9/16 | 60 | 20 | 23.7 | 137 | 5 |
| **03450036** | 5/8 | 60 | 20 | 27.5 | 169 | 5 |
| **03450040** | 3/4 | 60 | 20 | 31 | 244 | 2 |

## 54/10 — INHEX socket set

- in sturdy, stackable ABS plastic case

Content 10 pieces:
No 54: 4; 5; 6; 7; 8; 10; 12; 14; 17; 19 mm

| Code | g |
|---|---|
| **96031508** | 1525 |

## 54/12 — INHEX socket set

- in sturdy, stackable ABS plastic case

Content 12 pieces:
No 54: 4; 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
No 3054/8, 8 mm
No 1054/10, 10 mm

| Code | g |
|---|---|
| **96031503** | 1894 |

## ES 54/54KK

- 175 x 350 x 38 mm
- 14 pieces

| Code | g |
|---|---|
| **96838114** | 1630 |

| | No | Content |
|---|---|---|
| | **54** | 1/2" ○ 4; 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **54KK** | 1/2" ○ 5; 6; 8; 10 mm |



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## TCS 54/54X/16

- 175 x 350 x 35 mm
- 16 pieces

| Code | g |
|---|---|
| **96838762** | 1745 |

| | No | Content |
|---|---|---|
| | **54** | 1/2" O 4; 5; 6; 7; 8; 10; 12; 14; 17 mm |
| | **54X** | 1/2" O M5; M6; M8; M10; M12; M14; M16 |

## 1054/2054 INHEX sockets

- for hexagon socket head screws
- extra long
- DIN 7422
- Chrome Alloy Steel, chrome plated

| Code | No | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **03151205** | **2054/5** | 5 | 120 | 82 | 22.7 | 80 | 5 |
| **03151206** | **2054/6** | 6 | 120 | 82 | 22.7 | 84 | 5 |
| **03151207** | **2054/7** | 7 | 120 | 82 | 22.7 | 96 | 5 |
| **03151208** | **1054/8K** | 8 | 120 | 82 | 22.7 | 104 | 5 |
| **03151410** | **1054/10** | 10 | 140 | 102 | 22.7 | 150 | 5 |
| **03151412** | **1054/12 [1]** | 12 | 140 | 100 | 23.7 | 200 | 5 |
| **03151414** | **2054/14** | 14 | 140 | 100 | 23.7 | 231 | 5 |

[1]) for fitting radiators

## 1054/3054 INHEX sockets

- for hexagon socket head screws
- special lengths
- DIN 7422
- Chrome Alloy Steel, chrome plated

| Code | No | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **03151805** | **1054/5** | 5 | 180 | 20 | 22 | 118 | 5 |
| **03150706** | **1054/6** | 6 | 70 | 32 | 22.7 | 72 | 5 |
| **03151006** | **3054/6 [1]** | 6 | 100 | 62 | 22.7 | 80 | 5 |
| **03152206** | **1054/6L** | 6 | 220 | 182 | 22.7 | 108 | 5 |
| **03151007** | **1054/7** | 7 | 100 | 62 | 22.7 | 87 | 5 |
| **03150808** | **3054/8** | 8 | 80 | 42 | 22.7 | 88 | 5 |
| **03151408** | **1054/8** | 8 | 140 | 102 | 22.7 | 114 | 5 |
| **03150713** | **1054/13** | 13 | 70 | 25 | 24 | 130 | 5 |

[1]) for intake manifolds on 5-cylinder diesel engines on VW/Audi and T4 Vans

## ES 1054/2054

- 175 x 175 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96838164** | 900 |

| | No | Content |
|---|---|---|
| | **1054** | 1/2" O 8; 10; 12 mm |
| | **2054** | 1/2" O 5; 6; 14 mm |

## TCS 1054/2054/10

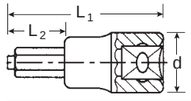
- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96838760** | 1272 |

| | No | Content |
|---|---|---|
| | **1054** | 1/2" O 8; 10; 12 mm |
| | **2054** | 1/2" O 5; 6 mm |
| | **1054TX** | 1/2" O sizes T30; T50; T55 |
| | **2054TX** | 1/2" O sizes T40; T45 |

## 54IC INHEX sockets

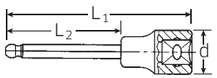
- for hexagon socket head screws with guide pin
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03070005** | **5** | 60 | 22 | 22.7 | 65 | 5 |
| **03070006** | **6** | 60 | 22 | 22.7 | 71 | 5 |
| **03070008** | **8** | 60 | 22 | 22.7 | 80 | 5 |
| **03070010** | **10** | 60 | 22 | 22.7 | 95 | 5 |
| **03070012** | **12** | 60 | 20 | 23.7 | 120 | 5 |
| **03070014** | **14** | 60 | 20 | 23.7 | 131 | 5 |

## 54KK INHEX sockets

- with ball point hexagon
- for hexagon socket head screws
- swivel angle up to 25° each side
- Chrome Alloy Steel, chrome plated



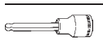
| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03280005** | **5** | 100 | 62 | 22.7 | 75 | 5 |
| **03280006** | **6** | 100 | 62 | 22.7 | 80 | 5 |
| **03280007** | **7 [1]** | 100 | 62 | 22.7 | 85 | 5 |
| **03280008** | **8** | 100 | 62 | 22.7 | 95 | 5 |
| **03280010** | **10** | 100 | 62 | 22.7 | 120 | 5 |

[1]) Application: BMW brakes

## ES 54KK/5

- 175 x 175 x 30 mm
- 5 pieces

| Code | g |
|---|---|
| **96838165** | 505 |

| | No | Content |
|---|---|---|
|  | **54KK** | 1/2" **O** 5; 6; 7; 8; 10 mm |

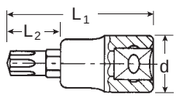
## 1054KK INHEX sockets

- with ball point hexagon
- for hexagon socket head screws
- swivel angle up to 25° each side
- special lengths
- Chrome Alloy Steel, chrome plated

| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03310005** | **5** | 238 | 200 | 22.7 | 145 | 5 |
| **03310008** | **8** | 238 | 200 | 22.7 | 154 | 5 |

## 54CV Screwdriver sockets

- for spline socket head screws (Ribe-CV®)
- Chrome Alloy Steel, chrome plated



| Code | size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03090005** | **M5** | 60 | 22 | 22.7 | 69 | 5 |
| **03090006** | **M6** | 60 | 22 | 22.7 | 71 | 5 |
| **03090007** | **M7** | 60 | 22 | 22.7 | 70 | 5 |
| **03090008** | **M8** | 60 | 22 | 22.7 | 78 | 5 |
| **03090009** | **M9** | 60 | 22 | 22.7 | 92 | 5 |
| **03090010** | **M10** | 60 | 22 | 22.7 | 95 | 5 |
| **03090012** | **M12** | 60 | 20 | 23.7 | 119 | 5 |
| **03090013** | **M13** | 60 | 20 | 23.7 | 125 | 5 |
| **03090014** | **M14** | 60 | 20 | 23.7 | 126 | 5 |
| **03090016** | **M16** | 63 | 23 | 27.5 | 163 | 5 |

Application:
M7, for brakes, cylinder head screws, bodywork and motor jobs incl. valve covers and spark plug covers on Fiat vehicles
M8, bodywork and motor jobs incl. valve covers and spark plug covers on Fiat vehicles
M9, brakes, cylinder head screws (1.2 l; 8V/16V) on Fiat vehicles
M10, for cylinder head screws (1.2 l; 8V/16V) on Fiat vehicles
M12 for cylinder head screws on Fiat 2.0 l engines
M13, for brakes, cylinder head screws on Fiat vehicles; cylinder head screws on Alfa vehicles, e.g. 1.6 l; 16V engines
M14; M16, for cylinder head screws on Alfa vehicles, e.g. 1.6 l; 16V engines

## 54CV/9 Set screwdriver sockets

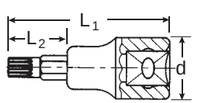
- for spline socket head screws (Ribe-CV®)
- in sturdy, stackable ABS plastic case

Content 9 pieces: No 54CV: M5; M6; M7; M8; M9; M10; M12; M13; M14

| Code | g |
|---|---|
| **96031901** | 1225 |

## 54X Screwdriver sockets

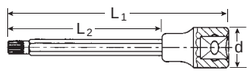
- for trisquare socket head screws (XZN®)
- DIN 2324
- Chrome Alloy Steel, chrome plated



| Code | size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03060005** | **M5** | 60 | 22 | 22.7 | 67 | 5 |
| **03060006** | **M6** | 60 | 22 | 22.7 | 74 | 5 |
| **03060008** | **M8** | 60 | 22 | 22.7 | 79 | 5 |
| **03060010** | **M10** | 60 | 22 | 22.7 | 94 | 5 |
| **03060012** | **M12** | 60 | 20 | 23.7 | 120 | 5 |
| **03060014** | **M14** | 60 | 20 | 23.7 | 128 | 5 |
| **03060016** | **M16** | 60 | 20 | 27.5 | 174 | 5 |

## 3054X Screwdriver sockets

- for trisquare socket head screws (XZN®)
- DIN 2324
- extra long
- Chrome Alloy Steel, chrome plated



| Code | size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **03261408** | **M8** | 140 | 102 | 22.7 | 109 | 5 |
| **03261410** | **M10** | 140 | 102 | 22.7 | 142 | 5 |
| **03261412** | **M12** | 140 | 102 | 22.7 | 160 | 5 |
| **03261414** | **M14** | 140 | 100 | 23.7 | 225 | 1 |

Application: M10 and M12 for cylinder head screws on VW/Audi, Opel, Mercedes-Benz M14 for cylinder head screws on VM diesel engines, Chrysler

## 3054X/54X/8 Set screwdriver sockets

- for trisquare socket head screws (XZN®)

in sturdy, stackable ABS plastic case
Content 8 pieces:
No 3054X: M8; M10; M12
No 54X: M6; M8; M10; M12; M14

| Code | g |
|---|---|
| **96033606** | 1288 |



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## 1054x/2054x Screwdriver sockets

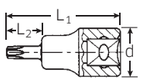
- for trisquare socket head screws (XZN®)
- special lengths
- DIN 2324
- Chrome Alloy Steel, chrome plated

| Code | No | size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **03160808** | **1054X** | **M8** | 80 | 42 | 22.7 | 86 | 5 |
| **03161208** | **2054X** | **M8** | 120 | 82 | 22.7 | 104 | 5 |
| **03161110** | **2054X** | **M10** | 110 | 72 | 22.7 | 130 | 5 |
| **03161112** | **2054X** | **M12** | 110 | 70 | 23.7 | 168 | 5 |

Application: No 1054x, M8, for jointed shafts on VW/Audi

## 54TX Screwdriver sockets

- for inside TORX® screws
- Chrome Alloy Steel, chrome plated



| Code | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **03100020** | **T20** | 3.8 | 55 | 17 | 22.7 | 71 | 5 |
| **03100025** | **T25** | 4.4 | 55 | 17 | 22.7 | 71 | 5 |
| **03100027** | **T27** | 5 | 55 | 17 | 22.7 | 72 | 5 |
| **03100030** | **T30** | 5.5 | 55 | 17 | 22.7 | 72 | 5 |
| **03100040** | **T40** | 6.6 | 55 | 17 | 22.7 | 75 | 5 |
| **03100045** | **T45** | 7.8 | 55 | 17 | 22.7 | 74 | 5 |
| **03100050** | **T50** | 8.8 | 55 | 17 | 22.7 | 87 | 5 |
| **03100055** | **T55** | 11.2 | 58 | 18 | 23.7 | 110 | 5 |
| **03100060** | **T60** | 13.2 | 58 | 18 | 23.7 | 113 | 5 |
| **03100070** | **T70** | 15.5 | 60 | 20 | 27.5 | 155 | 1 |

Application: size T55 for the cylinder head screws on the Opel Omega V6

## 54TX/9 Set screwdriver sockets

- for inside TORX® screws
- in carton packing

Content 9 pieces:
No 54TX: T20; T25; T27; T30; T40; T45; T50; T55; T60

| Code | g |
|---|---|
| **96031004** | 820 |

## 54TX/10 Set TORX® sockets

- for inside TORX® screws
- in sturdy, stackable ABS plastic case

Content 10 pieces:
No 54TX: T20; T25; T27; T30; T40 (2x); T45; T50; T55; T60

| Code | g |
|---|---|
| **96032005** | 1170 |

## 54TX/59TX/12/1 Socket set TORX®

- in sturdy, stackable ABS plastic case
- for inside TORX® screws

Content 13 pieces:
9 screwdriver sockets for internal TORX® screws No 54TX: sizes T20; T25; T27; T30; T40; T45; T50; T55; T60
3 screwdriver sockets for internal TORX® screws No 59TX: sizes T70; T80; T90
1 extending adaptor No 514, 1/2" socket x 3/4" plug (12.5 x 20)

| Code | g |
|---|---|
| **96032006** | 2710 |

## ES 54X/54TX

- 175 x 350 x 38 mm
- 16 pieces

| Code | g |
|---|---|
| **96838115** | 1600 |

| | No | Content |
|---|---|---|
| | **54X** | 1/2" **O** M5; M6; M8; M10; M12; M14; M16 |
| | **54TX** | 1/2" **O** sizes T20; T25; T27; T30; T40; T45; T50; T55; T60 |

## TCS 54/54TX/18

- 175 x 350 x 40 mm
- 18 pieces

| Code | g |
|---|---|
| **96838782** | 1665 |

| | No | Content |
|---|---|---|
| | **54** | 1/2" **O** 4; 5; 6; 7; 8; 10; 12; 14; 17 mm |
| | **54TX** | 1/2" **O** sizes T20; T25; T27; T30; T40; T45; T50; T55; T60 |

## 1054TX/2054TX Screwdriver sockets

- for inside TORX® screws
- extra long
- Chrome Alloy Steel, chrome plated

| Code | No | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|---|
| **03131230** | **1054TX** | **T30** | 5.5 | 120 | 82 | 22.7 | 99 | 5 |
| **03131440** | **2054TX** | **T40** | 6.6 | 140 | 102 | 22.7 | 110 | 5 |
| **03131445** | **2054TX** | **T45** | 7.8 | 140 | 102 | 22.7 | 111 | 5 |
| **03131450** | **1054TX** | **T50** | 8.8 | 140 | 102 | 22.7 | 140 | 5 |
| **03131455** | **1054TX** | **T55** | 11.2 | 140 | 102 | 22.7 | 159 | 5 |
| **03131460** | **1054TX** | **T60** | 13.2 | 140 | 100 | 23.7 | 221 | 5 |

Application: size T55 for the cylinder head screws on various Ford models, e.g. Mondeo 16V



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12,5
1/2"

DIN
3120

ISO
1174-1

3

## 1054TX Screwdriver sockets

- for inside TORX® screws
- extra long
- Chrome Alloy Steel, chrome plated

| code | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **03131240** | **T40** | 6.6 | 120 | 82 | 22.7 | 100 | 5 |
| **03131245** | **T45** | 7.8 | 120 | 82 | 22.7 | 100 | 5 |
| **03131070** | **T70** | 15.5 | 107 | 67 | 23.7 | 201 | 5 |

## ES 1054/2054TX/6

- 175 x 175 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96838163** | 900 |

| | No | Content |
|---|---|---|
| | **1054TX** | 1/2" O sizes T30; T50; T55; T60 |
| | **2054TX** | 1/2" O sizes T40; T45 |

## 1054TX/4T Set screwdriver sockets

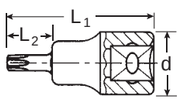
- for inside TORX® screws
- in textile bag

Content 4 pieces:
No 1054TX: T40; T45; T50; T55

| Code | g |
|---|---|
| **96031301** | 527 |

## 54TXB Screwdriver sockets

- for inside TORX® screws, tamper proof
- with hollow point (TORX® TAMPER RESISTANT)
- Chrome Alloy Steel, chrome plated



| Code | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **03110020** | **T20** | 3.8 | 55 | 17 | 22.7 | 70 | 5 |
| **03110025** | **T25** | 4.4 | 55 | 17 | 22.7 | 65 | 5 |
| **03110027** | **T27** | 5 | 55 | 17 | 22.7 | 71 | 5 |
| **03110030** | **T30** | 5.5 | 55 | 17 | 22.7 | 71 | 5 |
| **03110040** | **T40** | 6.6 | 55 | 17 | 22.7 | 71 | 5 |
| **03110045** | **T45** | 7.8 | 55 | 17 | 22.7 | 72 | 5 |
| **03110050** | **T50** | 8.8 | 55 | 17 | 22.7 | 86 | 5 |
| **03110055** | **T55** | 11.2 | 58 | 18 | 23.7 | 111 | 5 |
| **03110060** | **T60** | 13.2 | 58 | 18 | 23.7 | 113 | 5 |

Application: size T50 for the spare wheel retaining plate on the bumper of the Opel Frontera Sport

## 54TXB/9 Set screwdriver sockets

- for inside TORX® screws
- tamper proof, with hollow point (TORX® TAMPER RESISTANT)
- in carton packing with transparent cover

Content 9 pieces:
No 54TXB: T20; T25; T27; T30; T40; T45; T50; T55; T60

| Code | g |
|---|---|
| **96031007** | 810 |

## 54TXB/10 Set screwdriver sockets

- for inside TORX® screws
- tamper proof, with hollow point (TORX® TAMPER RESISTANT)
- in sturdy, stackable ABS plastic case

Content 10 pieces:
No 54TXB: T20; T25; T27; T30; T40 (2x); T45; T50; T55; T60

| Code | g |
|---|---|
| **96032008** | 1178 |

## 50CL Clip strips

- for socket retention
- supplied without sockets

| Code | size | L mm | g |
|---|---|---|---|
| **80500001** | **1** | 200 | 54 |
| **80500002** | **2** | 300 | 73 |



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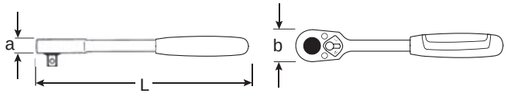
# Drive tools and accessories

- 1/2" □
- finish: Chrome Alloy Steel, chrome plated




## 512 Ratchet

- reversible
- 36 teeth
- with 2-component handle
- DIN 3122/ISO 3315

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 11 10 10** | 265.5 | 41 | 22.5 | 600 | 1 |

## 512G Ratchet

- reversible
- 36 teeth
- with 2-component handle
- DIN 3122/ISO 3315
- encapsulated housing minimises the ingress of dirt

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 11 11 10** | 265.5 | 41 | 22.5 | 613 | 1 |

## 512QR N QuickRelease ratchet, fine tooth

QR FOD 80 4.5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with 2-component handle
- for use in confined spaces, re-engages after movement of 4.5°
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 11 11 20** | 265.5 | 41 | 23 | 572 | 1 |

## 512SG-QR N QuickRelease ratchet, fine tooth

QR FOD 80 4.5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with steel handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO 3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 11 10 30** | 265.5 | 41 | 22.5 | 654 | 1 |

## 515 Ratchet, fine tooth

- reversible
- 60 teeth
- with 2-component handle
- for use in confined spaces, re-engages after movement of 6°
- DIN 3122/ISO 3315

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 23 10 11** | 265 | 40 | 26.2 | 515 | 1 |

## 517QR QuickRelease fine-tooth flexible-joint ratchet

QR FOD 80 4.5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with 2-component handle
- handle may be raised or lowered by approx. 90°, lockable in following positions:
  - -straight
  - -30° up
  - -60° up
  - -30° down
- release the lock by pressing the button in the handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- DIN 3122/ISO3315
- registered design

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 26 10 10** | 416 | 41 | 22 | 920 | 1 |

## 522 Ratchet adaptor

- reversible
- 20 teeth

| Code | L mm | ∅ mm | g | |
|---|---|---|---|---|
| **13 14 00 00** | 67.5 | 40 | 316 | 1 |

## 532 Ratchet

- long handle
- reversible
- 36 teeth
- with 2-component handle

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 12 10 10** | 380 | 41 | 22.5 | 821 | 1 |

## 532G Ratchet

- long handle
- reversible
- 36 teeth
- with 2-component handle
- encapsulated housing minimises the ingress of dirt

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **13 12 11 10** | 380 | 41 | 22.5 | 815 | 1 |





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## 512QR N/7 Set of wrenches

QR

- in sturdy, stackable ABS plastic case

Content 7 pieces:
1 ratchet No 512QR N
4 extensions
No 509QR/2 (52 mm),
No 509QR/3 (75 mm),
No 509QR/5 (130 mm), No 509QR/10 (255 mm)
1 universal joint No 510QR
1 T-handle No 506QR

| Code | g |
|---|---|
| **96 03 40 10** | 2990 |

## 5120+7210/15 Spare parts set for ratchets No 512, 532

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

| Code | g |
|---|---|
| **19 04 00 00** | 127 |

## 5120G Spare parts set for ratchets No 512G, 532G

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

| Code | g |
|---|---|
| **19 04 00 30** | 120 |

## 5120QR N80 Spare parts set for ratchets No 512QR N, 512SG-QR N, 517QR

QR

Content 9 pieces:
1 pinion; 1 locking disc; 1 lever;
1 pin; 1 ball; 1 compression spring;
2 circlips; 1 cover plate

| Code | g |
|---|---|
| **19 04 20 20** | 120 |

for ratchets with screwless design

## 5120QR N Spare parts set for ratchet No 512QR N

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin;
1 ball; 2 compression springs; 2 screws

| Code | g |
|---|---|
| **19 04 00 40** | 140 |

for ratchet 512QR N, design with screws

## 5120QR Spare parts set for ratchets No 512, 512SG-QR

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

| code | g |
|---|---|
| **19 04 00 20** | 118 |

## 7350/20 Spare parts set for ratchet No 515

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| code | g |
|---|---|
| **59 25 10 20** | 140 |

## 501 Speeder brace

- working radius 105 mm
- DIN 3122/ISO 3315

| Code | L mm | g | |
|---|---|---|---|
| **13 10 00 10** | 456 | 620 | 5 |

## 501QR QuickRelease speeder brace

QR

- with steel handle
- for greater axial power transmission, detachable palm head
- working radius 105 mm
- DIN 3122/ISO 3315
- with QuickRelease safety lock
- patent

| Code | L mm | g | |
|---|---|---|---|
| **13 10 00 05** | 456 | 872 | 1 |

## 504 Flexible handle

- DIN 3122/ISO 3315
- with 2-component handle

| Code | size | L mm | g | |
|---|---|---|---|---|
| **13 06 10 15** | **15** | 397 | 735 | 1 |
| **13 06 10 18** | **18** | 469 | 831 | 1 |
| **13 06 10 24** | **24** | 610 | 1051 | 1 |

## 5040N Spare parts set for No 504

Content 3 pieces:
1 universal joint, 1 screw,
1 spring washer

| Code | g |
|---|---|
| **96 19 08 01** | 80 |

for version with black, manganese-phosphated TORX® screw



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## 5040 Spare parts set for No 504

Content 3 pieces:
1 universal joint, 1 screw,
1 spring washer

| Code | g |
|---|---|
| **96190800** | 75 |

for version with chrome plated Philips-head screw

## 506 Sliding T-handle

- DIN 3122/ISO 3315

| Code | L mm | g | |
|---|---|---|---|
| **13070000** | 300 | 436 | 5 |

## 506QR QuickRelease sliding T-handle

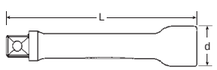
QR

- with QuickRelease safety lock
- patent

| Code | L mm | g | |
|---|---|---|---|
| **13071000** | 300 | 470 | 1 |

## 509 Extensions

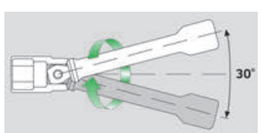
- DIN 3123/ISO 3316



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **13010001** | **2** | 52 | 23 | 88 | 5 |
| **13010004** | **3** | 75 | 23.2 | 120 | 5 |
| **13010002** | **5** | 130 | 23.2 | 191 | 5 |
| **13010003** | **10** | 255 | 23.2 | 341 | 5 |

## 509W Wobble-Drive extensions

- swivel angle 15° each side
- maximum torque 200 N·m



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **13010005** | **2** | 52 | 23 | 80 | 5 |
| **13010006** | **3** | 75 | 23.2 | 120 | 5 |
| **13010007** | **5** | 130 | 23.2 | 191 | 5 |
| **13010008** | **10** | 255 | 23.2 | 341 | 5 |

## 509QR QuickRelease extensions

QR

- patent
- DIN 3123/ISO 3316

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **13011001** | **2** | 52 | 23 | 90 | 1 |
| **13011004** | **3** | 75 | 23 | 123 | 1 |
| **13011002** | **5** | 130 | 23 | 187 | 1 |
| **13011003** | **10** | 255 | 23 | 341 | 1 |

## 3505 Special extension

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **13210001** | 120 | 23.2 | 186 | 1 |

## 510 Universal joint

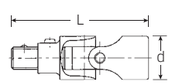
- DIN 3123/ISO 3316

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **13020000** | 71 | 25 | 146 | 5 |

## 510QR QuickRelease universal joint

QR

- DIN 3123/ISO 3316
- with QuickRelease safety lock
- patent



| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **13021000** | 80 | 25 | 155 | 1 |

## 5513 Set of adaptors

content 5 pieces:
- No 409, 1/4" socket x 3/8" plug
- No 431, 3/8" socket x 1/4" plug
- No 432, 3/8" socket x 1/2" plug
- No 513, 1/2" socket x 3/8" plug
- No 514, 1/2" socket x 3/4" plug

| Code | g |
|---|---|
| **96121003** | 648 |

## 513 Reducing adaptor

HPQ

- 1/2" socket x 3/8" plug (12.5 x 10)
- maximum torque 202 N·m
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **13030002** | 35 | 22.7 | 60 | 5 |

## 514 Extending adaptor

HPQ

- 1/2" socket x 3/4" plug (12.5 x 20)
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **13030005** | 44 | 25 | 110 | 5 |

## 7789-1 Extending adaptor

HPQ

- 1/2" socket x 1" plug (12.5 x 25)
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **58522089** | 35 | 36.5 | 175 | 1 |

## 409M/432M/514M/3 Set extending adaptors

content 3 pieces:
- 1/4" socket x 3/8" plug
- 3/8" socket x 1/2" plug
- 1/2" socket x 3/4" plug

| Code | g |
|---|---|
| **96121002** | 120 |

## 514M Extending adaptor

- 1/2" socket x 3/4" plug (12.5 x 20)

| Code | L mm | ∅ mm | g | |
|---|---|---|---|---|
| **13030010** | 22 | 38 | 40 | 1 |

## 543 Bit holder

- ○ 5/16" inside hexagon
- DIN 3126/ISO 1173 D 8
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **13180010** | 38 | 22 | 65 | 5 |

## 52/9/3 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 12 pieces:
9 sockets with hexagon No 52: 10; 13; 16; 17; 18; 19; 21; 22; 24 mm
1 ratchet No 512
2 extensions No 509/5 (130 mm), No 509/10 (255 mm)

| Code | g |
|---|---|
| **96031343** | 2878 |

## 50/12/3 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 15 pieces:
12 sockets with bi-hexagon No 50: 10; 13; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
1 ratchet No 512
2 extensions No 509/5 (130 mm), No 509/10 (255 mm)

| Code | g |
|---|---|
| **96031435** | 3300 |

## 52/12/3 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 15 pieces:
12 sockets with hexagon No 52: 10; 13; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
1 ratchet No 512
2 extensions No 509/5 (130 mm), No 509/10 (255 mm)

| Code | g |
|---|---|
| **96031436** | 3412 |

## 54/8/4 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 12 pieces:
8 INHEX sockets No 54: 4; 5; 6; 8; 10; 12; 14; 17 mm
1 ratchet No 512
2 extensions No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506

| Code | g |
|---|---|
| **96031501** | 3370 |



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## 52/16/5 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 21 pieces:
15 sockets with hexagon No 52:
10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30 mm
1 socket, long, with rubber insert No 51: 16 mm - 5/8"
1 ratchet No 512
2 extensions No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031406** | 4478 |

## 52/16/6 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 22 pieces:
16 sockets with hexagon No 52:
10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031448** | 4586 |

## 50/16/6 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 22 pieces:
16 sockets with bi-hexagon No 50:
10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031447** | 4502 |

## 52/16/6QR Socket set 1/2" □

QR

- in sturdy, stackable ABS plastic case

Content 22 pieces:
16 sockets with hexagon No 52:
10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
1 ratchet No 512QR N
3 extensions No 509QR/3 (75 mm), No 509QR/5 (130 mm), No 509QR/10 (255 mm)
1 T-handle No 506QR N
1 universal joint No 510QR

| Code | g |
|---|---|
| **96031480** | 4606 |

## 50/16/6QR Socket set 1/2" □

QR

- in sturdy, stackable ABS plastic case

Content 22 pieces:
16 sockets with bi-hexagon No 50:
10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
1 ratchet No 512QR N
3 extensions No 509QR/3 (75 mm), No 509QR/5 (130 mm), No 509QR/10 (255 mm)
1 T-handle No 506QR
1 universal joint No 510QR

| Code | g |
|---|---|
| **96031446** | 4502 |

## 50/22/6 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 28 pieces:
22 sockets with bi-hexagon No 50:
8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 26; 27; 28; 30; 32 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031407** | 5076 |



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## 52/22/6 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 28 pieces:
22 sockets with hexagon No 52:
8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 26; 27; 28; 30; 32 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031409** | 5138 |

## 50ma/39/6N Socket set 1/2" □

- in sturdy sheet steel case

Content 45 pieces:
39 sockets with bi-hexagon
- No 50: 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 30; 32; 34 mm
- No 50a: 3/8; 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"

1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96030140** | 9020 |

## 50ma/39/6QR Socket set 1/2" □

QR

- in sturdy sheet steel case

Content 45 pieces:
39 sockets with bi-hexagon
- No 50: 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 30; 32; 34 mm
- No 50a: 3/8; 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"

1 ratchet No 512QR N
3 extensions No 509QR/3 (75 mm), No 509QR/5 (130 mm), No 509QR/10 (255 mm)
1 T-handle No 506QR
1 universal joint No 510QR

| Code | g |
|---|---|
| **96030107** | 8890 |

## 40/52/27/11 Socket set 1/4"; 1/2" □

- in sturdy, stackable ABS plastic case

Content 38 pieces:
9 sockets with hexagon No 40:
4; 5; 5.5; 6; 7; 8; 9; 10; 11 mm
10 sockets with hexagon No 52:
13; 16; 17; 18; 19; 21; 22; 24; 27; 30 mm
3 INHEX sockets No 44: 3; 4; 5 mm
5 INHEX sockets No 54: 6; 8; 10; 12; 14 mm
2 ratchets No 415, No 512
4 extensions No 405/2 (54 mm), No 509/5 (130 mm), No 405/6 (150 mm), No 509/10 (255 mm)
2 universal joints No 407, No 510
1 drive handle No 400
2 T-handles No 404, No 506

| Code | g |
|---|---|
| **96011160** | 4915 |

## 50/43/7 Socket set 1/2" □

- in sturdy sheet steel case

Content 50 pieces:
23 sockets with bi-hexagon No 50:
8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 30; 32; 34 mm
7 sockets, long, No 51: 13; 17; 18; 19; 22; 24; 27 mm
2 sockets, long with rubber insert No 51:
16 mm - 5/8", 20.8 mm - 13/16"
6 UNIFLEX sockets with hexagon No 53:
10; 13; 16; 17; 18; 19 mm
5 INHEX sockets No 54: 4; 5; 6; 8; 10 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 flexible handle No 504/15
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96030136** | 11270 |

## 50/54/25/6 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 31 pieces:
17 sockets with bi-hexagon No 50:
8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
8 INHEX sockets No 54: 4; 5; 6; 7; 8; 10; 12; 14 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031439** | 5270 |



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## 50/54/25/6QR Socket set 1/2"

QR

- in sturdy, stackable ABS plastic case

Content 31 pieces:
17 sockets with bi-hexagon No 50: 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
8 INHEX sockets No 54: 4; 5; 6; 7; 8; 10; 12; 14 mm
1 ratchet No 512QR N
3 extensions No 509QR/3 (75 mm), No 509QR/5 (130 mm), No 509QR/10 (255 mm)
1 T-handle No 506QR
1 universal joint No 510QR

| Code | g |
|---|---|
| **96031440** | 5270 |

## 52/54/25/6 Socket set 1/2"

- in sturdy, stackable ABS plastic case

Content 31 pieces:
17 sockets with hexagon No 52: 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
8 INHEX sockets No 54: 4; 5; 6; 7; 8; 10; 12; 14 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031239** | 5306 |

## 52/54/25/6QR Socket set 1/2"

QR

- in sturdy, stackable ABS plastic case

Content 31 pieces:
17 sockets with hexagon No 52: 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
8 INHEX sockets No 54: 4; 5; 6; 7; 8; 10; 12; 14 mm
1 ratchet No 512QR N
3 extensions No 509QR/3 (75 mm), No 509QR/5 (130 mm), No 509QR/10 (255 mm)
1 T-handle No 506QR
1 universal joint No 510QR

| Code | g |
|---|---|
| **96031240** | 5306 |

## 87 Socket set 1/2"

- in sturdy, stackable ABS plastic case

Content 47 pieces:
19 sockets with bi-hexagon No 50: 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm
13 combination spanners No 13: 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm
2 sockets, long, with rubber insert No 51: 16 mm - 5/8"; 20.8 mm - 13/16"
7 INHEX sockets No 54: 4; 5; 6; 7; 8; 10; 12 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96031101** | 7520 |

## 876 Socket set 1/2"

- in sturdy, stackable ABS plastic case

Content 47 pieces:
19 sockets with hexagon No 52: 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm
13 combination spanners No 13: 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm
2 sockets, long, with rubber insert No 51: sizes 16 mm - 5/8"; 20.8 mm - 13/16"
7 INHEX sockets No 54: 4; 5; 6; 7; 8; 10; 12 mm
1 ratchet No 512
3 extensions No 509/3 (75 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96032301** | 7600 |

## 50TX/16/5 Socket set TORX® 1/2"

- in sturdy, stackable ABS plastic case

Content 21 pieces:
7 sockets for external TORX® screws No 50TX: sizes E10; E12; E14; E16; E18; E20; E24
9 screwdriver sockets for internal TORX® screws No 54TX: sizes T20; T25; T27; T30; T40; T45; T50; T55; T60
1 ratchet No 512
3 extensions No 509/2 (52 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 universal joint No 510

| Code | g |
|---|---|
| **96033702** | 3655 |





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12,5
1/2"

DIN
3120

ISO
1174-1

3

## 876TX Socket set TORX® 1/2" □

- in sturdy, stackable ABS plastic case

Content 39 pieces:
12 sockets with hexagon No 52: 8; 10; 13; 16; 17; 18; 19; 21; 22; 24; 27; 30 mm
6 INHEX sockets No 54: 5; 6; 8; 10; 12; 14 mm
7 sockets for external TORX® screws No 50TX: sizes E10; E12; E14; E16; E18; E20; E24
9 screwdriver sockets for internal TORX® screws No 54TX: sizes T20; T25; T27; T30; T40; T45; T50; T55; T60
1 ratchet No 512
2 extensions No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **98811909** | 6255 |

## 86TX Socket set TORX® 1/4; 1/2" □

- in sturdy, stackable ABS plastic case

Content 63 pieces:
9 sockets with hexagon No 40: 4; 5; 5.5; 6; 7; 8; 9; 10; 11 mm
10 sockets with hexagon No 52: 13; 16; 17; 18; 19; 21; 22; 24; 27; 30 mm
5 sockets for external TORX® screws No 40TX: sizes E4; E5; E6; E7; E8
7 sockets for external TORX® screws No 50TX: sizes E10; E12; E14; E16; E18; E20; E24
3 INHEX sockets No 44: 3; 4; 5 mm
5 INHEX sockets No 54: 6; 8; 10; 12; 14 mm
6 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9; T10; T15; T20; T25
7 screwdriver sockets for internal TORX® screws No 54TX: sizes T27; T30; T40; T45; T50; T55; T60
2 ratchets No 415, No 512
4 extensions No 405/2 (54 mm), No 509/5 (130 mm), No 405/6 (150 mm), No 509/10 (255 mm)
2 universal joints No 407, No 510
1 drive handle No 400
2 T-handles No 404, No 506

| Code | g |
|---|---|
| **96013702** | 6500 |

## 89TX Socket set TORX® 1/4; 3/8; 1/2" □

- in sturdy, stackable ABS plastic case

Content 35 pieces:
3 sockets for external TORX® screws No 40TX: sizes E4; E5; E6
2 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9
4 sockets for external TORX® screws No 45TX: sizes E7; E8; E10; E12
5 screwdriver sockets for internal TORX® screws No 49TX: sizes T10; T15; T20; T25; T27
6 sockets for external TORX® screws No 50TX: sizes E11; E14; E16; E18; E20; E24
6 screwdriver sockets for internal TORX® screws No 54TX: sizes T30; T40; T45; T50; T55; T60
7 bits ⌬ 1440: T10; 1441: T15; 1442: T20; 1443: T25; 1444: T27; 1445: T30; 1446: T40
1 bit-holder No 442
1 TORX® controller: sizes E6; E7; E8; E10; E12; E14; E16; T10; T15; T20; T25; T27; T30; T40; T45; T47; T50; T55; T60

| Code | g |
|---|---|
| **98811908** | 2420 |

## 50a/17/6 Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 23 pieces:
17 sockets with bi-hexagon No 50a: 3/8; 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"
1 ratchet No 512
3 extensions No 509/2 (52 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96035125** | 4640 |

## 87a Socket set 1/2" □

- in sturdy, stackable ABS plastic case

Content 40 pieces:
15 sockets with bi-hexagon No 50a: 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8; 15/16; 1; 1 1/16; 1 1/8; 1 3/16; 1 1/4"
2 sockets, long, with rubber insert No 51: 16 mm - 5/8"; 20.8 mm - 13/16"
5 INHEX sockets No 54a: 7/32; 1/4; 5/16; 3/8; 1/2 "
12 combination spanners No 13a: 1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8"
1 ratchet No 512
3 extensions No 509/2 (52 mm), No 509/5 (130 mm), No 509/10 (255 mm)
1 T-handle No 506
1 universal joint No 510

| Code | g |
|---|---|
| **96035101** | 6700 |



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## TCS 1/2"-512/6

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838175** | 1845 |

| | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

## TCS 1/2" - 512/6QR

NEW

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96830362** | 1845 |

| | No | Content |
|---|---|---|
| | **506QR** | 1/2" ■ 300 mm |
| | **509QR/2** | 1/2" ■ O 52 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm |
| | **510QR** | 1/2" ■ O 80 mm |
| | **512QR N** | 1/2" ■ |

## TCS 1/2"-512/9

- 175 x 350 x 40 mm
- 9 pieces

| Code | g |
|---|---|
| **96830603** | 2364 |

| | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm (2x) |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2" O |

## TCS 1/2" - 512/9QR

NEW

- 175 x 350 x 40 mm
- 9 pieces

| Code | g |
|---|---|
| **96830363** | 2364 |

| | No | Content |
|---|---|---|
| | **506QR** | 1/2" ■ 300 mm |
| | **509QR/2** | 1/2" ■ O 52 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm (2x) |
| | **510QR** | 1/2" ■ O 80 mm |
| | **512QR N** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2"O |

## ES 1/2" - 512/6

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838113** | 1915 |

| | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

## TCS 50/52/30/6MF

- 350 x 350 x 70 mm
- 36 pieces

| Code | g |
|---|---|
| **96830354** | 4604 |

| | No | Content |
|---|---|---|
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm |
| | **52** | 1/2" O 12; 13; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34 mm |
| | **54** | 1/2" O 5; 6; 7; 8; 10; 12 mm |
| | **506** | 1/2" ■ 300 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |

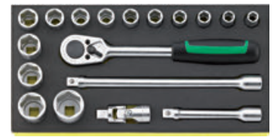
## TCS 50/52/30/6MF QR

- 350 x 350 x 70 mm
- 36 pieces

| Code | g |
|---|---|
| **96830360** | 4604 |

| | No | Content |
|---|---|---|
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm |
| | **52** | 1/2" O 12; 13; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34 mm |
| | **54** | 1/2" O 5; 6; 7; 8; 10; 12 mm |
| | **506QR** | 1/2" ■ 300 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm |
| | **510QR** | 1/2" ■ O 71 mm |
| | **512QR N** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |

## TCS 52/14/4



- 175 x 350 x 50 mm
- 18 pieces

| Code | g |
|---|---|
| **96838781** | 2510 |

| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24; 27; 30 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

## TCS 52/14/4QR

- 175 x 350 x 50 mm
- 18 pieces

| Code | g |
|---|---|
| **96830352** | 2510 |

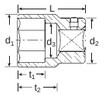
| | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24; 27; 30 mm |
| | **509QR/5** | 1/2" ■ O 130 mm |
| | **509QR/10** | 1/2" ■ O 255 mm |
| | **510QR** | 1/2" ■ O 80 mm |
| | **512QR N** | 1/2" ■ |

**Tool Control System.**
The safety inlay system.

Designed to fit our Tool Trolleys and Tool boxes
With yellow signal cut-outs to show whether all the tools are in their places.

## 55 Sockets

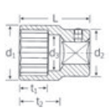
- DIN 3124/ISO 2725-1, ASME B 107.5 M
- AS-drive and HPQ® high performance steel up to 38 mm, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **05010019** | **19** | 28.5 | 34.7 | 17 | 50 | 16 | 26 | 183 | 5 |
| **05010021** | **21** | 31 | 34.7 | 18 | 50 | 16 | 26 | 190 | 5 |
| **05010022** | **22** | 32 | 34.7 | 19 | 51 | 17 | 25.2 | 199 | 5 |
| **05010024** | **24** | 34 | 34.7 | 21 | 51 | 18.5 | 24.6 | 200 | 5 |
| **05010027** | **27** | 38.5 | 38 | 24 | 54 | 20 | 26.8 | 263 | 5 |
| **05010030** | **30** | 42 | 38 | 27 | 58 | 21 | 33.6 | 313 | 5 |
| **05010032** | **32** | 44.5 | 38 | 29 | 58 | 22 | 33 | 326 | 2 |
| **05010033** | **33** | 46 | 40 | 30 | 60 | 22 | 34.7 | 372 | 2 |
| **05010034** | **34** | 47 | 40 | 31 | 60 | 24 | 34.4 | 363 | 2 |
| **05010036** | **36** | 49.5 | 40 | 33 | 60 | 24 | 33.9 | 386 | 2 |
| **05010038** | **38** | 52 | 40 | 35 | 64 | 30 | 37.3 | 429 | 2 |
| **05010041** | **41** | 55.5 | 40 | 33 | 67 | 30 | 37.5 | 510 | 2 |
| **05010046** | **46** | 61 | 40 | 33 | 73 | 34 | 43.5 | 600 | 1 |
| **05010050** | **50** | 66 | 40 | 33 | 80 | 34 | 48.5 | 769 | 1 |
| **05010055** | **55** | 72 | 45 | 33 | 80 | 36 | 49.5 | 970 | 1 |
| **05010060** | **60** | 78 | 45 | 33 | 80 | 40 | 50.5 | 1025 | 1 |

## 55a Sockets

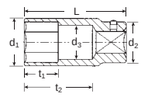
- SAE AS 954-E (test loads), ASME B 107.1
- AS-drive and HPQ® high performance steel up to 1 ½", chrome plated



| Code | " | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **05410040** | **3/4** | 28.5 | 34.7 | 18.6 | 26 | 50 | 16 | 176 | 2 |
| **05410042** | **13/16** | 31 | 34.7 | 19.4 | 25.1 | 51 | 16.5 | 190 | 2 |
| **05410044** | **7/8** | 33 | 34.7 | 21 | 24.5 | 51 | 18 | 240 | 2 |
| **05410046** | **15/16** | 34 | 34.7 | 22.5 | 24.2 | 51 | 18.5 | 248 | 2 |
| **05410048** | **1** | 37 | 38 | 24 | 24.8 | 52 | 20 | 251 | 2 |
| **05410050** | **1 1/16** | 38.5 | 38 | 26 | 26.2 | 54 | 20 | 265 | 2 |
| **05410052** | **1 1/8** | 41 | 38 | 27.5 | 32.5 | 57 | 20 | 297 | 2 |
| **05410056** | **1 1/4** | 44.5 | 38 | 30.5 | 32.6 | 58 | 22 | 339 | 2 |
| **05410058** | **1 5/16** | 46.5 | 40 | 32.1 | 33.1 | 59 | 24 | 348 | 2 |
| **05410060** | **1 3/8** | 48.5 | 40 | 33.7 | 32.7 | 59 | 24 | 375 | 2 |
| **05410062** | **1 7/16** | 50 | 40 | 35.3 | 33.2 | 60 | 27 | 395 | 2 |
| **05410064** | **1 1/2** | 52 | 40.5 | 36.8 | 36.8 | 64 | 30 | 415 | 2 |
| **05410066** | **1 5/8** | 56 | 40 | 33 | 37.5 | 67 | 30 | 469 | 1 |
| **05410067** | **1 11/16** | 58 | 40 | 33 | 40.5 | 70 | 32 | 524 | 1 |
| **05410068** | **1 3/4** | 59.5 | 40 | 33 | 40.5 | 70 | 32 | 524 | 1 |
| **05410069** | **1 13/16** | 61.5 | 40 | 33 | 43.5 | 73 | 34 | 605 | 1 |
| **05410070** | **1 7/8** | 63.5 | 40 | 33 | 45 | 76 | 34 | 660 | 1 |
| **05410072** | **2** | 67 | 40 | 33 | 48.5 | 80 | 34 | 757 | 1 |

## 56 Sockets

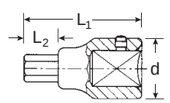
- DIN 3124/ISO 2725-1, ASME B 107.5 M
- extra deep
- AS-drive and HPQ® high performance steel up to 36 mm, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **05020022** | **22** | 32 | 34.7 | 19 | 64.2 | 90 | 40 | 374 | 5 |
| **05020024** | **24** | 34 | 34.7 | 21 | 63.6 | 90 | 40 | 341 | 5 |
| **05020027** | **27** | 38.5 | 38 | 24 | 62.8 | 90 | 40 | 443 | 5 |
| **05020030** | **30** | 42 | 38 | 27 | 65.6 | 90 | 40 | 477 | 5 |
| **05020032** | **32** | 44.5 | 38 | 29 | 65 | 90 | 40 | 526 | 2 |
| **05020034** | **34** | 47 | 40 | 31 | 64.4 | 90 | 40 | 562 | 2 |
| **05020036** | **36** | 49.5 | 40 | 33 | 63.9 | 90 | 40 | 570 | 2 |
| **05020041** | **41** | 55.5 | 40 | 38 | 58.5 | 90 | 40 | 714 | 2 |

## 59 INHEX sockets

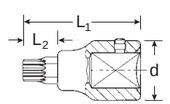
- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **05050014** | **14** | 80 | 25 | 34.7 | 272 | 1 |
| **05050017** | **17** | 80 | 25 | 34.7 | 311 | 1 |
| **05050019** | **19** | 80 | 25 | 34.7 | 346 | 1 |
| **05050022** | **22** | 80 | 25 | 40 | 510 | 1 |

## 59X Screwdriver sockets

- for trisquare socket head screws (XZN®)
- Chrome Alloy Steel, chrome plated



| Code | size | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **05060014** | **M14** | 90 | 35 | 34.7 | 281 | 1 |
| **05060016** | **M16** | 80 | 25 | 34.7 | 302 | 1 |
| **05060018** | **M18** | 100 | 45 | 34.7 | 375 | 1 |

Application: Flywheel and oscillation damper on Mercedes-Benz commercial vehicles



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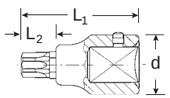
## 59TX Screwdriver sockets

- for inside TORX® screws
- Chrome Alloy Steel, chrome plated

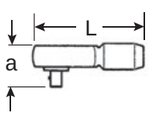


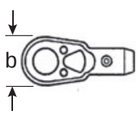
| Code | size | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|
| **05100060** | **T60** | 13.2 | 80 | 25 | 34.7 | 260 | 1 |
| **05100070** | **T70** | 15.5 | 80 | 25 | 34.7 | 285 | 1 |
| **05100080** | **T80** | 17.6 | 80 | 25 | 34.7 | 300 | 1 |
| **05100090** | **T90** | 19.9 | 80 | 25 | 34.7 | 331 | 1 |
| **05100100** | **T100** | 22.1 | 80 | 25 | 40 | 474 | 1 |

Application: size T80 for MAN series M, size T100 for MAN series F

# Drive tools and accessories

- 3/4" □
- finish: Chrome Alloy Steel, chrome plated




## 552 Ratchet

QR

- reversible
- 36 teeth
- with QuickRelease safety lock
- for use with bar handle No 558

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **15110000** | 165 | 70 | 55 | 1670 | 1 |

## 5520 Spare parts set for ratchet No 552

Content 7 pieces:
1 pinion, 1 pawl, 1 lever, 1 ball, 1 compression spring, 2 screws

| Code | g | |
|---|---|---|
| **19050000** | 536 | 1 |

## 563 Ratchet adaptor

- reversible
- 44 teeth

| Code | L mm | ∅ mm | g | |
|---|---|---|---|---|
| **15140000** | 105.5 | 63 | 1257 | 1 |

## 554 Flexible head

QR

- with QuickRelease safety lock
- for use with bar handle No 558

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **15060000** | 132 | 40 | 795 | 5 |

## 556 Sliding head

- can be used as a T-handle in combination with bar handle No 558

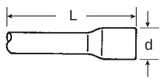
| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **15070000** | 61.5 | 40 | 318 | 5 |

## 558 Bar handle

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **15170000** | 510 | 20 | 1259 | 2 |

## 559 Extensions

- DIN 3123/ISO 3316



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **15010003** | **4** | 95 | 35 | 369 | 5 |
| **15010001** | **8** | 200 | 35 | 705 | 5 |
| **15010002** | **16** | 400 | 35 | 1255 | 5 |

## 561 Universal joint

- DIN 3123/ISO 3316

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **15020000** | 109 | 40 | 566 | 1 |

## 568 Reducing adaptor

HPQ

- 3/4" socket x 1/2" plug (20 x 12.5)
- maximum torque 512 N·m
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **15030003** | 55 | 34.7 | 203 | 5 |



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## 569 Extending adaptor

HPQ

- 3/4" inside x 1" plug (20 x 25)
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **15030006** | 61 | 34.7 | 315 | 5 |

## 55/10/6 Socket set 3/4" □

- in sturdy sheet steel case

Content 16 pieces:
10 sockets with hexagon No 55:
22; 24; 27; 30; 32; 34; 36; 41; 46; 50 mm
1 ratchet No 552
2 extensions No 559/8 (200 mm), No 559/16 (400 mm)
1 flexible head No 554
1 sliding head for T-handle No 556
1 bar handle No 558

| Code | g |
|---|---|
| **96050104** | 13965 |

## 55/9/6N Socket set 3/4" □

- in sturdy sheet steel case

Content 15 pieces:
9 sockets with hexagon No 55:
32; 34; 36; 38; 41; 46; 50; 55; 60 mm
1 ratchet No 552
2 extensions No 559/8 (200 mm), No 559/16 (400 mm)
1 flexible head No 554
1 sliding head for T-handle No 556
1 bar handle No 558

| Code | g |
|---|---|
| **96050103** | 15731 |

## 55a/10/5 Socket set 3/4" □

- in sturdy sheet steel case

Content 15 pieces:
10 sockets with bi-hexagon No 55a:
1 1/16; 1 1/8; 1 1/4; 1 3/8; 1 7/16; 1 1/2; 1 5/8; 1 3/4; 1 13/16; 1 7/8"
1 ratchet No 552
2 extensions No 559/8 (200 mm), No 559/16 (400 mm)
1 sliding head for T-handle No 556
1 bar handle No 558

| Code | g |
|---|---|
| **96054101** | 12620 |

## 55a/16/6 Socket set 3/4" □

- in sturdy sheet steel case

Content 22 pieces:
16 sockets with bi-hexagon
No 55a: 7/8; 15/16; 1; 1 1/16; 1 1/8; 1 1/4; 1 5/16; 1 3/8; 1 7/16; 1 1/2; 1 5/8; 1 11/16; 1 3/4; 1 13/16; 1 7/8; 2"
1 ratchet No 552
2 extensions
No 559/8 (200 mm),
No 559/16 (400 mm)
1 flexible head No 554
1 sliding head for T-handle No 556
1 bar handle No 558

| Code | g |
|---|---|
| **96054103** | 16750 |

## ES 55/6/4

- 530 x 350 x 83 mm
- 10 pieces

| Code | g |
|---|---|
| **96838174** | 7875 |

| | No | Content |
|---|---|---|
| | **55** | 3/4" **O** 34; 36; 41; 46; 50; 55 mm |
| | **552** | 3/4" ■ |
| | **556** | 3/4" ■ |
| | **558** | 510 mm |
| | **559/8** | 3/4" ■ **O** 200 mm |

## TCS 55/11/6

TCS

- 530 x 350 x 90 mm
- 17 pieces

| Code | g |
|---|---|
| **96830221** | 10100 |

| | No | Content |
|---|---|---|
| | **55** | 3/4" **O** 22; 24; 27; 30; 32; 34; 36; 38; 41; 46; 50 mm |
| | **552** | 3/4" ■ |
| | **556** | 3/4" ■ |
| | **558** | 510 mm |
| | **559/8** | 3/4" ■ **O** 200 mm |
| | **559/16** | 3/4" ■ **O** 400 mm |
| | **568** | 1/2" ■ 3/4" **O** |



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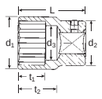
## 60 Sockets

AS drive HPQ

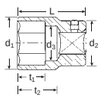
- DIN 3124/ISO 2725-1
- AS-drive and HPQ® high performance steel up to 36 mm, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **06010030** | **30** | 42.5 | 43 | 27 | 65 | 20 | 33.1 | 371 | 2 |
| **06010032** | **32** | 45 | 43 | 29 | 67 | 24 | 34.6 | 374 | 2 |
| **06010034** | **34** | 47 | 43 | 31 | 67 | 24 | 34 | 398 | 2 |
| **06010036** | **36** | 49.5 | 48 | 33 | 67 | 24 | 33.4 | 493 | 2 |
| **06010041** | **41** | 55.5 | 48 | 36 | 70 | 30 | 37.5 | 530 | 1 |
| **06010046** | **46** | 61 | 49 | 40 | 75 | 32 | 43.5 | 622 | 1 |
| **06010050** | **50** | 66 | 48 | 43 | 80 | 34 | 47.5 | 707 | 1 |
| **06010055** | **55** | 72 | 48 | 49 | 85 | 36 | 49.5 | 920 | 1 |
| **06010060** | **60** | 78 | 48 | 53 | 90 | 40 | 56.5 | 992 | 1 |

## 60 Sockets

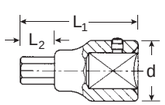
- DIN 3124/ISO 2725-1
- Chrome-Alloy-Steel, chrome plated



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **06010065** | **65** | 87 | 60 | 58 | 105 | 40 | 68.5 | 1917 | 1 |
| **06010070** | **70** | 94 | 60 | 63 | 110 | 42 | 72.5 | 2210 | 1 |
| **06010075** | **75** | 101 | 60 | 68 | 115 | 45 | 78.5 | 2525 | 1 |
| **06010080** | **80** | 108 | 60 | 73 | 120 | 48 | 83.5 | 2865 | 1 |

## 64 INHEX sockets

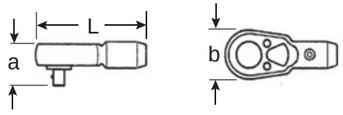
- DIN 7422
- Chrome Alloy Steel, chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **06050014** | **14** | 85 | 25 | 43 | 390 | 1 |
| **06050017** | **17** | 85 | 25 | 43 | 417 | 1 |
| **06050019** | **19** | 85 | 25 | 43 | 445 | 1 |
| **06050022** | **22** | 90 | 25 | 48 | 661 | 1 |
| **06050024** | **24** | 90 | 25 | 48 | 719 | 1 |
| **06050027** | **27** | 90 | 25 | 49 | 827 | 1 |

# Drive tools and accessories

- 1" □
- finish: Chrome Alloy Steel, chrome plated




## 882 Ratchet

QR

- reversible
- 36 teeth
- with QuickRelease safety lock
- for use with bar handle No 888

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **16110000** | 185 | 70 | 60 | 1984 | 1 |

## 8820 Spare parts set for ratchet No 882

Content 7 pieces:
1 pinion; 1 pawl; 1 lever; 1 ball; 1 compression spring; 2 screws

| Code | g | |
|---|---|---|
| **19070000** | 609 | 1 |

## 884 Flexible head

QR

- with QuickRelease safety lock
- for use with bar handle No 888

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **16060000** | 195 | 48 | 1848 | 1 |

## 886 Sliding head

- can be used as a T-handle in combination with bar handle No 888

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **16070000** | 80 | 48 | 616 | 1 |

## 888 Bar handle

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **16170000** | 700 | 28 | 3337 | 1 |



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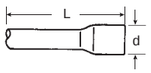
## 859 Extensions

- DIN 3123/ISO 3316



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **16010001** | **8** | 200 | 43 | 1004 | 2 |
| **16010002** | **16** | 410 | 43 | 1794 | 2 |

## 866 Reducing adaptor

HPQ

- 1" socket x 3/4" plug (25 x 20)
- maximum torque 1412 N·m
- DIN 3123/ISO 3316
- HPQ® high performance steel

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **16030005** | 70 | 43 | 347 | 2 |

## 60/6/6/882 Socket set 1" □

- in sturdy sheet steel case

Content 12 pieces:
6 sockets with bi-hexagon No 60: 36; 41; 46; 50; 55; 60 mm
1 ratchet No 882
2 extensions No 859/8 (200 mm), No 859/16 (410 mm)
1 flexible head No 884
1 sliding head for T-handle No 886
1 bar handle No 888

| Code | g |
|---|---|
| **96060101** | 19720 |

## 60/8/6/882 Socket set 1" □

- in sturdy sheet steel case

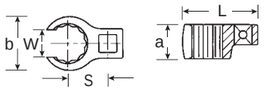
Content 14 pieces:
4 sockets with bi-hexagon No 60: 46; 50; 55; 60 mm
4 sockets with hexagon No 60: 65; 70; 75; 80 mm
1 ratchet No 882
2 extensions No 859/8 (200 mm), No 859/16 (410 mm)
1 flexible head No 884
1 sliding head for T-handle No 886
1 bar handle No 888

| Code | g |
|---|---|
| **96060103** | 30000 |

## 440 CROW-RING spanners

AS CHROME

- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on page 201)



| Code | mm | " | L mm | b mm | a mm | S mm | W mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01190008** | **8** | 1/4 | 23.8 | 12.7 | 8 | 12.3 | 6.3 | 11 | 1 |
| **01190009** | **9** | 1/4 | 28.5 | 18.2 | 13.5 | 14 | 6.7 | 21 | 1 |
| **01190010** | **10 [1]** | 1/4 | 28.4 | 18.2 | 13.5 | 14 | 7.1 | 16 | 1 |
| **01190011** | **11** | 1/4 | 28 | 18.2 | 13.5 | 14 | 8.6 | 17 | 1 |
| **01190012** | **12 [1]** | 1/4 | 30.8 | 20.6 | 14 | 15.7 | 9 | 20 | 1 |
| **01190013** | **13** | 1/4 | 32 | 22.2 | 14 | 16.4 | 10 | 30 | 1 |
| **01190014** | **14 [1]** | 1/4 | 31.7 | 22.2 | 14 | 16.4 | 11.1 | 20 | 1 |
| **02190015** | **15** | 3/8 | 36.5 | 24.6 | 17.5 | 19.1 | 11.9 | 34 | 1 |
| **02190016** | **16** | 3/8 | 36.1 | 24.6 | 17.5 | 19.1 | 13 | 27 | 1 |
| **02190017** | **17 [2]** | 3/8 | 39.2 | 27.3 | 17.5 | 20.5 | 14 | 40 | 1 |
| **02190018** | **18** | 3/8 | 40.8 | 29 | 18.5 | 21.3 | 14.8 | 45 | 1 |
| **02190019** | **19 [2]** | 3/8 | 40.5 | 29 | 18.5 | 21.3 | 15.8 | 40 | 1 |
| **02190020** | **20** | 3/8 | 42.9 | 31.3 | 18.5 | 22.5 | 15.8 | 54 | 1 |
| **02190021** | **21** | 3/8 | 42.8 | 31.3 | 18.5 | 22.5 | 16.2 | 45 | 1 |
| **02190022** | **22 [2]** | 3/8 | 45.3 | 33.5 | 19 | 23.6 | 17 | 57 | 1 |
| **02190023** | **23** | 3/8 | 47.5 | 35.7 | 19.5 | 24.6 | 17.5 | 71 | 1 |
| **02190024** | **24 [2]** | 3/8 | 47.3 | 35.7 | 19.5 | 24.6 | 18 | 57 | 1 |
| **02190025** | **25** | 3/8 | 49.3 | 37.7 | 20 | 25.7 | 19 | 80 | 1 |
| **02190026** | **26** | 3/8 | 49.3 | 37.7 | 20 | 25.7 | 19 | 63 | 1 |
| **02190027** | **27** | 3/8 | 52.8 | 40 | 21.4 | 28.2 | 20 | 100 | 1 |
| **02191027** | **27MB [3]** | 3/8 | 57.1 | 42.1 | 15 | 29.3 | 20 | 92 | 1 |
| **03190028** | **28** | 1/2 | 56.8 | 42.1 | 22.5 | 29.3 | 21 | 120 | 1 |
| **03190030** | **30** | 1/2 | 63 | 48 | 22.5 | 32.5 | 22 | 155 | 1 |
| **03190032** | **32** | 1/2 | 62.5 | 48 | 22.5 | 32.5 | 24 | 145 | 1 |
| **03190034** | **34** | 1/2 | 64.2 | 50 | 24 | 33.5 | 27 | 146 | 1 |
| **03190036** | **36** | 1/2 | 66.5 | 51.9 | 24 | 34.6 | 27 | 150 | 1 |
| **03190038** | **38** | 1/2 | 68.1 | 53.9 | 24 | 35.6 | 28.6 | 147 | 1 |
| **03190040** | **40** | 1/2 | 71.8 | 57.9 | 24.5 | 37.7 | 31 | 160 | 1 |
| **03190041** | **41** | 1/2 | 71.8 | 57.9 | 24.5 | 37.7 | 31 | 169 | 1 |
| **03190042** | **42** | 1/2 | 71 | 57.9 | 24.5 | 37.7 | 33.2 | 189 | 1 |
| **03190046** | **46** | 1/2 | 77.7 | 64.2 | 26 | 40.9 | 34.1 | 215 | 1 |
| **03190050** | **50** | 1/2 | 83.2 | 70.5 | 27.5 | 44.1 | 39.7 | 295 | 1 |

[1]) for union nuts on fuel injection leads on 4-cylinder Mercedes-Benz diesel engines
[2]) for use on suction or pressure lines within expansion valve of air conditioning unit (Mercedes-Benz)
[3]) slim-line version for setting of electronic injection on 440-HP-engines Mercedes-Benz series OM 442





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## 440a CROW-RING spanners

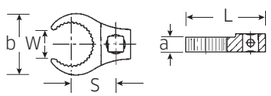
- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on page 201)

| Code | ⌐ " | ○ " | L mm | b mm | a mm | S mm | W mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01490024** | **3/8** [1] | 1/4 | 28.4 | 18.2 | 13.5 | 14 | 7.1 | 16 | 1 |
| **01490028** | **7/16** | 1/4 | 28 | 18.2 | 13.5 | 14 | 8.6 | 14 | 1 |
| **01490032** | **1/2** | 1/4 | 30.5 | 20.6 | 14 | 15.7 | 10 | 19 | 1 |
| **01490034** | **9/16** | 1/4 | 31.7 | 22.2 | 14 | 16.4 | 11.1 | 23 | 1 |
| **02490036** | **5/8** | 3/8 | 36.5 | 24.6 | 17.5 | 19.1 | 11.9 | 33 | 1 |
| **02490038** | **11/16** | 3/8 | 39.2 | 27.3 | 17.5 | 20.5 | 14 | 36 | 1 |
| **02490040** | **3/4** | 3/8 | 40.9 | 29 | 18.5 | 21.3 | 14.2 | 44 | 1 |
| **02490042** | **13/16** | 3/8 | 42.9 | 31.3 | 18.5 | 22.5 | 15.8 | 51 | 1 |
| **02490044** | **7/8** | 3/8 | 45.2 | 33.5 | 19 | 23.6 | 17.5 | 62 | 1 |
| **02490046** | **15/16** | 3/8 | 47.2 | 35.7 | 19.5 | 24.6 | 18.3 | 63 | 1 |
| **02490048** | **1** | 3/8 | 49.3 | 37.7 | 20 | 25.7 | 19 | 71 | 1 |
| **02490050** | **1 1/16** | 3/8 | 52.8 | 40 | 21.4 | 28.2 | 20 | 84 | 1 |
| **03490052** | **1 1/8** | 1/2 | 56.8 | 42.1 | 22.5 | 29.3 | 21 | 110 | 1 |
| **03490056** | **1 1/4** | 1/2 | 62.5 | 48 | 22.5 | 32.5 | 23.8 | 137 | 1 |
| **03490058** | **1 5/16** | 1/2 | 62.3 | 48 | 22.5 | 32.5 | 24.6 | 130 | 1 |
| **03490060** | **1 3/8** | 1/2 | 64.2 | 50 | 24 | 33.5 | 27 | 138 | 1 |
| **03490062** | **1 7/16** | 1/2 | 66.5 | 51.9 | 24 | 34.6 | 27 | 143 | 1 |
| **03490064** | **1 1/2** | 1/2 | 68.1 | 53.9 | 24 | 35.6 | 28.6 | 152 | 1 |
| **03490065** | **1 9/16** | 1/2 | 70.1 | 55.9 | 24 | 36.7 | 29.4 | 172 | 1 |
| **03490066** | **1 5/8** | 1/2 | 71.8 | 57.9 | 24.5 | 37.7 | 31 | 169 | 1 |
| **03490068** | **1 3/4** | 1/2 | 75.6 | 62 | 25.5 | 39.8 | 33.2 | 199 | 1 |
| **03490069** | **1 13/16** | 1/2 | 77.7 | 64.2 | 26 | 40.9 | 34.1 | 229 | 1 |
| **03490072** | **2** | 1/2 | 83.2 | 70.5 | 27.5 | 44.1 | 39.7 | 277 | 1 |
| **03490076** | **2 1/4** | 1/2 | 91.2 | 78.7 | 29.5 | 48.2 | 42.8 | 337 | 1 |
| **03490077** | **2 5/16** | 1/2 | 93.3 | 80.9 | 30 | 49.2 | 43.6 | 309 | 1 |
| **03490078** | **2 3/8** | 1/2 | 95.2 | 83 | 30.5 | 50.2 | 46 | 385 | 1 |

[1]) for Volvo aero-engines, types "JAS"

## 440S MJ CROW-RING spanners

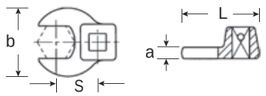
- HPQ® high performance steel, chrome plated
- supersedes No 440 MJ
- EN 4108
- for pipe unions with straight cylindrical involute toothing
- Caution! Modified settings on torque wrench (refer to note on page 201)



| Code | Threaded nut | mm | ○ " | L mm | b mm | a mm | S mm | W mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **01211010** | **MJ10** | DN04 | 1/4 | 31.9 | 22 | 8 | 17 | 6.5 | 54 | 1 |
| **01211014** | **MJ14** | DN06 | 1/4 | 36.5 | 27 | 8 | 19.5 | 8.5 | 29 | 1 |
| **02211016** | **MJ16** | DN08 | 3/8 | 43.8 | 31 | 8 | 24 | 10.5 | 46 | 1 |
| **02211018** | **MJ18** | DN10 | 3/8 | 45.2 | 33 | 8 | 25 | 13 | 47 | 1 |
| **02211020** | **MJ20** | DN12 | 3/8 | 46.2 | 35 | 8 | 26 | 15 | 49 | 1 |
| **02211022** | **MJ22** | DN14 | 3/8 | 48.4 | 37 | 9 | 27 | 17.5 | 54 | 1 |
| **02211024** | **MJ24** | DN16 | 3/8 | 49.5 | 39 | 9 | 28 | 19.7 | 56 | 1 |
| **02211027** | **MJ27** | DN18 | 3/8 | 54.4 | 44 | 10 | 31 | 21.5 | 70 | 1 |
| **02211030** | **MJ30** | DN20 | 3/8 | 60.8 | 50 | 10 | 36 | 23.7 | 93 | 1 |

## 540 CROW-FOOT spanners

- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on page 201)



| Code | ⌐ mm | ○ " | L mm | b mm | a mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|
| **01200008** | **8** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 19 | 1 |
| **01200009** | **9** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 21 | 1 |
| **01200010** | **10** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 20 | 1 |
| **02200011** | **11** | 3/8 | 32 | 22.2 | 6.3 | 17.4 | 36 | 1 |
| **02200012** | **12** | 3/8 | 34.3 | 25.4 | 6.3 | 18.2 | 37 | 1 |
| **02200013** | **13** | 3/8 | 34.3 | 25.4 | 6.3 | 17.8 | 36 | 1 |
| **02200014** | **14** | 3/8 | 37.7 | 30 | 6.3 | 20.8 | 46 | 1 |
| **02200015** | **15** | 3/8 | 37.7 | 30 | 6.3 | 20.4 | 45 | 1 |
| **02200016** | **16** | 3/8 | 37.7 | 30 | 6.3 | 19.9 | 45 | 1 |
| **02200017** | **17** | 3/8 | 42.5 | 38 | 6.3 | 23.8 | 62 | 1 |
| **02200018** | **18** | 3/8 | 42.5 | 38 | 6.3 | 22.9 | 61 | 1 |
| **02200019** | **19** | 3/8 | 42.5 | 38 | 6.3 | 22.4 | 64 | 1 |
| **02200020** | **20** | 3/8 | 42.4 | 38 | 6.3 | 25 | 55 | 1 |
| **02200021** | **21** | 3/8 | 44.5 | 41 | 6.3 | 23.6 | 59 | 1 |
| **02200022** | **22** | 3/8 | 44.5 | 41 | 6.3 | 24.2 | 64 | 1 |
| **02200023** | **23** | 3/8 | 44.5 | 41 | 6.3 | 25.8 | 64 | 1 |
| **02200024** | **24** | 3/8 | 44.4 | 41 | 6.3 | 26.3 | 60 | 1 |
| **02200025** | **25** | 3/8 | 47 | 45 | 8 | 26.4 | 75 | 1 |
| **02200026** | **26** | 3/8 | 47 | 45 | 8 | 27.6 | 80 | 1 |
| **02200027** | **27** | 3/8 | 47 | 45 | 8 | 27.6 | 76 | 1 |
| **02200028** | **28** | 3/8 | 50 | 50 | 8 | 29.2 | 78 | 1 |
| **02200030** | **30** | 3/8 | 50 | 50 | 8 | 29.3 | 84 | 1 |
| **02200032** | **32** | 3/8 | 53 | 57 | 8 | 30.5 | 95 | 1 |
| **02200034** | **34** | 3/8 | 54.5 | 60 | 8 | 31.6 | 107 | 1 |
| **02200036** | **36** | 3/8 | 56.5 | 62 | 8 | 32.8 | 100 | 1 |
| **02200040** | **40** | 3/8 | 63 | 70 | 8 | 37.6 | 130 | 1 |
| **02200041** | **41** | 3/8 | 63 | 70 | 8 | 37.2 | 130 | 1 |
| **02200042** | **42** | 3/8 | 63 | 70 | 8 | 37.7 | 125 | 1 |
| **02200046** | **46** | 3/8 | 72 | 82 | 8 | 43.1 | 191 | 1 |
| **02200050** | **50** | 3/8 | 75 | 88 | 8 | 45.4 | 217 | 1 |

## 1225 Special extension

- 3/8" ■
- offset

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12250001** | 150 | 17 | 128 | 5 |



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## 540a CROW-FOOT spanners

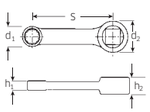
- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on page 201)

| Code | ⬡ " | ○ " | L mm | b mm | a mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|
| **01500024** | **3/8** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 17 | 1 |
| **02500028** | **7/16** | 3/8 | 32 | 22.2 | 6.3 | 17.2 | 34 | 1 |
| **02500032** | **1/2** | 3/8 | 34.3 | 25.4 | 6.3 | 18.1 | 37 | 1 |
| **02500034** | **9/16** | 3/8 | 37.7 | 30 | 6.3 | 20.9 | 40 | 1 |
| **02500036** | **5/8** | 3/8 | 37.7 | 30 | 6.3 | 20.4 | 44 | 1 |
| **02500038** | **11/16** | 3/8 | 42.5 | 38 | 6.3 | 24.1 | 62 | 1 |
| **02500040** | **3/4** | 3/8 | 42.5 | 38 | 6.3 | 24 | 66 | 1 |
| **02500042** | **13/16** | 3/8 | 42.3 | 38 | 6.3 | 24 | 59 | 1 |
| **02500044** | **7/8** | 3/8 | 44.5 | 41 | 6.3 | 25.8 | 65 | 1 |
| **02500048** | **1** | 3/8 | 47 | 45 | 8 | 26.7 | 78 | 1 |
| **02500050** | **1 1/16** | 3/8 | 47 | 45 | 8 | 27.2 | 78 | 1 |
| **02500052** | **1 1/8** | 3/8 | 50 | 50 | 8 | 28.5 | 84 | 1 |
| **02500054** | **1 3/16** | 3/8 | 50 | 50 | 8 | 29.2 | 83 | 1 |
| **02500056** | **1 1/4** | 3/8 | 53 | 57 | 8 | 30.3 | 101 | 1 |
| **02500058** | **1 5/16** | 3/8 | 53 | 57 | 8 | 31.2 | 101 | 1 |
| **02500060** | **1 3/8** | 3/8 | 54.5 | 60 | 8 | 32.3 | 105 | 1 |
| **02500062** | **1 7/16** | 3/8 | 56.5 | 62 | 8 | 33.1 | 107 | 1 |
| **02500064** | **1 1/2** | 3/8 | 58 | 65 | 8 | 34.5 | 118 | 1 |
| **02500065** | **1 9/16** | 3/8 | 59.5 | 68 | 8 | 35.7 | 126 | 1 |
| **02500066** | **1 5/8** | 3/8 | 63 | 70 | 8 | 37.3 | 140 | 1 |
| **02500067** | **1 11/16** | 3/8 | 63 | 70 | 8 | 37.7 | 126 | 1 |
| **02500068** | **1 3/4** | 3/8 | 68 | 76 | 8 | 40.4 | 161 | 1 |
| **02500070** | **1 7/8** | 3/8 | 72 | 82 | 8 | 42 | 205 | 1 |
| **02500072** | **2** | 3/8 | 75 | 88 | 8 | 44.8 | 214 | 1 |
| **02500074** | **2 1/8** | 3/8 | 75.6 | 91 | 10 | 46 | 265 | 1 |
| **02500076** | **2 1/4** | 3/8 | 80.5 | 96 | 10 | 49.5 | 297 | 1 |
| **03500078** | **2 3/8** | 1/2 | 81.5 | 96 | 8 | 51.3 | 214 | 1 |

## 447 ○ Adaptor

HPQ AS

- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on page 201)



| Code | ⬡ mm | ○ " | $d_1$ mm | $d_2$ mm | $h_1$ mm | $h_2$ mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02181007** | **7** | 3/8 | 11.5 | 19 | 6 | 11 | 50.8 | 30 | 1 |
| **02181008** | **8** | 3/8 | 12.4 | 19 | 6 | 11 | 50.8 | 30 | 1 |
| **02181009** | **9** | 3/8 | 14 | 19 | 8 | 11 | 50.8 | 40 | 1 |
| **02181010** | **10** | 3/8 | 15.6 | 19 | 8 | 11 | 50.8 | 40 | 1 |
| **02181013** | **13** | 3/8 | 19.3 | 19 | 9.2 | 11 | 50.8 | 55 | 1 |

## 447a ○ Adaptor

HPQ AS

- SAE AS 954-E
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on page 201)

| Code | ⬡ " | ○ " | $d_1$ mm | $d_2$ mm | $h_1$ mm | $h_2$ mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02470016** | **1/4** | 3/8 | 10.4 | 19 | 6 | 11 | 50.8 | 27 | 1 |
| **02470020** | **5/16** | 3/8 | 12.4 | 19 | 6 | 11 | 50.8 | 29 | 1 |
| **02470024** | **3/8** | 3/8 | 14.9 | 19 | 8 | 11 | 50.8 | 41 | 1 |
| **02470028** | **7/16** | 3/8 | 17 | 19 | 8 | 11 | 50.8 | 40 | 1 |
| **02470032** | **1/2** | 3/8 | 19 | 19 | 9.2 | 11 | 50.8 | 56 | 1 |

## 540a HD CROW-FOOT spanners heavy-duty

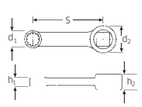
- for particularly high loadings, e.g. stainless steel screw fittings
- full use of jaws in conjunction with standard ratchets
- chrome plated
- supplied without ratchet
- Caution! Modified settings on torque wrench (refer to note on page 201)

| Code | ⬡ " | ○ " | L mm | b mm | a mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|
| **02501024** | **3/8** | 3/8 | 39 | 26 | 11 | 24 | 56 | 1 |
| **02501028** | **7/16** | 3/8 | 40 | 26 | 11 | 25 | 56 | 1 |
| **02501032** | **1/2** | 3/8 | 42 | 30 | 11 | 25.8 | 64 | 1 |
| **02501034** | **9/16** | 3/8 | 43.4 | 32 | 11 | 26.8 | 52 | 1 |
| **02501036** | **5/8** | 3/8 | 45 | 34.8 | 11 | 27.7 | 58 | 1 |
| **02501038** | **11/16** | 3/8 | 47.2 | 38 | 11 | 28.6 | 69 | 1 |
| **02501040** | **3/4** | 3/8 | 49 | 41 | 11 | 29.6 | 94 | 1 |
| **02501042** | **13/16** | 3/8 | 51 | 46.4 | 11 | 30.5 | 113 | 1 |
| **02501044** | **7/8** | 3/8 | 52 | 48 | 11 | 31.3 | 99 | 1 |
| **02501046** | **15/16** | 3/8 | 54 | 51.2 | 11 | 32.3 | 129 | 1 |
| **02501048** | **1** | 3/8 | 56 | 53.4 | 11 | 33.2 | 133 | 1 |
| **02501050** | **1 1/16** | 3/8 | 57 | 53.8 | 11 | 34.1 | 124 | 1 |
| **02501052** | **1 1/8** | 3/8 | 59 | 53.8 | 11 | 35 | 128 | 1 |
| **02501054** | **1 3/16** | 3/8 | 60 | 56 | 11 | 35.9 | 144 | 1 |
| **02501058** | **1 5/16** | 3/8 | 63 | 56 | 11 | 27.9 | 156 | 1 |
| **02501056** | **1 1/4** | 3/8 | 62 | 60 | 11 | 36.8 | 153 | 1 |
| **02501060** | **1 3/8** | 3/8 | 65 | 62 | 11 | 38.7 | 178 | 1 |
| **02501062** | **1 7/16** | 3/8 | 66.5 | 66 | 11 | 39.6 | 172 | 1 |
| **03501064** | **1 1/2** | 1/2 | 76 | 70 | 16 | 45 | 310 | 1 |
| **03501069** | **1 13/16** | 1/2 | 85 | 84 | 16 | 49.6 | 400 | 1 |
| **03501072** | **2** | 1/2 | 89 | 90 | 16 | 52.3 | 451 | 1 |
| **03501074** | **2 1/8** | 1/2 | 91.5 | 92.8 | 16 | 54.2 | 460 | 1 |
| **03501075** | **2 3/16** | 1/2 | 93 | 96 | 16 | 55.1 | 480 | 1 |
| **03501076** | **2 1/4** | 1/2 | 95 | 99 | 16 | 56 | 500 | 1 |

## 447aSP ○ Adaptor

HPQ

- for external Spline-Drive screws
- MS-33787, MIL-W-8982
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on page 201)



| Code | Spline size | ○ " | ⬡ " | $d_1$ mm | $d_2$ mm | $h_1$ mm | $h_2$ mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **02480014** | **7** | 3/8 | **7/32** | 9.4 | 19 | 6 | 11 | 50.8 | 28 | 1 |
| **02480016** | **8** | 3/8 | **1/4** | 10.4 | 19 | 6 | 11 | 50.8 | 27 | 1 |
| **02480018** | **9** | 3/8 | **9/32** | 11.5 | 19 | 6 | 11 | 50.8 | 29 | 1 |
| **02480020** | **10** | 3/8 | **5/16** | 12.4 | 19 | 6 | 11 | 50.8 | 29 | 1 |
| **02480024** | **12** | 3/8 | **3/8** | 14.9 | 19 | 8 | 11 | 50.8 | 38 | 1 |
| **02480028** | **14** | 3/8 | **7/16** | 17 | 19 | 9.2 | 11 | 50.8 | 39 | 1 |
| **02480032** | **16** | 3/8 | **1/2** | 19 | 19 | 9.2 | 11 | 50.8 | 59 | 1 |
| **02480034** | **18** | 3/8 | **9/16** | 21 | 19 | 9.2 | 11 | 50.8 | 55 | 1 |
| **02480036** | **20** | 3/8 | **5/8** | 23 | 19 | 12 | 11 | 50.8 | 74 | 1 |





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| No | Box No | mm | Box Code | Tray Code |
|---|---|---|---|---|
| **40/9/4, 40D/9/4** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 30 12** |
| **40/13/6** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 20 80** |
| **40/13/6QR** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 21 82** |
| **40/44/17/5** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 20 81** |
| **40/44/17/5QR** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 02 20 84** |
| **40/23/7, 40D/23/7** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 01 20 17** |
| **40/23/6N, 40D/23/6** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 20 14** |
| **40/23/6QR** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 10 15** |
| **40/24/6** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 20 82** |
| **40/24/6QR** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 20 83** |
| **40ma/25/8** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 01 20 35** |
| **40ma/25/8QR** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 01 20 06** |
| **40/45/36/12** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 01 20 10** |
| **40/52/27/11** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 01 20 04**<br>**83 01 20 05** |
| **40TX/44KTX/15/6** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 20 07** |
| **88TX** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 02 20 17** |
| **89TX** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 09 20 13** |
| **86TX** | **50/6KN** | 481x288x82 | **81 27 10 19** | **83 01 20 02**<br>**83 01 10 03** |
| **40a/9/4, 40aD/9/4** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 20 13** |
| **40aD/12/7QR** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 21 16** |
| **40aD/30/7QR** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 01 21 12** |
| **40aD/8/1H** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 01 21 07** |
| **4008/27/1R** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 18 10 01** |
| **415QR N/7** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 32 30 06** |
| **45/11/4, 456/11/4** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 02 20 13** |
| **45/14/5i, 456/14/5i** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 02 20 80** |
| **45/14/5iQR** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 02 20 81** |
| **45/13/5, 456/13/5** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 02 20 45** |
| **45ma/28/5** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 02 20 27** |
| **45ma/28/5QR** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 02 20 07** |
| **45/49/19/5, 456/49/19/5** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 02 20 21** |
| **89** | **50/6KN** | 481x288x82 | **81 27 10 19** | **83 02 11 18** |
| **45/41/9** | **50/5** | 530x265x50 | **81 27 00 05** | **83 02 02 02** |
| **45TX/7** | | | **–** | **83 06 00 15** |
| **49TX/8** | | | **–** | **83 06 00 14** |
| **45TX/49TX/15/5** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 02 20 19** |
| **45/49/32/5TX** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 02 20 09** |
| **45a/12/5** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 02 20 06** |
| **45a/14/8QR** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 02 20 12** |

| No | Box No | mm | Box Code | Tray Code |
|---|---|---|---|---|
| **45a/22/8QR** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 02 21 12** |
| **45a/33/13** | **50/5** | 530x265x50 | **81 27 00 05** | **83 02 02 13** |
| **435QR N/6** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 23 30 12** |
| **52/9/3** | **50/3KN** | 413x226x64 | **81 27 10 13** | **83 03 14 25** |
| **50/12/3, 52/12/3** | **50/3KN** | 413x226x64 | **81 27 10 13** | **83 03 14 12** |
| **54/10** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 03 24 03** |
| **54/12** | **45/1KN** | 322x134x57 | **81 26 10 11** | **83 03 44 09** |
| **54CV/9** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 03 34 09** |
| **3054X/54X/8** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 03 36 12** |
| **54/8/4** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 03 34 13** |
| **52/16/5** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 03 54 09** |
| **50/16/6, 52/16/6** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 03 24 80** |
| **50/16/6QR, 52/16/6QR** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 03 24 81** |
| **50/22/6, 52/22/6** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 03 14 07** |
| **50ma/39/6N** | **50/5** | 530x265x50 | **81 27 00 05** | **83 03 14 26** |
| **50ma/39/6QR** | **50/5** | 530x265x50 | **81 27 00 05** | **83 03 14 05** |
| **50/54/25/6, 52/54/25/6** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 03 24 17** |
| **50/54/25/6QR, 52/54/25/6QR** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 03 24 00** |
| **50/43/7** | **50/5** | 530x265x50 | **81 27 00 05** | **83 03 05 11** |
| **87, 876** | **50/6KN** | 481x288x82 | **81 27 10 19** | **83 09 31 11**<br>**83 09 32 11** |
| **50TX/7** | | | **–** | **83 06 00 09** |
| **50TX/8** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 03 34 11** |
| **54TX/9** | | | **–** | **83 06 00 10** |
| **54TX/10** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 03 24 02** |
| **54TX/59TX/12/1** | **40/7KN** | 413x230x57 | **81 25 10 14** | **83 06 10 12** |
| **54TXB/9** | | | **–** | **83 06 00 10** |
| **54TXB/10** | **40/9KN** | 227x131x57 | **81 25 10 19** | **83 03 24 02** |
| **50TX/16/5** | **50/3KN** | 413x226x64 | **81 27 10 13** | **83 03 24 13** |
| **876TX** | **50/6KN** | 481x288x82 | **81 27 10 19** | **83 09 20 11** |
| **50a/17/6** | **50/4KN** | 454x253x64 | **81 27 10 34** | **83 03 14 41** |
| **87a** | **50/6KN** | 481x288x82 | **81 27 10 19** | **83 09 11 12**<br>**83 09 12 12** |
| **512QR N/7** | **50/3KN** | 413x226x64 | **81 27 10 13** | **83 32 30 02** |
| **55/10/6** | **55/7** | 575x220x86 | **81 29 00 08** | **83 04 00 02** |
| **55/9/6N** | **55/7** | 575x220x86 | **81 29 00 08** | **83 04 00 01** |
| **55a/10/5** | **55/6** | 520x160x86 | **81 29 00 07** | **83 04 00 03** |
| **55a/16/6** | **55/7** | 575x220x86 | **81 29 00 08** | **83 04 00 04** |
| **60/6/6/882** | **60/1** | 785x173x90 | **81 30 00 01** | **–** |
| **60/8/6/882** | **60/2** | 785x200x122 | **81 30 00 02** | **–** |
| **12171/19/4 VDE, 12179/9/4 VDE** | **50/6KN VDE** | 481x288x82 | **81 27 20 19** | **–** |



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Made in Germany

3

## CONVENIENT.

Do you need empty cases? If so, include the appropriate hard-foam inlays from STAHLWILLE in your order. Together with the new tool cases, they ensure an exact fit and, as a result, excellent protection for your tools.

STAHLWILLER

# 4 IMPACT SOCKETS, BITS

IMPACT sockets, adaptors and sets
>> Page 168

Bits and accessory tools
>> Page 176

IMPACT driver and set
>> Page 185

# Applying controlled force.
# STAHLWILLE IMPACT.

Made in Germany

All the tools in the IMPACT product range have been designed for particularly heavy-duty work in conjunction with compressed air and electric power and impact screwdrivers. Especially in conjunction with power impact tools, they feature extremely good load-bearing capacity and very long lifetimes. The name IMPACT is a by-word in all fields of industry and the trades for leading-edge quality made by professionals for professionals.

## RESILIENT.

IMPACT sockets are made from high-grade chrome alloy steel. They are hardened in an oil bath to ensure they are normalised and non-warping, making them extremely accurate tools with very close tolerances.

## GENTLE.

The special IMPACT sockets with the plastic sleeve enable quick wheel changes while protecting sensitive light alloy rims.

## VERSATILE.

IMPACT quality is available individually or in sets. Whatever a specialist chooses for the task, the extensions, adaptors, joints and sockets will always fit – perfectly. Combine them as you need them. It's as simple as that.

## SAFE.

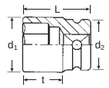
All IMPACT sockets have a straight-through central bore for the locking pin and a deep groove for the O-ring to improve grip. The locking pin is not under load during use.

## CLOSE-FITTING.

The remarkable fitting accuracy, which is due to very tight tolerances, guarantees minimum loss of force as the impact is transferred from the impact screwdriver to the socket insert and also guarantees dramatically improved durability.

# IMPACT sockets

- 1/2" O-drive




## 50IMP — IMPACT sockets

- 1/2" O-drive
- DIN 3129/ISO 1711-2
- for power drivers
- Chrome Alloy Steel, gunmetal finish

| Code | mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **23010008** | **8** | 14.3 | 25 | 38 | 21.5 | 86 | 10 |
| **23010010** | **10** | 16.8 | 25 | 38 | 21.5 | 89 | 10 |
| **23010011** | **11** | 18.1 | 25 | 38 | 21.5 | 88 | 10 |
| **23010012** | **12** | 19.5 | 25 | 38 | 21.5 | 88 | 10 |
| **23010013** | **13** | 20.8 | 25 | 38 | 21.5 | 85 | 10 |
| **23010014** | **14** | 22.1 | 25 | 38 | 21.5 | 86 | 10 |
| **23010015** | **15** | 23.5 | 30 | 38 | 23 | 132 | 10 |
| **23010016** | **16** | 24.8 | 30 | 38 | 23 | 130 | 10 |
| **23010017** | **17** | 26.2 | 30 | 38 | 22.9 | 132 | 10 |
| **23010018** | **18** | 27.5 | 30 | 38 | 22.6 | 130 | 10 |
| **23010019** | **19** | 28.8 | 30 | 40 | 24.6 | 133 | 10 |
| **23010021** | **21** | 31.3 | 30 | 40 | 23 | 135 | 10 |
| **23010022** | **22** | 32.5 | 30 | 42 | 25 | 141 | 10 |
| **23010023** | **23** | 33.8 | 30 | 40 | 24.5 | 144 | 5 |
| **23010024** | **24** | 35 | 30 | 44 | 28 | 164 | 5 |
| **23010025** | **25** | 36.3 | 30 | 44 | 25 | 167 | 5 |
| **23010027** | **27** | 38.8 | 30 | 45 | 29 | 190 | 5 |
| **23010030** | **30** | 42 | 30 | 50 | 34 | 199 | 5 |
| **23010032** | **32** | 44 | 30 | 50 | 34 | 210 | 5 |

## 50IMP/6/2 — IMPACT set

content 12 pieces:
6 sockets No 50 IMP: 13; 17; 19; 21; 22; 24 mm
1 extension No 509/5IMP
1 universal joint No 510IMP for powerdrivers
1 each rubber ring No 5091/1 IMP, 5091/2 IMP
1 each connecting pin No 5092/1 IMP, 5092/2 IMP

| Code | g | |
|---|---|---|
| **96231101** | 1810 | 1 |

## 50D IMP — IMPACT sockets

- 1/2" O--drive
- DIN 3129/ISO 1711-2
- for power drivers
- Chrome Alloy Steel, gunmetal finish

| Code | mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **23011032** | **32** | 44 | 30 | 50 | 27 | 251 | 5 |
| **23011036** | **36** | 49 | 35 | 50 | 28.5 | 313 | 1 |

## 51IMP — IMPACT sockets

- 1/2" O-drive
- ISO 1711-2
- for power drivers
- extra deep
- Chrome Alloy Steel, gunmetal finish

| Code | mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **23020013** | **13** | 20.8 | 25 | 85 | 68.5 | 222 | 5 |
| **23020015** | **15** | 23.5 | 30 | 85 | 68 | 340 | 5 |
| **23020016** | **16** | 24.8 | 30 | 85 | 68 | 338 | 5 |
| **23020017** | **17** | 26.2 | 30 | 85 | 68 | 318 | 5 |
| **23020018** | **18** | 27.5 | 30 | 85 | 68 | 309 | 5 |
| **23020019** | **19** | 28.8 | 30 | 85 | 67.5 | 292 | 5 |
| **23020021** | **21** | 31.3 | 30 | 85 | 66.5 | 291 | 5 |
| **23020022** | **22** | 32.5 | 30 | 85 | 66.5 | 323 | 5 |
| **23020024** | **24** | 35 | 30 | 85 | 66 | 340 | 5 |
| **23020027** | **27** | 38.8 | 30 | 85 | 65 | 385 | 5 |

## TCS 50IMP/51IMP/19

TCS

- 170 x 350 x 50 mm
- 19 pieces

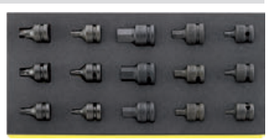
| Code | g |
|---|---|
| **96838777** | 3960 |

| | No | Content |
|---|---|---|
| | **50IMP** | 1/2" O 10; 13; 15; 16; 17; 18; 19; 21; 22; 24; 27 mm |
| | **51IMP** | 1/2" O 13; 15; 17; 18; 19; 21; 22; 24 mm |

## TCS 54IMP/2307TX/15

TCS

- 175 x 350 x 40 mm
- 15 pieces



| Code | g |
|---|---|
| **96838792** | 1285 |

| | No | Content |
|---|---|---|
| | **54IMP** | 1/2" O 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **2307TX** | 1/2" O sizes T30; T40; T45; T50; T55; T60 |

## TCS 50IMP/19/2

TCS

- 175 x 350 x 50 mm
- 21 pieces

| Code | g |
|---|---|
| **96838791** | 3055 |

| | No | Content |
|---|---|---|
| | **50IMP** | 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 23; 24; 25; 27; 30; 32 mm |
| | **509/5IMP** | 1/2" ■ O 125 mm |
| | **510IMP** | 1/2" ■ O 68 mm |



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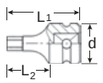
## 54IMP IMPACT INHEX sockets

- 1/2" ▢-drive
- for hexagon socket head screws
- for power drivers
- Chrome Alloy Steel, gunmetal finish



| Code | mm | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|
| **23050005** | **5** | 38 | 15 | 25 | 58 | 5 |
| **23050006** | **6** | 38 | 15 | 25 | 59 | 5 |
| **23050007** | **7** | 38 | 15 | 25 | 60 | 5 |
| **23050008** | **8** | 38 | 15 | 25 | 60 | 5 |
| **23050010** | **10** | 40 | 17 | 25 | 70 | 5 |
| **23050012** | **12** | 42 | 19 | 30 | 111 | 5 |
| **23050014** | **14** | 43 | 20 | 30 | 118 | 5 |
| **23050017** | **17** | 45 | 22 | 30 | 134 | 5 |
| **23050019** | **19** | 50 | 27 | 30 | 164 | 5 |

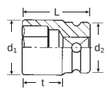
## 54IMP/9 IMPACT set INHEX sockets

content 13 pieces:
5; 6; 7; 8; 10; 12; 14; 17; 19 mm
1 each rubber ring No 5091/1 IMP, 5091/2 IMP
1 each connecting pin No 5092/1 IMP, 5092/2 IMP

| Code | g | |
|---|---|---|
| **96231501** | 1208 | 1 |

## 2309 IMPACT sockets

- 1/2" ▢-drive
- for power drivers
- extra deep
- with reduced outside diameter
- Chrome Alloy Steel, gunmetal finish



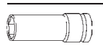
| Code | mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **23090017** | **17** | 25.7 | 30 | 85 | 68 | 242 | 5 |
| **23090019** | **19** | 28.2 | 30 | 85 | 67.5 | 257 | 5 |
| **23090221** | **21** | 30.7 | 30 | 85 | 66.5 | 272 | 5 |
| **23090022** | **22** | 32 | 30 | 85 | 66.5 | 311 | 5 |

for wheel nuts

## ES 2309/4

- 175 x 175 x 40 mm
- 4 pieces

| Code | g |
|---|---|
| **96838162** | 1145 |

| | No | Content |
|---|---|---|
|  | **2309** | 1/2" ▢ 17; 19; 21; 22 mm |

## 2309K Wheel nut sockets

- 1/2" ▢-drive
- with plastic sleeve
- sleeve extension protects not only wheel bolts and nuts but also the wheel and holes

| Code | mm | L mm | ∅ mm | g | |
|---|---|---|---|---|---|
| **23091017** | **17** | 86 | 27 | 235 | 1 |
| **23091019** | **19** | 86 | 29 | 250 | 1 |
| **23091221** | **21** | 86 | 31 | 265 | 1 |

## ES 2309K/3

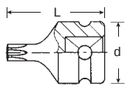
- 175 x 175 x 40 mm
- 3 pieces

| Code | g |
|---|---|
| **96838260** | 800 |

| | No | Content |
|---|---|---|
| | **2309K** | 1/2" ▢ 17; 19; 21 mm |

## 2307TX IMPACT sockets

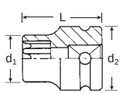
- 1/2" ▢-drive
- inside TORX®
- for power drivers
- Chrome Alloy Steel, gunmetal finish



| Code | size | mm | d mm | L mm | g | |
|---|---|---|---|---|---|---|
| **23070030** | **T30** | 5.5 | 25 | 40 | 57 | 5 |
| **23070040** | **T40** | 6.6 | 25 | 40 | 58 | 5 |
| **23070045** | **T45** | 7.8 | 25 | 40 | 59 | 5 |
| **23070050** | **T50** | 8.8 | 25 | 40 | 57 | 5 |
| **23070055** | **T55** | 11.2 | 25 | 40 | 61 | 5 |
| **23070060** | **T60** | 13.2 | 25 | 40 | 66 | 5 |

## 2308TX IMPACT sockets

- 1/2" ▢-drive
- external TORX®
- for power drivers
- Chrome Alloy Steel, gunmetal finish



| Code | size | mm | $d_1$ mm | $d_2$ mm | L mm | g | |
|---|---|---|---|---|---|---|---|
| **23080010** | **E10** | 9.4 | 14 | 25 | 38 | 67 | 10 |
| **23080012** | **E12** | 11.1 | 15.9 | 25 | 38 | 73 | 10 |
| **23080014** | **E14** | 12.9 | 17.7 | 25 | 38 | 73 | 10 |
| **23080016** | **E16** | 14.7 | 20 | 25 | 38 | 77 | 10 |
| **23080018** | **E18** | 16.6 | 22 | 30 | 38 | 115 | 10 |
| **23080020** | **E20** | 18.4 | 24.5 | 30 | 38 | 120 | 10 |
| **23080024** | **E24** | 22.1 | 30 | 30 | 41.2 | 149 | 10 |



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# Accessory tools for IMPACT sockets

- 1/2" ○-drive
- outside ■ E 12.5, inside ○ G 12.5
- Finish: Chrome Alloy Steel, gunmetal finish

## 509IMP Extensions

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **33010001** | **2** | 52 | 30 | 155 | 5 |
| **33010002** | **5** | 130 | 30 | 271 | 5 |
| **33010003** | **10** | 255 | 30 | 452 | 5 |

## 510IMP Universal joint

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **33020000** | 52 | 32 | 228 | 5 |

## 513IMP Reducing adaptor

| Code | ○ " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **33030002** | 1/2 | 3/8 | 37 | 30 | 109 | 5 |

## 514IMP Extending adaptor

| Code | ○ " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **33030005** | 1/2 | 3/4 | 49 | 30 | 174 | 5 |

## 5091 Rubber rings

| Code | size | g | |
|---|---|---|---|
| **39011940** | **1IMP** [1]) | 1 | 10 |
| **39012440** | **2IMP** [2]) | 2 | 10 |

[1]) for socket 8–14 mm, TORX® sizes E10–E16, sizes T30–T60
[2]) for socket 15–32 mm, TORX® sizes E18–E24 and accessories

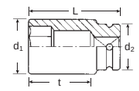
## 5092 Connecting pins

| Code | size | g | |
|---|---|---|---|
| **39022030** | **1IMP** [1]) | 1 | 10 |
| **39022530** | **2IMP** [2]) | 2 | 10 |

[1]) for socket 8–14 mm, TORX® size E10–E16, size T30–T60
[2]) for socket 15–32 mm, TORX® size E18–E24 and accessories

# IMPACT sockets

- 3/4" ○-drive




## 55IMP ○ IMPACT sockets

- 3/4" ○-drive
- DIN 3129/ISO 1711-2
- for power drivers
- Chrome Alloy Steel, gunmetal finish

| Code | ○ mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **25010017** | **17** | 29 | 44 | 48 | 23 | 365 | 5 |
| **25010018** | **18** | 30.5 | 44 | 48 | 23 | 345 | 5 |
| **25010019** | **19** | 32 | 44 | 48 | 23 | 359 | 5 |
| **25010021** | **21** | 35 | 44 | 50 | 25 | 375 | 5 |
| **25010022** | **22** | 36.5 | 44 | 50 | 25 | 377 | 5 |
| **25010024** | **24** | 39.5 | 44 | 50 | 24.5 | 382 | 5 |
| **25010027** | **27** | 43.5 | 44 | 51 | 24.5 | 387 | 5 |
| **25010028** | **28** | 45 | 44 | 54 | 27 | 417 | 5 |
| **25010029** | **29** | 46 | 44 | 54 | 26.5 | 425 | 5 |
| **25010030** | **30** | 47.4 | 44 | 54 | 26.5 | 438 | 2 |
| **25010032** | **32** | 49.9 | 44 | 54 | 26 | 456 | 2 |
| **25010033** | **33** | 51.5 | 44 | 54 | 25.5 | 477 | 2 |
| **25010034** | **34** | 52.4 | 44 | 54 | 29 | 490 | 2 |
| **25010036** | **36** | 54.9 | 44 | 57 | 32 | 545 | 2 |
| **25010038** | **38** | 58 | 44 | 58 | 33 | 600 | 2 |
| **25010041** | **41** | 57 | 44 | 59 | 34.5 | 500 | 1 |
| **25010046** | **46** | 67 | 44 | 64 | 36.5 | 746 | 1 |

## 56IMP ○ IMPACT sockets

- 3/4" ○-drive
- ISO 1711-2
- for power drivers
- extra deep
- Chrome Alloy Steel, gunmetal finish

| Code | ○ mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **25020017** | **17** | 32 | 44 | 90 | 75 | 783 | 2 |
| **25020019** | **19** | 32 | 44 | 90 | 75 | 780 | 2 |
| **25020021** | **21** | 35 | 44 | 100 | 75 | 895 | 2 |
| **25020022** | **22** | 36.5 | 44 | 100 | 75 | 854 | 2 |
| **25020024** | **24** | 39.5 | 44 | 100 | 74.5 | 838 | 2 |
| **25020027** | **27** | 43.5 | 44 | 100 | 72.5 | 800 | 2 |
| **25020030** | **30** | 47.4 | 44 | 100 | 72.5 | 860 | 2 |
| **25020032** | **32** | 49.9 | 44 | 100 | 72 | 922 | 2 |
| **25020034** | **34** | 52.4 | 44 | 100 | 71.5 | 983 | 2 |
| **25020036** | **36** | 54.9 | 44 | 100 | 71 | 1038 | 2 |
| **25020041** | **41** | 54.9 | 44 | 100 | 64 | 899 | 1 |
| **25020046** | **46** | 67 | 44 | 100 | 64 | 1340 | 1 |

## 2509 ○ IMPACT sockets

- 3/4" ○-drive
- for power drivers
- extra deep
- with reduced diameter
- Chrome Alloy Steel, gunmetal finish

| Code | ○ mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **25090027** | **27** | 40.5 | 44 | 100 | 72.5 | 672 | 2 |
| **25090030** | **30** | 44.3 | 44 | 100 | 72.5 | 728 | 2 |
| **25090032** | **32** | 46.8 | 44 | 100 | 72 | 778 | 2 |
| **25090033** | **33** | 48 | 44 | 100 | 72 | 803 | 2 |

for Trilex wheels



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# Accessory tools for IMPACT sockets

- 3/4" O-drive
- outside ■ F 20, inside O H 20
- Finish: Chrome Alloy Steel, gunmetal finish

## 560IMP Extensions

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **35010001** | **7** | 180 | 44 | 805 | 5 |
| **35010002** | **10** | 250 | 44 | 1050 | 5 |
| **35010003** | **13** | 330 | 44 | 1305 | 5 |

## 561IMP Universal joint

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **35020000** | 99 | 44 | 657 | 2 |

## 568IMP Reducing adaptor

| Code | O " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **35030003** | 3/4 | 1/2 | 56 | 44 | 335 | 5 |

## 569IMP Extending adaptor

| Code | O " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **35030006** | 3/4 | 1 | 65 | 44 | 477 | 5 |

## 5591IMP Rubber ring

| Code | g | |
|---|---|---|
| **39013650** | 3 | 10 |

for sockets and accessories

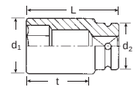
## 5592IMP Connecting pin

| Code | g | |
|---|---|---|
| **39023540** | 3 | 10 |

for sockets and accessories

# IMPACT sockets

- 1" O-drive




## 60IMP IMPACT sockets

- 1" O-drive
- DIN 3129/ISO 1711-2
- for power drivers
- Chrome Alloy Steel, gunmetal finish

| Code | O mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **26010024** | **24** | 41.5 | 54 | 58 | 28 | 638 | 2 |
| **26010027** | **27** | 45 | 54 | 60 | 30 | 654 | 2 |
| **26010030** | **30** | 49 | 54 | 62 | 32 | 688 | 2 |
| **26010032** | **32** | 51.5 | 54 | 63 | 32 | 694 | 2 |
| **26010033** | **33** | 52.5 | 54 | 63 | 31.5 | 695 | 2 |
| **26010036** | **36** | 56.5 | 54 | 67 | 34.5 | 754 | 2 |
| **26010038** | **38** | 59 | 54 | 70 | 37 | 836 | 2 |
| **26010041** | **41** | 63 | 54 | 70 | 36.5 | 892 | 2 |
| **26010042** | **42** | 64.5 | 54 | 73 | 39 | 970 | 1 |
| **26010046** | **46** | 69.5 | 54 | 76 | 41 | 1106 | 1 |
| **26010050** | **50** | 74.5 | 54 | 82 | 52 | 1362 | 1 |
| **26010055** | **55** | 81 | 54 | 87 | 57 | 1669 | 1 |
| **26010060** | **60** | 87 | 54 | 91 | 61 | 1960 | 1 |
| **26010065** | **65** | 92 | 54 | 85 | 55 | 1678 | 1 |
| **26010070** | **70** | 96 | 54 | 88 | 43 | 1803 | 1 |
| **26010075** | **75** | 100 | 86 | 92 | 50 | 2674 | 1 |
| **26010080** | **80** | 105 | 86 | 97 | 55 | 2949 | 1 |

## 66IMP IMPACT sockets

- 1" O-drive
- ISO 1711-2
- for power drivers
- extra deep
- Chrome Alloy Steel, gunmetal finish

| Code | O mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **26020024** | **24** | 41.5 | 54 | 110 | 80 | 1431 | 2 |
| **26020027** | **27** | 45 | 54 | 110 | 80 | 1393 | 2 |
| **26020030** | **30** | 49 | 54 | 110 | 79.5 | 1338 | 2 |
| **26020032** | **32** | 51.5 | 54 | 110 | 79 | 1296 | 2 |
| **26020033** | **33** | 52.5 | 54 | 110 | 78.5 | 1274 | 2 |
| **26020036** | **36** | 56.5 | 54 | 110 | 78 | 1312 | 2 |
| **26020038** | **38** | 59 | 54 | 110 | 77 | 1355 | 2 |
| **26020041** | **41** | 63 | 54 | 110 | 76 | 1504 | 2 |
| **26020046** | **46** | 69.5 | 54 | 110 | 72 | 1711 | 2 |

## 2609 IMPACT sockets

- 1" O-drive
- for power drivers
- extra deep
- with reduced outside diameter
- Chrome Alloy Steel, gunmetal finish

| Code | O mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **26090027** | **27** | 42.3 | 54 | 110 | 80 | 1001 | 2 |
| **26090030** | **30** | 46 | 54 | 110 | 79.5 | 1047 | 2 |
| **26090032** | **32** | 48.5 | 54 | 110 | 79 | 1015 | 2 |
| **26090033** | **33** | 49.8 | 54 | 110 | 78.5 | 1102 | 2 |

for wheel nuts





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## Accessory tools for IMPACT sockets

- 1" ○-drive
- outside ■ F 25, inside ○ H 25
- Finish: Chrome Alloy Steel, gunmetal finish

### 859IMP Extensions

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **36010001** | **7** | 180 | 54 | 1361 | 2 |
| **36010002** | **13** | 330 | 54 | 2168 | 2 |

### 871IMP Universal joint

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **36020000** | 125 | 54 | 1244 | 1 |

### 865IMP Extending adaptor

| Code | ○ " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **36030007** | 1 | 1 1/2 | 85 | 54 | 986 | 1 |

### 866IMP Reducing adaptor

| Code | ○ " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **36030005** | 1 | 3/4 | 70 | 54 | 565 | 2 |

### 6091IMP Rubber ring

| Code | g | |
|---|---|---|
| **39014850** | 8 | 10 |

for sockets up to 70 mm and accessories

### 6092IMP Connecting pin

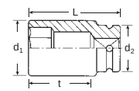
| Code | g | |
|---|---|---|
| **39025050** | 7 | 10 |

for sockets up to 70 mm and accessories

## IMPACT sockets

- 1 1/2" ○-drive

to be discontinued




### 70IMP ○ IMPACT sockets

- 1 1/2" ○-drive
- DIN 3129
- for power drivers
- Chrome Alloy Steel, gunmetal finish

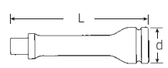
| Code | ○ mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **27010055** | **55** | 86 | 86 | 89 | 42 | 2482 | 1 |
| **27010060** | **60** | 92 | 86 | 92 | 50 | 2743 | 1 |
| **27010065** | **65** | 100 | 86 | 96 | 54 | 3249 | 1 |
| **27010070** | **70** | 105 | 86 | 101 | 59 | 3541 | 1 |
| **27010075** | **75** | 109 | 86 | 105 | 63 | 3746 | 1 |
| **27010080** | **80** | 115 | 86 | 110 | 68 | 4162 | 1 |
| **27010085** | **85** | 121 | 86 | 116 | 74 | 4661 | 1 |
| **27010090** | **90** | 130 | 86 | 118 | 76 | 5382 | 1 |
| **27010095** | **95** | 135 | 127 | 118 | 76 | 7500 | 1 |
| **27010100** | **100** | 140 | 127 | 125 | 83 | 8000 | 1 |
| **27010105** | **105** | 150 | 127 | 125 | 83 | 9000 | 1 |
| **27010110** | **110** | 155 | 127 | 137 | 95 | 10500 | 1 |
| **27010115** | **115** | 160 | 127 | 137 | 95 | 10016 | 1 |
| **27010120** | **120** | 165 | 127 | 145 | 103 | 12000 | 1 |

## Accessory tools for IMPACT sockets

- 1 1/2" ○-drive
- outside ■ F 40, inside ○ H 40
- Finish: Chrome Alloy Steel, gunmetal finish

to be discontinued

### 759IMP Extensions



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **37010001** | **10** | 254 | 86 | 5500 | 1 |
| **37010002** | **13** | 330 | 86 | 7000 | 1 |
| **37010003** | **15** | 381 | 86 | 8000 | 1 |

### 771IMP Universal joint

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **37020000** | 164.2 | 86 | 4197 | 1 |



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## 768IMP Extending adaptor

| Code | O " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **37030006** | 1 1/2 | 2 1/2 | 93 | 86 | 3142 | 1 |

## 867IMP Reducing adaptor

| Code | O " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **36030006** | 1 1/2 | 1 | 111.5 | 86 | 2180 | 1 |

also for MULTIPOWER No MP300-5000 (page 233)

## 7091 Rubber rings

| Code | size | g | |
|---|---|---|---|
| **39013870** | **1IMP [1])** | 15 | 1 |
| **39013875** | **2IMP [2])** | 20 | 1 |

[1]) for sockets 70IMP 55-90 mm, 60IMP 75 and 80 mm and accessories
[2]) for sockets 95-120 mm

## 7092 Connecting pins

| Code | size | g | |
|---|---|---|---|
| **39023870** | **1IMP [1])** | 16 | 1 |
| **39023875** | **2IMP [2])** | 25 | 1 |

[1]) for sockets 70IMP 55-90 mm, 60IMP 75 and 80 mm and accessories
[2]) for sockets 95-120 mm

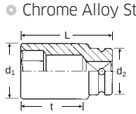
# IMPACT sockets

- 2 1/2" O-drive

to be discontinued

## 80IMP IMPACT sockets

- 2 1/2" O-drive
- DIN 3129
- for power drivers
- Chrome Alloy Steel, gunmetal finish



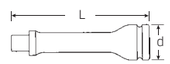
| Code | O mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **28010075** | **75** | 115 | 127 | 125 | 67 | 7500 | 1 |
| **28010080** | **80** | 115 | 127 | 125 | 67 | 7000 | 1 |
| **28010085** | **85** | 127 | 127 | 130 | 67 | 7490 | 1 |
| **28010090** | **90** | 135 | 127 | 132 | 74 | 8000 | 1 |
| **28010095** | **95** | 140 | 127 | 132 | 74 | 8000 | 1 |
| **28010100** | **100** | 145 | 127 | 141 | 83 | 9000 | 1 |
| **28010105** | **105** | 150 | 127 | 141 | 83 | 9000 | 1 |
| **28010110** | **110** | 160 | 127 | 150 | 92 | 11000 | 1 |
| **28010115** | **115** | 165 | 127 | 150 | 92 | 11000 | 1 |
| **28010120** | **120** | 170 | 127 | 158 | 100 | 12000 | 1 |

# Accessory tools for IMPACT sockets

- 2 1/2" O-drive
- outside ■ F 63, inside O H 63
- Finish: Chrome Alloy Steel, gunmetal finish

to be discontinued

## 860IMP Extensions



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **38010001** | **12** | 315 | 127 | 16000 | 1 |
| **38010002** | **18** | 457 | 127 | 22000 | 1 |
| **38010003** | **24** | 610 | 127 | 28500 | 1 |

## 868IMP Reducing adaptor

| Code | O " | ■ " | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **38030005** | 2 1/2 | 1 1/2 | 145 | 27 | 7000 | 1 |

## 8091/1IMP Rubber ring

| Code | g | |
|---|---|---|
| **39016395** | 37 | 1 |

for sockets and accessories

## 8092/1IMP Connecting pin

| Code | g | |
|---|---|---|
| **39026397** | 42 | 1 |

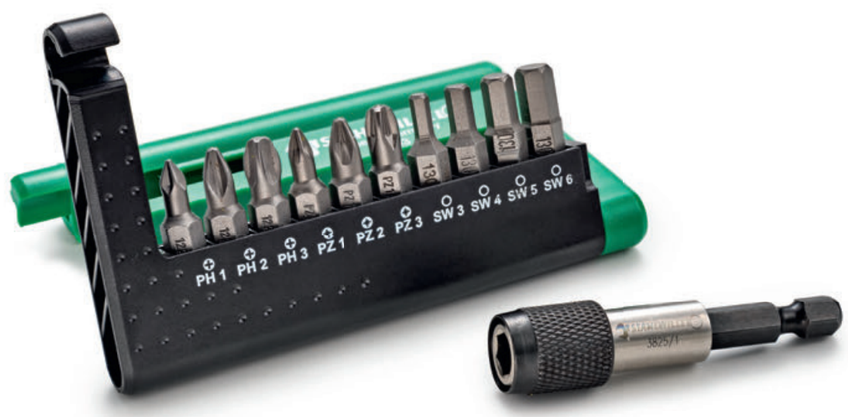
for sockets and accessories

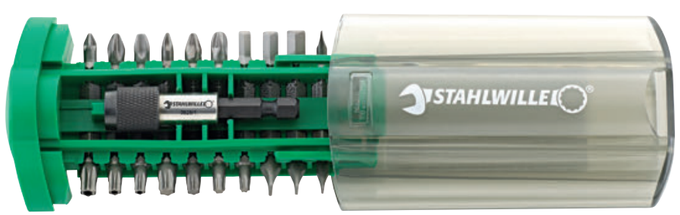
# Always that bit better.
# The STAHLWILLE range of bits.

Made in Germany

The bit that fits – always. Because STAHLWILLE offers a wide range of drive profiles: slotted, cross-head, POZIDRIV/SUPADRIV®, female TORX®, TORX PLUS®, spline head, female hexagon drive, TRI-WING®, TORQ-SET® and female star-head screws with a centring pin. Our Made in Germany production processes, coupled with the special hardening methods and high-alloy steels, guarantee a long service life. On request, selected STAHLWILLE bits are also available in practical sets – and with the matching drive tools, such as the bit ratchet with 80 teeth and steel handle for confined working spaces.






## GRAB IT AND GO.

Ten bits in the convenient pocket-sized 1203 format – or twice that amount in the sturdy 1202 Bit Box. These compact STAHLWILLE bit boxes put the tools right where you need them. Made, of course, in Germany as premium quality tools.

## COMPACT.

Instant recognition. Arranged in sturdy plastic cases, all the most important bits and sockets are instantly accessible.

## TORSION ZONE.

Thanks to the specially developed shape of STAHLWILLE torsion bits, the impact from battery-powered percussion screwdrivers up to 70 N·m is absorbed, achieving a far longer service lifetime for the profile than with normal bits.

## CONVENIENT.

STAHLWILLE offers a particularly wide range of bits. Particularly convenient: in the event that individual bits get lost, they can easily be reordered as separate items.

- Slotted
- Female spline XZN®
- Phillips Recess® (cross-head)
- Internal hex
- POZIDRIV® SUPADRIV®
- TRI-WING®
- Female TORX®
- TORQ-SET®
- Female TORX® with central bore
- Female star-head with central bore
- TORX PLUS®

4,5°

80

Perfectly suited for tight spaces where manageability and efficiency are essential requirements. The steel-handled fine-tooth bit ratchet has the ideal slim, compact shape and features the special 80-tooth mechanism.

## 1220-1223 1231-1234 Bits

- DIN 3128
- for Phillips screws

| Code | No | PH size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08010000** | **1220** | 0 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08010001** | **1221** | 1 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08010002** | **1222** | 2 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08010003** | **1223** | 3 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08030001** | **1231** | 1 | C 8 | 5/16 | 32 | 9 | 10 |
| **08030002** | **1232** | 2 | C 8 | 5/16 | 32 | 10 | 10 |
| **08030003** | **1233** | 3 | C 8 | 5/16 | 32 | 10 | 10 |
| **08030004** | **1234** | 4 | C 8 | 5/16 | 32 | 12 | 10 |

outside ⬢ DIN 3126/ISO 1173
Phillips-Recess® DIN 5260
extra hard for self tapping
and other hardened screws

## PZ1221-1223 Bits

- for POZIDRIV/SUPADRIV® screws
- extra hard

| Code | No | PZ size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08050001** | **PZ1221** | 1 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08050002** | **PZ1222** | 2 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08050003** | **PZ1223** | 3 | C 6.3 | 1/4 | 25 | 5 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1160-1169 Bits

- DIN 3127/ISO 2351
- for slotted screws

| Code | No | a x b mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08070120** | **1160** | 0.5 x 3.0 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08070121** | **1161** | 0.5 x 4.0 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08070122** | **1162** | 0.6 x 3.5 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08070123** | **1163** | 0.6 x 4.5 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08070124** | **1164** | 0.8 x 4.0 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08070125** | **1165** | 0.8 x 5.5 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08070126** | **1166** | 1.0 x 5.5 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08070130** | **1166/1** | 1.2 x 6.5 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08070127** | **1167** | 1.2 x 8.0 | C 6.3 | 1/4 | 25 | 6 | 5 |
| **08070128** | **1168** | 1.6 x 8.0 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08070129** | **1169** | 1.6 x 10.0 | C 6.3 | 1/4 | 25 | 14 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1350-1360 Bits

- for tri-square socket head screws (XZN®)

| Code | No | size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08200004** | **1350** | M4 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08200010** | **1356** | M5 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08200011** | **1357** | M6 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08200012** | **1358** | M8 | C 8 | 5/16 | 28 | 10 | 10 |
| **08200013** | **1359** | M10 | C 8 | 5/16 | 38 | 15 | 10 |
| **08200014** | **1360** | M12 | C 8 | 5/16 | 38 | 20 | 10 |

outside ⬢ DIN 3126/ISO 1173
DIN 65254 (M4, M5, M6)
Application: No 1350, size M4, for door lock attachment on the Audi TT, VW Golf, Bora, Passat B5, Lupo, New Beetle

## 1410-1421 1430-1435 Bits

- for inside TORX® screws

| Code | No | size | mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|---|
| **08130006** | **1410** | T 6 | 1.6 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08130007** | **1411** | T 7 | 2.0 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08130008** | **1412** | T 8 | 2.3 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08130009** | **1413** | T 9 | 2.5 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08130010** | **1414** | T 10 | 2.7 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08130015** | **1415** | T 15 | 3.3 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08130020** | **1416** | T 20 | 3.8 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08130025** | **1417** | T 25 | 4.4 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08130027** | **1418** | T 27 | 5.0 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08130030** | **1419** | T 30 | 5.5 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08130040** | **1420** | T 40 | 6.6 | C 6.3 | 1/4 | 25 | 7 | 10 |
| **08130045** | **1421** | T 45 | 7.8 | C 6.3 | 1/4 | 25 | 8 | 10 |
| **08140027** | **1430** | T 27 | 5.0 | C 8 | 5/16 | 35 | 11 | 10 |
| **08140030** | **1431** | T 30 | 5.5 | C 8 | 5/16 | 35 | 11 | 10 |
| **08140040** | **1432** | T 40 | 6.6 | C 8 | 5/16 | 35 | 12 | 10 |
| **08140045** | **1433** | T 45 | 7.8 | C 8 | 5/16 | 35 | 14 | 10 |
| **08140050** | **1434** | T 50 | 8.8 | C 8 | 5/16 | 35 | 15 | 10 |
| **08140055** | **1435** | T 55 | 11.2 | C 8 | 5/16 | 35 | 20 | 10 |

outside ⬢ DIN 3126/ISO 1173
Application:
No 1416, size T20, for the door handle attachment for Mercedes-Benz types 168 and 203
No 1421, size T45, for removing and refitting the front doors on the VW Golf III and Vento from model year 93 on
No 1435, size T55, for screws in rear seats of BMW X6 Model E71, 7 series Model F01/F02

## 1440-1446 Bits

- with hollow point
- for inside TORX® screws (TORX® TAMPER RESISTANT)

| Code | No | size | mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|---|
| **08160010** | **1440** | T 10 | 2.7 | C 6.3 | 1/4 | 26 | 6 | 10 |
| **08160015** | **1441** | T 15 | 3.3 | C 6.3 | 1/4 | 26 | 6 | 10 |
| **08160020** | **1442** | T 20 | 3.8 | C 6.3 | 1/4 | 26 | 6 | 10 |
| **08160025** | **1443** | T 25 | 4.4 | C 6.3 | 1/4 | 26 | 6 | 10 |
| **08160027** | **1444** | T 27 | 5.0 | C 6.3 | 1/4 | 26 | 6 | 10 |
| **08160030** | **1445** | T 30 | 5.5 | C 6.3 | 1/4 | 26 | 6 | 10 |
| **08160040** | **1446** | T 40 | 6.6 | C 6.3 | 1/4 | 26 | 7 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1427 Bit

- for inside TORX® screws

| Code | size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08131025** | T 25 | C 6.3 | 1/4 | 65 | 18 | 1 |

For BMW series 3 and 5
outside ⬢ DIN 3126/ISO 1173



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## 1436 IP-1446 IP Bits

- for inside TORX PLUS® screws

| Code | No | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08162006** | **1436 IP 6** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08162007** | **1437 IP 7** | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08162008** | **1438 IP 8** | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08162009** | **1439 IP 9** | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08162010** | **1440 IP 10** | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08162015** | **1441 IP 15** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08162020** | **1442 IP 20** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08162025** | **1443 IP 25** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08162027** | **1444 IP 27** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08162030** | **1445 IP 30** | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08162040** | **1446 IP 40** | C 6.3 | 1/4 | 25 | 6 | 10 |

## 1440 TPI-1446 TPI 5-star Bits

- with hollow point
- for female 5-star screws with a centring pin

| Code | No | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08161010** | **1440 TPI 10** | C 6.3 | 1/4 | 26 | 6 | 5 |
| **08161015** | **1441 TPI 15** | C 6.3 | 1/4 | 26 | 5 | 5 |
| **08161020** | **1442 TPI 20** | C 6.3 | 1/4 | 26 | 5 | 5 |
| **08161025** | **1443 TPI 25** | C 6.3 | 1/4 | 26 | 5 | 5 |
| **08161027** | **1444 TPI 27** | C 6.3 | 1/4 | 26 | 5 | 5 |
| **08161030** | **1445 TPI 30** | C 6.3 | 1/4 | 26 | 5 | 5 |
| **08161040** | **1446 TPI 40** | C 6.3 | 1/4 | 26 | 7 | 5 |

outside ⬢ DIN 3126/ISO 1173

## 1204/8 5-star Bit set

- storage facility for bit screwdriver inserts

Content:
- 1 bit-holder No 412
- 7 bit screwdriver inserts for female 5-star screws with centring pin, sizes TPI 10, 15, 20, 25, 27, 30, 40
- for generators, motor management units, airflow sensors, door trim, immobilisers and injection pumps (e.g. Ford, Mercedes-Benz cars & HGVs, Rover, Volvo, VW/Audi)

| Code | g | |
|---|---|---|
| **96081113** | 104 | 1 |

## 1300-1304 Bits

- DIN 7426/ISO 3109
- for socket head screws
- extra hard

| Code | No | mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08090003** | **1300** | 3 | C 6.3 | 1/4 | 25 | 4 | 10 |
| **08090004** | **1301** | 4 | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08090005** | **1302** | 5 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08090006** | **1303** | 6 | C 6.3 | 1/4 | 25 | 6 | 10 |
| **08090008** | **1304** | 8 | C 6.3 | 1/4 | 30 | 11 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1299 Bit

- for inside hexagon screws
- for operating the adjusting screws on torque wrenches No 720, 721, 730 and 730N

| Code | mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08090002** | 2 | C 6.3 | 1/4 | 34 | 4 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 13008 Bits

- for TRI-WING® screws

| Code | TRI-WING® | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08250000** | **0** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08250001** | **1** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08250002** | **2** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08250003** | **3** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08250004** | **4** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08250005** | **5** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08250006** | **6** | C 6.3 | 1/4 | 25 | 8 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 13010 Bits

- for TORQ-SET® screws

| Code | TORQ-SET® | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08260000** | **0** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260001** | **1** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260002** | **2** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260003** | **3** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260004** | **4** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260005** | **5** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260006** | **6** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260008** | **8** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260010** | **10** | C 6.3 | 1/4 | 25 | 5 | 10 |
| **08260016** | **1/4** | C 8 | 5/16 | 32 | 9 | 10 |
| **08260020** | **5/16** | C 8 | 5/16 | 32 | 11 | 10 |
| **08260024** | **3/8** | C 8 | 5/16 | 32 | 11 | 10 |

outside ⬢ DIN 3126/ISO 1173





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## 1202 Bit box

NEW

- storage box with screwdriver bits
- 20 bits stored in a robust, space-saving box
- box with internal hex drive for rapid application

Content:
1 bit holder with quick-action chuck and magnet
⊕ 3 bits, PH1; PH2; PH3 for Phillips screws
⊕ 3 bits, PZ1; PZ2; PZ3 for POZIDRIV/SUPADRIV® screws
⊖ 4 bits, sizes 0.6 x 3.5; 0.8 x 4.0; 1.0 x 5.5; 1.2 x 6.5 mm for slotted screws
✱ 4 bits, sizes T15; T20; T25; T30 for inside TORX® screws
✪ 3 bits, sizes T20; T25; T30 for inside TORX® screws (TORX® TAMPER RESISTANT)
◉ 3 bits, sizes 4; 5; 6 mm for inside hexagon screws

| Code | g | |
|---|---|---|
| **96080110** | 222 | 1 |

## 1203 Bit box

NEW

- storage box with screwdriver bits
- compact: plenty of tools – less space needed
- incl. convenient stand-up action

Content:
1 bit holder with quick-action chuck and magnet
⊕ 3 bits, PH1; PH2; PH3 for Pillips screws
⊕ 3 bits, PZ1; PZ2; PZ3 for POZIDRIV/SUPADRIV® screws
◉ 4 bits, sizes 3; 4; 5; 6 mm for inside hexagon screws

| Code | g | |
|---|---|---|
| **96080115** | 110 | 10 |

## 1204/21-1 Bit box

- storage box with screwdriver bits

Content:
1 magnetic bit-holder
⊕ 4 bits, PH1; PH2 (2x); PH3 for Phillips screws
⊕ 4 bits, PZ1; PZ2 (2x); PZ3 for POZIDRIV/SUPADRIV® screws
✱ 9 bits, sizes T10; T15; T20 (2x); T25 (2x); T27; T30; T40; for inside TORX® screws
◉ 3 bits, sizes 4; 5; 6 mm; for inside hexagon screws

| Code | g | |
|---|---|---|
| **96080121** | 186 | 1 |

## 1204/21-2 Bit box

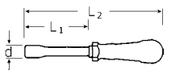
- storage box with screwdriver bits

Content:
1 magnetic bit-holder
⊕ 3 bits, PH1; PH2; PH3 for Phillips screws
⊖ 4 bits, sizes 0.5 x 4.0; 0.6 x 4.5; 0.8 x 5.5; 1.2 x 6.5 mm; for slotted screws
✱ 6 bits, sizes T10; T15; T20; T25; T30; T40; for inside TORX® screws
◉ 3 bits, sizes 4; 5; 6 mm; for inside hexagon screws
⊕ 4 bits, sizes 4; 6; 8; 10 mm; for TORQ-SET® screws

| Code | g | |
|---|---|---|
| **96080122** | 181 | 1 |

## 4000 Spinner handles

- for bit screwdriver bits with outside hexagon 1/4"
- DIN 3126/ISO 1173 C 6.3
- handle of impact proof plastic
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)



| Code | ○ mm | ○ " | d mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **18073026** | D 6.3 | 1/4 | 11 | 75 | 190 | 119 | 5 |

inside ○ DIN 3126/ISO 1173

## 4006/1 Spinner with magazine holder

- for 6 bit screwdriver bits (25 mm) with 1/4" outer hexagon
- DIN 3126/ISO 1173 C 6.3
- transparent plastic handle for storing bits with rotating selection cap
- internal hexagon and powerful permanent magnet

| Code | ○ mm | ○ " | d mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **18080017** | D 6.3 | 1/4 | 10 | 120 | 230 | 124 | 1 |

inside ○ DIN 3126/ISO 1173

## 12504 Bit holder

- for bit screwdriver bits with outside hexagon 1/4"
- DIN 3126/ISO 1173 C 6.3
- flexible shaft

| Code | ○ mm | ○ " | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **18103016** | D 6.3 | 1/4 | 175 | 290 | 168 | 10 |

inside ○ DIN 3126/ISO 1173



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## 12503 Bit holder

- for bit screwdriver bits with outside hexagon 1/4"
- DIN 3126/ISO 1173 C 6.3
- inside hexagon with magnet
- stubby version

| Code | ○ mm | ○ " | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **18110016** | D 6.3 | 1/4 | 10 | 65 | 50 | 10 |

inside ○ DIN 3126/ISO 1173

## 4007 Bit holder

- for bit screwdriver bits with outside hexagon 1/4"
- DIN 3126/ISO 1173 C 6.3
- inside hexagon with magnet
- with T-handle

| Code | ○ mm | ○ " | d mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **18090016** | D 6.3 | 1/4 | 10 | 200 | 165 | 108 | 5 |

inside ○ DIN 3126/ISO 1173

## 415B Bit ratchet

- reversible
- 22 teeth
- with 2-component handle
- with inside hexagon 1/4"
- DIN 3126/ISO 1173 D 6.3
- for bit screwdriver sockets 1/4"
- internal hex drive with a collar-thrust spring (registered design)
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11131011** | 117 | 22 | 12 | 76 | 5 |

## 415SGB N Bit ratchet, fine tooth

FOD

- reversible
- 80 teeth
- with steel handle
- inside hexagon 1/4"
- DIN 3126/ISO 1173 D 6.3
- for bit screwdriver sockets 1/4"
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)
- for use in confined spaces
- re-engages after movement of 4.5°
- construction without screws prevents foreign object damage

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11132020** | 117 | 22.6 | 10.7 | 85 | 5 |

## 418B Mini bit ratchet, fine tooth

NEW

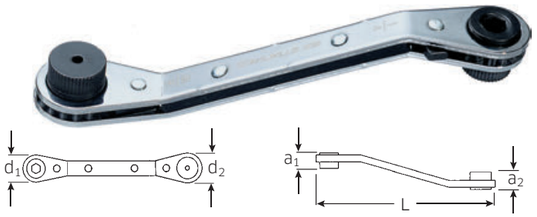
FOD

- short model, 90 mm
- reversible
- 80 teeth
- with steel handle
- inside hexagon 1/4"
- DIN 3126/ISO 1173 D 6.3
- for bit screwdriver sockets 1/4"
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)
- for use in confined spaces
- re-engages after movement of 4.5°
- construction without screws prevents foreign object damage

| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **11133030** | 90 | 22.5 | 11 | 70 | 1 |

## 25B Ratcheting bit holder

- reversible
- for hexagon bits
- magnetic location
- reversible heads angled
- chrome plated




| Code | ○ " | L mm | $d_1$ mm | $d_2$ mm | $a_1$ mm | $a_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **41541620** | 1/4 x 5/16 | 138 | 20 | 23 | 15 | 17 | 105 | 1 |

**Foreign Object Damage.**
As safe as safe can be.

STAHLWILLE protects against foreign object damage. The preferred choice in safety-relevant fields such as aerospace, thanks to the screwless design.





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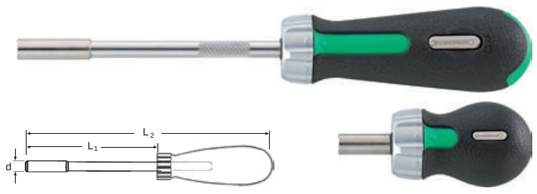
## 4008 Ratcheting bit holder

- easy change of direction (anticlockwise, clockwise and fixed) by simply twisting the locking ring
- ergonomically designed, non-slip 2-component handle for optimum force transmission
- storage compartment for 6 bits in the handle; push button to open (size 1)
- for bit screwdriver inserts with external hex 1/4"
- DIN 3126/ISO 1173 Type C 6.3
- 1/4" sockets can be used with adaptor No 3115/1 (external hex and square drive 1/4")
- easy bit change thanks to internal hex. drive with magnet
- knurled spin section for faster screw advance
- heavy-duty mechanism with 48 teeth (7.5° working angle)




| Code | size | ○ | " | $L_1$ mm | $L_2$ mm | d mm | g | |
|---|---|---|---|---|---|---|---|---|
| **18120001** | **1** | D 6.3 | 1/4 | 127 | 250 | 10 | 220 | 1 |
| **18120002** | **2** | D 6.3 | 1/4 | 25 | 95 | 10 | 137 | 1 |

inside ○ DIN 3126/ISO 1173

## 4008/27/1R Ratcheting bit holder set

- in sturdy, stackable ABS plastic case

Content 29 pieces:
1 ratcheting bit holder No 4008-1
3 bits ⊕ 1221-1223: PH1; PH2; PH3
3 bits ⊕ PZ1221-PZ1223: PZ1; PZ2; PZ3
6 bits ⚙ 1440-1446: T10; T15; T20; T25; T30; T40
3 bits ◉ 1301-1303: 4 mm; 5 mm; 6 mm
3 bits ⊖ 1163 0.6 x 4.5; 1165 0.8 x 5.5; 1166/1 1.2 x 6.5 mm
1 square drive extension No 3115/1 with 1/4" outer hex. and outer square drives for attaching 1/4" □
9 sockets No 40, 1/4" □ 4; 5; 5.5; 6; 7; 8; 10; 11; 13 mm

| code | g | |
|---|---|---|
| **96182203** | 955 | 1 |

**Ratcheting bit holders.**
Fast. Flexible. Resilient.

Thanks to their ergonomic design, they provide optimum force transmission. At the same time, they incorporate such practical features as a storage compartment for 6 bits in the handle (size 1), a knurled quick-spin section and a ratchet angle of only 7.5°.

## 1200/1 Bit holder

- with permanent magnet 1/4" inside and outside hexagon 1/4" DIN 3126/ISO 1173 C 6.3

| Code | ○ mm | ⬢ | " | ○ " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **38120001** | D 6.3 | E 6.3 | 1/4 | 1/4 | 72 | 37 | 5 |

inside ○/outside ⬢ DIN 3126/ISO 1173

## 3825/1 Quick-change holder

- for bit screwdriver bits with 1/4" external hexagonal drive DIN 3126/ISO 1173 C 6.3
- with quick-action chuck
- adaptor with external hexagonal drive for powered use

| Code | ○ | ○ " | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **38250002** | D 6.3 | 1/4 | E 6.3 | 1/4 | 62 | 27 | 1 |

inside ○/outside ⬢ DIN 3126/ISO 1173

## 3115 Adaptor, manually operated

- for torque screwdrivers No 760 and No 775
- for manually operated sockets with recessed 6.3 (1/4") square drive DIN 3120/ISO 1174-1 Type C and D
- square drive with ball bearing
- Chrome Alloy Steel, gunmetal finish

| Code | ■ | " | ⬢ | " | L mm | d mm | g | |
|---|---|---|---|---|---|---|---|---|
| **31150001** | A 6.3 | 1/4 | E 6.3 | 1/4 | 50 | 8.9 | 16 | 5 |

outside ■ DIN 3120/ISO 1174-1 Type A (spring-loaded ball)
outside ⬢ DIN 3126/ISO 1173 Type E

## 3115/1 Adaptor, manually operated

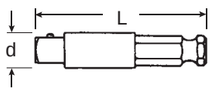
- for manually operated sockets with recessed 6.3 (1/4") square drive DIN 3120/ISO 1174-1 Type C and D
- square drive with ball bearing
- Chrome Alloy Steel

| Code | ■ | " | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **31150002** | A 6.3 | 1/4 | C 6.3 | 1/4 | 25 | 10 | 5 |

outside ■ DIN 3120/ISO 1174-1 Type A (spring-loaded ball)
outside ⬢ DIN 3126/ISO 1173 Type E

## 3116/1-3316/1 Adaptor, machine operated

- DIN 7428/ISO 3317
- with outside hexagon
- for power operated IMPACT sockets DIN 3129/ISO 2725-2 with inside square DIN 3121/ISO 1174-2
- large collar diameter for better support of IMPACT sockets (3216/1, 3316/1)
- square drive with spring loaded locking pin
- Chrome Alloy Steel, gunmetal finish



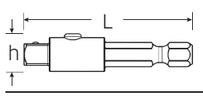
| Code | No | ■ | " | ⬢ | " | L mm | d mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **31160001** | **3116/1** | E 6.3 | 1/4 | E 6.3 | 1/4 | 50 | 8.9 | 16 | 5 |
| **32160001** | **3216/1** | E 10 | 3/8 | E 6.3 | 1/4 | 50 | 15.5 | 23 | 5 |
| **33160001** | **3316/1** | E 12.5 | 1/2 | E 6.3 | 1/4 | 50 | 18 | 34 | 5 |

outside ■ DIN 3121/ISO 1174-2 Type E
(spring-loaded locking pin)
outside ⬢ DIN 3126/ISO 1173 Type E

## 3116/1QR-3316/1QR QuickRelease adaptor, machine operated

QR

- with outside hexagon
- for power operated IMPACT sockets DIN 3129/ISO 2725-2 with inside square DIN 3121/ISO 1174-2
- large collar diameter for better support of IMPACT sockets
- Chrome Alloy Steel, gunmetal finish



| Code | No | ■ | " | ⬢ | " | L mm | h mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **31161001** | **3116/1QR** | E 6.3 | 1/4 | E 6.3 | 1/4 | 50 | 11.2 | 18 | 5 |
| **32161001** | **3216/1QR** | E 10 | 3/8 | E 6.3 | 1/4 | 50 | 14.6 | 26 | 5 |
| **33161001** | **3316/1QR** | E 12.5 | 1/2 | E 6.3 | 1/4 | 50 | 19.2 | 46 | 5 |

outside ⬢ DIN 3126/ISO 1173 Type E

## 412/442/443/543 Bit holder

- square drive socket
- for hand use only
- for bit-screwdriver bits with outside hexagon 1/4" or 5/16"
- DIN3126/ISO1173 C6.3 or C8
- Chrome Alloy Steel, chrome plated
- internal hexdrive with a collar-thrust spring (registered design). Bits are easy to insert, lock securely in position and can be removed just as easily; even hexbits with a wide groove (Type E, DIN3126/ISO1173)

| code | No | O | " | O | " | L mm | d mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **11180010** | **412** | D 6.3 | 1/4 | C 6.3 | 1/4 | 25 | 11.6 | 14 | 5 |
| **12180026** | **442** | D 6.3 | 1/4 | C 10 | 3/8 | 32 | 16.5 | 30 | 5 |
| **12180030** | **443** | D 8 | 5/16 | C 10 | 3/8 | 32 | 16.5 | 39 | 5 |
| **13180010** | **543** | D 8 | 5/16 | C 12.5 | 1/2 | 38 | 22 | 65 | 5 |

inside O DIN 3126/ISO 1173
inside O DIN 3120/ISO 1174-1

## 412-1 Bit holder

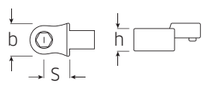
HPQ

- socket, hexagon 1/4" inside hexagon
- DIN 3126/ISO 1173 D 6.3
- outer size of handle, octagon 10 mm for use in tools with 10 mm internal hex drive or internal double hexagon (e.g. "FLEXI" double-ended flexi-joint spanners, T-handle universal joint spanners, box spanners, ratchet ring spanners etc.)
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)
- HPQ® high performance steel

| code | ⬢ mm | L mm | d mm | g | |
|---|---|---|---|---|---|
| **11180020** | 10 | 20 | 11.6 | 11 | 5 |

## 736 Bit holder insert tools

- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)



| Code | size | O mm | O " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|---|---|
| **58261010** | **10** | D 8 | 5/16 | 9x12 | 16 | 12.5 | 17.5 | 47 |
| **58262610** | **10-1** | D 6.3 | 1/4 | 9x12 | 14 | 10 | 17.5 | 45 |

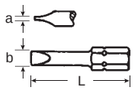
inside O DIN 3126/ISO 1173

# Bit screwdrivers

- with outside hexagon 1/4"
- DIN 3126/ISO 1173, shape E 6.3
- for use in power drivers

## 1242-1250 Bit screwdrivers

- DIN 3127/ISO 2351
- for slotted screws



| Code | No | a x b mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08300635** | **1242** | 0.6 x 3.5 | E 6.3 | 1/4 | 50 | 8 | 10 |
| **08300840** | **1244** | 0.8 x 4.0 | E 6.3 | 1/4 | 50 | 9 | 10 |
| **08301055** | **1246** | 1.0 x 5.5 | E 6.3 | 1/4 | 50 | 10 | 10 |
| **08301265** | **1248** | 1.2 x 6.5 | E 6.3 | 1/4 | 50 | 11 | 10 |
| **08301680** | **1250** | 1.6 x 8.0 | E 6.3 | 1/4 | 50 | 14 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1260-1262 Bit screwdrivers

- DIN 3128
- for Phillips screws

| Code | No | PH size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08310001** | **1260** | 1 | E 6.3 | 1/4 | 50 | 10 | 10 |
| **08310002** | **1261** | 2 | E 6.3 | 1/4 | 50 | 11 | 10 |
| **08310003** | **1262** | 3 | E 6.3 | 1/4 | 50 | 11 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1270-1272 Bit screwdrivers

- for POZIDRIV/SUPADRIV® screws

| Code | No | PZ size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08320001** | **1270** | 1 | E 6.3 | 1/4 | 50 | 10 | 10 |
| **08320002** | **1271** | 2 | E 6.3 | 1/4 | 50 | 11 | 10 |
| **08320003** | **1272** | 3 | E 6.3 | 1/4 | 50 | 11 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1280-1284 Bit screwdrivers

- DIN 7426/ISO 3109
- for socket head screws

| Code | No | mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08330003** | **1280** | 3 | E 6.3 | 1/4 | 50 | 9 | 10 |
| **08330004** | **1281** | 4 | E 6.3 | 1/4 | 50 | 10 | 10 |
| **08330005** | **1282** | 5 | E 6.3 | 1/4 | 50 | 12 | 10 |
| **08330006** | **1283** | 6 | E 6.3 | 1/4 | 50 | 13 | 10 |
| **08330008** | **1284** | 8 | E 6.3 | 1/4 | 50 | 18 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1290-1296 Bit screwdrivers

- for inside TORX® screws

| Code | No | size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08340010** | **1290** | T 10 | E 6.3 | 1/4 | 70 | 14 | 10 |
| **08340015** | **1291** | T 15 | E 6.3 | 1/4 | 70 | 14 | 10 |
| **08340020** | **1292** | T 20 | E 6.3 | 1/4 | 70 | 14 | 10 |
| **08340025** | **1293** | T 25 | E 6.3 | 1/4 | 70 | 15 | 10 |
| **08340027** | **1294** | T 27 | E 6.3 | 1/4 | 70 | 16 | 10 |
| **08340030** | **1295** | T 30 | E 6.3 | 1/4 | 70 | 16 | 10 |
| **08340040** | **1296** | T 40 | E 6.3 | 1/4 | 70 | 18 | 10 |

outside ⬢ DIN 3126/ISO 1173

## 1441 TN-1446 TN Torsion bit screwdrivers

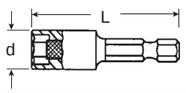
- for inside TORX® screws
- specifically developed for use with professional battery-powered impact screwdrivers
- longer service lifetimes thanks to specially designed torsional shape, flexible material and high-grade hardening
- controlled machine handling close to the screw thanks to very compact construction

| Code | No | size | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **08161115** | **1441 TN 15** | T 15 | E 6.3 | 1/4 | 38 | 4 | 5 |
| **08161120** | **1442 TN 20** | T 20 | E 6.3 | 1/4 | 38 | 5 | 5 |
| **08161125** | **1443 TN 25** | T 25 | E 6.3 | 1/4 | 38 | 6 | 5 |
| **08161130** | **1445 TN 30** | T 30 | E 6.3 | 1/4 | 38 | 7 | 5 |
| **08161140** | **1446 TN 40** | T 40 | E 6.3 | 1/4 | 38 | 8 | 5 |

outside ⬢ DIN 3126/ISO 1173

## 2801 Sockets

- with hexagon inserts for power drivers
- hexagon fitted with permanent magnet
- Chrome Alloy Steel, clear lacquered



| Code | mm | ⬢ | " | d mm | L mm | g | |
|---|---|---|---|---|---|---|---|
| **28011007** | **7** | E 6.3 | 1/4 | 12 | 50 | 23 | 5 |
| **28011008** | **8** | E 6.3 | 1/4 | 13 | 50 | 26 | 5 |
| **28011010** | **10** | E 6.3 | 1/4 | 15.5 | 50 | 31 | 5 |
| **28011013** | **13** | E 6.3 | 1/4 | 18.7 | 50 | 44 | 5 |

## 13006 Special socket

- for use on plugs in electronic rack Airbus A320-A340

| Code | ⬢ | " | ∅ mm | L mm | g | |
|---|---|---|---|---|---|---|
| **08230001** | E 6.3 | 1/4 | 11 | 50 | 32 | 5 |

outside ⬢ DIN 3126/ISO 1173



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## 4060 IMPACT driver set

- for screw sizes M5–M10
- in sturdy, stackable ABS plastic case

Content 1 each:
IMPACT driver No 4030
adaptors No 4035; No 4036
⊖ bit screwdrivers for slotted screws No 4040–4044
⊕ bit screwdrivers for Phillips-screws No 4050–4052
◉ bit screwdrivers for hex. socket head screws No 4055–4058

| Code | g | |
|---|---|---|
| **96323001** | 1264 | 1 |

## 4030 IMPACT driver

- with inside hexagon for bit screwdriver inserts No 4040-4058
- suitable for screws M5-M10
- torque 120 N·m

| Code | ○ " | L mm | g | |
|---|---|---|---|---|
| **32200005** | 3/8 | 138 | 604 | 1 |

## 4035/4036 Adaptors

- with outside hexagon
- for IMPACT screwdriver No 4030

| Code | No | " | L mm | g | |
|---|---|---|---|---|---|
| **32210001** | **4035** | 3/8 | 38 | 34 | 1 |
| **33210001** | **4036** | 3/8 | 38 | 43 | 1 |

## 4040-4044 ⊖ Bit screwdrivers

- for slotted screws
- for IMPACT driver No 4030

| Code | No | a x b mm | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08400010** | **4040** | 1.0 x 7 | 3/8 | 40 | 17 | 10 |
| **08400014** | **4041** | 1.4 x 9 | 3/8 | 40 | 20 | 10 |
| **08400016** | **4042** | 1.6 x 10 | 3/8 | 40 | 21 | 10 |
| **08400020** | **4043** | 2.0 x 12 | 3/8 | 40 | 20 | 10 |
| **08400015** | **4044** | 1.5 x 13 | 3/8 | 40 | 24 | 10 |

## 4050-4052 ⊕ Bit screwdrivers

- for Phillips screws (Phillips-Recess® DIN 5260)
- for IMPACT driver No 4030

| code | No | PH size | ⬢ " | L mm | g | |
|---|---|---|---|---|---|---|
| **08410002** | **4050** | 2 | 3/8 | 35 | 17 | 10 |
| **08410003** | **4051** | 3 | 3/8 | 35 | 17 | 10 |
| **08410004** | **4052** | 4 | 3/8 | 35 | 17 | 10 |

## 4055-4058 ◉ Bit screwdrivers

- for socket head screws
- for IMPACT driver No 4030

| Code | No | ◉ mm | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08420005** | **4055** | 5 | 3/8 | 35 | 16 | 10 |
| **08420006** | **4056** | 6 | 3/8 | 35 | 16 | 10 |
| **08420008** | **4057** | 8 | 3/8 | 35 | 19 | 10 |
| **08420010** | **4058** | 10 | 3/8 | 35 | 23 | 10 |





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STAHLWILLE

# 5 TORQUE TOOLS, TORQUE TESTERS


Torque screwdrivers
>> Page 190

Torque wrenches, mechanical
>> Page 194

Angle-controlled torque wrenches, electronic
>> Page 208

Accessories torque wrenches
>> Page 222

Insert/shell tools
>> Page 223

Torque multipliers MULTIPOWER
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Spare parts
>> Page 234

Torque tester
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Calibration systems
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# As individual as your fastener.
# **STAHLWILLE torque tools.**

To ensure safety and productivity, STAHLWILLE torqueing tools offer you a high degree of convenience, accurate setting and optimised ergonomic designs. The following overview is designed to help you select just the right model for your application.

e.g.
TORSIOTRONIC®

## Torque screwdrivers

| Clicking | Indicating | No | Range | Page |
|---|---|---|---|---|
| | ○ | 760 | 15–600 cN·m | **192** |
| ○ | | 775 | 2–1000 cN·m | **192** |
| ○ | ○ | TORSIOTRONIC® | 12–1000 cN·m | **193** |

e.g.
MANOSKOP® 730 Quick

## Torque wrenches

| Clicking | Indicating | No | Range | Page |
|---|---|---|---|---|
| | ○ | 71 | 160–800 N·m | **194** |
| | ○ | 73Nm/15 | 2–15 N·m | **195** |
| ○ | | 755 | 1.5–300 N·m | **195** |
| ○ | | 730 Quick | 4–650 N·m | **198** |
| ○ | | 730/80 | 160–800 N·m | **198** |
| ○ | | 721 Quick | 6–300 N·m | **199** |
| ○ | | 720Nf | 160–800 N·m | **200** |
| ○ | | 721Nf | 160–1000 N·m | **200** |
| ○ | | 730N | 4–1000 N·m | **204, 205** |
| ○ | | 730 Fix | 10–1000 N·m | **205** |
| | ○ | 701 | 1–20 N·m | **207** |
| ○ | ○ | 730D | 10–1000 N·m | **212, 213** |
| | ○ | 712R/6 | 3–60 N·m | **220** |

e.g.
MANOSKOP® 714

## Tightening angle torque wrenches

| Clicking | Indicating | No | Range | Page |
|---|---|---|---|---|
| ○ | ○ | 714 | 1–1000 N·m | **216, 217** |
| | ○ | 713R | 3–400 N·m | **220** |

STAHLWILLE's calibration laboratory – accredited by the highest authority. Controlled bolt tightening is an essential aspect of operating safety and the durability of screws and bolts. Put your trust in STAHLWILLE's DAkkS calibration laboratory. For all your torqueing tools and testers.
**More details on page 236**

## Insert & shell tools

| System | | Page |
|---|---|---|
| 9x12 mm | 9x12 | **223 – 226** |
| 14x18 mm | 14x18 | **226 – 228** |
| 22x28 mm | 22x28 | **228, 229** |
| 24.5x28 mm | 24.5x28 | **229** |

## Torque multipliers

| No | Range | Page |
|---|---|---|
| MP100-1500 | 100–1500 N·m | **232** |
| MP300 | 800–5000 N·m | **233** |

e.g.
perfectControl 7794-2

## Testers & calibration systems

| No | Range | Page |
|---|---|---|
| SmartCheck | 1–800 N·m | **237** |
| 7707 W Torque Tester | 0.2–1100 N·m | **238** |
| 7791 / 7792 Manutork | 1–3000 N·m | **241 – 243** |
| 7794 perfectControl | 1–1000 N·m | **245 – 247** |
| Accessories | | **249 – 251** |

# Electronics and mechanics: the perfect symbiosis. **TORSIOTRONIC®.**

Made in Germany

TORSIOTRONIC® – this is the name behind the first electromechanical torque screwdriver in the world. The patented trigger system, based on a ball mechanism, trips with audible and tactile signals when the target torque is reached. The tool measures as accurately as only an electronic torque tool can. The fine-tooth ratchet, a wide range of programming options and a micro-USB port make the TORSIOTRONIC the ideal tool when it comes to logging work steps, applying very small torques or following complex tightening sequences.

## UNIQUE.

The first electromechanical torque screwdriver on the market – combines the accuracy of electronic measurement with the convenience of the »click« from mechanical trigger mechanisms.

GERMAN DESIGN AWARD GOLD 2020

## CLOCKWISE. OR ANTICLOCKWISE.

Whether the tool is set to indicating only or clicking – both modes can be applied clockwise or anticlockwise.

## READY WHEN YOU ARE.

Long-lasting battery charge with battery-saving stand-by mode. Always ready for use thanks to quick and easy to change externally charged battery.

4,5° 80

## SENSITIVE.

Integrated ratcheting bit-holder with 80 teeth that provide a particularly small ratchet angle of only 4.5° and thus enable particularly sensitive working – ideal for hard-to-reach fasteners. The 1/4" male square allows the direct application of sockets, while the bit holder supplied allows tightening with screwdriver bits.

## BRILLIANT.

Clear display of all the relevant information in a bright, battery-saving colour OLED display – readable at almost any angle.

## SAFE.

After the tool trips, the slip mechanism prevents the preset tightening torque from being inadvertently exceeded, which protects against overtightening.

## LOGGING FUNCTION.

Stores up to 2500 fasteners for reading out and documenting on the PC later by means of the integrated micro-USB port.

## INTUITIVELY SIMPLE.

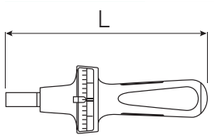
Easy learning curve thanks to almost self-explanatory controls and an easily understood menu structure.

# Torque screwdrivers

## TORSIOMETER 760

- indicating type
- the measuring element is a torsional leaf spring
- clockwise tightening (with trailing pointer) and anticlockwise tightening
- with 1/4" internal hex drive (F 6.3 DIN 3126)
- comparative scale in in·lb and cursor
- inserts and adaptors with external hex E 6.3 (1/4") DIN 3126/ISO 1173 are securely held and firmly controlled in the mounting shaft (for bit screwdriver inserts, refer to page 184)
- to attach 1/4" sockets, please order adaptor No 3115 (refer to page 182)
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 4%**

### 760 Torque screwdrivers TORSIOMETER



| Code | size | | | | O mm | L mm | g |
|---|---|---|---|---|---|---|---|
| **51040007** | **7.5** | 15–75 cN·m | 1.5–6.5 in·lb | 2.5 cN·m | F 6.3 | 185 | 225 |
| **51040015** | **15** | 30–150 cN·m | 3–13 in·lb | 5 cN·m | F 6.3 | 185 | 225 |
| **51040030** | **30** | 60–300 cN·m | 6–26 in·lb | 10 cN·m | F 6.3 | 185 | 230 |
| **51040060** | **60** | 120–600 cN·m | 12–52 in·lb | 20 cN·m | F 6.3 | 185 | 230 |

5

## TORSIOMAX 775

- click-type
- for torque-controlled bolt tightening in the cN·m and in·lb ranges
- for one-off or production runs
- anticlockwise and clockwise tightening
- with 1/4" internal hex drive (F 6.3 DIN 3126/ ISO1173)
- infinitely variable via micrometer scale (twist scale)
- disengaging clutch coupling prevents the preset value being exceeded
- the shape of the handle and its surface texture ensure safe and accurate transmission of torque
- insert tools: For all 1/4" hex E 6.3, Phillips-head screws, POZIDRIV/SUPADRIV®, straight-slot, TORX®, hex bits (see pp. 184)
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 6%**

### 775 Torque screwdrivers TORSIOMAX

| Code | size | | | O mm | L mm | g |
|---|---|---|---|---|---|---|
| **51060003** | **3 [1])** | 2–30 cN·m | 0.2 cN·m | F 6.3 | 105 | 55 |
| **51060012** | **12 [2])** | 20–120 cN·m | 1 cN·m | F 6.3 | 157 | 180 |
| **51060030** | **30 [2])** | 40–300 cN·m | 1 cN·m | F 6.3 | 160 | 205 |
| **51060050** | **50 [2])** | 100–500 cN·m | 2.5 cN·m | F 6.3 | 205 | 420 |
| **51060100** | **100 [3])** | 400–1000 cN·m | 5 cN·m | F 6.3 | 235 | 630 |
| **51460003** | **a/3 [1])** | 0.2–3 in·lb | 0.02 in·lb | F 6.3 | 105 | 55 |
| **51460012** | **a/12 [2])** | 2–12 in·lb | 0.1 in·lb | F 6.3 | 157 | 200 |
| **51460050** | **a/50 [2])** | 10–50 in·lb | 0.25 in·lb | F 6.3 | 205 | 440 |

[1]) with a swivelling handle-end to improve tool control; and with a clamping screw for locking the preset
[2]) with an additional locking mechanism to prevent the selected torque being inadvertently adjusted
[3]) with screw-on handles for increasing the force applied for large torques



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## TORSIOTRONIC®

- indicating and click-type
- integrated ratcheting bit-holder with 80 teeth that provide a particularly small ratchet angle of only 4.5° and thus enable particularly sensitive working – ideal for hard-to-reach fasteners
- after the tool trips, the slip mechanism prevents the preset tightening torque from being inadvertently exceeded, which protects against overtightening
- clear display of all the relevant information in a bright, battery-saving colour OLED display – readable at almost any angle
- visual assessment of the torqueingπ action by means of the traffic light colours in the display and laterally placed LEDs
- display in a number of languages
- long-lasting battery charge with battery-saving stand-by mode. The rechargeable batteries can be quickly and easily changed.
- stores up to 2500 fasteners and sequences for reading out and documenting on the PC later by means of the integrated micro-USB interface
- the target torque and tolerances can be individually set to evaluate the readings
- easy learning curve thanks to almost self-explanatory controls and an easily understood menu structure
- three operating modes (first peak, track, peak hold)
- tactile, visual and acoustic trigger signals.
- the ergonomically designed convex handle promotes strain-free working and is resistant to oils, grease, fuels, brake fluids and Skydrol
- clockwise and anticlockwise operation
- with 1/4" male square drive (6.3 DIN 3120/ISO 1174-1) for 1/4" sockets
- with 1/4" female square drive in the handle end (6.3 DIN 3120/ISO 1174-1) for attaching a 1/4" T-bar
- units of measure: cN·m, N·m, ft·lb, in·lb, in·oz
- included in the set: SENSOMASTER 4 software, USB cable, bit holder, T-bar handle (size 10)
- supplied with 3.6 V lithium battery, type 18650, packaged according to UN 3480
- patented
- certificate in accordance with DIN EN ISO 6789-2:2017
- in robust plastic case
- **display deviation value ± 4%**



### TORSIOTRONIC Electromechanical torque screwdrivers

80 4.5°

**TORSIOTRONIC® 10**

| Code | size | | | | | | L mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|
| **96510712** | **1.2** | 12-120 cN·m | 0.12-1.2 N·m | 0.08-0.885 ft·lb | 1.06-10.7 in·lb | 16.9-169.9 in·oz | 317 | 569 | 1494 |
| **96510730** | **3** | 30-300 cN·m | 0.3-3 N·m | 0.2-2.3 ft·lb | 2.6-26.6 in·lb | 42-425 in·oz | 317 | 570 | 1502 |
| **96510760** | **6** | 60-600 cN·m | 0.6-6 N·m | 0.4-4.45 ft·lb | 5.3-53.1 in·lb | 84.5-849.5 in·oz | 317 | 572 | 1508 |
| **96510700** | **10** | 100-1000 cN·m | 1-10 N·m | 0.7-7.3 ft·lb | 8.8-88.5 in·lb | 141-1417 in·oz | 317 | 575 | 1616 |
| **96511712** | **1.2** | 12-120 cN·m | 0.12-1.2 N·m | 0.08-0.885 ft·lb | 1.06-10.7 in·lb | 16.9-169.9 in·oz | 317 | 523 | 1448 |
| **96511730** | **3** | 30-300 cN·m | 0.3-3 N·m | 0.2-2.3 ft·lb | 2.6-26.6 in·lb | 42-425 in·oz | 317 | 524 | 1456 |
| **96511760** | **6** | 60-600 cN·m | 0.6-6 N·m | 0.4-4.45 ft·lb | 5.3-53.1 in·lb | 84.5-849.5 in·oz | 317 | 526 | 1462 |
| **96511700** | **10** | 100-1000 cN·m | 1-10 N·m | 0.7-7.3 ft·lb | 8.8-88.5 in·lb | 141-1417 in·oz | 317 | 529 | 1570 |

96 51 17 12 - 96 51 17 00: As for 96 51 07 12 - 96 51 07 00, but without accu **(not hazardous)**



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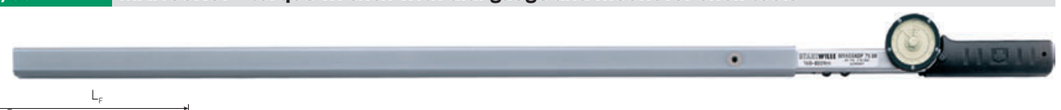
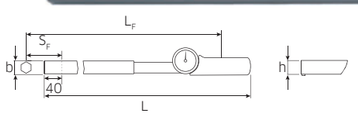
## MANOSKOP® 71

223-229

- indicating type
- mount for interchangeable shell tools
- all 14 x 18 mm insert tools can also be used with insert tool adaptor No 7370/80 (max. 650 N·m)
- trailing pointer dial
- twin scales N·m/ft·lb
- scale is made of luminescent light yellow special film enabling clear readings even in poor light conditions
- handle with integrated force compensator
- measuring element is a bending plate housed in the handle
- with overload protection
- can be applied for either clockwise or anticlockwise tightening by turning the wrench over
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Adjustment without disassembly
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag
- **display deviation value ± 4%**

### 71/80 MANOSKOP® torque wrench with dial gauge and mount for shell tools





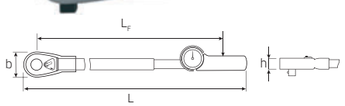

| Code | | | | | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **50030080** | 160–800 N·m | 120–600 ft·lb | 10 N·m | 10 ft·lb | 24,5x28 | 28 | 24 | 1048 | 1050 | 95 | 2300 |

5

## MANOSKOP® 71 with permanently installed reversible ratchet

- indicating type
- trailing pointer dial
- twin scales N·m/ft·lb
- scale is made of luminescent light yellow special film enabling clear readings even in poor light conditions
- additional protection for the gauge by the protective ring
- handle with integrated force compensator
- not for anticlockwise measurement
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Adjustment without disassembly
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag
- **display deviation value ± 4%**

### 71aR/80 MANOSKOP® torque wrench with dial gauge and permanently installed ratchet




| Code | | | | | ■ " | b mm | h mm | L mm | $L_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **50450080** | 100–600 ft·lb | 160–800 N·m | 10 ft·lb | 10 N·m | 3/4 | 70 | 30 | 1152 | 1060 | 4900 |



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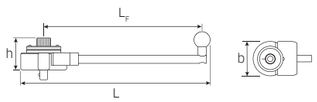
## Friction gauge

- indicating type
- permanently installed square drive for clockwise use
- trailing pointer dial
- no "needle wobble" during measurements
- lighter construction due to use of aluminium
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 4%**

### 73Nm/15 Friction gauge



| Code | | | ■ " | b mm | h mm | L mm | $L_F$ mm | g |
|---|---|---|---|---|---|---|---|---|
| **50240015** | 2-15 N·m | 0.5 N·m | 1/2 | 72 | 50 | 298.5 | 250 | 676 |

## Industrial MANOSKOP® 755

**For work on production lines or series production. No setting scale; have to be set with testers such as the STAHLWILLE No 7707 W, SmartCheck tester or the No 7794, No 7706 calibration system.**

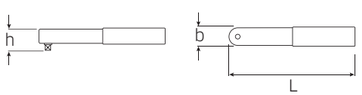
- click-type
- mount for interchangeable insert tools (755/4-30)
- dual stop signal
- particularly light and easy to handle
- handle and shank are made of square tubular steel
- any force applied to the tool after the 'click' or applied in the opposite direction to the current function (up to the maximum of the wrench's range) does not act on the trigger mechanism and cannot cause damage to it
- anticlockwise torquing thanks to swap-over insert tools
- on request with preset cut-out value (surcharge 10%)
- **display deviation value ± 4%**

223-229



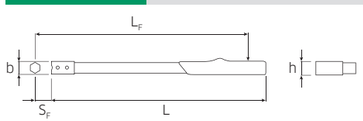
### 755R/1 Series MANOSKOP® torque wrench with permanently installed ratchet

- measurements independent of the point of application of force



| Code | | | ■ " | b mm | h mm | L mm | g |
|---|---|---|---|---|---|---|---|
| **50100001** | 1.5-12.5 N·m | 1.0-9.0 ft·lb | 1/4 | 22 | 18 | 173.5 | 335 |

### 755 Series MANOSKOP® torque wrenches with mount for insert tools



| Code | size | | | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **50010004** | **4** | 4-40 N·m | 4-30 ft·lb | 9x12 | 22 | 18 | 201 | 172 | 17.5 | 500 |
| **50010010** | **10** | 20-100 N·m | 15-74 ft·lb | 9x12 | 28 | 24 | 318 | 289 | 17.5 | 635 |
| **50010020** | **20** | 40-200 N·m | 30-147 ft·lb | 14x18 | 28 | 24 | 457 | 435 | 25 | 1045 |
| **50010030** | **30** | 60-300 N·m | 40-220 ft·lb | 14x18 | 28 | 24 | 609 | 587 | 25 | 1210 |



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# Versatile and quick.
# MANOSKOP® 730 Quick.

Made in Germany

Anyone in need of a mechanical torque wrench that can be quickly set for the next operation will find the MANOSKOP® 730 Quick the ideal helper. Thanks to its flexible range of 4 – 650 N·m and the interchangeable insert tools (9 x 12 mm, 14 x 18 mm and 22 x 28 mm), the MANOSKOP® Quick is remarkably versatile – and quicker then ever: as a result of the much improved ergonomics and accessibility to the essential controls, the target torque is set in seconds.




## EXACT.

The design, with opposing V-shaped »sights« and an integrated magnifier, facilitates fast, accurate setting even at an awkward reading angle. With a Vernier scale in N·m/ft·lb or N·m/in·lb.

## PROTECTED.

The internal mechanism is extremely resistant to mechanical wear and well protected against dirt and soiling inside the outer housing.

## FAST.

Rapid setting thanks to the easy-action locking lever in the handle. Ergonomically designed, non-slip adjuster with a thumb recess for fast, safe setting of the slider.

## WEAR-RESISTANT.

Wear resistant trigger system with a flexible rod. In contrast to conventional torque wrenches, it is not necessary to reset the wrench to zero after each job to unload the spring. In this way, users benefit from long-term accuracy and safe measurement results with less time required.

## SAFE.

QuickRelease safety lock guarantees secure locking of insert tools on sizes 5 – 65 and fast removal.

## COMPACT.

Compact and space-saving, the MANOSKOP® 730 Quick torque wrenches are available in sizes 2 and 4. They feature the same measuring and trigger technology as their »big brother«, and are just as precise and reliable.

## SIMPLE.

Quick adjustment from outside, no disassembly of the torque wrench required, with two adjustment points for the maximum & minimum values.

## Service MANOSKOP® 730

- click-type
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- mount for interchangeable insert/shell tools
- QuickRelease safety lock (sizes 5–65)
- rapid setting thanks to easy-action locking lever in the handle (sizes 5–65)
- ergonomically designed, non-slip adjuster with a thumb recess
- magnifying glass integrated in the display window
- optimised convex handle for strain-free working
- dual stop signal
- twin scales N·m/ft·lb and N·m/in·lb (sizes 5–80)
- on request also available as an N·m-only version without twin scale (sizes 5-65)

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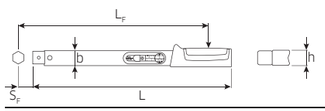
- can be applied for either clockwise or anticlockwise tightening by turning the inserts over
- any force applied to the tool after the 'click' or applied in the opposite direction to the current function – e.g. forcible loosening of a jammed screw - does not act on the trigger mechanism and cannot cause damage to it
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Readjustment does not require disassembly.
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 4%**

### 730 Quick — Service MANOSKOP® torque wrenches with mount for insert tools

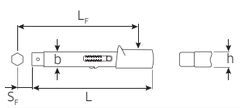


| Code | size | | | | | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50 18 40 05** | **5** | 6–50 N·m | 5–36 ft·lb | 2 N·m | 1 ft·lb | 9x12 | 28 | 23 | 315 | 288 | 17.5 | 780 |
| **50 18 40 10** | **10** | 20–100 N·m | 15–72.5 ft·lb | 2.5 N·m | 2.5 ft·lb | 9x12 | 28 | 23 | 370 | 343 | 17.5 | 936 |
| **50 18 40 12** | **12** | 25–130 N·m | 20–95 ft·lb | 2.5 N·m | 2.5 ft·lb | 14x18 | 28 | 23 | 410 | 390 | 25 | 1074 |
| **50 18 40 20** | **20** | 40–200 N·m | 30–145 ft·lb | 5 N·m | 5 ft·lb | 14x18 | 28 | 23 | 455 | 435 | 25 | 1310 |
| **50 18 40 40** | **40** | 80–400 N·m | 60–300 ft·lb | 10 N·m | 10 ft·lb | 14x18 | 28 | 23 | 590 | 570 | 25 | 1540 |
| **50 18 40 65** | **65 [1])[2])** | 130–650 N·m | 100–480 ft·lb | 20 N·m | 20 ft·lb | 14x18 | 30.6 | 25.6 | 875 | 855 | 25 | 3192 |
| **50 18 45 65** | **II/65 [2])** | 130–650 N·m | 100–480 ft·lb | 20 N·m | 20 ft·lb | 22x28 | 30.6 | 25.6 | 897 | 907 | 55 | 4104 |
| **50 58 40 05** | **a/5** | 6–50 N·m | 50–440 in·lb | 2 N·m | 10 in·lb | 9x12 | 28 | 23 | 315 | 288 | 17.5 | 780 |
| **50 58 40 10** | **a/10** | 20–100 N·m | 180–880 in·lb | 2.5 N·m | 20 in·lb | 9x12 | 28 | 23 | 370 | 343 | 17.5 | 934 |
| **50 58 40 12** | **a/12** | 25–130 N·m | 225–1150 in·lb | 2.5 N·m | 25 in·lb | 14x18 | 28 | 23 | 410 | 390 | 25 | 1076 |
| **50 58 40 20** | **a/20** | 40–200 N·m | 350–1750 in·lb | 5 N·m | 50 in·lb | 14x18 | 28 | 23 | 455 | 435 | 25 | 1216 |

[1]) recommended ratchet insert tool No 735/40HD
[2]) supplied in textile bag

### 730 Quick — Service MANOSKOP® torque wrenches with tool carrier for insert tools

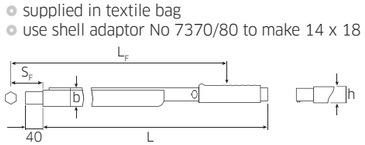
NEW



| Code | size | | | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **50 18 40 02** | **2** | 4-20 N·m | 0.5 N·m | 9x12 | 27.5 | 23.6 | 179 | 157.2 | 17.5 | 315 |
| **50 18 40 04** | **4** | 8-40 N·m | 1 N·m | 9x12 | 27.5 | 23.6 | 223 | 200.8 | 17.5 | 395 |
| **50 58 40 01** | **a/2-1** | 17.5-87.5 in·lb | 2.5 in·lb | 9x12 | 27.5 | 23.6 | 179 | 157.2 | 17.5 | 315 |
| **50 58 40 02** | **a/2** | 30-175 in·lb | 5 in·lb | 9x12 | 27.5 | 23.6 | 179 | 157.2 | 17.5 | 315 |
| **50 58 40 04** | **a/4** | 70-350 in·lb | 10 in·lb | 9x12 | 27.5 | 23.6 | 223 | 200.8 | 17.5 | 395 |

### 730/80 — Service MANOSKOP® torque wrench with mount for shell tools

- supplied in textile bag
- use shell adaptor No 7370/80 to make 14 x 18 mm insert tools fit



| Code | | | | | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **50 18 00 80** | 160–800 N·m | 120–600 ft·lb | 20 N·m | 20 ft·lb | 24,5x28 | 46 | 43 | 970 | 990 | 95 | 4925 |



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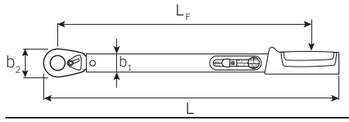
## Standard MANOSKOP® 721 Quick

- click-type
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- rapid setting thanks to easy-action locking lever in the handle
- ergonomically designed, non-slip adjuster with a thumb recess
- magnifying glass integrated in the display window
- dual stop signal
- twin scales N·m/ft·lb
- optimised convex handle for strain-free working
- any force applied to the tool after the 'click' or applied in the opposite direction to the current function – e.g. forcible loosening of a jammed screw - does not act on the trigger mechanism and cannot cause damage to it
- all the sensitive components are protected by the sturdy tubular steel housing
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Readjustment does not require disassembly.
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 4%**

### 721 Quick — Standard MANOSKOP® torque wrenches with permanently installed ratchet

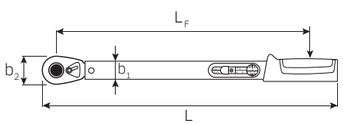


| Code | size | | | | | ■ " | $b_1$ mm | $b_2$ mm | $h_1$ mm | $h_2$ mm | L mm | $L_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50 20 40 05** | **5** | 6–50 N·m | 5–36 ft·lb | 2 N·m | 1 ft·lb | 3/8 | 28 | 27.5 | 23 | 14.5 | 352 | 293 | 880 |
| **50 20 40 15** | **15** | 30–150 N·m | 25–110 ft·lb | 5 N·m | 5 ft·lb | 1/2 | 28 | 41 | 23 | 18 | 452 | 387 | 1282 |
| **50 20 40 20** | **20** | 40–200 N·m | 30–145 ft·lb | 5 N·m | 5 ft·lb | 1/2 | 28 | 41 | 23 | 18 | 483 | 418 | 1349 |
| **50 20 40 30** | **30** | 60–300 N·m | 50–220 ft·lb | 10 N·m | 10 ft·lb | 1/2 | 28 | 44 | 23 | 27.5 | 553 | 486 | 1646 |

size 30 with push through square drive for anticlockwise torquing (spare square drive, refer to page 235)

### 721QR Quick — Standard MANOSKOP® torque wrenches with permanently installed QuickRelease ratchet

QR



| Code | size | | | | | ■ " | $b_1$ mm | $b_2$ mm | $h_1$ mm | $h_2$ mm | L mm | $L_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50 20 41 15** | **15** | 30–150 N·m | 25–110 ft·lb | 5 N·m | 5 ft·lb | 1/2 | 28 | 41 | 23 | 18 | 452.5 | 387 | 1268 |
| **50 20 41 20** | **20** | 40–200 N·m | 30–145 ft·lb | 5 N·m | 5 ft·lb | 1/2 | 28 | 41 | 23 | 18 | 482 | 416.5 | 1338 |

### 721QR/20/3/1 Quick — Wheel-fitting set

QR

- in sturdy plastic box

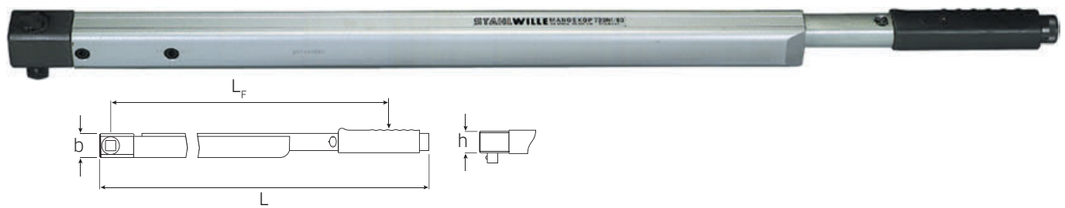
Content 5 pieces:
1 standard MANOSKOP® No 721QR/20 Quick, 40-200 N·m, 30 - 150 ft·lb, with permanently installed QuickRelease ratchet, reversible, 1/2" ■-drive
3 wheel nut sockets No 51IMP K, sizes 17 (green), 19 (blue), 20.8 mm (red)
1 extension No 509QR/5, 130 mm

| Code | g |
|---|---|
| **96 50 72 14** | 2818 |

## Standard MANOSKOP® 720Nf/721Nf

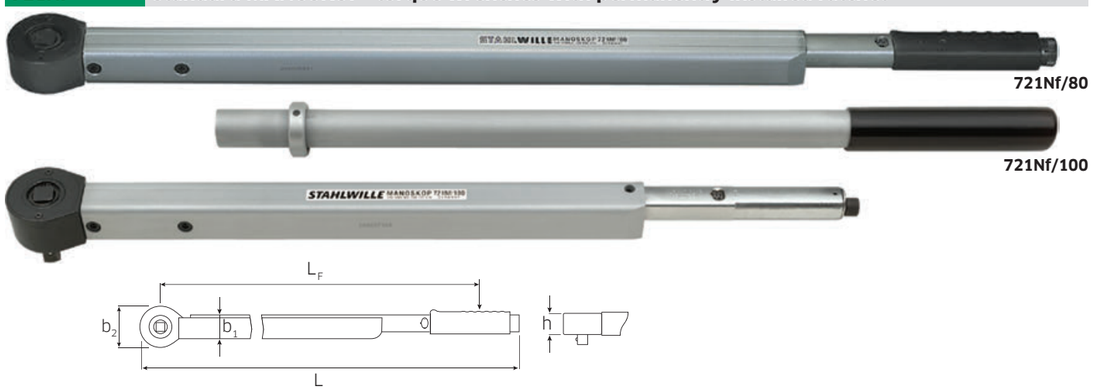
- click-type
- easy setting
- dual stop signal
- twin scales N·m/ft·lb
- anticlockwise torquing thanks to swap-over square drive
- all the sensitive components are protected by the sturdy tubular steel housing in the U-shaped aluminium profile
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Readjustment does not require disassembly.
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag
- **display deviation value ± 4%**

### 720Nf/80 Standard MANOSKOP® torque wrench with permanently installed square drive




| Code | | | | | ■ " | b mm | h mm | L mm | $L_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **50190081** | 160–800 N·m | 120–600 ft·lb | 20 N·m | 20 ft·lb | 3/4 | 45 | 42 | 1034 | 938 | 5650 |

### 721Nf Standard MANOSKOP® torque wrenches with permanently installed ratchet




| Code | size | | | | | ■ " | $b_1$ mm | $b_2$ mm | h mm | L mm | $L_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50200081** | **80** | 160–800 N·m | 120–600 ft·lb | 20 N·m | 20 ft·lb | 3/4 | 46.5 | 76 | 42 | 1051 | 938 | 6380 |
| **96502001** | **100** | 200–1000 N·m | 150–725 ft·lb | 25 N·m | 25 ft·lb | 3/4 | 46.5 | 76 | 42 | 1504 | 1365 | 7010 |

### 730R/40/32 Quick Torque wrench set

- in steel case
- for general service work

Content 32 pieces:
1 Service-MANOSKOP®
No 730/40 Quick, 80-400 N·m
1 ratchet insert tool
No 735/20, reversible, 1/2" ■-drive
1 square drive insert tool
No 734/20, 1/2" ■-drive
7 open ended insert tools
No 731/40: 13; 15; 17; 19; 22; 27; 30 mm
1 open ended insert tool
No 3731/40, 24 mm
7 ring insert tools
No 732/40: 13; 15; 17; 19; 22; 24; 27 mm
10 sockets, bi-hexagon No 50:
13; 14; 15; 17; 19; 22; 24; 27; 30; 32 mm
4 accessories, 1/2" O-drive:
- 1 T-handle No 506
- 1 extension No 509/10, 255 mm
- 1 extension No 509/5, 130 mm
- 1 extension No 509/2, 55 mm

| code | g | |
|---|---|---|
| **96502053** | 9739 | 1 |

# This is how to achieve the correct tightening torque –
## even if you are using inserts with an extension

When you tighten fasteners using inserts whose extension length S deviates from the standard length $S_F$, it is necessary to recalculate the setting/display value for the torque wrench in use.

**Caution!** If adapters are combined with inserts or special tools, use the sum of the extensions = Σ S. Where the special tool is angled to the side, $W_K$ will have to be determined empirically.

$$W_K = \frac{M_A \cdot L_F}{L_K} \left[\frac{N{\cdot}m \cdot mm}{mm}\right]$$

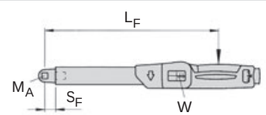
$$W_K = \frac{M_A \cdot L_F}{L_F - S_F + S \text{ (or } \Sigma S)}$$

- $M_A$ = desired tightening torque
- W = reading/setting W = $M_A$
- $W_K$ = adjusted reading or setting value $W_K \neq M_A$
- $L_F$ = functional length (see dimension table for torque wrenches)
- $L_K$ = adjusted functional length $L_K = L_F - S_F + S$ (or Σ S)
- S = extension of STAHLWILLE inserts or special tools (see dimension table for inserts)
- $S_F$ = standard extension (see dimension table for torque wrenches)
- ΣS = total of all extensions of the attached inserts $S_{adapter} + S_{insert} + \ldots$

**Normal situation**

Torque wrench No 730N/10 combined with
square drive insert tool No 734/5 and socket size 13 mm.
**Required tightening torque for the screw $M_A$ = 40 N·m**

Dimension table for torque wrenches: $L_F$ = 336 mm, $S_F$ = 17.5 mm
Dimension table for square drive insert tools: S = 17.5 mm



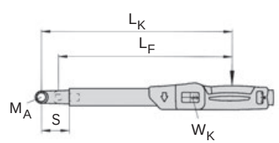

**No adjustment** to setting value required on torque wrench.

→ S = $S_F$
→ W = $M_A$

### Example 1: adjusted setting value (1 insert tool)

Torque wrench No 730N/20 combined with
ring insert tool No 732/40 size 36 mm
**Required tightening torque for the screw $M_A$ = 190 N·m**

Dimension table for torque wrenches: $L_F$ = 424.5 mm, $S_F$ = 25 mm
Dimension table for ring insert tools: S = 28 mm



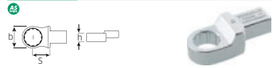

And this is what it looks like in the catalogue:

**730N** Service MANOSKOP® torque wrenches with mount for insert tools

- mount for interchangeable insert tools
- QuickRelease safety lock
- can be applied for either clockwise or anticlockwise tightening by turning the inserts over
- **display deviation value ± 3% (size 2; a/2 4 %)**

| Code | size | | | | | Fine scale | | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50181102** | **2** | 4-20 N·m | 40-180 in·lb | 1 N·m | 10 in·lb | 0.2 N·m | 9x12 | 28 | 23 | 275 | 226 | 17.5 | 737 |
| **50181005** | **5** | 10-50 N·m | 7-37 ft·lb | 5 N·m | 1 ft·lb | 0.25 N·m | 9x12 | 28 | 23 | 330 | 280.5 | 17.5 | 831 |
| **50181010** | **10** | 20-100 N·m | 15-75 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 9x12 | 28 | 23 | 386 | 336 | 17.5 | 988 |
| **50181012** | **12** | 25-130 N·m | 20-95 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 14x18 | 28 | 23 | 421 | 379 | 25 | 1128 |
| **50181020** | **20** | 40-200 N·m | 30-150 ft·lb | 10 N·m | 5 ft·lb | 1 N·m | 14x18 | 28 | 23 | 467 | 424.5 | 25 | 1264 |
| **50181040** | **40** | 80-400 N·m | 60-300 ft·lb | 20 N·m | 10 ft·lb | 2 N·m | 14x18 | 28 | 23 | 607 | 564.5 | 25 | 1655 |
| **50181065** | **65 *** | 130-650 N·m | 100-480 ft·lb | 50 N·m | 20 ft·lb | 2.5 N·m | 14x18 | 30.6 | 25.6 | 890 | 848 | 25 | 3231 |
| **50181365** | **H/65** | 130-650 N·m | 100-480 ft·lb | 50 N·m | 20 ft·lb | 2.5 N·m | 22x28 | 30.6 | 25.6 | 911 | 900 | 55 | 3504 |
| **50181080** | **80** | 160-800 N·m | 120-600 ft·lb | 100 N·m | 25 ft·lb | 5 N·m | 22x28 | 30.6 | 25.6 | 1178 | 1167 | 55 | 4825 |
| **50181100** | **100** | 200-1000 N·m | 150-750 ft·lb | 100 N·m | 25 ft·lb | 5 N·m | 22x28 | 30.6 | 25.6 | 1363 | 1352 | 55 | 5000 |
| **50581102** | **a/2** | 40-180 in·lb | 3-15 ft·lb | 10 in·lb | 0.5 ft·lb | 2 in·lb | 9x12 | 28 | 23 | 275 | 226 | 17.5 | 737 |
| **50581005** | **a/5** | 90-450 in·lb | 7-37 ft·lb | 50 in·lb | 1 ft·lb | 2.5 in·lb | 9x12 | 28 | 23 | 330 | 280.5 | 17.5 | 831 |

**732/40** Ring insert tools



| Code | | | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58224013** | **13** | 14x18 | 22.5 | 11 | 25 | 130 |
| **58224014** | **14** | 14x18 | 23 | 11 | 25 | 123 |
| **58224015** | **15** | 14x18 | 24 | 11 | 25 | 128 |
| **58224016** | **16** | 14x18 | 25.5 | 12 | 25 | 133 |
| **58224017** | **17** | 14x18 | 27 | 12 | 25 | 135 |
| **58224018** | **18** | 14x18 | 29 | 13 | 25 | 134 |
| **58224019** | **19** | 14x18 | 30.5 | 13 | 25 | 145 |
| **58224021** | **21** | 14x18 | 33 | 15 | 25 | 144 |
| **58224022** | **22** | 14x18 | 34.5 | 15 | 25 | 145 |
| **58224024** | **24** | 14x18 | 37.5 | 15 | 25 | 153 |
| **58224027** | **27** | 14x18 | 42.5 | 17 | 25 | 162 |
| **58224028** | **28** | 14x18 | 45.5 | 19 | 25 | 175 |
| **58224030** | **30** | 14x18 | 46 | 19 | 25 | 182 |
| **58224032** | **32** | 14x18 | 47.5 | 19 | 25 | 181 |
| **58224034** | **34** | 14x18 | 52 | 19 | 28 * | 210 |
| **58224036** | **36** | 14x18 | 54 | 19 | 28 * | 203 |

$L_F$ $S_F$ S

$$W_K = \frac{M_A \cdot L_F}{L_F - S_F + S} = \frac{190 \text{ N·m} \cdot 424.5 \text{ mm}}{424.5 \text{ mm} - 25 \text{ mm} + 28 \text{ mm}} = \frac{190 \text{ N·m} \cdot 424.5 \text{ mm}}{427.5 \text{ mm}} = \mathbf{188.7 \text{ N·m}}$$

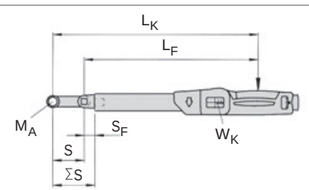
**Adjusted setting value $W_K$ = 188.7 N·m**
→ value to set 189 N·m

→ S ≠ $S_F$
→ W ≠ $M_A$

### Example 2: adjusted reading (insert tool and adapter)

Torque wrench No 730N/10 combined with
square drive insert tool No 734/5 and adapter No 447 size 10 mm
**Required tightening torque for the screw $M_A$ = 25 N·m**

Dimension table for torque wrenches: $L_F$ = 336 mm, $S_F$ = 17.5 mm
Dimension table for square drive insert tools: $S_F$ = 17.5 mm
Dimension table for adapters: Σ S = 50.8 mm




$$W_K = \frac{M_A \cdot L_F}{L_F - S_F + \Sigma S} = \frac{25 \text{ N·m} \cdot 336 \text{ mm}}{336 \text{ mm} - 17.5 \text{ mm} + 17.5 \text{ mm} + 50.8 \text{ mm}} = \frac{25 \text{ N·m} \cdot 336 \text{ mm}}{386.8 \text{ mm}}$$

**Adjusted setting value $W_K$ = 21.7 N·m**

→ ΣS ≠ $S_F$
→ W ≠ $M_A$

# Strong and highly talented.
# **MANOSKOP® 730N.**

Made in Germany

The mechanical MANOSKOP® 730N torque wrench features an extremely wide range and is suitable for accurate application up to 1000 N·m. Its QuickSelect technology makes setting the target torque particularly easy – and very accurate. Unlock, set and lock the control knob in the end of the handle. The audible and tactile mechanism and the fine adjustment ring scale simplify setting.

## CLICKING.

When the target torque is reached, MANOSKOP® 730N provides a noticeable tactile dual stop signal.

Square drive for use with insert tools in a range of formats (9 x 12 mm, 14 x 18 mm and 22 x 28 mm).

## USER FRIENDLY.

Accurate QuickSelect one-handed setting – quick & easy control using the knob at the end of the handle. Unlock. Set. Lock.

## UNCOMPLICATED.

Quick adjustment from outside, no disassembly of the torque wrench required, with two adjustment points for the maximum & minimum values.

## SAFE.

The QuickRelease safety interlock guarantees secure linking but quick release for changing the insert tools.

## WEAR-RESISTANT.

Wear resistant trigger system with a flexible rod. In contrast to conventional torque wrenches, it is not necessary to reset the wrench to zero after each job to unload the spring. In this way, users benefit from long-term accuracy and safe measurement results with less time required.

## CLEAR VIEW.

Easy-to-read dual scale with colour differentiation between the N·m and ft.lb scales to simplify fine setting.

## Service MANOSKOP® 730N

- click-type
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- fast, accurate setting thanks to QuickSelect quick-action adjuster
- dual stop signal
- easy-to-read double scale with colour coding to differentiate between N·m/ft·lb and ft·lb/in·lb scales
- any force applied to the tool after the 'click' or applied in the opposite direction to the current function – e.g. forcible loosening of a jammed screw -does not act on the trigger mechanism and cannot cause damage to it
- two-component handle with ergonomically designed green softer layers (resistant to oils, grease, fuels, brake fluids and skydrol)
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Readjustment does not require disassembly.
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag (from size 65)
- registered design

### 730N Service MANOSKOP® torque wrenches with mount for insert tools

- mount for interchangeable insert tools
- QuickRelease safety lock

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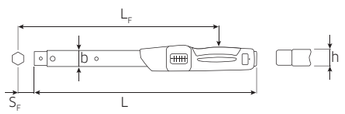
- can be applied for either clockwise or anticlockwise tightening by turning the inserts over
- **display deviation value ± 3% (size 2; a/2 4 %)**




**730N/10**

**730N/80**

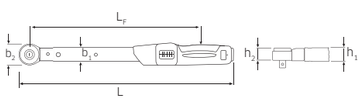
5

| Code | size | | | | | Fine scale | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50 18 11 02** | **2** | 4-20 N·m | 40-180 in·lb | 1 N·m | 10 in·lb | 0.2 N·m | 9x12 | 28 | 23 | 275 | 226 | 17.5 | 737 |
| **50 18 10 05** | **5** | 10-50 N·m | 7-37 ft·lb | 5 N·m | 1 ft·lb | 0.25 N·m | 9x12 | 28 | 23 | 330 | 280.5 | 17.5 | 831 |
| **50 18 10 10** | **10** | 20-100 N·m | 15-75 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 9x12 | 28 | 23 | 386 | 336 | 17.5 | 988 |
| **50 18 10 12** | **12** | 25-130 N·m | 20-95 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 14x18 | 28 | 23 | 421 | 379 | 25 | 1128 |
| **50 18 10 20** | **20** | 40-200 N·m | 30-150 ft·lb | 10 N·m | 5 ft·lb | 1 N·m | 14x18 | 28 | 23 | 467 | 424.5 | 25 | 1264 |
| **50 18 10 40** | **40** | 80-400 N·m | 60-300 ft·lb | 20 N·m | 10 ft·lb | 2 N·m | 14x18 | 28 | 23 | 607 | 564.5 | 25 | 1655 |
| **50 18 10 65** | **65 *** | 130-650 N·m | 100-480 ft·lb | 50 N·m | 20 ft·lb | 2.5 N·m | 14x18 | 30.6 | 25.6 | 890 | 848 | 25 | 3231 |
| **50 18 13 65** | **II/65** | 130-650 N·m | 100-480 ft·lb | 50 N·m | 20 ft·lb | 2.5 N·m | 22x28 | 30.6 | 25.6 | 911 | 900 | 55 | 3504 |
| **50 18 10 80** | **80** | 160-800 N·m | 120-600 ft·lb | 100 N·m | 25 ft·lb | 5 N·m | 22x28 | 30.6 | 25.6 | 1178 | 1167 | 55 | 4825 |
| **50 18 11 00** | **100** | 200-1000 N·m | 150-750 ft·lb | 100 N·m | 25 ft·lb | 5 N·m | 22x28 | 30.6 | 25.6 | 1363 | 1352 | 55 | 5000 |
| **50 58 11 02** | **a/2** | 40-180 in·lb | 3-15 ft·lb | 10 in·lb | 0.5 ft·lb | 2 in·lb | 9x12 | 28 | 23 | 275 | 226 | 17.5 | 737 |
| **50 58 10 05** | **a/5** | 90-450 in·lb | 7-37 ft·lb | 50 in·lb | 1 ft·lb | 2.5 in·lb | 9x12 | 28 | 23 | 330 | 280.5 | 17.5 | 831 |
| **50 58 10 10** | **a/10** | 180-900 in·lb | 15-75 ft·lb | 100 in·lb | 2.5 ft·lb | 5 in·lb | 9x12 | 28 | 23 | 386 | 336 | 17.5 | 988 |
| **50 58 10 20** | **a/20** | 350-1800 in·lb | 30-150 ft·lb | 100 in·lb | 5 ft·lb | 10 in·lb | 14x18 | 28 | 23 | 467 | 424.5 | 25 | 1264 |
| **50 58 10 40** | **a/40** | 60-300 ft·lb | 800-3600 in·lb | 20 ft·lb | 100 in·lb | 2 ft·lb | 14x18 | 28 | 23 | 607 | 564.5 | 25 | 1655 |

* recommended ratchet insert tool No 735/40HD

### 730NR Service MANOSKOP® torque wrenches with permanently installed fine-tooth ratchet

- in sturdy plastic box (size 65 in steel box)
- **deviation of indication ± 4%**



| Code | size | | | | | Fine scale | ■ " | $b_1$ mm | $b_2$ mm | $h_1$ mm | $h_2$ mm | L mm | $L_F$ mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96 50 31 05** | **5 FK** | 10-50 N·m | 7-37 ft·lb | 5 N·m | 1 ft·lb | 0.25 N·m | 3/8 | 28 | 33 | 23 | 24 | 364 | 280.5 | 973 | 1763 |
| **96 50 31 10** | **10 FK** | 20-100 N·m | 15-75 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 1/2 | 28 | 33 | 23 | 24 | 420 | 336.5 | 1146 | 1934 |
| **96 50 31 20** | **20 FK** | 40-200 N·m | 30-150 ft·lb | 10 N·m | 5 ft·lb | 1 N·m | 1/2 | 28 | 43 | 23 | 26 | 513.5 | 425 | 1583 | 2370 |
| **96 50 21 40** | **40 FK** | 80-400 N·m | 60-300 ft·lb | 20 N·m | 10 ft·lb | 2 N·m | 3/4 | 28 | 50 | 23 | 31.5 | 657 | 564.5 | 2122 | 2657 |
| **96 50 22 65** | **65 FK-HD** | 130-650 N·m | 100-480 ft·lb | 50 N·m | 20 ft·lb | 2.5 N·m | 3/4 | 30.6 | 58 | 25.6 | 36 | 944 | 848 | 3698 | 6188 |



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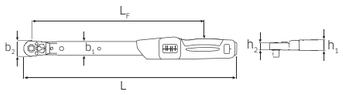
## 730NR Service MANOSKOP® torque wrenches with permanently installed fine-tooth ratchet

QR

- in sturdy plastic box
- with QuickRelease safety lock
- **deviation of indication ± 4%**



| Code | size | | | | | Fine scale | ■ | $b_1$ | $b_2$ | $h_1$ | $h_2$ | L | $L_F$ | | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | " | mm | mm | mm | mm | mm | mm | g | with box |
| **96 50 21 05** | **5QR FK** | 10–50 N·m | 7–37 ft·lb | 5 N·m | 1 ft·lb | 0.25 N·m | 3/8 | 28 | 29 | 23 | 14.5 | 372.5 | 291 | 961 | 1386 |
| **96 50 21 10** | **10QR FK** | 20–100 N·m | 15–75 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 1/2 | 28 | 29 | 23 | 14.5 | 428.5 | 346.5 | 1129 | 1554 |
| **96 50 21 20** | **20QR FK** | 40–200 N·m | 30–150 ft·lb | 10 N·m | 5 ft·lb | 1 N·m | 1/2 | 28 | 41 | 23 | 18 | 526 | 438.5 | 1589 | 2014 |

# Service MANOSKOP® 730 Fix

- for daily use in series production
- the setting knob can be unscrewed after the target has been set – making inadvertent changes to the settings impossible
- the TORX® TAMPER-RESISTANT locking screw supplied with the tool also protects against unwanted manipulation the adhesive seals supplied offer a further level of security. It is not possible to adjust the setting without breaking the seal

## 730 Fix Service MANOSKOP® torque wrenches with mount for insert tools

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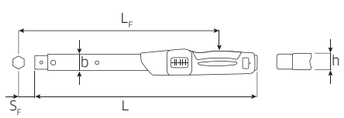
- click-type
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- mount for interchangeable insert tools
- QuickRelease safety lock
- fast, accurate setting thanks to QuickSelect quick-action adjuster
- dual stop signal
- easy-to-read double scale with colour coding to differentiate between N·m/ft·lb and ft·lb/in·lb scales
- can be applied for either clockwise or anticlockwise tightening by turning the inserts over
- any force applied to the tool after the 'click' or applied in the opposite direction to the current function – e.g. forcible loosening of a jammed screw -does not act on the trigger mechanism and cannot cause damage to it
- two-component handle with ergonomically designed green softer layers (resistant to oils, grease, fuels, brake fluids and skydrol)
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Readjustment does not require disassembly
- certificate in accordance with DIN EN ISO 6789-2:2017
- registered design
- in sturdy plastic box (size 80-100 in steel box)
- **display deviation value ± 3%**



| Code | size | | | | | Fine scale | | b | h | L | $L_F$ | $S_F$ | | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | mm | mm | mm | mm | mm | mm | g | with box |
| **96 50 30 05** | **5** | 10–50 N·m | 7–37 ft·lb | 5 N·m | 1 ft·lb | 0.25 N·m | 9x12 | 28 | 23 | 330 | 280.5 | 17.5 | 828 | 1632 |
| **96 50 30 10** | **10** | 20–100 N·m | 15–75 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 9x12 | 28 | 23 | 386 | 336 | 17.5 | 986 | 1788 |
| **96 50 30 12** | **12** | 25–130 N·m | 20–95 ft·lb | 10 N·m | 2.5 ft·lb | 0.5 N·m | 14x18 | 28 | 23 | 421 | 379 | 25 | 1124 | 1928 |
| **96 50 30 20** | **20** | 40–200 N·m | 30–150 ft·lb | 10 N·m | 5 ft·lb | 1 N·m | 14x18 | 28 | 23 | 467 | 424.5 | 25 | 1266 | 1890 |
| **96 50 30 40** | **40** | 80–400 N·m | 60–300 ft·lb | 20 N·m | 10 ft·lb | 2 N·m | 14x18 | 28 | 23 | 607 | 564.5 | 25 | 1666 | 2444 |
| **96 50 30 65** | **65 *** | 130–650 N·m | 100–480 ft·lb | 50 N·m | 20 ft·lb | 2.5 N·m | 14x18 | 30.6 | 25.6 | 890 | 848 | 25 | 3242 | 6500 |
| **96 50 34 65** | **II/65** | 130–650 N·m | 100–480 ft·lb | 50 N·m | 20 ft·lb | 2.5 N·m | 22x28 | 30.6 | 25.6 | 911 | 900 | 55 | 3490 | 7000 |
| **96 50 30 80** | **80** | 160–800 N·m | 120–600 ft·lb | 100 N·m | 25 ft·lb | 5 N·m | 22x28 | 30.6 | 25.6 | 1178 | 1167 | 55 | 4794 | 10500 |
| **96 50 31 00** | **100** | 200–1000 N·m | 150–750 ft·lb | 100 N·m | 25 ft·lb | 5 N·m | 22x28 | 30.6 | 25.6 | 1363 | 1352 | 55 | 5196 | 11000 |
| **96 58 30 05** | **a/5** | 90–450 in·lb | 7–37 ft·lb | 50 in·lb | 1 ft·lb | 2.5 in·lb | 9x12 | 28 | 23 | 330 | 280.5 | 17.5 | 832 | 1638 |
| **96 58 30 10** | **a/10** | 180–900 in·lb | 15–75 ft·lb | 100 in·lb | 2.5 ft·lb | 5 in·lb | 9x12 | 28 | 23 | 386 | 336 | 17.5 | 988 | 1790 |
| **96 58 30 20** | **a/20** | 350–1800 in·lb | 30–150 ft·lb | 100 in·lb | 5 ft·lb | 10 in·lb | 14x18 | 28 | 23 | 467 | 424.5 | 25 | 1066 | 2072 |
| **96 58 30 40** | **a/40** | 60–300 ft·lb | 800–3600 in·lb | 20 ft·lb | 100 in·lb | 2 ft·lb | 14x18 | 28 | 23 | 607 | 564.5 | 25 | 1670 | 2614 |

* recommended ratchet insert tool No 735/40HD

**TRIPLE SAFETY.**

The setting knob can be unscrewed after the target has been set – making inadvertent changes to the settings impossible.

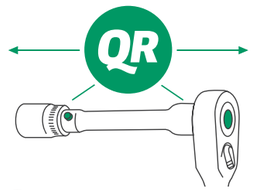
The TORX® TAMPER-RESISTANT locking screw supplied with the tool also protects against unwanted manipulation.

The adhesive seals supplied offer a further level of security. It is not possible to adjust the setting without breaking the seal.

# Small fits all.
# SENSOTORK® 701.

Made in Germany

Working in confined spaces – and with very low torques? SENSOTORK® 701 is designed specifically for such cases. With its compact design and permanently installed fine-tooth ratchet, precise fastener tightening is no problem even in very tight spaces. The electronic torque wrench shows torques from 1 to 20 N·m with a display deviation of only ± 4% – and in combination with the SENSOMASTER software, the SENSOTORK® 701 can also be used with full logging capability.




## SAFE.

The QuickRelease technology ensures tools cannot be inadvertently lost – while enabling rapid, safe tool changes.

## COMPACT.

With a compact length of only 21 cm, it is ideally suited to safe, accurate work in confined spaces.

## VERSATILE.

For torques from 1 to 20 N·m – the ideal choice for bolt tightening on modern materials such as plastic, carbon and aluminium, for state-of-the-art bicycles with carbon frames, for example.

## INTUITIVE.

The required mode of operation (track, peak hold, user (fastener evaluation)) can be quickly and easily set using the single-button setting system.

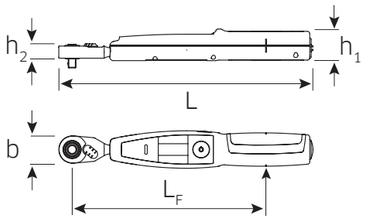
## EFFICIENT.

Eighty teeth provide a tight ratchet angle of only 4.5° – facilitating efficient working in confined spaces. In contrast to conventional fine-tooth ratchets, no less than eight teeth engage at once here, ensuring maximum load capacity and, at the same time, smooth action and durability.

## 701/2 Electronic torque wrench SENSOTORK® with permanently installed fine-tooth ratchet

QR

- indicating
- slim, compact shape for smaller torques from 1 N·m upwards
- measuring units: N·m, cN·m, ft·lb, in·lb
- measurements independent of the point of application of force
- additional functions using SENSOMASTER 4 software (not included, free download at www.stahlwille.de):
  - adjustable joints
  - evaluation of tightening operation by means of coloured LEDs, buzzer and vibration
  - calibrating interval adjustable
  - logging function
- supplied with 3.6 V lithium battery, type 14500, packed in accordance with UN3091, Class 9
- calibration in conjunction with perfectControl® calibrating unit No 7794 or complete calibration system No 7706. Readjustment does not require disassembly
- certificate in accordance with DIN EN ISO 6789-2:2017
- in sturdy plastic box
- **display deviation value ± 4%**



| Code | | | | | ■ " | b mm | $h_1$ mm | $h_2$ mm | L mm | $L_F$ mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96504502** | 1-20 N·m | 100-2000 cN·m | 0.7-15 ft·lb | 9-180 in·lb | 1/4 | 22.6 | 26 | 10 | 210 | 160 | 145 | 710 |
| **96504602** | 1-20 N·m | 100-2000 cN·m | 0.7-15 ft·lb | 9-180 in·lb | 1/4 | 22.6 | 26 | 10 | 210 | 160 | 132 | 700 |

96 50 46 02 - As for 96 50 45 02, but without battery **(not hazardous)**

## 7761/3 Interface adaptor set

required for automated calibration and adjustment using calibrating and adjusting units perfectControl® No 7794-2 and 7794-3.

Contents:
- No 7761 interface adaptor
- No 7752 spiral cable
- No 7760 mains adaptor

| Code | g |
|---|---|
| **96521161** | 255 |

5

### Note!

**Torque tightening tools are measuring instruments.**
**They must be regularly calibrated with suitable instruments and adjusted accordingly (refer to DIN EN ISO 6789-1, 5.3 Conformance test during use and DIN EN ISO 6789-2, 4.1 Calibration during use).**



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# A stroke of genius – with a logging function.
# **MANOSKOP® 730D.**

Made in Germany

Tool owners wishing to combine the benefits of precision digital technology with the tried-and-tested mechanical torque wrench need look no further than the MANOSKOP® 730D. The patented electromechanical release triggers when the target torque is reached – and indicates this with a definite tactile signal and an audible click. In addition, the LC display gives a visual evaluation of the tightening action using different colours.

## IDEAL.

After clicking, the MANOSKOP® 730D indicates the torque actually applied. As a result, the user has the opportunity to optimise his/her working methods.

Square drive for use with a wide range of different insert tools, including the 22 x 28 mm system for especially high torques.

## ELECTROMECHANICAL.

The MANOSKOP® 730D has an electromechanical release and, in this way, combines precise, electronic measurement with the comforting, perceptible tactile signal when the target torque is reached.

## OPTIONAL.

STAHLWILLE's optional SENSOMASTER software facilitates programming electronic torque wrenches and enables stored data to be read out.

QR

## SAFE.

The QuickRelease technology ensures tools cannot be inadvertently lost – while enabling rapid, safe tool changes.

## CONNECTING YOU NOW...

The stored tightening torques can be read out via the USB interface and then evaluated and documented in conjunction with the SENSOMASTER 4 software.

## ERGONOMICALLY REFINED.

The 2-component grip lies comfortably in the hand even after several tightening actions due to its soft zone, but it is still resistant to oils, grease, fuels, brake fluids and Skydrol.

## READER-FRIENDLY.

The LC display is easy to read and evaluates the fastener visually by means of coloured displays. All settings can be made quickly and easily using the keyboard, which uses only four keys.

## Service work & series production MANOSKOP® 730D – indicating and click-type

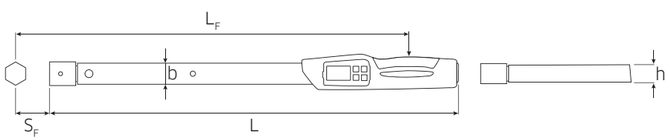
223-229

- tactile and acoustic trigger signal
- mount for interchangeable insert tools
- QuickRelease safety lock
- fast setting using convenient keypad
- automatic compensation to achieve correct tightening torque even if a changed extension is entered
- overload protection by means of acoustic and visual signals
- automatic keypad lock prevents inadvertent changes
- display also works for anticlockwise torque
- units of measurement: N·m, ft·lb, in·lb
- different tolerance limits can be set for each joint
- visual red and green signals in the display confirm the status of the joint
- additional security for presets (function mode, trigger or preset value, unit of measurement, tolerance, save, deviating extension) using PIN code
- up to 7.500 measurements can be stored
- USB interface
- automatic notification of the next calibration date
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7791
- two-component handle with ergonomically designed green softer layers (resistant to oils, grease, fuels, brake fluids and skydrol)
- certificate in accordance with DIN EN ISO 6789-2:2017
- in sturdy plastic box (sizes 40-100 in steel box)
- patent
- supplied with two 1.5 V AA batteries. AA/LR6, 1.2 V rechargeable cells may also be used
- **display deviation value ± 2%, ± 1 digit**

**730D** **Service/series MANOSKOP® torque wrenches with mount for insert tools**

730D/20

730D/80




| Code | size | | | | Setting/display resolution N·m | ft·lb | in·lb | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96501710** | **10** | 10-100 N·m | 7.4-75 ft·lb | 90-900 in·lb | 0.2/0.1 | 0.2/0.1 | 2/1.0 | 9x12 | 28 | 23 | 467 | 426.5 | 17.5 | 1085 | 1510 |
| **96501720** | **20** | 20-200 N·m | 15-150 ft·lb | 180-1800 in·lb | 0.5/0.1 | 0.5/0.1 | 5/1.0 | 14x18 | 28 | 23 | 548 | 515 | 25 | 1361 | 1896 |
| **96501740** | **40** | 40-400 N·m | 30-300 ft·lb | 360-3600 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 14x18 | 28 | 23 | 688 | 655 | 25 | 3300 | 5155 |
| **96501765** | **65 *** | 65-650 N·m | 48-480 ft·lb | 580-5800 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 14x18 | 30.6 | 25.6 | 870 | 837 | 25 | 3300 | 6000 |
| **96501965** | **II/65** | 65-650 N·m | 48-480 ft·lb | 580-5800 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 22x28 | 30.6 | 25.6 | 892 | 889 | 55 | 3224 | 7500 |
| **96502080** | **80** | 80-800 N·m | 60-600 ft·lb | 720-7200 in·lb | 1.0/1.0 | 1.0/1.0 | 10/1.0 | 22x28 | 30.6 | 25.6 | 1160 | 1157 | 55 | 4577 | 10500 |
| **96502100** | **100** | 100-1000 N·m | 74-750 ft·lb | 900-9000 in·lb | 1.0/1.0 | 1.0/1.0 | 10/1.0 | 22x28 | 30.6 | 25.6 | 1344 | 1341 | 55 | 4995 | 11000 |

* recommended ratchet insert tool No 735/40HD



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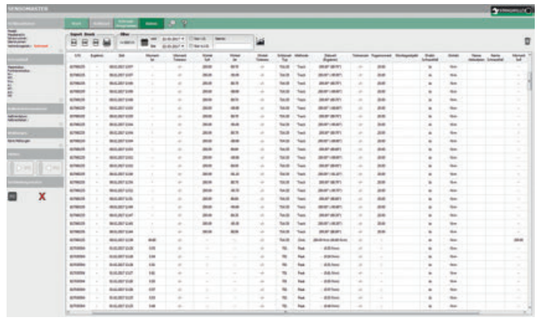
## 730DR Service/series MANOSKOP® torque wrenches with reversible ratchet insert tool

| Code | size | | | | Setting/display resolution N·m | ft·lb | in·lb | ■ " | mm | L mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96501810** | **10** | 10–100 N·m | 7.4–75 ft·lb | 90–900 in·lb | 0.2/0.1 | 0.2/0.1 | 2/1.0 | 1/2 | 9x12 | 501 | 1232 | 1657 |
| **96501820** | **20** | 20–200 N·m | 15–150 ft·lb | 180–1800 in·lb | 0.5/0.1 | 0.5/0.1 | 5/1.0 | 1/2 | 14x18 | 595 | 1663 | 2198 |
| **96501840** | **40** | 40–400 N·m | 30–300 ft·lb | 360–3600 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 3/4 | 14x18 | 738 | 2232 | 4722 |
| **96501865** | **65** | 65–650 N·m | 48–480 ft·lb | 580–5800 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 3/4 | 14x18 | 975 | 3767 | 6530 |
| **96502065** | **II/65** | 65–650 N·m | 48–480 ft·lb | 580–5800 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 3/4 | 22x28 | 977 | 3994 | 9000 |
| **96501880** | **80** | 80–800 N·m | 60–600 ft·lb | 720–7200 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 3/4 | 22x28 | 1255 | 6492 | 12500 |
| **96501800** | **100** | 100–1000 N·m | 74–750 ft·lb | 900–9000 in·lb | 1.0/0.1 | 1.0/0.1 | 10/1.0 | 3/4 | 22x28 | 1439 | 6910 | 12500 |

## 7759-5 USB hub, jack cable and SENSOMASTER 4 software

- SENSOMASTER 4 - one software package for all electronic torque wrenches from STAHLWILLE
- self-explanatory thanks to intuitive GUI with clearly organised tabbed layout
- quick and easy programming for electronic torque wrenches
- enables comprehensive evaluations, for example in connection with quality assurance
- read out stored wrench data and joint readings:
  - joint identifier
  - tool serial number
  - date and time of tightening operation
  - target torque or target angle
  - torque level at which the tool cuts out
  - tightening torque or angle reached
  - tolerances
  - joint evaluation
- storage of joint data in a database
- delete or print highlighted joints from the database
- export displayed joint data to a range of file formats (*.XLS,*.CSV,*.ODG)
- user management
- define new PIN
- delete joint data stored in wrench



System requirements:
- PC
- from Microsoft Windows XP on
- USB connection

| Code | L m | g |
|---|---|---|
| **96583630** | 1.5 | 65 |

## 7751 Jack cable

- with jacks at both ends, 90° angled

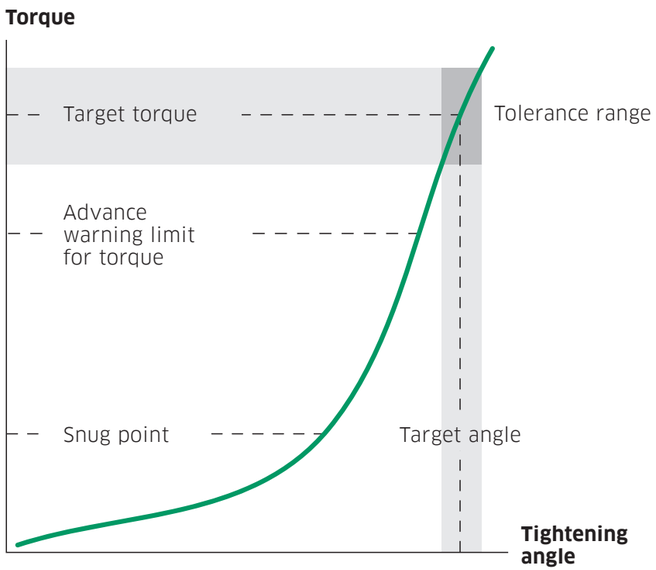
| Code | L m | g |
|---|---|---|
| **52110051** | 1.5 | 50 |

## 7757-1 USB adaptor

| Code | g |
|---|---|
| **52111057** | 10 |

# For absolute accuracy.
# STAHLWILLE torque angle/torque wrenches.

For high-accuracy applications – Category A bolted connections, for example – just checking the torque is not enough. As well as the torque, it is crucial to tighten to the correct tightening angle.




The torque reading specifies how much force was applied to tighten a fastener. For many applications, this is perfectly good enough. However, in certain cases, the additional measure of accuracy is an essential requirement. The tightening force that is generated between the workpieces in a bolted joint has to be exactly adhered to: if the force is too great, there is a risk of breakage. If it is too low, on the other hand, the connection will not be firm enough and may lead to failure in the assembly under normal operation conditions. Since the tension is dependent on the tightening torque and the angle, measuring equipment that can measure both quantities exactly is required. For applications of this kind, STAHLWILLE has precisely the solutions industry needs.

MANOSKOP® 714
» 216

SENSOTORK® 713R
» 220



## ACCURATE.

Accuracy counts – uncertainty is reduced to a minimum to guarantee accurate readings.

## EFFICIENT.

Easily readable displays and automatic switch-over to angle-controlled measurement once the target tightening torque has been reached – key features in efficient, safe work practice.

## SAFE.

Increased fastener quality – including the angle of turn as the second measured quantity makes the bolted joint even more secure.

## AUDITED.

All our angle-controlled torque wrenches have a logging function. Using the corresponding software (this is an optional extra), it is possible to read out programmed, stored readings and archive them on the PC – for example by the serial number of the tool, date and timestamp of the tightening operation, target torque and angle and the torques and angles actually recorded.

## ECONOMICAL.

Thanks to the considerably extended measuring ranges, every angle-controlled torque wrench can replace as many as four mechanical torque wrenches (two indicating and two clicking), which simultaneously reduces the costs of maintenance, calibration and adjustment. All these models are suitable for clockwise and anticlockwise tightening.

# Simply special.
# MANOSKOP® 714.

Made in Germany

As an electromechanical torque wrench, the MANOSKOP® 714 delivers the best of both worlds. Users benefit from precise, electronic tracking, but also feel and hear the familiar »click« of mechanical torque wrenches. The result of the tightening action is evaluated visually on the high-resolution OLED display and lateral LEDs and is indicated acoustically. The menu is intuitive to use and can be freely configured. As one would expect, the MANOSKOP® 714 is capable of logging tightening actions, indicates in both anticlockwise and clockwise directions and clicks in a clockwise direction.

## ACCURATE.

Display deviation value ± 2% for torque and ± 1% for angle. All readings are independent of the point of application of force (with sizes 1, 2 and 4).

Optional rechargeable lithium-ion batteries with 2600 mAh and a corresponding charger cradle ensure the tool is always ready for use.

## HD DISPLAY.

High-definition colour display providing a reading angle up to 170° and with additional side-mounted indicator lamps. Yellow lamp: advance warning threshold reached, green lamp: within the target range, red lamp: reading is outside the tolerance range.

## MADE TO MEASURE.

Four measuring modes (torque, angle, torque backed up by angle, angle backed up by torque).

## VERSATILE.

Three function modes: first peak, peak (indicating mode) and track (indicating mode).

## CONNECTING YOU NOW...

Micro-USB interface for quick connection to a PC.

## INDIVIDUAL.

Individually configurable menus. Includes SENSOMASTER software for easy configuration of the tool.

## SIMPLE.

Smooth-action bayonet connection on battery compartment. Can optionally be equipped with Li-Ion battery 7195-2.

## MANOSKOP® 714 – indicating and click-type Electromechanical angle-controlled torque wrench

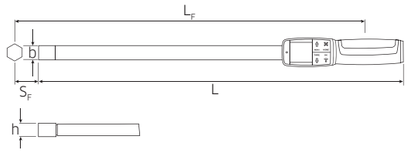
- 4 measuring modes (torque, angle, torque backed up by angle, angle backed up by torque)
- high-definition colour display with additional side-mounted indicator lamps
- freely configurable menu structure
- optionally: Li-ion battery No 7195-2 and charger No 7160
- 3 function modes: cut-out, peak hold (indicating mode with peak value) and track (indicating mode with current value)
- micro USB interface
- bayonet connection for battery compartment
- QuickRelease safety lock change system for insert tools
- data storage (≤ 2500 tightening jobs)
- as many as 200 joints can be programmed in up to 25 preset sequences
- different tolerance limits can be set for each joint
- acoustic and visual assessment of the joint
- rapid, accurate setting via keypad
- the automatic keypad lock prevents inadvertent changes
- overload protection by means of acoustic and visual signals and a fail-safe system (clockwise)
- automatic notification of the next calibration date, either by the number of joints or the time interval
- fully automated calibrating and adjusting using the perfectControl® calibrating and adjusting unit No 7794-2 (torque) or 7794-3 (torque and angle)
- units of measure: N·m, ft·lb, in·lb
- tightening torque is automatically corrected if a deviating extension is entered
- immediately reusable after release
- clockwise and anticlockwise tightening – it may be necessary to refit the insert tool rotated through 180° for anticlockwise tightening in the cut-out mode
- tactile and acoustic trigger signal
- torque and angle are simultaneously visible
- all readings are independent of the point of application of force (with sizes 1, 2 and 4)
- safe handling due to ergonomically designed handle (resistant to oils, grease, fuels, brake fluid and skydrol)
- 3 certificates (torque indicating/clicking in accordance with DIN EN ISO 6789-2:2017, angle)
- in sturdy plastic box (size 40-100 in steel box)
- design patent, patent
- supplied with SENSOMASTER 4 software, USB cable, 4 AAA/LR03 micro-batteries, 1.5 V. AAA, 1.2 V, micro NiMH rechargeable batteries can be used
- display resolution, angle 0.1°
- **display deviation value, angle ±1%, ±1 digit**
- display resolution, torque ≤ 60 N·m: 0.01 N·m; > 60 N·m: 0.1 N·m
- **display deviation value, torque ±2%, ±1 digit**

223-229



### 714 MANOSKOP® tightening angle torque wrenches with mount for insert tools

product design award 2013



714/2

714/20

714/80

| Code | size | | | | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96500901** | **1** | 1–10 N·m | 0.7–7.5 ft·lb | 9–90 in·lb | 9x12 | 28 | 23 | 226 | 188 | 17.5 | 370 | 795 |
| **96500902** | **2** | 2–20 N·m | 1.5–15 ft·lb | 18–180 in·lb | 9x12 | 28 | 23 | 226 | 188 | 17.5 | 380 | 805 |
| **96500904** | **4** | 4–40 N·m | 3–30 ft·lb | 36–360 in·lb | 9x12 | 28 | 23 | 252 | 214 | 17.5 | 420 | 845 |
| **96500906** | **6** | 6–60 N·m | 4.5–45 ft·lb | 54–540 in·lb | 9x12 | 28 | 23 | 393 | 355 | 17.5 | 810 | 1235 |
| **96500910** | **10** | 10–100 N·m | 7.4–75 ft·lb | 90–900 in·lb | 9x12 | 28 | 23 | 466 | 428 | 17.5 | 1085 | 1655 |
| **96500920** | **20** | 20–200 N·m | 15–150 ft·lb | 180–1800 in·lb | 14x18 | 28 | 23 | 547 | 516 | 25 | 1361 | 1896 |
| **96500940** | **40** | 40–400 N·m | 30–300 ft·lb | 360–3600 in·lb | 14x18 | 28 | 23 | 687 | 656 | 25 | 1765 | 5155 |
| **96500965** | **65** | 65–650 N·m | 48–480 ft·lb | 580–5800 in·lb | 22x28 | 30.6 | 25.6 | 890 | 890 | 55 | 3222 | 7000 |
| **96500980** | **80** | 80–800 N·m | 60–600 ft·lb | 720–7200 in·lb | 22x28 | 30.6 | 25.6 | 1158 | 1158 | 55 | 4572 | 10400 |
| **96500100** | **100** | 100–1000 N·m | 74–750 ft·lb | 900–9000 in·lb | 22x28 | 30.6 | 25.6 | 1343 | 1343 | 55 | 4990 | 10500 |



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## 714R MANOSKOP® tightening angle torque wrenches with reversible ratchet insert tool

714R/2

714R/20

714R/80

| Code | size | | | | ■ " | mm | L mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|
| **96501001** | **1** | 1–10 N·m | 0.7–7.5 ft·lb | 9–90 in·lb | 1/4 | 9x12 | 269 | 432 | 857 |
| **96501002** | **2** | 2–20 N·m | 1.5–15 ft·lb | 18–180 in·lb | 1/4 | 9x12 | 269 | 442 | 867 |
| **96501004** | **4** | 4–40 N·m | 3–30 ft·lb | 36–360 in·lb | 1/4 | 9x12 | 295 | 482 | 907 |
| **96501006** | **6** | 6–60 N·m | 4.5–45 ft·lb | 54–540 in·lb | 3/8 | 9x12 | 427 | 965 | 1390 |
| **96501010** | **10** | 10–100 N·m | 7.4–75 ft·lb | 90–900 in·lb | 1/2 | 9x12 | 500 | 1232 | 1657 |
| **96501020** | **20** | 20–200 N·m | 15–150 ft·lb | 180–1800 in·lb | 1/2 | 14x18 | 594 | 1663 | 2198 |
| **96501040** | **40** | 40–400 N·m | 30–300 ft·lb | 360–3600 in·lb | 3/4 | 14x18 | 737 | 2275 | 5665 |
| **96501065** | **65** | 65–650 N·m | 48–480 ft·lb | 580–5800 in·lb | 3/4 | 22x28 | 980 | 5137 | 9000 |
| **96501080** | **80** | 80–800 N·m | 60–600 ft·lb | 720–7200 in·lb | 3/4 | 22x28 | 1253 | 6487 | 12300 |
| **96501100** | **100** | 100–1000 N·m | 73–735 ft·lb | 885–8850 in·lb | 3/4 | 22x28 | 1438 | 6905 | 12500 |

## 7195-2 Li-ion battery for No 714

- max. charge voltage 4.2 V
- capacity 2600 mAh
- hazardous goods: Rechargeable Li-ion battery according to UN 3480, Class 9

| Code | g |
|---|---|
| **54101195** | 74 |

## 7160 Charging dock for Li-ion battery No 7195-2

- including charger
- Input: 100 V-240 V AC
- Output: 4.2 V DC
- charge duration: 4 hrs.
- with interchangeable socket adaptors

| Code | g |
|---|---|
| **54100060** | 440 |

## 7761/3 Interface adaptor set

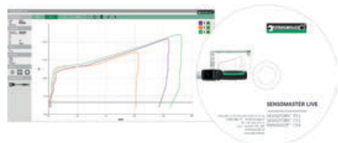
required for automated calibration and adjustment of angle-controlled torque wrench No 714 using calibrating and adjusting units perfectControl® No 7794-2 and 7794-3.

Contents:
- No 7761 interface adaptor
- No 7752 spiral cable
- No 7760 mains adaptor

| Code | g |
|---|---|
| **96521161** | 255 |

## 7732-2 SENSOMASTER Live software

- record torqueing operations with the MANOSKOP® 714, SENSOTORK® 713R (from firfirmware 4.x) and SENSOTORK® 701
- representation of torque over time, angle over time, torque over angle
- representation of several curves simultaneously
- data export for further processing
- the software is for a single-seat licence
- torque wrenches 714/1 … /100 must have firmware version 02.01.02



| Code | g |
|---|---|
| **96585235** | 111 |

## 7762 Docking station for No 714

- stationary base for securely connecting angle-controlled torque wrench No 714 to a PC via a USB port

| Code | g |
|---|---|
| **52110062** | 440 |

## 7762-1 Rest for docking station No 7762

- for securely supporting long angle-controlled torque wrenches No 714 from size 6 up

| Code | g |
|---|---|
| **52110162** | 475 |

# The torque angle specialist.
# **SENSOTORK® 713R.**

Made in Germany

When it comes to prescribed tightening using the torque angle, SENSOTORK® 713R is the ideal tool. This tightening angle torque wrench for clockwise and anticlockwise operation boasts a particularly flexible measuring range and measures the angle and torque applied irrespective of the point of application of force. In this way it prevents human error. In addition, there is a display deviation of only ± 1° for the angle of rotation and ± 1% for the torque.

## EXACT.

With a display deviation value of only ± 1%, the SENSOTORK® 713R is the champion in the STAHLWILLE range.

Easy extension setting. Where the insert tool requires an extension adjustment, simply enter the new value – recalculation using formulae is not necessary.

## MULTISENSORY.

The torque achieved is indicated by visual, audible and tactile signals – with a multicoloured backlit LED display, acoustic signal and vibration.

## SIMPLE.

Preset individual fasteners and program complex sequences – whether on the PC or on the tool itself using the display and function keys.

## UNCOMPLICATED.

Operator guidance and the menu structure are intuitive – arrow keys simplify operation.

QR

## SAFE.

The QuickRelease interlock technology ensures tools cannot be inadvertently lost – while enabling rapid, safe tool changes.

## CONNECTING YOU NOW...

Set the parameters for the torque wrench or read out the stored data. This is a simple matter using the USB interface together with the optional SENSOMASTER software.

## LOGGING FUNCTION.

Comprehensive documentation options. As many as 2000 tightening actions can be stored with timestamps.

## Electronic angle-controlled torque wrenches SENSOTORK® 713R and electronic torque wrench SENSOTORK® 712R

- simple, flexible operation thanks to operator guidance on large-format display
- very broad measuring range (5% to 100% of rated value)
- supplied with insert tool reversible ratchet
- more insert tools
- QuickRelease safety lock
- for clockwise and anticlockwise torquing
- measurements independent of the point of application of force
- units of measurement: N·m, ft·lb, in·lb
- advance warning points programmable for visual, tactile and acoustic signals
- backlit display aids evaluation of the tightening operation (traffic-light colours)
- insert tool lengths can be individually set
- maintenance friendly due to easy adjustment and automatic reminder of next calibration date

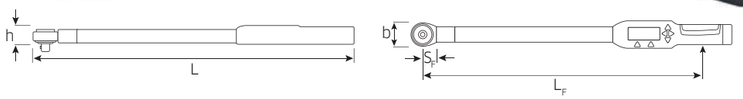
223-229

- repeated joints can be collated to form a single menu-guided sequence
- tightening jobs are stored with a timestamp
- individual identification markings possible
- password protection to prevent inadvertent changes and make the tool tamper-proof
- meets requirements of DKD-R 3-7, Class 2
- with 2 certificates (torque in accordance with DIN EN ISO 6789-2:2017/angle)
- in sturdy plastic box (size 40 in tough steel box)
- supplied with two 1.5 V AA batteries. AA/LR6, 1.2 V NiMH rechargeable cells may also be used
- fully automated calibration (torque) using perfectControl® calibrating unit No 7794-2. Readjustment does not require disassembly.
- registered design
- **display deviation value ± 1%**

5

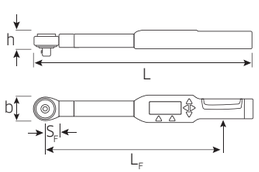
### 713R — Electronic SENSOTORK® tightening angle torque wrenches with reversible ratchet insert tool

- torque and angle are simultaneously visible
- convenient angle measurement across a very wide angle range
- **display deviation value, angle ±1%, ±1 digit**




| Code | size | | | ■ " | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96 50 16 06** | **6** | 3–60 N·m | 2.5–44 ft·lb | 3/8 | 9x12 | 33 | 24 | 378 | 299 | 17.5 | 856 | 1500 |
| **96 50 16 20** | **20** | 10–200 N·m | 7–148 ft·lb | 1/2 | 14x18 | 43 | 26 | 608 | 524 | 25 | 1552 | 2430 |
| **96 50 16 40** | **40** | 20–400 N·m | 15–296 ft·lb | 3/4 | 14x18 | 50 | 31.5 | 838 | 750 | 25 | 2332 | 5555 |

### 712R/6 — Electronic SENSOTORK® torque wrench with reversible ratchet insert tool



| Code | | | ■ " | mm | b mm | h mm | L mm | $L_F$ mm | $S_F$ mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **96 50 15 06** | 3–60 N·m | 2.5–44 ft·lb | 3/8 | 9x12 | 33 | 24 | 378 | 299 | 17.5 | 856 | 1500 |



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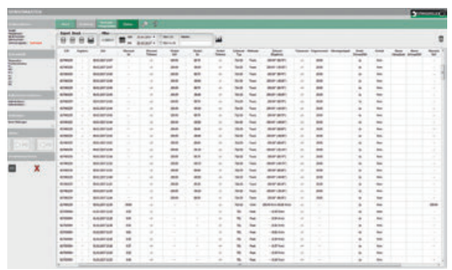
# Accessories for electronic angle-controlled torque wrench Sensotork® No 713R and electronic torque wrench SENSOTORK® No 712R

## 7759-5 USB hub, jack cable and SENSOMASTER 4 software

- SENSOMASTER 4 - one software package for all electronic torque wrenches from STAHLWILLE
- self-explanatory thanks to intuitive GUI with clearly organised tabbed layout
- quick and easy programming for electronic torque wrenches
- enables comprehensive evaluations, for example in connection with quality assurance
- read out stored wrench data and joint readings:
  - joint identifier
  - tool serial number
  - date and time of tightening operation
  - target torque or target angle
  - torque level at which the tool cuts out
  - tightening torque or angle reached
  - tolerances
  - joint evaluation
- storage of joint data in a database
- delete or print highlighted joints from the database
- export displayed joint data to a range of file formats (*.XLS,*.CSV,*.ODG)
- user management
- define new PIN
- delete joint data stored in wrench

System requirements:
- PC
- from Microsoft Windows XP on
- USB connection



5

| Code | L m | ⚖ g |
|---|---|---|
| **96 58 36 30** | 1.5 | 65 |

## 7751 Jack cable

- connection between transducers 7721-7724 and USB adaptor or display unit
- with jacks at both ends, 90° angled

| Code | L m | ⚖ g |
|---|---|---|
| **52 11 00 51** | 1.5 | 50 |

## 7757-1 USB adaptor

| Code | ⚖ g |
|---|---|
| **52 11 10 57** | 10 |



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## 7301/7302 Plastic box, empty

- for safe storage and transport of torque wrenches (please order inlays separately)
- supplied without torque wrench

| Code | No | for torque wrenches No | L mm | g |
|---|---|---|---|---|
| **81370002** | **7301** | 712R/6; 713R/6; 714/1-10; 721/5-20 Quick; 730/5-20 Quick; 730/5-20 Fix; 730N/5-20; 730D/10 | 550 | 425 |
| **81370003** | **7302** | 713R/20; 714/20; 721/30 Quick; 730/40 Quick; 730/40 Fix; 730N/40; 730D/20 | 680 | 535 |

## 7303/7304 Inlays for plastic box

| Code | No | for torque wrenches No | g |
|---|---|---|---|
| **83071004** | **7303** | 712R/6; 713R/6; 721/5-20 Quick; 730/5-20 Quick; 730/5-20 Fix; 730N/5-20; 730D/10 | 60 |
| **83071002** | **7304** | 713R/20; 721/30 Quick; 730/40 Quick; 730/40 Fix; 730N/40; 730D/20 | 81 |

## TWBE 65-100 Textile bags for larger torque wrenches

- for safe storage and transport of large torque wrenches

| Code | No | for torque wrenches No | g |
|---|---|---|---|
| **81231100** | **TWBE 65** | 714/65; 730/65 Quick; 730II/65 Quick; 730N/65; 730NII/65; 730/65 Fix; 730II/65 Fix; 730D/65; 730DII/65 | 670 |
| **81231101** | **TWBE 80** | 714/80; 71/80; 71aR/80; 720Nf/80; 721Nf/80; 730/80; 730D/80 | 714 |
| **81231102** | **TWBE 100** | 714/100; 730N/80; 730/80 Fix; 730N/100; 730D/100 | 760 |
| **81231103** | **TWBE 721NF/100** | 721Nf/100 | 850 |

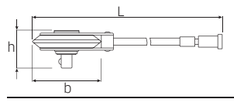
## 7396 LED lighting

- for torque wrenches
- if light is poor, simply attach this LED lamp to illuminate the work site
- included in the delivery is a 1.5 V micro battery
- supplied without torque wrench

| Code | for torque wrenches No | g |
|---|---|---|
| **54010004** | 712R/6; 713R/6-40; 714/6-40; 721/5-30 Quick; 730/5-40 Quick; 730/5-40 Fix; 730N/5-40; 730D/10-40 | 55 |

## 7380N/7385N Torque angle gauges

- for angle controlled bolt/screw tightening, with static read-off point
- read-off possible from any angle thanks to a pair of angled scales
- removable magnet for attaching sockets with 1/2" internal square drive
- for use in conjunction with tightening tools such as service MANOSKOP® No 730N
- since this tightening method requires a pre-determined snug torque to be applied, it is essential to choose a torque wrench covering both snug torque as well as maximum torque required to reach the recommended tightening angle
- whether 1/2" or 3/4" square drive torque angle gauge is used depends upon the square drive of the appropriate torque wrench employed



| code | No | ○ " | ■ " | | | b mm | h mm | L mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **54010001** | **7380N** | 1/2 | 1/2 | ± 360° | 2° | 78 | 43 | 416 | 505 |
| **54010002** | **7385N** | 3/4 | 3/4 | ± 360° | 2° | 78 | 76 | 416 | 720 |

## 7161 QuickRelease safety lock

- prevents insert tools being swapped
- the system is locked in place on the head of the torque wrench by means of a safety screw
- once the protection system has been fitted, it is possible to attach an insert tool but not to remove it because the QuickRelease unlock button itself is locked
- after the safety screw has been removed, the torque wrench reverts to being a standard, versatile tool
- the safety screw can be fitted and removed using a TORX® screwdriver with a central bore in the tip (No 4656, size T20, Code 46 56 00 20) or a bit screwdriver insert with a central bore in the tip (No 1442, size T20, Code 08 16 00 20)

| Code | size | for torque wrenches No | g |
|---|---|---|---|
| **54100070** | **1** | 714/1-4 | 4 |
| **54100071** | **2** | 712R/6; 713R/6; 714/6-10; 730/10 Quick; 730/10 Fix; 730N/10; 730D/10 | 5 |
| **54100072** | **3** | 713R/20-40; 714/20-40; 730/12-40 Quick; 730/12-40 Fix; 730N/12-40; 730D/20-40 | 11 |
| **54100073** | **4** | 730/5 Quick; 730/5 Fix; 730N/5 | 2 |
| **54100074** | **5** | 714/65-100; 730II/65; 730II/65 Quick; 730II/65 Fix; 730/80-100 Fix; 730NII/65; 730N/80-100; 730DII/65; 730D/80-100 | 30 |

for other torque wrenches on request

## 1299 ◉ Bit

- for inside hexagon screws
- for operating the adjusting screws on torque wrenches No 720, 721, 721 Quick, 730, 730 Quick, 730N, 730 Fix

| Code | mm | ⬢ | " | L mm | g | |
|---|---|---|---|---|---|---|
| **08090002** | 2 | C 6.3 | 1/4 | 34 | 4 | 10 |

outside ⬢ DIN 3126/ISO 1173



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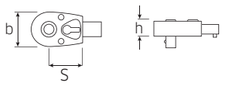
# Insert/shell tools for torque wrenches

Output square drive ■ in accordance with DIN 3120. Long-term loading of the input and output square drive is in accordance with DIN EN ISO 6789. This limit must not be exceeded if larger torque wrenches and tool holders are used.

## 725QR QuickRelease ratchet insert tools

QR

- reversible
- with QuickRelease safety lock
- size 4: 22 teeth
- sizes 5 and 10: 30 teeth

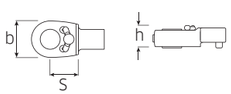


| Code | size | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|---|
| **58253004** | **4** | 1/4 | 9x12 | 22 | 13.8 | 17.5 | 40 | 50 |
| **58253005** | **5** | 3/8 | 9x12 | 29 | 18 | 28* | 100 | 130 |
| **58253010** | **10** | 1/2 | 9x12 | 29 | 18 | 28* | 100 | 141 |

* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 725B Bit ratchet insert tool

- reversible
- with inside hexagon, 1/4" or 5/16", DIN 3126/ISO 1173 D 6.3 or D8
- for direct acceptance of bits 1/4" or 5/16" outside hexagon C 6.3 (size 4: 22 teeth, size 5: 30 teeth)
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

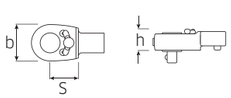


| Code | size | ○ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|---|
| **58255004** | **4** | 1/4 | 9x12 | 22 | 13.6 | 17.5 | 54 |
| **58255005** | **5** | 5/16 | 9x12 | 29 | 17.9 | 28* | 117 |

* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 725/4 Ratchet insert tool

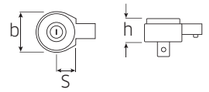
- reversible
- 22 teeth



| Code | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|
| **58254004** | 1/4 | 9x12 | 22 | 13.8 | 17.5 | 40 | 62 |

## 735 Ratchet insert tools, fine tooth

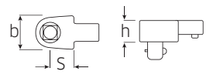
- reversible
- 60 teeth



| Code | size | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|---|
| **58250005** | **5** | 3/8 | 9x12 | 33 | 24 | 17.5 | 100 | 150 |
| **58250010** | **10 *** | 1/2 | 9x12 | 33 | 24 | 17.5 | 100 | 147 |

* on request also available as a clockwise-only ratchet

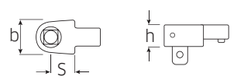
## 734 Square drive insert tools



| Code | size | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|---|
| **58240004** | **4** | 1/4 | 9x12 | 20 | 14 | 17.5 | 40 | 71 |
| **58240005** | **5** | 3/8 | 9x12 | 20 | 14 | 17.5 | 80 | 76 |
| **58240010** | **10** | 1/2 | 9x12 | 20 | 14 | 17.5 | 100 | 82 |

## 734F Square drive insert tools

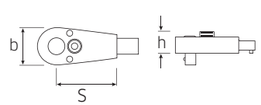
- with permanently attached, captive square drive



| Code | size | ■ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|---|
| **58241004** | **4** | 1/4 | 9x12 | 22 | 14 | 17.5 | 72 |
| **58241005** | **5** | 3/8 | 9x12 | 22 | 14 | 17.5 | 75 |

## 725L/5 Ratchet insert tool

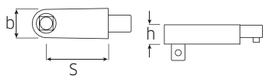
- reversible
- 30 teeth
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|
| **58151005** | 3/8 | 9x12 | 27.5 | 19.6 | 45 | 100 | 164 |

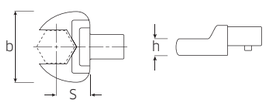
## 734L/5 Square drive insert tool

- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|
| **58242005** | 3/8 | 9x12 | 20 | 14 | 45 | 80 | 141 |

## 731/10 Open ended insert tools



| Code | mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58211007** | **7** | 9x12 | 22 | 5 | 17.5 | 40 |
| **58211008** | **8** | 9x12 | 22 | 5 | 17.5 | 39 |
| **58211009** | **9** | 9x12 | 26 | 5.5 | 17.5 | 38 |
| **58211010** | **10** | 9x12 | 26 | 5.5 | 17.5 | 42 |
| **58211011** | **11** | 9x12 | 26 | 5.5 | 17.5 | 41 |
| **58211012** | **12 [1]** | 9x12 | 30 | 7 | 17.5 | 43 |
| **58211013** | **13** | 9x12 | 30 | 7 | 17.5 | 45 |
| **58211014** | **14** | 9x12 | 35 | 8 | 17.5 | 52 |
| **58211015** | **15** | 9x12 | 35 | 8 | 17.5 | 51 |
| **58211016** | **16** | 9x12 | 38 | 8.5 | 17.5 | 58 |
| **58211017** | **17** | 9x12 | 38 | 8.5 | 17.5 | 60 |
| **58211018** | **18** | 9x12 | 42 | 9 | 20* | 71 |
| **58211019** | **19** | 9x12 | 42 | 9 | 20* | 74 |

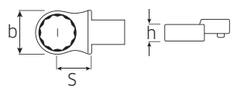
[1]) for flare nuts of hydraulic pipes on French vehicles
* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 731a/10 Open ended insert tools

| Code | " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58611016** | 1/4 | 9x12 | 22 | 5 | 17.5 | 36 |
| **58611020** | 5/16 | 9x12 | 22 | 5 | 17.5 | 53 |
| **58611024** | 3/8 | 9x12 | 26 | 5.5 | 17.5 | 38 |
| **58611028** | 7/16 | 9x12 | 26 | 5.5 | 17.5 | 37 |
| **58611032** | 1/2 | 9x12 | 30 | 7 | 17.5 | 44 |
| **58611034** | 9/16 | 9x12 | 35 | 8 | 17.5 | 49 |
| **58611036** | 5/8 | 9x12 | 38 | 8.5 | 17.5 | 64 |
| **58611038** | 11/16 | 9x12 | 42 | 9 | 20* | 76 |
| **58611040** | 3/4 | 9x12 | 42 | 9 | 20* | 73 |

* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 732/10 Ring insert tools



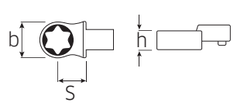
| Code | mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58221007** | **7** | 9x12 | 13 | 8 | 17.5 | 37 |
| **58221008** | **8** | 9x12 | 14.2 | 8 | 17.5 | 40 |
| **58221010** | **10** | 9x12 | 17.2 | 9 | 17.5 | 44 |
| **58221011** | **11** | 9x12 | 18.5 | 9 | 17.5 | 41 |
| **58221012** | **12** | 9x12 | 20.5 | 11 | 17.5 | 49 |
| **58221013** | **13** | 9x12 | 21.5 | 11 | 17.5 | 55 |
| **58221014** | **14** | 9x12 | 22.5 | 11 | 17.5 | 52 |
| **58221015** | **15** | 9x12 | 24.5 | 12 | 17.5 | 52 |
| **58221016** | **16** | 9x12 | 26 | 12 | 17.5 | 54 |
| **58221017** | **17** | 9x12 | 27 | 13 | 17.5 | 59 |
| **58221018** | **18** | 9x12 | 28 | 13 | 17.5 | 56 |
| **58221019** | **19** | 9x12 | 30.5 | 13 | 17.5 | 65 |
| **58221021** | **21** | 9x12 | 33 | 15 | 17.5 | 71 |
| **58221022** | **22** | 9x12 | 34.5 | 15 | 17.5 | 74 |

## 732a/10 Ring insert tools

| Code | " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58621016** | 1/4 | 9x12 | 13 | 8 | 17.5 | 36 |
| **58621020** | 5/16 | 9x12 | 14.2 | 8 | 17.5 | 37 |
| **58621024** | 3/8 [1]) | 9x12 | 17.2 | 9 | 17.5 | 37 |
| **58621028** | 7/16 | 9x12 | 18.5 | 9 | 17.5 | 40 |
| **58621032** | 1/2 | 9x12 | 21.5 | 11 | 17.5 | 53 |
| **58621034** | 9/16 | 9x12 | 22.5 | 11 | 17.5 | 52 |
| **58621036** | 5/8 | 9x12 | 26 | 12 | 17.5 | 54 |
| **58621038** | 11/16 | 9x12 | 28 | 13 | 17.5 | 58 |
| **58621040** | 3/4 | 9x12 | 30.5 | 13 | 17.5 | 58 |
| **58621042** | 13/16 | 9x12 | 33 | 15 | 17.5 | 68 |
| **58621044** | 7/8 | 9x12 | 34.5 | 15 | 17.5 | 69 |

[1]) for Volvo aero-engines. types "JAS"

## 732TX/10 TORX® insert tools



| Code | size | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58291006** | **E6** | 9x12 | 13 | 8 | 17.5 | 40 |
| **58291008** | **E8** | 9x12 | 14.2 | 8 | 17.5 | 45 |
| **58291010** | **E10** | 9x12 | 17.2 | 9 | 17.5 | 45 |
| **58291012** | **E12** | 9x12 | 18.5 | 9 | 17.5 | 50 |
| **58291014** | **E14** | 9x12 | 21.5 | 11 | 17.5 | 60 |





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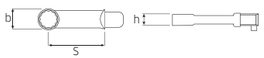
## 732G/10 Ring insert tools

AS HPQ

- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | ⬡ mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58620007** | **7** | 9x12 | 11.5 | 6 | 45 | 31 |
| **58620008** | **8** | 9x12 | 12.4 | 6 | 45 | 33 |
| **58620009** | **9** | 9x12 | 14 | 8 | 45 | 44 |
| **58620010** | **10** | 9x12 | 15.6 | 8 | 45 | 45 |
| **58620013** | **13** | 9x12 | 19.3 | 9.2 | 45 | 60 |

## 732aG/10 Ring insert tools

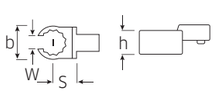
AS HPQ

- for assembling and dismantling aero-engines
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)

| Code | ⬡ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58621216** | 1/4 | 9x12 | 10.4 | 6 | 45 | 28 |
| **58621220** | 5/16 | 9x12 | 12.4 | 6 | 45 | 31 |
| **58621224** | 3/8 | 9x12 | 14.9 | 8 | 45 | 42 |
| **58621228** | 7/16 | 9x12 | 17 | 8 | 45 | 43 |
| **58621232** | 1/2 | 9x12 | 19 | 9.2 | 45 | 58 |
| **58621234** | 9/16 | 9x12 | 21 | 9.2 | 45 | 58 |
| **58621236** | 5/8 | 9x12 | 23 | 12 | 45 | 74 |

## 733/10 Open ring insert tools

AS



| Code | ⬡ mm | mm | b mm | h mm | S mm | W mm | g |
|---|---|---|---|---|---|---|---|
| **58231010** | **10** | 9x12 | 21.5 | 11 | 17.5 | 7.1 | 57 |
| **58231011** | **11** | 9x12 | 22.5 | 11 | 17.5 | 8.6 | 55 |
| **58231012** | **12** | 9x12 | 24.5 | 12 | 17.5 | 9 | 59 |
| **58231013** | **13** | 9x12 | 26 | 12 | 17.5 | 10 | 55 |
| **58231014** | **14** | 9x12 | 27 | 13 | 17.5 | 11 | 60 |
| **58231016** | **16** | 9x12 | 30.5 | 13 | 17.5 | 13 | 65 |
| **58231017** | **17** | 9x12 | 31.5 | 13 | 17.5 | 14 | 64 |
| **58231018** | **18** | 9x12 | 33 | 15 | 17.5 | 14.8 | 74 |
| **58231019** | **19** | 9x12 | 34 | 15 | 17.5 | 15.8 | 70 |
| **58231021** | **21** | 9x12 | 38.5 | 15 | 20* | 16.2 | 88 |
| **58231022** | **22** | 9x12 | 39.5 | 15 | 20* | 17 | 92 |
| **58231024** | **24** | 9x12 | 40 | 15 | 20* | 18 | 75 |

* Caution! Modified settings on torque wrench (refer to note on p. 201)

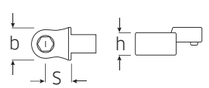
## 733a/10 Open ring insert tools

AS

| Code | ⬡ " | mm | b mm | h mm | S mm | W mm | g |
|---|---|---|---|---|---|---|---|
| **58631024** | 3/8 | 9x12 | 21.5 | 11 | 17.5 | 7.1 | 55 |
| **58631028** | 7/16 | 9x12 | 22.5 | 11 | 17.5 | 8.6 | 56 |
| **58631032** | 1/2 | 9x12 | 26 | 12 | 17.5 | 9.5 | 58 |
| **58631034** | 9/16 | 9x12 | 27.5 | 13 | 17.5 | 11 | 59 |
| **58631036** | 5/8 | 9x12 | 30.5 | 13 | 17.5 | 12.7 | 61 |
| **58631038** | 11/16 | 9x12 | 33 | 15 | 17.5 | 14 | 48 |
| **58631040** | 3/4 | 9x12 | 34 | 15 | 17.5 | 15.8 | 76 |

## 736 Bit holder insert tools

- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ ISO 1173)



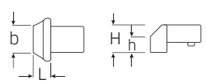
| Code | size | ⬡ | ⬡ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|---|---|
| **58261010** | **10** | D 8 | 5/16 | 9x12 | 16 | 12.5 | 17.5 | 47 |
| **58262610** | **10-1** | D 6.3 | 1/4 | 9x12 | 14 | 10 | 17.5 | 45 |

inside ⬡ DIN 3126/ISO 1173

5

## 737/10 Blank end insert tool

- gunmetal finish
- to prevent damage from excessive temperatures, the locking pin, spring and washer are not fitted until the welding work has been completed
- instructions are supplied
- material: 1.2208 - 31CRV3

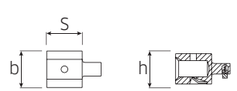


| Code | Welding surface h x b mm | mm | H mm | L mm | g |
|---|---|---|---|---|---|
| **58270010** | 8 x 14 | 9x12 | 14.5 | 8 | 35 |

## 7370/10 Adaptor

QR

- for using insert tools with an outer square drive of 14 x 18 mm on torque wrenches with an internal square drive of 9 x 12 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | ■ mm | ⬡ mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58290010** | 9x12 | 14x18 | 31 | 26 | 30.5 | 118 |



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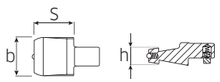
## 7370/10-2 Adaptor

- for use with insert tools with a lateral dovetail profile in torque wrenches with 9 x 12 mm internal square drives
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | ■ mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|
| **58 29 00 12** | 9x12 | 23.5 | 9.5 | 24 | 51 |

## 1820 Tool holder

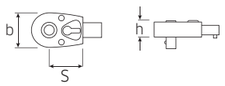
- with tool carrier to receive insert/shell tools (without torque function)

| Code | mm | L mm | g |
|---|---|---|---|
| **18 20 00 01** | 9x12 | 382.5 | 490 |

## 725QR/20 QuickRelease ratchet insert tool

QR

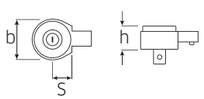
- reversible
- with QuickRelease safety lock
- 36 teeth
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | size | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|---|
| **58 25 30 20** | **20** | 1/2 | 14x18 | 41 | 22.3 | 38.5 | 200 | 325 |

## 735 Ratchet insert tools, fine tooth

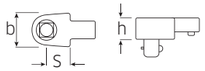
- reversible
- 60 teeth



| Code | size | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|---|
| **58 25 00 20** | **20** | 1/2 | 14x18 | 43 | 26 | 25 | 300 | 302 |
| **58 25 00 40** | **40** | 3/4 | 14x18 | 50 | 31.5 | 25 | 400 | 515 |
| **58 25 00 65** | **40HD** | 3/4 | 14x18 | 58 | 36 | 30 * | 650 | 725 |

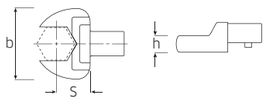
on request also available as a clockwise-only ratchet
* Caution! Modified settings on torque wrench (refer to note on p. 210)

## 734 Square drive insert tools



| Code | size | ■ " | mm | b mm | h mm | S mm | max. N·m | g |
|---|---|---|---|---|---|---|---|---|
| **58 24 00 20** | **20** | 1/2 | 14x18 | 27 | 18 | 25 | 300 | 205 |
| **58 24 00 40** | **40** | 3/4 | 14x18 | 40 | 25 | 25 | 650 | 396 |

## 731/40 Open ended insert tools



| Code | mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58 21 40 13** | **13** | 14x18 | 30 | 7 | 25 | 128 |
| **58 21 40 14** | **14** | 14x18 | 35 | 8 | 25 | 129 |
| **58 21 40 15** | **15** | 14x18 | 35 | 8 | 25 | 132 |
| **58 21 40 16** | **16** | 14x18 | 38 | 9 | 25 | 140 |
| **58 21 40 17** | **17** | 14x18 | 38 | 9 | 25 | 130 |
| **58 21 40 18** | **18** | 14x18 | 42 | 10 | 25 | 147 |
| **58 21 40 19** | **19** | 14x18 | 42 | 10 | 25 | 140 |
| **58 21 40 21** | **21** | 14x18 | 50 | 11 | 25 | 171 |
| **58 21 40 22** | **22** | 14x18 | 50 | 11 | 25 | 165 |
| **58 21 40 24** | **24** | 14x18 | 53 | 12 | 25 | 167 |
| **58 21 40 25** | **25** | 14x18 | 53 | 12 | 25 | 170 |
| **58 21 40 27** | **27** | 14x18 | 60 | 13 | 30 * | 219 |
| **58 21 40 30** | **30** | 14x18 | 66 | 14 | 30 * | 275 |
| **58 21 40 32** | **32** | 14x18 | 66 | 14 | 32.5 * | 246 |
| **58 21 40 34** | **34** | 14x18 | 66 | 14 | 32.5 * | 239 |
| **58 21 40 36** | **36** | 14x18 | 74 | 15 | 32.5 * | 275 |
| **58 21 40 38** | **38** | 14x18 | 74 | 15 | 32.5 * | 265 |
| **58 21 40 41** | **41** | 14x18 | 82 | 15 | 36.5 * | 307 |

* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 731a/40 Open ended insert tools

| Code | " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58 61 40 28** | **7/16** | 14x18 | 30 | 7 | 25 | 127 |
| **58 61 40 32** | **1/2** | 14x18 | 30 | 7 | 25 | 125 |
| **58 61 40 34** | **9/16** | 14x18 | 35 | 8 | 25 | 129 |
| **58 61 40 36** | **5/8** | 14x18 | 38 | 9 | 25 | 136 |
| **58 61 40 38** | **11/16** | 14x18 | 42 | 10 | 25 | 148 |
| **58 61 40 40** | **3/4** | 14x18 | 42 | 10 | 25 | 144 |
| **58 61 40 42** | **13/16** | 14x18 | 50 | 11 | 25 | 171 |
| **58 61 40 44** | **7/8** | 14x18 | 50 | 11 | 25 | 165 |
| **58 61 40 46** | **15/16** | 14x18 | 53 | 12 | 25 | 177 |
| **58 61 40 48** | **1** | 14x18 | 60 | 13 | 30 * | 224 |
| **58 61 40 52** | **1 1/8** | 14x18 | 66 | 14 | 30 * | 258 |

* Caution! Modified settings on torque wrench (refer to note on p. 201)





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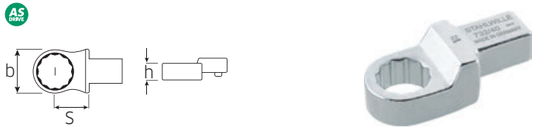
## 732/40 Ring insert tools



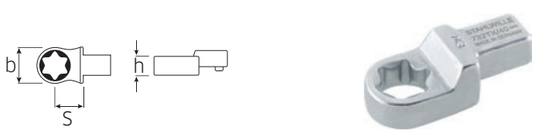

| Code | mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58 22 40 13** | **13** | 14x18 | 22.5 | 11 | 25 | 130 |
| **58 22 40 14** | **14** | 14x18 | 23 | 11 | 25 | 123 |
| **58 22 40 15** | **15** | 14x18 | 24 | 11 | 25 | 128 |
| **58 22 40 16** | **16** | 14x18 | 25.5 | 12 | 25 | 133 |
| **58 22 40 17** | **17** | 14x18 | 27 | 12 | 25 | 135 |
| **58 22 40 18** | **18** | 14x18 | 29 | 13 | 25 | 134 |
| **58 22 40 19** | **19** | 14x18 | 30.5 | 13 | 25 | 145 |
| **58 22 40 21** | **21** | 14x18 | 33 | 15 | 25 | 144 |
| **58 22 40 22** | **22** | 14x18 | 34.5 | 15 | 25 | 145 |
| **58 22 40 24** | **24** | 14x18 | 37.5 | 15 | 25 | 153 |
| **58 22 40 27** | **27** | 14x18 | 42.5 | 17 | 25 | 162 |
| **58 22 40 28** | **28** | 14x18 | 45.5 | 19 | 25 | 175 |
| **58 22 40 30** | **30** | 14x18 | 46 | 19 | 25 | 182 |
| **58 22 40 32** | **32** | 14x18 | 47.5 | 19 | 25 | 181 |
| **58 22 40 34** | **34** | 14x18 | 52 | 19 | 28 * | 210 |
| **58 22 40 36** | **36** | 14x18 | 54 | 19 | 28 * | 203 |
| **58 22 40 41** | **41** | 14x18 | 60 | 20 | 30 * | 240 |

* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 732a/40 Ring insert tools

| Code | " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58 62 40 32** | **1/2** | 14x18 | 22.5 | 11 | 25 | 122 |
| **58 62 40 34** | **9/16** | 14x18 | 23 | 11 | 25 | 122 |
| **58 62 40 36** | **5/8** | 14x18 | 25.5 | 12 | 25 | 134 |
| **58 62 40 38** | **11/16** | 14x18 | 29 | 13 | 25 | 132 |
| **58 62 40 40** | **3/4** | 14x18 | 30.5 | 13 | 25 | 138 |
| **58 62 40 42** | **13/16** | 14x18 | 33 | 15 | 25 | 142 |
| **58 62 40 44** | **7/8** | 14x18 | 34.5 | 15 | 25 | 147 |
| **58 62 40 46** | **15/16** | 14x18 | 37.5 | 15 | 25 | 151 |
| **58 62 40 48** | **1** | 14x18 | 41 | 17 | 25 | 160 |

## 732TX/40 TORX® insert tools




| Code | size | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58 29 40 14** | **E14** | 14x18 | 22.5 | 11 | 25 | 130 |
| **58 29 40 18** | **E18** | 14x18 | 24 | 11 | 25 | 135 |
| **58 29 40 20** | **E20** | 14x18 | 29 | 13 | 25 | 150 |
| **58 29 40 24** | **E24** | 14x18 | 30.5 | 13 | 25 | 150 |

## 736/40 Bit holder insert tool

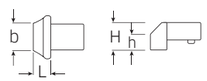
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

| code | O | " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|---|
| **58 26 10 40** | D 8 | 5/16 | 14x18 | 16 | 12.5 | 25 | 114 |

inside O DIN 3126/ISO 1173

## 737/40 Blank end insert tool

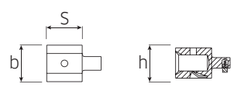
- gunmetal finish
- to prevent damage from excessive temperatures, the locking pin, spring and washer are not fitted until the welding work has been completed
- instructions are supplied
- material: 1.2208 - 31CRV3



| Code | Welding surface h x b mm | mm | H mm | L mm | g |
|---|---|---|---|---|---|
| **58 27 00 40** | 11 x 25 | 14x18 | 21.5 | 12 | 98 |

## 7370/40 Adaptor

- for using insert tools with an outer square drive of 9 x 12 mm on torque wrenches with an internal square drive of 14 x 18 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| code | ■ mm | O mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58 29 00 40** | 14x18 | 9x12 | 28 | 21 | 21.5 | 117 |

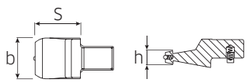
## 7370/40-1 Adaptor

- for using shell tools with an internal square drive of 24.5 x 28 mm on torque wrenches with an internal square drive of 14 x 18 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)

| Code | ■ mm | ■ mm | L mm | g |
|---|---|---|---|---|
| **58 29 00 41** | 14x18 | 24,5x28 | 66 | 251 |

## 7370/40-2 Adaptor

- for use with insert tools with a lateral dovetail profile in torque wrenches with 14 x 18 mm internal square drives
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | ■ mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|
| **58290042** | 14x18 | 31.5 | 9.5 | 34.6 | 138 |

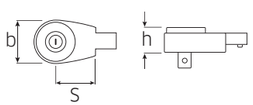
## 1821 Tool holder

- with tool carrier to receive insert/shell tools (without torque function)

| Code | mm | L mm | g |
|---|---|---|---|
| **18210001** | 14x18 | 575 | 720 |

## 735/65 Ratchet insert tool, fine tooth

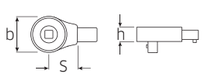
- reversible
- 60 teeth
- load capacity up to 650 N·m
- for size 65 torque wrenches



| Code | ■ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58251065** | 3/4 | 22x28 | 61 | 35 | 55 | 1115 |

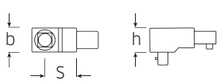
## 735/100 Ratchet insert tool

- with push through square drive
- 30 teeth



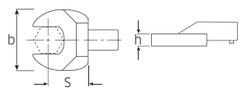
| Code | ■ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58250100** | 3/4 | 22x28 | 76 | 42 | 55 | 1893 |

## 734/100 Square drive insert tool



| Code | ■ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58240100** | 3/4 | 22x28 | 43 | 42 | 55 | 1175 |

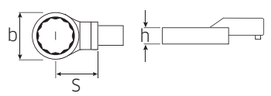
## 731/100 Open ended insert tools



| Code | mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58211024** | 24 | 22x28 | 50 | 13 | 55 | 618 |
| **58211027** | 27 | 22x28 | 56 | 14 | 55 | 640 |
| **58211030** | 30 | 22x28 | 63 | 15 | 55 | 690 |
| **58211032** | 32 | 22x28 | 67 | 15 | 55 | 705 |
| **58211034** | 34 | 22x28 | 72 | 15 | 55 | 731 |
| **58211036** | 36 | 22x28 | 74 | 15 | 55 | 713 |
| **58211041** | 41 | 22x28 | 84 | 16 | 55 | 894 |
| **58211046** | 46 | 22x28 | 94 | 17 | 55 | 934 |
| **58211050** | 50 | 22x28 | 104 | 18 | 55 | 1073 |
| **58211055** | 55 | 22x28 | 114 | 19 | 55 | 1172 |
| **58211060** | 60 | 22x28 | 124 | 20 | 55 | 1241 |

## 732/100 Ring insert tools

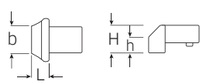
AS DIN



| Code | mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58221024** | 24 | 22x28 | 43 | 15 | 55 | 616 |
| **58221027** | 27 | 22x28 | 43 | 15 | 55 | 609 |
| **58221030** | 30 | 22x28 | 46 | 16 | 55 | 617 |
| **58221032** | 32 | 22x28 | 49 | 16 | 55 | 611 |
| **58221034** | 34 | 22x28 | 52 | 17 | 55 | 627 |
| **58221036** | 36 | 22x28 | 54 | 17 | 55 | 620 |
| **58221041** | 41 | 22x28 | 61 | 18 | 55 | 630 |
| **58221046** | 46 | 22x28 | 66 | 19 | 55 | 628 |
| **58221050** | 50 | 22x28 | 75 | 20 | 55 | 701 |
| **58221055** | 55 | 22x28 | 84 | 21 | 55 | 776 |
| **58221060** | 60 | 22x28 | 93 | 22 | 55 | 867 |

## 737/100 Blank end insert tool

- gunmetal finish
- to prevent damage from excessive temperatures, the locking pin, spring and washer are not fitted until the welding work has been completed
- instructions are supplied
- material: 1.2208 - 31CRV3



| Code | Welding surface h x b mm | mm | H mm | L mm | g |
|---|---|---|---|---|---|
| **58270100** | 15 x 50 | 22x28 | 32 | 24 | 483 |

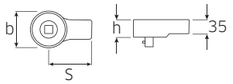
## 7370/100 Adaptor

- for using shell tools with an internal square drive of 24.5 x 28 mm on torque wrenches with an internal square drive of 22 x 28 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)

| Code | ■ mm | ■ mm | L mm | S mm | g |
|---|---|---|---|---|---|
| **58291100** | 22x28 | 24,5x28 | 85 | 100 | 421 |

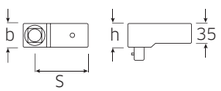
## 735/80 Ratchet shell tool

- with push through square drive
- 30 teeth



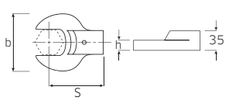
| Code | ■ " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58250080** | 3/4 | 24,5x28 | 76 | 43 | 95 | 1930 |

## 734/80 Square drive shell tool



| Code | ■ " | mm | h mm | S mm | g |
|---|---|---|---|---|---|
| **58240080** | 3/4 | 24,5x28 | 42 | 95 | 1200 |

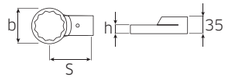
## 731/80 Open ended shell tools



| Code | O mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58218024** | **24** | 24,5x28 | 50 | 13 | 95 | 601 |
| **58218027** | **27** | 24,5x28 | 56 | 14 | 95 | 620 |
| **58218030** | **30** | 24,5x28 | 63 | 15 | 95 | 655 |
| **58218032** | **32** | 24,5x28 | 67 | 15 | 95 | 670 |
| **58218034** | **34** | 24,5x28 | 72 | 15 | 95 | 699 |
| **58218036** | **36** | 24,5x28 | 74 | 15 | 95 | 620 |
| **58218041** | **41** | 24,5x28 | 84 | 16 | 95 | 810 |
| **58218046** | **46** | 24,5x28 | 94 | 17 | 95 | 867 |
| **58218050** | **50** | 24,5x28 | 104 | 18 | 95 | 1010 |
| **58218055** | **55** | 24,5x28 | 114 | 19 | 95 | 1150 |
| **58218060** | **60** | 24,5x28 | 124 | 20 | 95 | 1325 |

## 732/80 Ring shell tools

AS



| Code | O mm | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58228024** | **24** | 24,5x28 | 36 | 15 | 95 | 605 |
| **58228027** | **27** | 24,5x28 | 40.5 | 15 | 95 | 610 |
| **58228030** | **30** | 24,5x28 | 46 | 16 | 95 | 630 |
| **58228032** | **32** | 24,5x28 | 49 | 16 | 95 | 635 |
| **58228034** | **34** | 24,5x28 | 52 | 17 | 95 | 650 |
| **58228036** | **36** | 24,5x28 | 54 | 17 | 95 | 650 |
| **58228041** | **41** | 24,5x28 | 61 | 18 | 95 | 675 |
| **58228046** | **46** | 24,5x28 | 66 | 19 | 95 | 700 |
| **58228050** | **50** | 24,5x28 | 75 | 20 | 95 | 750 |
| **58228055** | **55** | 24,5x28 | 84 | 21 | 95 | 800 |
| **58228060** | **60** | 24,5x28 | 93 | 22 | 95 | 850 |

## 732a/80 Ring shell tools

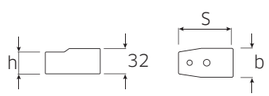
AS

| Code | O " | mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58628046** | **15/16 [1]** | 24,5x28 | 36 | 14 | 95 | 604 |
| **58628050** | **1 1/16 [1]** | 24,5x28 | 40.5 | 14 | 95 | 608 |

[1]) for jet engine pins (Airbus A320/A321)

## 7370/80 Shell adaptor

- for attaching 14 x 18 mm insert tools
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | O mm | O mm | b mm | h mm | S mm | g |
|---|---|---|---|---|---|---|
| **58290080** | 24,5x28 | 14x18 | 36 | 26 | 70 | 300 |

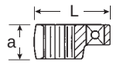
## 1822 Tool holder

- with tool carrier to receive insert/shell tools (without torque function)

| Code | mm | L mm | g |
|---|---|---|---|
| **18220003** | 24,5x28 | 1000 | 2057 |

## 440 CROW-RING spanners

- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | mm | " | L mm | b mm | a mm | S mm | W mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01190008** | **8** | 1/4 | 23.8 | 12.7 | 8 | 12.3 | 6.3 | 11 | 1 |
| **01190009** | **9** | 1/4 | 28.5 | 18.2 | 13.5 | 14 | 6.7 | 21 | 1 |
| **01190010** | **10** [1] | 1/4 | 28.4 | 18.2 | 13.5 | 14 | 7.1 | 16 | 1 |
| **01190011** | **11** | 1/4 | 28 | 18.2 | 13.5 | 14 | 8.6 | 17 | 1 |
| **01190012** | **12** [1] | 1/4 | 30.8 | 20.6 | 14 | 15.7 | 9 | 20 | 1 |
| **01190013** | **13** | 1/4 | 32 | 22.2 | 14 | 16.4 | 10 | 30 | 1 |
| **01190014** | **14** [1] | 1/4 | 31.7 | 22.2 | 14 | 16.4 | 11.1 | 20 | 1 |
| **02190015** | **15** | 3/8 | 36.5 | 24.6 | 17.5 | 19.1 | 11.9 | 34 | 1 |
| **02190016** | **16** | 3/8 | 36.1 | 24.6 | 17.5 | 19.1 | 13 | 27 | 1 |
| **02190017** | **17** [2] | 3/8 | 39.2 | 27.3 | 17.5 | 20.5 | 14 | 40 | 1 |
| **02190018** | **18** | 3/8 | 40.8 | 29 | 18.5 | 21.3 | 14.8 | 45 | 1 |
| **02190019** | **19** [2] | 3/8 | 40.5 | 29 | 18.5 | 21.3 | 15.8 | 40 | 1 |
| **02190020** | **20** | 3/8 | 42.9 | 31.3 | 18.5 | 22.5 | 15.8 | 54 | 1 |
| **02190021** | **21** | 3/8 | 42.8 | 31.3 | 18.5 | 22.5 | 16.2 | 45 | 1 |
| **02190022** | **22** [2] | 3/8 | 45.3 | 33.5 | 19 | 23.6 | 17 | 57 | 1 |
| **02190023** | **23** | 3/8 | 47.5 | 35.7 | 19.5 | 24.6 | 17.5 | 71 | 1 |
| **02190024** | **24** [2] | 3/8 | 47.3 | 35.7 | 19.5 | 24.6 | 18 | 57 | 1 |
| **02190025** | **25** | 3/8 | 49.3 | 37.7 | 20 | 25.7 | 19 | 80 | 1 |
| **02190026** | **26** | 3/8 | 49.3 | 37.7 | 20 | 25.7 | 19 | 63 | 1 |
| **02190027** | **27** | 3/8 | 52.8 | 40 | 21.4 | 28.2 | 20 | 100 | 1 |
| **02191027** | **27MB** [3] | 3/8 | 57.1 | 42.1 | 15 | 29.3 | 20 | 92 | 1 |
| **03190028** | **28** | 1/2 | 56.8 | 42.1 | 22.5 | 29.3 | 21 | 120 | 1 |
| **03190030** | **30** | 1/2 | 63 | 48 | 22.5 | 32.5 | 22 | 155 | 1 |
| **03190032** | **32** | 1/2 | 62.5 | 48 | 22.5 | 32.5 | 24 | 145 | 1 |
| **03190034** | **34** | 1/2 | 64.2 | 50 | 24 | 33.5 | 27 | 146 | 1 |
| **03190036** | **36** | 1/2 | 66.5 | 51.9 | 24 | 34.6 | 27 | 150 | 1 |
| **03190038** | **38** | 1/2 | 68.1 | 53.9 | 24 | 35.6 | 28.6 | 147 | 1 |
| **03190040** | **40** | 1/2 | 71.8 | 57.9 | 24.5 | 37.7 | 31 | 160 | 1 |
| **03190041** | **41** | 1/2 | 71.8 | 57.9 | 24.5 | 37.7 | 31 | 169 | 1 |
| **03190042** | **42** | 1/2 | 71 | 57.9 | 24.5 | 37.7 | 33.2 | 189 | 1 |
| **03190046** | **46** | 1/2 | 77.7 | 64.2 | 26 | 40.9 | 34.1 | 215 | 1 |
| **03190050** | **50** | 1/2 | 83.2 | 70.5 | 27.5 | 44.1 | 39.7 | 295 | 1 |

[1]) for union nuts on fuel injection leads on 4-cylinder Mercedes-Benz diesel engines
[2]) for use on suction or pressure lines within expansion valve of air conditioning unit (Mercedes-Benz)
[3]) slim-line version for setting of electronic injection on 440-HP-engines Mercedes-Benz series OM 442

## 440a CROW-RING spanners

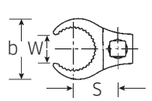
- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench

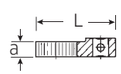
| Code | " | " | L mm | b mm | a mm | S mm | W mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **01490024** | **3/8** [1] | 1/4 | 28.4 | 18.2 | 13.5 | 14 | 7.1 | 16 | 1 |
| **01490028** | **7/16** | 1/4 | 28 | 18.2 | 13.5 | 14 | 8.6 | 14 | 1 |
| **01490032** | **1/2** | 1/4 | 30.5 | 20.6 | 14 | 15.7 | 10 | 19 | 1 |
| **01490034** | **9/16** | 1/4 | 31.7 | 22.2 | 14 | 16.4 | 11.1 | 23 | 1 |
| **02490036** | **5/8** | 3/8 | 36.5 | 24.6 | 17.5 | 19.1 | 11.9 | 33 | 1 |
| **02490038** | **11/16** | 3/8 | 39.2 | 27.3 | 17.5 | 20.5 | 14 | 36 | 1 |
| **02490040** | **3/4** | 3/8 | 40.9 | 29 | 18.5 | 21.3 | 14.2 | 44 | 1 |
| **02490042** | **13/16** | 3/8 | 42.9 | 31.3 | 18.5 | 22.5 | 15.8 | 51 | 1 |
| **02490044** | **7/8** | 3/8 | 45.2 | 33.5 | 19 | 23.6 | 17.5 | 62 | 1 |
| **02490046** | **15/16** | 3/8 | 47.2 | 35.7 | 19.5 | 24.6 | 18.3 | 63 | 1 |
| **02490048** | **1** | 3/8 | 49.3 | 37.7 | 20 | 25.7 | 19 | 71 | 1 |
| **02490050** | **1 1/16** | 3/8 | 52.8 | 40 | 21.4 | 28.2 | 20 | 84 | 1 |
| **03490052** | **1 1/8** | 1/2 | 56.8 | 42.1 | 22.5 | 29.3 | 21 | 110 | 1 |
| **03490056** | **1 1/4** | 1/2 | 62.5 | 48 | 22.5 | 32.5 | 23.8 | 137 | 1 |
| **03490058** | **1 5/16** | 1/2 | 62.3 | 48 | 22.5 | 32.5 | 24.6 | 130 | 1 |
| **03490060** | **1 3/8** | 1/2 | 64.2 | 50 | 24 | 33.5 | 27 | 138 | 1 |
| **03490062** | **1 7/16** | 1/2 | 66.5 | 51.9 | 24 | 34.6 | 27 | 143 | 1 |
| **03490064** | **1 1/2** | 1/2 | 68.1 | 53.9 | 24 | 35.6 | 28.6 | 152 | 1 |
| **03490065** | **1 9/16** | 1/2 | 70.1 | 55.9 | 24 | 36.7 | 29.4 | 172 | 1 |
| **03490066** | **1 5/8** | 1/2 | 71.8 | 57.9 | 24.5 | 37.7 | 31 | 169 | 1 |
| **03490068** | **1 3/4** | 1/2 | 75.6 | 62 | 25.5 | 39.8 | 33.2 | 199 | 1 |
| **03490069** | **1 13/16** | 1/2 | 77.7 | 64.2 | 26 | 40.9 | 34.1 | 229 | 1 |
| **03490072** | **2** | 1/2 | 83.2 | 70.5 | 27.5 | 44.1 | 39.7 | 277 | 1 |
| **03490076** | **2 1/4** | 1/2 | 91.2 | 78.7 | 29.5 | 48.2 | 42.8 | 337 | 1 |
| **03490077** | **2 5/16** | 1/2 | 93.3 | 80.9 | 30 | 49.2 | 43.6 | 309 | 1 |
| **03490078** | **2 3/8** | 1/2 | 95.2 | 83 | 30.5 | 50.2 | 46 | 385 | 1 |

[1]) for Volvo aero-engines, types "JAS"

## 440S MJ CROW-RING spanners

- HPQ® high performance steel, chrome plated
- supersedes No 440 MJ
- EN 4108
- for pipe unions with straight cylindrical involute toothing
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | Threaded nut | mm | " | L mm | b mm | a mm | S mm | W mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **01211010** | **MJ10** | DN04 | 1/4 | 31.9 | 22 | 8 | 17 | 6.5 | 54 | 1 |
| **01211014** | **MJ14** | DN06 | 1/4 | 36.5 | 27 | 8 | 19.5 | 8.5 | 29 | 1 |
| **02211016** | **MJ16** | DN08 | 3/8 | 43.8 | 31 | 8 | 24 | 10.5 | 46 | 1 |
| **02211018** | **MJ18** | DN10 | 3/8 | 45.2 | 33 | 8 | 25 | 13 | 47 | 1 |
| **02211020** | **MJ20** | DN12 | 3/8 | 46.2 | 35 | 8 | 26 | 15 | 49 | 1 |
| **02211022** | **MJ22** | DN14 | 3/8 | 48.4 | 37 | 9 | 27 | 17.5 | 54 | 1 |
| **02211024** | **MJ24** | DN16 | 3/8 | 49.5 | 39 | 9 | 28 | 19.7 | 56 | 1 |
| **02211027** | **MJ27** | DN18 | 3/8 | 54.4 | 44 | 10 | 31 | 21.5 | 70 | 1 |
| **02211030** | **MJ30** | DN20 | 3/8 | 60.8 | 50 | 10 | 36 | 23.7 | 93 | 1 |



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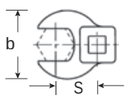
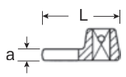
## 540 CROW-FOOT spanners

- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | mm | " | L mm | b mm | a mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|
| **01200008** | **8** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 19 | 1 |
| **01200009** | **9** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 21 | 1 |
| **01200010** | **10** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 20 | 1 |
| **02200011** | **11** | 3/8 | 32 | 22.2 | 6.3 | 17.4 | 36 | 1 |
| **02200012** | **12** | 3/8 | 34.3 | 25.4 | 6.3 | 18.2 | 37 | 1 |
| **02200013** | **13** | 3/8 | 34.3 | 25.4 | 6.3 | 17.8 | 36 | 1 |
| **02200014** | **14** | 3/8 | 37.7 | 30 | 6.3 | 20.8 | 46 | 1 |
| **02200015** | **15** | 3/8 | 37.7 | 30 | 6.3 | 20.4 | 45 | 1 |
| **02200016** | **16** | 3/8 | 37.7 | 30 | 6.3 | 19.9 | 45 | 1 |
| **02200017** | **17** | 3/8 | 42.5 | 38 | 6.3 | 23.8 | 62 | 1 |
| **02200018** | **18** | 3/8 | 42.5 | 38 | 6.3 | 22.9 | 61 | 1 |
| **02200019** | **19** | 3/8 | 42.5 | 38 | 6.3 | 22.4 | 64 | 1 |
| **02200020** | **20** | 3/8 | 42.4 | 38 | 6.3 | 25 | 55 | 1 |
| **02200021** | **21** | 3/8 | 44.5 | 41 | 6.3 | 23.6 | 59 | 1 |
| **02200022** | **22** | 3/8 | 44.5 | 41 | 6.3 | 24.2 | 64 | 1 |
| **02200023** | **23** | 3/8 | 44.5 | 41 | 6.3 | 25.8 | 64 | 1 |
| **02200024** | **24** | 3/8 | 44.4 | 41 | 6.3 | 26.3 | 60 | 1 |
| **02200025** | **25** | 3/8 | 47 | 45 | 8 | 26.4 | 75 | 1 |
| **02200026** | **26** | 3/8 | 47 | 45 | 8 | 27.6 | 80 | 1 |
| **02200027** | **27** | 3/8 | 47 | 45 | 8 | 27.6 | 76 | 1 |
| **02200028** | **28** | 3/8 | 50 | 50 | 8 | 29.2 | 78 | 1 |
| **02200030** | **30** | 3/8 | 50 | 50 | 8 | 29.3 | 84 | 1 |
| **02200032** | **32** | 3/8 | 53 | 57 | 8 | 30.5 | 95 | 1 |
| **02200034** | **34** | 3/8 | 54.5 | 60 | 8 | 31.6 | 107 | 1 |
| **02200036** | **36** | 3/8 | 56.5 | 62 | 8 | 32.8 | 100 | 1 |
| **02200040** | **40** | 3/8 | 63 | 70 | 8 | 37.6 | 130 | 1 |
| **02200041** | **41** | 3/8 | 63 | 70 | 8 | 37.2 | 130 | 1 |
| **02200042** | **42** | 3/8 | 63 | 70 | 8 | 37.7 | 125 | 1 |
| **02200046** | **46** | 3/8 | 72 | 82 | 8 | 43.1 | 191 | 1 |
| **02200050** | **50** | 3/8 | 75 | 88 | 8 | 45.4 | 217 | 1 |

## 1225 Special extension

- 3/8" ■
- offset

| code | L mm | d mm | g | |
|---|---|---|---|---|
| **12250001** | 150 | 17 | 128 | 5 |

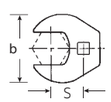
## 540a CROW-FOOT spanners

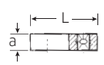
- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on p. 201)

| Code | " | " | L mm | b mm | a mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|
| **01500024** | **3/8** | 1/4 | 25.5 | 19.8 | 6.3 | 14.6 | 17 | 1 |
| **02500028** | **7/16** | 3/8 | 32 | 22.2 | 6.3 | 17.2 | 34 | 1 |
| **02500032** | **1/2** | 3/8 | 34.3 | 25.4 | 6.3 | 18.1 | 37 | 1 |
| **02500034** | **9/16** | 3/8 | 37.7 | 30 | 6.3 | 20.9 | 40 | 1 |
| **02500036** | **5/8** | 3/8 | 37.7 | 30 | 6.3 | 20.4 | 44 | 1 |
| **02500038** | **11/16** | 3/8 | 42.5 | 38 | 6.3 | 24.1 | 62 | 1 |
| **02500040** | **3/4** | 3/8 | 42.5 | 38 | 6.3 | 24 | 66 | 1 |
| **02500042** | **13/16** | 3/8 | 42.3 | 38 | 6.3 | 24 | 59 | 1 |
| **02500044** | **7/8** | 3/8 | 44.5 | 41 | 6.3 | 25.8 | 65 | 1 |
| **02500048** | **1** | 3/8 | 47 | 45 | 8 | 26.7 | 78 | 1 |
| **02500050** | **1 1/16** | 3/8 | 47 | 45 | 8 | 27.2 | 78 | 1 |
| **02500052** | **1 1/8** | 3/8 | 50 | 50 | 8 | 28.5 | 84 | 1 |
| **02500054** | **1 3/16** | 3/8 | 50 | 50 | 8 | 29.2 | 83 | 1 |
| **02500056** | **1 1/4** | 3/8 | 53 | 57 | 8 | 30.3 | 101 | 1 |
| **02500058** | **1 5/16** | 3/8 | 53 | 57 | 8 | 31.2 | 101 | 1 |
| **02500060** | **1 3/8** | 3/8 | 54.5 | 60 | 8 | 32.3 | 105 | 1 |
| **02500062** | **1 7/16** | 3/8 | 56.5 | 62 | 8 | 33.1 | 107 | 1 |
| **02500064** | **1 1/2** | 3/8 | 58 | 65 | 8 | 34.5 | 118 | 1 |
| **02500065** | **1 9/16** | 3/8 | 59.5 | 68 | 8 | 35.7 | 126 | 1 |
| **02500066** | **1 5/8** | 3/8 | 63 | 70 | 8 | 37.3 | 140 | 1 |
| **02500067** | **1 11/16** | 3/8 | 63 | 70 | 8 | 37.7 | 126 | 1 |
| **02500068** | **1 3/4** | 3/8 | 68 | 76 | 8 | 40.4 | 161 | 1 |
| **02500070** | **1 7/8** | 3/8 | 72 | 82 | 8 | 42 | 205 | 1 |
| **02500072** | **2** | 3/8 | 75 | 88 | 8 | 44.8 | 214 | 1 |
| **02500074** | **2 1/8** | 3/8 | 75.6 | 91 | 10 | 46 | 265 | 1 |
| **02500076** | **2 1/4** | 3/8 | 80.5 | 96 | 10 | 49.5 | 297 | 1 |
| **03500078** | **2 3/8** | 1/2 | 81.5 | 96 | 8 | 51.3 | 214 | 1 |

## 540a HD CROW-FOOT spanners heavy-duty

- for particularly high loadings, e.g. stainless steel screw fittings
- full use of jaws in conjunction with standard ratchets
- chrome plated
- supplied without ratchet
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | " | " | L mm | b mm | a mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|
| **02501034** | **9/16** | 3/8 | 43.4 | 32 | 11 | 26.8 | 52 | 1 |
| **02501036** | **5/8** | 3/8 | 45 | 34.8 | 11 | 27.7 | 58 | 1 |
| **02501038** | **11/16** | 3/8 | 47.2 | 38 | 11 | 28.6 | 69 | 1 |
| **02501042** | **13/16** | 3/8 | 51 | 46.4 | 11 | 30.5 | 113 | 1 |
| **02501044** | **7/8** | 3/8 | 52 | 48 | 11 | 31.3 | 99 | 1 |
| **02501046** | **15/16** | 3/8 | 54 | 51.2 | 11 | 32.3 | 129 | 1 |
| **02501048** | **1** | 3/8 | 56 | 53.4 | 11 | 33.2 | 133 | 1 |
| **02501050** | **1 1/16** | 3/8 | 57 | 53.8 | 11 | 34.1 | 124 | 1 |
| **02501052** | **1 1/8** | 3/8 | 59 | 53.8 | 11 | 35 | 128 | 1 |
| **02501056** | **1 1/4** | 3/8 | 62 | 60 | 11 | 36.8 | 153 | 1 |
| **02501062** | **1 7/16** | 3/8 | 66.5 | 66 | 11 | 39.6 | 172 | 1 |
| **03501064** | **1 1/2** | 1/2 | 76 | 70 | 16 | 45 | 310 | 1 |
| **03501069** | **1 13/16** | 1/2 | 85 | 84 | 16 | 49.6 | 400 | 1 |
| **03501072** | **2** | 1/2 | 89 | 90 | 16 | 52.3 | 451 | 1 |
| **03501074** | **2 1/8** | 1/2 | 91.5 | 92.8 | 16 | 54.2 | 460 | 1 |
| **03501075** | **2 3/16** | 1/2 | 93 | 96 | 16 | 55.1 | 480 | 1 |
| **03501076** | **2 1/4** | 1/2 | 95 | 99 | 16 | 56 | 500 | 1 |





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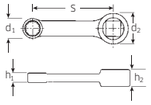
## 447 Adaptor

- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| Code | mm | " | $d_1$ mm | $d_2$ mm | $h_1$ mm | $h_2$ mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02181007** | **7** | 3/8 | 11.5 | 19 | 6 | 11 | 50.8 | 30 | 1 |
| **02181008** | **8** | 3/8 | 12.4 | 19 | 6 | 11 | 50.8 | 30 | 1 |
| **02181009** | **9** | 3/8 | 14 | 19 | 8 | 11 | 50.8 | 40 | 1 |
| **02181010** | **10** | 3/8 | 15.6 | 19 | 8 | 11 | 50.8 | 40 | 1 |
| **02181013** | **13** | 3/8 | 19.3 | 19 | 9.2 | 11 | 50.8 | 55 | 1 |

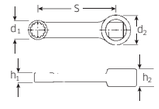
## 447a Adaptor

- SAE AS 954-E
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)

| Code | " | " | $d_1$ mm | $d_2$ mm | $h_1$ mm | $h_2$ mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02470016** | **1/4** | 3/8 | 10.4 | 19 | 6 | 11 | 50.8 | 27 | 1 |
| **02470020** | **5/16** | 3/8 | 12.4 | 19 | 6 | 11 | 50.8 | 29 | 1 |
| **02470024** | **3/8** | 3/8 | 14.9 | 19 | 8 | 11 | 50.8 | 41 | 1 |
| **02470028** | **7/16** | 3/8 | 17 | 19 | 8 | 11 | 50.8 | 40 | 1 |
| **02470032** | **1/2** | 3/8 | 19 | 19 | 9.2 | 11 | 50.8 | 56 | 1 |
| **02470034** | **9/16** | 3/8 | 21 | 19 | 9.2 | 11 | 50.8 | 61 | 1 |
| **02470036** | **5/8** | 3/8 | 23 | 19 | 12 | 11 | 50.8 | 73 | 1 |

## 447aSP Spline-Drive adaptor

- MS-33787, MIL-W-8982
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)



| code | Spline size | " | " | $d_1$ mm | $d_2$ mm | $h_1$ mm | $h_2$ mm | S mm | g | |
|---|---|---|---|---|---|---|---|---|---|---|
| **02480014** | **7** | **7/32** | 3/8 | 9.4 | 19 | 6 | 11 | 50.8 | 28 | 1 |
| **02480016** | **8** | **1/4** | 3/8 | 10.4 | 19 | 6 | 11 | 50.8 | 27 | 1 |
| **02480018** | **9** | **9/32** | 3/8 | 11.5 | 19 | 6 | 11 | 50.8 | 29 | 1 |
| **02480020** | **10** | **5/16** | 3/8 | 12.4 | 19 | 6 | 11 | 50.8 | 29 | 1 |
| **02480024** | **12** | **3/8** | 3/8 | 14.9 | 19 | 8 | 11 | 50.8 | 38 | 1 |
| **02480028** | **14** | **7/16** | 3/8 | 17 | 19 | 9.2 | 11 | 50.8 | 39 | 1 |
| **02480032** | **16** | **1/2** | 3/8 | 19 | 19 | 9.2 | 11 | 50.8 | 59 | 1 |
| **02480034** | **18** | **9/16** | 3/8 | 21 | 19 | 9.2 | 11 | 50.8 | 55 | 1 |
| **02480036** | **20** | **5/8** | 3/8 | 23 | 19 | 12 | 11 | 50.8 | 74 | 1 |

# MULTIPOWER

## MP100-1500 MULTIPOWER

- particularly compact construction
- light and easy to handle
- with ratchet function
- working angle 8°
- with rotary scale
- for use with a torque wrench with a fixed 1/2" square drive
- patent
- in carrying box
- included in the set: 3 hexagon inserts 30; 32; 36 mm, 1 insert with 1" outer square drive, 1 reaction arm 400 mm
- **display deviation value ± 5%**

| Code | N·m [1] | ft·lb [1] | N·m [2] | ft·lb [2] | Gear ratio | Torque ratio | " | b mm | h mm | L mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96531500** | 1500 | 1106 | 300 | 221 | 5.62 : 1 | 1 : 5 | 1/2 | 105 | 30 | 165 | 1890 | 3630 |

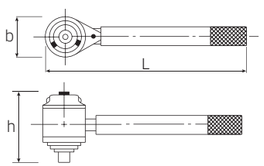
[1]) max. output
[2]) max. input

# MULTIPOWER MP300

Makes child's play of the largest torques.
MULTIPOWER or really "toughwork".
STAHLWILLE MULTIPOWER torque multipliers with planetary gears take the fatigue out of tightening or loosening stiff or large bolt connections. A long lever is not necessary.
STAHLWILLE MULTIPOWER multiplies human strength; steady torque transfer is easy on nuts and bolts.
Even the largest torques are transferred with ease and precision over long periods.
Accordingly, construction materials and workmanship are extremely robust.
When combined with STAHLWILLE torque wrenches, MULTIPOWER really shows its strength.
The MULTIPOWER range extends to 5000 N·m/3687 ft·lb.
MULTIPOWER tools are also available on request up to 12000 N·m/8850 ft·lb.
The MULTIPOWER from 2000 N·m are fitted with an anti-backlash device.

## MP300 MULTIPOWER

- with overload protection and planetary gears
- in carrying box
- with one spare sun wheel (overload cut-out)
- **deviation of indication ± 5%**



MP300-800

MP300-2000

MP300-5000

| code | size | N·m [1] | ft·lb [1] | N·m [2] | ft·lb [2] | Gear ratio | Torque ratio | ○ " | ■ " | b mm | h mm | L mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **53030800** | **800** | 800 | 590 | 229 | 169 | 4 : 1 | 1 : 3.5 | 1/2 | 3/4 | 66 | 85 | 215 | 2000 | 5838 |
| **53031350** | **1350** | 1350 | 996 | 375 | 277 | 4 : 1 | 1 : 3.6 | 3/4 | 3/4 | 90 | 106 | 265 | 3400 | 7500 |
| **53032000** | **2000 *)** | 2000 | 1475 | 160 | 118 | 16 : 1 | 1 : 12.5 | 1/2 | 1 | 95 | 161 | 330 | 7000 | 11000 |
| **53033000** | **3000 *)** | 3000 | 2212 | 240 | 177 | 16 : 1 | 1 : 12.5 | 3/4 | 1 | 95 | 161 | 330 | 7000 | 10805 |
| **53035000** | **5000 *)** | 5000 | 3687 | 294 | 217 | 20 : 1 | 1 : 17.0 | 3/4 | 1 1/2 | 120 | 180 | 400 | 10400 | 14000 |

MULTIPOWER tools are also available on request up to 12000 N·m/8850 ft·lb.
*) with anti-backlash device
[1]) max. output
[2]) max. input

# Spares for MULTIPOWER

## SR290-393 Sun wheel with overload cutout

| Code | No | for No | g |
|---|---|---|---|
| **59030800** | **SR300-800** | MP300-800 | 45 |
| **59031350** | **SR300-1350** | MP300-1350 | 106 |
| **59032000** | **SR300-2000** | MP300-2000 | 120 |
| **59033000** | **SR300-3000** | MP300-3000 | 130 |
| **59035000** | **SR300-5000** | MP300-5000 | 127 |
| **59300039** | **SR290N** | STW 290N | 18 |
| **59300067** | **SR295N** | STW 295N | 95 |
| **59300068** | **SR391N** | STW 391N | 95 |
| **59300069** | **SR392N** | STW 392N | 95 |
| **59300070** | **SR393N** | STW 393N | 105 |

# Sets of spare parts for ratchet insert tools

## 4150QR Spare parts set

QR

Content 11 pieces:
1 pinion; 1 pawl; 2 levers with pin; 1 ball; 2 compression springs; 2 screws M 1.7 x 8; 2 cover plates

| code | for No | g |
|---|---|---|
| **19011020** | 725QR/4 | 24 |

## 4350QR Spare parts set

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

| code | for No | g |
|---|---|---|
| **19020020** | 725QR/5 | 51 |

## 7250QR/10 Spare parts set

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

| code | for No | g |
|---|---|---|
| **19041020** | 725QR/10 | 64 |

## 5120QR Spare parts set

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

| code | for No | g |
|---|---|---|
| **19040020** | 725QR/20 | 118 |

## 7250B Spare parts sets

Content 9 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws; 1 cover plate

| code | size | for No | g |
|---|---|---|---|
| **19012022** | **4** | 725B/4 | 21 |
| **19012023** | **5** | 725B/5 | 48 |

## 7250L/5 Spare parts set

Content 9 pieces:
1 pinion; 1 pawl; 1 change-over button with pin; 1 ball; 2 compression springs; 2 screws; 1 cover plate

| code | for No | g |
|---|---|---|
| **19021000** | 725L/5 | 70 |

## 7250/4 Spare parts set

Content 9 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws; 1 cover plate

| code | for No | g |
|---|---|---|
| **19012021** | 725/4 | 26 |

## 7350/5 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| code | for No | g |
|---|---|---|
| **59251005** | 735/5 | 85 |

for ratchets from 12/97

## 7350/10 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| code | for No | g |
|---|---|---|
| **59251010** | 735/10 | 96 |

for ratchets from 12/97

## 7350/20 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| code | for No | g |
|---|---|---|
| **59251020** | 735/20 | 140 |

for ratchets from 4/96

## 7350/40 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| code | for No | g |
|---|---|---|
| **59251040** | 735/40 | 219 |

for ratchets from 5/97

## 7350/40HD-65 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

| code | for No | g |
|---|---|---|
| **59251065** | 735/40HD; 735/65 | 429 |





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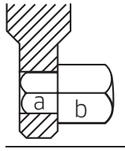
## 7210 Ratchet spare parts sets for torque wrenches No 721

| code | No | Content | g |
|---|---|---|---|
| **59191005** | **7210/5** | For ratchet/torque wrench No 721/5, 721/5 Quick:<br>1 pinion, 1 pawl, 1 switch-over button and pin,<br>1 ball, 2 compression springs, 2 screws | 53 |
| **19040000** | **5120 + 7210/15** | For ratchet/torque wrench No 721/15, 721/15 Quick, 721/20, 721/20 Quick:<br>1 pinion, 1 pawl, 1 lever, 1 lever pin, 1 ball,<br>2 compression springs, 2 screws | 127 |
| **59191030** | **7210/30** | For ratchet/torque wrench No 721/30, 721/30 Quick:<br>1 pinion, 1 pawl, 1 lever, 1 lever pin, 1 ball,<br>2 compression springs, 2 screws | 134 |
| **59191080** | **7210/80** | For ratchet/torque wrench No 721Nf/80, 721Nf/100, 735/80, 735/100:<br>1 pinion, 2 pawls, 2 spring contact points, 2 compression springs | 443 |

## 70V Square drive units

- for torque wrenches and insert tools

**502 ½**



**70V 16**

| code | size | for No | a " | b " | L mm | g | |
|---|---|---|---|---|---|---|---|
| **59010001** | **1** | 71...V/1 | 1/4 | 1/4 | 17.5 | 5 | 5 |
| **59010014** | **11** | 734/4 | 3/8 | 1/4 | 22 | 12 | 5 |
| **59010003** | **3** | 734/5 | 3/8 | 3/8 | 25.8 | 17 | 5 |
| **59010005** | **5** | 734/10 | 3/8 | 1/2 | 30 | 28 | 5 |
| **59010011** | **502 ½** | 720/30; 734/20 | 1/2 | 1/2 | 33.5 | 40 | 5 |
| **59010007** | **7** | 721/30, 721/30 Quick | 1/2 | 1/2 | 44.3 | 52 | 5 |
| **59010008** | **8** | 734/40 | 3/4 | 3/4 | 52.2 | 138 | 5 |
| **59010015** | **12** | 720Nf/80; 721Nf/80+100; 734/80; 734/100; 735/80; 735/100 | 3/4 | 3/4 | 65 | 179 | 1 |
| **59010016** | **16 *** | 720Nf/80; 721Nf/80+100; 734/40; 734/80; 734/100; 735/80; 735/100 | 3/4 | 3/4 | 88 | 240 | 1 |

* extra-long, firmly locked, so usable from both sides

# Accredited by the highest authority.
# **STAHLWILLE's calibration laboratory.**

Controlled tightening of fasteners is becoming increasingly important and is a must for safety and quality assurance. As clear confirmation of its expertise in the field of controlled tightening, STAHLWILLE is accredited by the DAkkS accreditation authority (Deutsche Akkreditierungsstelle) as an approved calibration laboratory for »torque«.

The STAHLWILLE calibration service offers both works calibration certificates and DAkkS calibration certificates.

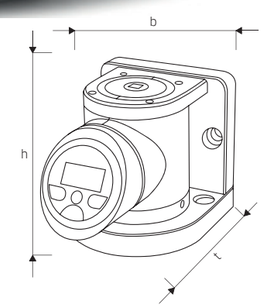
## SmartCheck

### Tester for torque wrenches and torque screwdrivers

- compact construction
- for horizontal or vertical mounting
- display, display mount and base body can be rotated through 180°
- three operating modes (track, first peak, peak hold)
- three measuring units (N·m, ft·lb, in·lb)
- the target torque and tolerances can be set individually to evaluate the readings
- operating mode using a mains adapter or battery (4 x AAA or 1 x 9 V block, adapter included)
- with integrated visual and audible overload protection mechanism
- the display and keypad are splash-proof, and the housing is made of impact-resistant plastic
- with certificate
- supplied in sturdy plastic box
- **display deviation value ± 1%**

**SmartCheck** **Torque Tester**

iF DESIGN AWARD 2017




| code | No | capacity N·m | capacity ft·lb | capacity in·lb | ▢ " | b mm | h mm | t mm | ⚖ g |
|---|---|---|---|---|---|---|---|---|---|
| **96521201** | **SmartCheck 10S *** | 1-10 | 0.74-7.4 | 8.9-88.5 | 1/4 | 120 | 124 | 167 | 5210 |
| **96521202** | **SmartCheck 10** | 1-10 | 0.74-7.4 | 8.9-88.5 | 1/4 | 120 | 124 | 167 | 5210 |
| **96521203** | **SmartCheck 100** | 10-100 | 7-74 | 89-885 | 3/8 | 120 | 124 | 167 | 5310 |
| **96521204** | **SmartCheck 400** | 40-400 | 30-295 | 354-3540 | 3/4 | 120 | 124 | 167 | 5690 |
| **96521205** | **SmartCheck 800** | 80-800 | 59-590 | 708-7081 | 3/4 | 120 | 124 | 167 | 5690 |

*) for checking torque screwdrivers





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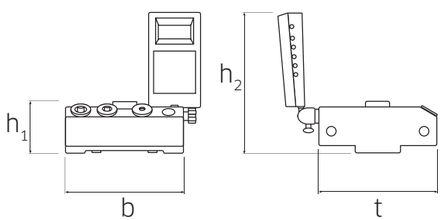
# Electronic torque tester for torque wrenches SENSOTORK® 7707 W (For complete calibration systems see p. 241, 245)

- compact torque tester for easy adaptation by replacement of the transducers
- high degree of accuracy thanks to flat transducer and conversion and digitalisation of readings within the transducer (see p. 239)
- high degree of safety through display showing actual torque read-off where clicking torque wrenches are used

## 7707 W Torque tester SENSOTORK®

Electronic torque tester for torque wrenches, consisting of:
- transducer (patent)
- holder
- display unit (registered design)
- tripod for display unit (with 1.5 m cable)
- spiral cable
- mains adaptor (110 V–230 V with interchangeable socket adaptors) or direct connection to 12 V in-car supply is possible
- square drive adaptor (No 7707-2W, No 7707-2-1W, No 7707-2-2W, No 7707-3W)
- kit for attaching the unit to a workbench or wall in a horizontal or vertical testing position
- for clockwise and anticlockwise use
- units of measurement: N·m, ft·lb, in·lb
- the easily interchangeable transducers are attached to the holder by means of a QuickRelease safety lock
- low lateral forces thanks to low-profile transducers
- automatic detection of the transducer
- flexible and user friendly because the unit can be used horizontally or vertically and the display unit can be placed in many positions
- additional tripod with 1.5 m cable for mounting the display unit to facilitate visual monitoring when using longer torque wrenches
- especially broad measuring range from approx. 2 % to 100 % of rated value
- the software No 7759-4, including USB hub and jack cable (see p. 249), enables readings to be transferred to the PC for documenting (no separate power supply needed, power comes from PC)
- while individual transducers are being recalibrated, the torque tester itself remains on-site for further use
- wide range of application (-20°C to +60°C)
- complies with DIN 51309: 2005, Class 2 and DKD-R 3-8: 2003
- with certificate
- supplied in sturdy plastic box





| Code | No | Capacity N·m | Capacity ft·lb | Capacity in·lb | ○ " | b mm | $h_1$ mm | $h_2$ mm | t mm | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **96521086** | **7707-1-3W** [1] | 0.2–10 | 0.15–7.4 | 1.8–88.5 | 1/4 | 180 | 79 | 215 | 180 | 6255 | 9500 |
| **96521085** | **7707-1-2W** | 0.2–10 | 0.15–7.4 | 1.8–88.5 | 1/4 | 180 | 79 | 215 | 180 | 6255 | 9500 |
| **96521080** | **7707-1W** | 0.4–20 | 0.3–15 | 3.5–177 | 1/4 | 180 | 79 | 215 | 180 | 6255 | 9500 |
| **96521072** | **7707-2W** [2] | 2–100 | 1.5–74 | 18–885 | 3/8 | 180 | 79 | 215 | 180 | 7025 | 10300 |
| **96521083** | **7707-2-1W** [3] | 4–200 | 3–148 | 35–1770 | 1/2 | 180 | 79 | 215 | 180 | 7511 | 10975 |
| **96521084** | **7707-2-2W** [4] | 8–400 | 6–295 | 71–3540 | 3/4 | 180 | 79 | 215 | 180 | 7654 | 11100 |
| **96521082** | **7707-3W** [4] | 25–1100 | 18–812 | 221–9736 | 3/4 | 180 | 79 | 215 | 180 | 7495 | 11000 |

[1]) for calibrating torque screwdrivers
[2]) with square drive adaptor No 409M (1/4" ○ x 3/8" ■)
[3]) with square drive adaptors No 7789-4 (1/4" ○ x 1/2" ■). No 7789-5 (3/8" ○ x 1/2" ■)
[4]) with square drive adaptors No 7787 (1/4" ○ x 3/4" ■). No 7788 (3/8" ○ x 3/4" ■). No 7789 (1/2" ○ x 3/4" ■)



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## Which transducer is for which torque tool?

(for manually operated testing, calibration technology on page 238-247)

| | 7721 | 7721-0 | 7721-1 | 7722 | 7723-1 | 7723-2 | 7723-3 | 7724-1 |
|---|---|---|---|---|---|---|---|---|
| 760 | o | | | | | | | |
| 775 | o | | | | | | | |
| TORSIOTRONIC | o | | | | | | | |
| 71/80 | | | | | | | o | o |
| 71aR/80 | | | | | | | o | o |
| 73Nm/15 | | | o | o | | | | |
| 755R/1 | | | o | | | | | |
| 755/4 | | | | o | o | | | |
| 755/10 | | | | | o | o | | |
| 755/20 | | | | | o | o | o | |
| 755/30 | | | | | | o | o | |
| 730/5 | | | | o | o | | | |
| 730/10 | | | | | o | o | | |
| 730/12 | | | | | o | o | o | |
| 730/20 | | | | | o | o | o | |
| 730/40 | | | | | | o | o | |
| 730/65 | | | | | | | o | |
| 730II/65 | | | | | | | o | |
| 730a/5 | | | | o | o | | | |
| 730a/10 | | | | | o | o | | |
| 730a/12 | | | | | o | o | o | |
| 730a/20 | | | | | o | o | o | |
| 730/2 | | | o | o | | | | |
| 730/4 | | | | o | o | o | | |
| 730a/2-1 | | o | o | | | | | |

| | 7721 | 7721-0 | 7721-1 | 7722 | 7723-1 | 7723-2 | 7723-3 | 7724-1 |
|---|---|---|---|---|---|---|---|---|
| 730a/2 | | | o | o | | | | |
| 730a/4 | | | | o | o | | | |
| 730/80 | | | | | | | o | o |
| 721/5 | | | | o | o | | | |
| 721/15 | | | | | o | o | o | |
| 721/20 | | | | | o | o | o | |
| 721/30 | | | | | | o | o | |
| 721QR/15 | | | | | o | o | o | |
| 721QR/20 | | | | | o | o | o | |
| 720Nf/80 | | | | | | | o | o |
| 721Nf/80 | | | | | | | o | o |
| 721Nf/100 | | | | | | | o | o |
| 730N/2 | | | o | o | | | | |
| 730N/5 | | | | o | o | o | | |
| 730N/10 | | | | | o | o | | |
| 730N/12 | | | | | o | o | o | |
| 730N/20 | | | | | o | o | | |
| 730N/40 | | | | | | o | o | |
| 730N/65 | | | | | | | o | |
| 730NII/65 | | | | | | | o | |
| 730N/80 | | | | | | | o | o |
| 730N/100 | | | | | | | o | o |
| 730Na/2 | | | o | o | | | | |
| 730Na/5 | | | | o | o | o | | |
| 730Na/10 | | | | | o | o | | |

| | 7721 | 7721-0 | 7721-1 | 7722 | 7723-1 | 7723-2 | 7723-3 | 7724-1 |
|---|---|---|---|---|---|---|---|---|
| 730Na/20 | | | | | o | o | | |
| 730Na/40 | | | | | | o | o | |
| 701/2 | | | o | | | | | |
| 730D/10 | | | | o | o | o | | |
| 730D/20 | | | | | o | o | | |
| 730D/40 | | | | | | o | o | |
| 730D/65 | | | | | | | o | |
| 730DII/65 | | | | | | | o | |
| 730D/80 | | | | | | | o | |
| 730D/100 | | | | | | | o | |
| 714/ 1 | | o | o | | | | | |
| 714/ 2 | | | o | o | | | | |
| 714/ 4 | | | | o | o | | | |
| 714/ 6 | | | | o | o | | | |
| 714/10 | | | | o | o | o | | |
| 714/20 | | | | | o | o | | |
| 714/40 | | | | | | o | o | |
| 714/65 | | | | | | | o | |
| 714/80 | | | | | | | o | |
| 714/100 | | | | | | | o | |
| 713R/6 | | | | o | | | | |
| 713R/20 | | | | | o | o | | |
| 713R/40 | | | | | | o | | |
| 712R/6 | | | | o | | | | |

5

## 7721-7724 Transducers

QR

- patent
- for calibration of torque wrenches and torque screwdrivers
- high degree of accuracy thanks to conversion and digitization of readings within the transducer itself
- not susceptible to lateral forces due to low-profile construction
- can also be used as part of a calibration system (see p. 241, 245)
- with certificate
- supplied in sturdy plastic box
- measuring ranges by deviation of indication

**Measuring ranges by deviation of indication**

| Code | No | Display deviation value ± 1% of the reading N·m | ft·lb | in·lb | Display deviation value ± 0.5% of the reading N·m | ft·lb | in·lb | Display deviation value ± 0.25% of the reading N·m | ft·lb | in·lb | ∅ mm | □ " | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96521021** | **7721 [1]** | 0,2-10 | 0,15-7,4 | 1,8-88,5 | 1-10 | 0,74-7,4 | 8,9-88,5 | 2-10 | 1,5-7,4 | 17,7-88,5 | 120 | 1/4 | 1735 | 2411 |
| **96521000** | **7721-0** | 0,2-10 | 0,15-7,4 | 1,8-88,5 | 1-10 | 0,74-7,4 | 8,9-88,5 | 2-10 | 1,5-7,4 | 17,7-88,5 | 120 | 1/4 | 1735 | 2411 |
| **96521026** | **7721-1** | 0,4-20 | 0,3-15 | 3,5-177 | 2-20 | 1,5-15 | 18-177 | 4-20 | 3-15 | 35-177 | 120 | 1/4 | 1735 | 2411 |
| **96521022** | **7722** | 2-100 | 1,5-74 | 18-885 | 10-100 | 7-74 | 89-885 | 12-100 | 9-74 | 106-885 | 120 | 3/8 | 2486 | 3223 |
| **96521023** | **7723-1** | 4-200 | 3-148 | 35-1770 | 20-200 | 15-148 | 177-1770 | 40-200 | 30-148 | 354-1770 | 120 | 1/2 | 2983 | 3605 |
| **96522023** | **7723-2** | 8-400 | 6-295 | 71-3540 | 40-400 | 30-295 | 354-3540 | 80-400 | 59-295 | 708-3540 | 120 | 3/4 | 3134 | 3745 |
| **96521028** | **7723-3** | 25-1100 | 18-812 | 221-9736 | 110-1100 | 81-812 | 974-9736 | 220-1100 | 162-812 | 1947-9736 | 120 | 3/4 | 2998 | 3761 |
| **96521029** | **7724-1 [2]** | 150-3000 | 111-2214 | 1328-26553 | 300-3000 | 221-2214 | 2655-26553 | 600-3000 | 443-2214 | 5311-26553 | 195 | 1 1/2 | 10500 | 12000 |

[1]) for calibrating torque screwdrivers
[2]) for use with mechanical loader No 7792 and 7792-1 (S. 243)

### Note!

**Torque testers are measuring instruments! They have to be regularly calibrated and, where necessary, adjusted, using suitable calibration equipment. We recommend recalibrating every 12 months. DAkkS certificates must be ordered separately see p. 236**



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# Accurate, dependable and safe.
# **STAHLWILLE calibration.**

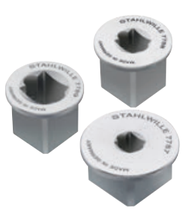
Calibration is the regular examination of the accuracy and reliability of torque tools. This is essential because torque tools are precision instruments which are very often in use in safety-relevant environments. In order to be able to deliver dependable measured values in the long term, it is essential that examination by means of calibration takes place at regular intervals and is documented.
A calibration system comprises several components:

The torque applied using the torque wrench is digitalised within the **transducer** and transmitted via USB cable to the PC, which ensures error-free transmission.

The **mechanical loader** is required for rapid, accurate fixing and operation of the torque wrench. The mechanical loader also ensures that the DIN EN ISO 6789 requirement for clicking torque wrenches is fulfilled, i.e. that, above 80% of the final torque value, the force can be applied slowly and steadily within the required time.

**USB adapter** – transfers the data to the PC.

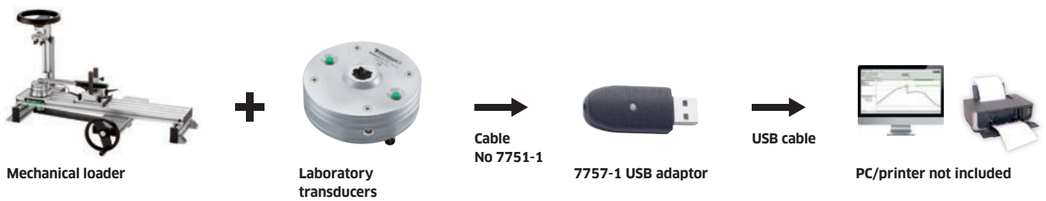
The transducer is connected to the USB adapter by means of a **cable** with a jack and a self-locking precision plug.



The **square drive adapters** required to utilise the measuring range of the transducers are included; e.g. for transducer No 7728-100 (female 3/4" square drive) this is square drive adapter No 7787 (1/4" female to 3/4" male), No 7788 (3/8" female to 3/4" male) and No 7789 (1/2" female to 3/4" male).

**Software –** The data received in this way can then be used to issue and manage Declarations of Conformity or calibration certificates in accordance with DIN EN ISO 6789:2017.

# Coordinated – down to the last detail.
# **STAHLWILLE calibration systems.**




| No for full system | 7706-8 PC | 7706-9 PC | 7706-10 PC | 7706-11 PC |
|---|---|---|---|---|
| Code | **96 52 10 68** | **96 52 10 69** | **96 52 10 70** | **96 52 10 74** |
| Weight in kg | 14.2 | 67.6 | 70.6 | 108.4 |
| Range N·m | 1–10 | 2–100 | 2–1000 | 20–3000 |
| Mechanical loader | – | No 7791 | No 7791 | No 7792 |
| »Stand alone« test attachment for torque screwdrivers | No 7790 | – | – | – |
| Extension | – | – | No 7791-1 | No 7792-1 |
| Laboratory transducers | No 7728-1S (1–10 N·m) | No 7728-2 (2–20 N·m)<br>No 7728-10 (10–100 N·m) | No 7728-2 (2–20 N·m)<br>No 7728-10 (10–100 N·m)<br>No 7728-40 (40–400 N·m)<br>No 7728-100 (100–1000 N·m) | No 7728-20 (20–200 N·m)<br>No 7728-100 (100–1000 N·m)<br>No 7728-300 (300–3000 N·m) |
| USB adapter | No 7757-1 | No 7757-1 | No 7757-1 | No 7757-1 |
| Jack cable | No 7751 | No 7751 | No 7751 | No 7751 |
| Cable to No. 7728 (transducer to USB adapter) | No 7751-1 | No 7751-1 | No 7751-1 | No 7751-1 |
| Square drive adapters | No 431 (3/8" ○ x 1/4" ■) | No 431 (3/8" ○ x 1/4" ■)<br>No 409M (1/4" ○ x 3/8" ■) | No 7787 (1/4" ○ x 3/4" ■)<br>No 7788 (3/8" ○ x 3/4" ■)<br>No 7789 (1/2" ○ x 3/4" ■)<br>No 409M (1/4" ○ x 3/8" ■) | No 7787 (1/4" ○ x 3/4" ■)<br>No 7788 (3/8" ○ x 3/4" ■)<br>No 7789 (1/2" ○ x 3/4" ■)<br>No 7789-2 (3/4" ○ x 1½" ■)<br>No 7789-3 (1" ○ x 1½" ■)<br>No 7789-4 (1/4" ○ x 1/2" ■)<br>No 7789-5 (3/8" ○ x 1/2" ■) |
| Calibrating square drive insert tools | – | No 734K/4 (1/4" ■)<br>No 734K/5 (3/8" ■) | No 734K/4 (1/4" ■)<br>No 734K/5 (3/8" ■)<br>No 734K/20 (1/2" ■)<br>No 734K/40 (3/4" ■) | No 734K/4 (1/4" ■)<br>No 734K/5 (3/8" ■)<br>No 734K/20 (1/2" ■)<br>No 734K/40 (3/4" ■) |
| Adapters | No 3115<br>(1/4" ■ x 1/4" ⬢ E 6.3)<br>No 3115/1<br>(1/4" ■ x 1/4" ⬢ C 6,3) | –<br>– | – | – |
| Calibration software | TORKMASTER | TORKMASTER | TORKMASTER | TORKMASTER |
| DAkkS calibration certificates | 1 | 2 | 4 | 3 |

# /M/a/n/u/t/o/r/k/®

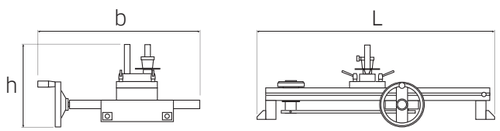
## Mechanical loaders for torque wrenches and torque screwdrivers

Thanks to the modular design, end users can put together their own mechanical loader according to their specific requirements. Extensions with additional components are possible any time.
All the components are carefully matched to ensure compatibility and can be easily fitted.
This slot-in system is easy to use and has a very accurate fit.
The components can be quickly and easily locked together using the integrated screw joints.
The display unit can be attached at various points of the system via a holder.
In this way, every user can organize his or her work to suit themselves.

### 7791 Mechanical loaders up to 400 N·m

- **measurement possible without moving the point of application of force**
- thanks to a specially designed force transmission system, mechanical loader No 7791 avoids the risk of the point of force application shifting during the calibration process
- the lever below the test rail is actuated in a linear direction by the handwheel acting on a spindle
- the linear motion is translated into a rotary movement which acts on the transducer
- the torque wrench to be calibrated remains in the same position throughout the calibration process
- this prevents measuring errors caused by the point of force application being moved
- thanks to a low-friction linear ball bearing, the torque wrench is automatically levelled as it is placed in the unit
- a further linear ball bearing ensures the contact with the torque wrench is friction-free
- the reduction in lateral forces acting on the transducer and in the friction on the point of contact with the torque wrench results in a corresponding reduction in mismeasurement
- protected by national and international patents

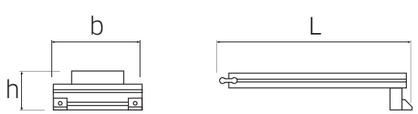


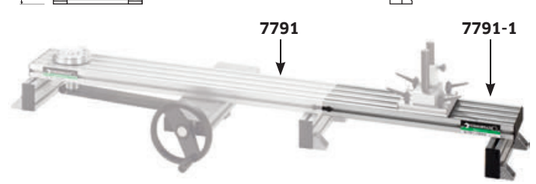


| Code | Capacity N·m | for transducer | for torque wrenches with functional length ($L_F$) max. mm | Profile width mm | b mm | h mm | L mm | kg |
|---|---|---|---|---|---|---|---|---|
| **52110091** | –400 | sizes 1-100 | 815 | 180 | 704 | 323 | 1069 | 44.8 |

### 7791-1 Extension unit for No 7791, 7794-1 and 7794-2 up to 1000 N·m

- with one pair of adapter plates No 7770-3 for height compensation between extension unit No 7791-1 and perfectControl® calibrating units No 7794-1 and No 7794-2



| Code | Capacity N·m | for torque wrenches with functional length ($L_F$) max. mm | Profile width mm | b mm | h mm | L mm | kg |
|---|---|---|---|---|---|---|---|
| **52110191** | –1000 | 1390 (7791 + 7791-1) | 180 | 308 | 135 | 673 | 8 |



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## 7792 Mechanical loaders unit to 1000 N·m

| Code | Capacity N·m | for transducer | for torque wrenches with functional length ($L_F$) max. mm | Profile width mm | b mm | h mm | L mm | kg |
|---|---|---|---|---|---|---|---|---|
| **52110092** | –1000 | sizes 20; 100; 300 | 1390 | 270 | 722 | 323 | 1668.5 | 58 |

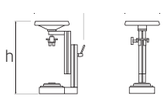
## 7792-1 Extension unit for No 7792 up to 3000 N·m

| Code | Capacity N·m | for torque wrenches with functional length ($L_F$) max. mm | Profile width mm | b mm | h mm | L mm | kg |
|---|---|---|---|---|---|---|---|
| **52110192** | –3000 | 2390 (7792 + 7792-1) | 270 | 558 | 135 | 1073 | 18.5 |

# Test attachments for torque screwdrivers

## 7790 Mechanical loaders for torque screwdrivers

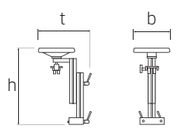
- can be bolted to mechanical loader No 7792
- the torque screwdriver to be calibrated is inserted in the square mount of the transducer and fixed using the universal central clamp
- the handwheel ensures that the required force is applied in a controlled manner to the torque screwdriver
- supplied without transducer or torque screwdriver




| Code | Capacity N·m | for transducer | b mm | h mm | t mm | kg |
|---|---|---|---|---|---|---|
| **58521090** | –10 | 7728-1S | 250 | 442–593 | 351 | 9 |

## 7791-2 Test attachment for torque screwdrivers

- can be bolted onto mechanical loader No 7791
- the torque screwdriver to be calibrated is inserted in the square mount of the transducer and fixed using the universal central clamp
- the handwheel ensures that the required force is applied in a controlled manner to the torque screwdriver




| Code | Capacity N·m | b mm | h mm | t mm | kg |
|---|---|---|---|---|---|
| **52110291** | –10 | 250 | 442–593 | 351 | 3.7 |

# Accessory

## 7750-1 Holder

- for display unit No 7750
- can be bolted to test attachments

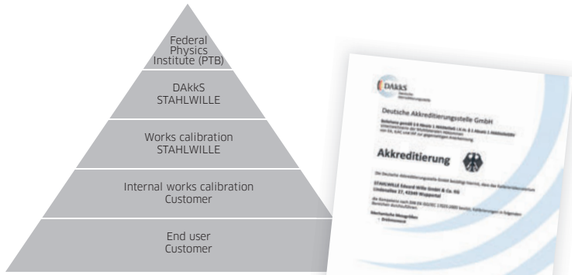
| code | g |
|---|---|
| **52101050** | 165 |

# Audited. Documented. Certified.
# STAHLWILLE DAkkS calibration laboratory.

STAHLWILLE's DAkkS calibration laboratory for torque is accredited by the German Accreditation Service (DAkkS) in accordance with DIN EN ISO/IEC 17025:2005. The transfer torque wrenches and torque transducers in use in the calibration laboratory are subject to regular examination by the German Federal Physics Institute (PTB) in Braunschweig.

The accuracy of the torque wrenches must be proved in a series of steps and these must be traceable. Only in this way can the reliability of the readings be guaranteed. During the first stage, the end-user checks the accuracy of the torque tools in-house using suitable calibrated testing equipment. At the next stage, this test equipment is checked in STAHLWILLE's DAkkS calibrating laboratory. This accreditation by the German Calibration Service (DKD) in accordance with DIN EN ISO/IEC 17025:2005 guarantees the direct link between the measuring equipment and the national standard as laid down in DIN EN ISO 9001:2008.






Relationship between the national standard and the equipment

## CONFORMS TO STANDARDS.

The accreditation means the specific requirements listed in Technical Specification ISO/TS 16949 relating to testing laboratories are fulfilled. This is absolutely essential for all suppliers in the automotive sector.

# Precisely matched products.
# **perfectControl calibration systems.**

**Motor driven calibrating unit**
**No. 7794-2**

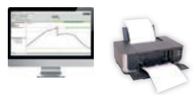
**Manual calibrating unit**
**No 7794-1**

**Laboratory transducers**

**Cable**
**No 7751-1**

**7757-1 USB adaptor**

**USB cable**



**PC/printer not included**

| No for full system | 7794-2/400 | 7794-2/1000 | 7794-1/400 | 7794-1/1000 |
|---|---|---|---|---|
| Code | **96 52 10 78** | **96 52 10 79** | **96 52 10 76** | **96 52 10 77** |
| Weight in kg | 62.1 | 69.8 | 53.2 | 60.9 |
| Range N·m | 1–400 | 1–1000 | 1–400 | 1–1000 |
| Motor driven calibrating unit | No 7794-2 | No 7794-2 | – | – |
| Manual calibrating unit | – | – | No 7794-1 | No 7794-1 |
| Extension | – | No 7791-1 | – | No 7791-1 |
| Laboratory transducers | No 7728-1 (1–10 N·m)<br>No 7728-6 (6–60 N·m)<br>No 7728-40 (40–400 N·m) | No 7728-1 (1–10 N·m)<br>No 7728-6 (6–60 N·m)<br>No 7728-40 (40–400 N·m)<br>No 7728-100 (100–1000 N·m) | No 7728-1 (1–10 N·m)<br>No 7728-6 (6–60 N·m)<br>No 7728-40 (40–400 N·m) | No 7728-1 (1–10 N·m)<br>No 7728-6 (6–60 N·m)<br>No 7728-40 (40–400 N·m)<br>No 7728-100 (100–1000 N·m) |
| USB adapter | No 7757-1 | No 7757-1 | No 7757-1 | No 7757-1 |
| Jack cable | No 7751 | No 7751 | No 7751 | No 7751 |
| Spiral cable | No 7752 | No 7752 | No 7752 | No 7752 |
| Cable for No 7728 | No 7751-2 | No 7751-2 | No 7751-2 | No 7751-2 |
| Square drive adapter | No 409M (1/4" ○ x 3/8" ■)<br>No 7787 (1/4" ○ x 3/4" ■)<br>No 7788 (3/8" ○ x 3/4" ■)<br>No 7789 (1/2" ○ x 3/4" ■)<br>No 7789-4 (1/4" ○ x 1/2" ■)<br>No 7789-5 (3/8" ○ x 1/2" ■) | No 409M (1/4" ○ x 3/8" ■)<br>No 7787 (1/4" ○ x 3/4" ■)<br>No 7788 (3/8" ○ x 3/4" ■)<br>No 7789 (1/2" ○ x 3/4" ■)<br>No 7789-4 (1/4" ○ x 1/2" ■)<br>No 7789-5 (3/8" ○ x 1/2" ■) | No 409M (1/4" ○ x 3/8" ■)<br>No 7787 (1/4" ○ x 3/4" ■)<br>No 7788 (3/8" ○ x 3/4" ■)<br>No 7789 (1/2" ○ x 3/4" ■)<br>No 7789-4 (1/4" ○ x 1/2" ■)<br>No 7789-5 (3/8" ○ x 1/2" ■) | No 409M (1/4" ○ x 3/8" ■)<br>No 7787 (1/4" ○ x 3/4" ■)<br>No 7788 (3/8" ○ x 3/4" ■)<br>No 7789 (1/2" ○ x 3/4" ■)<br>No 7789-4 (1/4" ○ x 1/2" ■)<br>No 7789-5 (3/8" ○ x 1/2" ■) |
| Calibration square drive insert tools | No 734K/4 (1/4" ■)<br>No 734K/5 (3/8" ■)<br>No 734K/12 (3/8" ■)<br>No 734K/20 (1/2" ■)<br>No 734K/40 (3/4" ■)<br>No 734K/100 (3/4" ■) | No 734K/4 (1/4" ■)<br>No 734K/5 (3/8" ■)<br>No 734K/12 (3/8" ■)<br>No 734K/20 (1/2" ■)<br>No 734K/40 (3/4" ■)<br>No 734K/100 (3/4" ■) | No 734K/4 (1/4" ■)<br>No 734K/5 (3/8" ■)<br>No 734K/12 (3/8" ■)<br>No 734K/20 (1/2" ■)<br>No 734K/40 (3/4" ■)<br>No 734K/100 (3/4" ■) | No 734K/4 (1/4" ■)<br>No 734K/5 (3/8" ■)<br>No 734K/12 (3/8" ■)<br>No 734K/20 (1/2" ■)<br>No 734K/40 (3/4" ■)<br>No 734K/100 (3/4" ■) |
| Calibration software | TORKMASTER | TORKMASTER | TORKMASTER | TORKMASTER |
| DAkkS calibration certificates | 3 | 4 | 3 | 4 |

perfectControl®

## 7794-2 Motorised calibrating and adjusting tool from 1 to 400 N·m

**The electronic perfectControl® calibrating unit with its electric drive considerably reduces the amount of effort and time required for calibration and adjustment tasks on torque wrenches**

- measurement possible without moving the point of application of force
- prevents faulty readings thanks to precision-mounted spindle and finely regulated motor
- extremely accurate calibration thanks to optimised bearings and square drives for the transducers
- rapid, easy change of transducers thanks to quick-release latching system
- convenient pushbutton controls for clockwise and anticlockwise measurements with automatic speed compensation
- saves time because the bridge support is locked in place using a single-handed eccentric lever
- transmission of readings to a PC via USB interface for further processing, analysis and archiving
- a Declaration of Conformance or a calibration certificate can be printed or saved as a PDF file after calibration
- as found / as left calibrations can be documented
- during calibration, DIN EN ISO 6789:2003 in numerous languages is supported. Additional standards and works standards are available on request
- can be upgraded to perfectControl® calibrating unit No 7794-3 for angle-controlled wrenches
- **calibration up to 1000 N·m is possible using the easily attached extension unit No 7791-1 (see p. 242)**
- design patent
- protected by national and international patents
- both clicking and indicating torque wrenches can be calibrated
- calibration of transducers is possible using reference torque wrenches No 7770-10, 7770-100 and 7770-1000, available on request.
- the unit is supplied without the torque wrench, transducers or notebook
- **transducers laboratory No 7728 (see p. 248)**

iF product design award 2011

Content:
6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100)
6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5)
1 USB adaptor No 7757-1
1 software Torkmaster 7731-1
1 jack cable No 7751
1 spiral cable No 7752
1 spiral cable No 7751-2 with jack plug and self-locking precision plug
1 low-temperature cable connector
1 hexagon key wrench No 10760CV size 2 mm are included

5

| Code | Capacity N·m | for transducer | for torque wrenches with functional length ($L_F$) max. mm | Profile width mm | b mm | h mm | L mm | kg |
|---|---|---|---|---|---|---|---|---|
| **96521093** | 1-400 | 7728 (sizes 1-100) | 815 | 180 | 640 | 328 | 1060 | 58.1 |

Made in Germany



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## 7794-1 Manual calibrating unit from 1 to 400 N·m

- as for perfectControl® No 7794-2, but the drive is via an ergonomically designed handwheel
- **calibration up to 1000 N·m is possible using the easily attached extension unit No 7791-1 (see p. 242)**
- protected by national and international patents
- supplied without torque wrench, transducer or notebook
- **transducers laboratory No 7728 (see p. 248)**

Content:
6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100)
6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5)
1 USB adaptor No 7757-1
1 software Torkmaster 7731-1
1 jack cable No 7751
1 spiral cable No 7752
1 spiral cable No 7751-2 with jack plug and self-locking precision plug
1 low-temperature cable connector
1 hexagon key wrench No 10760CV 2 mm are included

| Code | Capacity N·m | for transducer | for torque wrenches with functional length ($L_F$) max. mm | Profile width mm | b mm | h mm | L mm | kg |
|---|---|---|---|---|---|---|---|---|
| **96521092** | 1-400 | 7728 (sizes 1-100) | 815 | 180 | 705 | 355 | 1060 | 47 |

## 7794-3 Automated calibrating and adjusting unit from 1 to 400 N·m

- **automatically calibrates electronic torque and angle-controlled wrenches made by STAHLWILLE**
- design patent
- protected by national and international patents
- model is the same as perfectControl® No 7794-2, except it is additionally suited to calibrating angle-controlled wrenches. Optimum adaptation to working height with motorised height adjustment
- calibration up to 1000 N·m is possible using the easily attached expansion unit No 7791-1 (see p. 242) and set of adapter plates No 7791-4, Code 52110491
- supplied without torque wrench, transducer or notebook

Content:
6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100)
6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5)
1 USB adaptor No 7757-1
1 software Torkmaster 7731-1
1 jack cable No 7751
1 spiral cable No 7752
1 spiral cable No 7751-2 with jack plug and self-locking precision plug
1 low-temperature cable connector
1 hexagon key wrench No 10760CV 2 mm are included

| Code | Capacity N·m | for transducer | for torque wrenches with functional length ($L_F$) max. mm | Profile width mm | b mm | h mm | L mm | kg |
|---|---|---|---|---|---|---|---|---|
| **96521094** | 1-400 | 7728 (sizes 1-100) | 815 | 180 | 640 | 884-1134 | 1060 | 230 |





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## 7728 Transducers laboratory

QR

- patented
- for laboratory environments
- with optimised measuring range
- for calibrating torque wrenches and torque screwdrivers
- for use together with perfectControl® calibrating unit No 7794 or calibration system No 7706
- high degree of accuracy thanks to conversion and digitization of readings within the transducer itself
- with high-grade self-locking precision plug
- not susceptible to lateral forces due to low-profile construction
- with DAkkS calibration certificate
- **max. display deviation value ± 0.5% of the reading**
- further details on request
- supplied in sturdy plastic box
- measuring ranges by deviation of indication

| Code | size | Display deviation value ± 0.5% of the reading N·m | in·lb | ft·lb | Display deviation value ± 0.25% of the reading N·m | ft·lb | in·lb | ∅ mm | ▢ " | g | g with box |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **96524011** | **1S [1]** | 1-10 | 8,9-88,5 | 0,74-7,4 | 2-10 | 1,5-7,4 | 18-88,5 | 120 | 1/4 | 1735 | 2415 |
| **96524001** | **1** | 1-10 | 8,9-88,5 | 0,74-7,4 | 2-10 | 1,5-7,4 | 18-88,5 | 120 | 1/4 | 1735 | 2415 |
| **96524002** | **2** | 2-20 | 18-177 | 1,5-15 | 4-20 | 3-15 | 35-177 | 120 | 1/4 | 1735 | 2415 |
| **96524004** | **4** | 4-40 | 35-354 | 3-30 | 8-40 | 6-30 | 71-354 | 120 | 3/8 | 2486 | 3136 |
| **96524006** | **6** | 6-60 | 53-531 | 4,5-45 | 12-60 | 9-45 | 106-531 | 120 | 3/8 | 2486 | 3136 |
| **96524010** | **10** | 10-100 | 89-885 | 7-74 | 20-100 | 14-74 | 177-885 | 120 | 3/8 | 2486 | 3136 |
| **96524020** | **20** | 20-200 | 177-1770 | 15-148 | 40-200 | 30-148 | 354-1770 | 120 | 1/2 | 2983 | 3170 |
| **96524040** | **40** | 40-400 | 354-3540 | 30-295 | 80-400 | 60-295 | 708-3540 | 156 | 3/4 | 4846 | 5507 |
| **96524065** | **65** | 65-650 | 575-5753 | 48-479 | 130-650 | 96-479 | 1151-5753 | 156 | 3/4 | 4846 | 5507 |
| **96524080** | **80** | 80-800 | 708-7081 | 59-590 | 160-800 | 118-590 | 1416-7081 | 156 | 3/4 | 4846 | 5507 |
| **96524100** | **100** | 100-1000 | 885-8851 | 74-738 | 200-1000 | 148-738 | 1770-8851 | 156 | 3/4 | 4846 | 5507 |
| **96524300** | **300 [2]** | 300-3000 | 2655-26553 | 221-2214 | 600-3000 | 443-2214 | 5310-26553 | 195 | 1 1/2 | 10500 | 12000 |

[1]) for calibrating torque screwdrivers
[2]) for use with mechanical loader No 7792 and 7792-1 (S. 243)

5

**TORKMASTER.**
Simple, professional calibration.

Need to adjust torque wrenches and torque screwdrivers and calibrate them in compliance with the standards, generate Declarations of Conformance and calibration certificates to DIN EN ISO 6789? This is exactly what the STAHLWILLE TORKMASTER software is for. At the highest standard of safety and with minimum effort for the user.

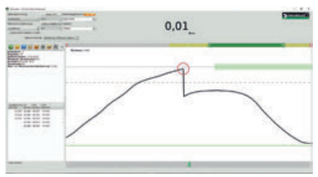
The **optional CAQ interface** enables connection to the superordinate CAQ system, which in this way has access to all inspection data at all times. The user is not required to do anything – all the data and logs of the calibration process are securely transmitted.

# Accessories for workshop torque tester and calibration systems

## 7759-4 USB adaptor, jack cable and software Torkmaster

Link between perfectControl® or transducer (7721-7724) and PC. For adjusting and calibrating torque wrenches and torque screwdrivers. Produces calibration certificates in accordance with DIN EN ISO 6789, which can be printed out or saved as PDF files.

- as found / as left calibrations can be documented
- graphical representation of the torque progression
- user management
- 17 languages
- equipment testing system




System requirements:
- PC
- Microsoft Windows XP SP3 or later operating system
- USB connection

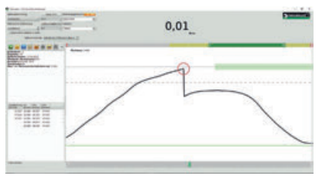
| Code | L m | g |
|---|---|---|
| **96 58 36 29** | 1.5 | 65 |

## 7759-6 USB adaptor, cable and software Torkmaster

NEW

Link between perfectControl® or transducer (7728) and PC. For adjusting and calibrating torque wrenches and torque screwdrivers. Produces calibration certificates in accordance with DIN EN ISO 6789, which can be printed out or saved as PDF files.

- as found / as left calibrations can be documented
- graphical representation of the torque progression
- user management
- 17 languages
- equipment testing system




System requirements:
- PC
- Microsoft Windows XP SP3 or later operating system
- USB connection

| Code | L m | g |
|---|---|---|
| **96 58 36 31** | 1.5 | 72 |

## 7751 Jack cable

- connection between transducers 7721-7724 and USB adaptor or display unit
- with jacks at both ends, 90° angled

| Code | L m | g |
|---|---|---|
| **52 11 00 51** | 1.5 | 50 |

## 7751-1 Cable for No 7728

- for connecting laboratory transducers 7728 to a USB hub or display unit
- with jack plug, 90° angled, and self-locking precision plug

| Code | L m | g |
|---|---|---|
| **52 11 00 54** | 1.5 | 38 |

## 7752 Spiral cable

- connection between transducer and display unit or USB adaptor
- with jacks at both ends, 90° angled

| Code | L max. mm | g |
|---|---|---|
| **52 11 00 52** | 500 | 35 |

## 7751-2 Spiral cable for No 7728

- for connecting laboratory transducers 7728 to a USB hub or display unit
- with jack plug, 90° angled, and self-locking precision plug

| Code | L max. mm | g |
|---|---|---|
| **52 11 00 57** | 500 | 32 |





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## 7750 Display unit

- registered design
- for displaying the actual torque as measured
- units of measurement: N·m, ft·lb, in·lb
- modes of operation: track, peak hold, first peak (only with manual operation)
- additional display of actual torque applied with clicking torque wrenches
- swivels to any desired position thanks to universal ball-joint

| Code | g |
|---|---|
| **52100050** | 182 |

## 7760 Mains adaptor

- Input:
  110 V-230 V AC
- Output:
  9 V DC, with interchangeable socket adaptors

| Code | g |
|---|---|
| **52110056** | 201 |

## 7761 Interface adaptor

- required for automated calibration and adjustment of angle-controlled torque wrenches No 714 using calibrating and adjusting units perfectControl® No 7794-2 and 7794-3

| Code | g |
|---|---|
| **52110061** | 26 |

## 7761/3 Interface adaptor set

Contents:
- No 7761 interface adaptor
- No 7752 spiral cable
- No 7760 mains adaptor

| Code | g |
|---|---|
| **96521161** | 255 |

## 7311/7312 Plastic box, empty

- for safe storage and transport of transducers (please order inlays separately)

| Code | No | for transducer | g |
|---|---|---|---|
| **81500003** | **7311** | 7721; 7722; 7723; 7728 1-20 | 554 |
| **81500004** | **7312** | 7724-1; 7728 40-100 | 1346 |

## 7313/7314 Inlays for plastic box

| Code | No | for transducer | g |
|---|---|---|---|
| **83071030** | **7313** | 7721; 7722; 7723; 7728 1-20 | 77 |
| **83071031** | **7314** | 7724-1; 7728 40-100 | 242 |

## 409M Adaptor

- 1/4" socket x 3/8" plug (6.3 x 10)

| code | L mm | ∅ mm | g |
|---|---|---|---|
| **11030010** | 13 | 28 | 14 |

## 7787 Square drive adaptor

- 1/4" socket x 3/4" plug (6.3 x 20)

| Code | L mm | ∅ mm | g |
|---|---|---|---|
| **58521087** | 15.5 | 29 | 41 |

## 7788 Square drive adaptor

- 3/8" socket x 3/4" plug (10 x 20)

| Code | L mm | ∅ mm | g |
|---|---|---|---|
| **58521088** | 23.5 | 29 | 50 |



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## 7789 Square drive adaptor

- 1/2" socket x 3/4" plug (12.5 x 20)

| Code | L mm | ∅ mm | ⚖ g |
|---|---|---|---|
| **58521089** | 23.5 | 29 | 40 |

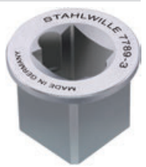
## 7789-2 Square drive adaptor

- 3/4" socket x 1 1/2" plug (20 x 40)

| Code | L mm | ∅ mm | ⚖ g |
|---|---|---|---|
| **58523089** | 44 | 60 | 380 |

## 7789-3 Square drive adaptor

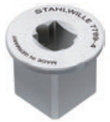
- 1" socket x 1 1/2" plug (25 x 40)



| Code | L mm | ∅ mm | ⚖ g |
|---|---|---|---|
| **58524089** | 44 | 60 | 280 |

## 7789-4 Square drive adaptor

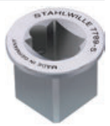
- 1/4" socket x 1/2" plug (6.3 x 12.5)



| Code | L mm | ∅ mm | ⚖ g |
|---|---|---|---|
| **58524090** | 15.5 | 29 | 25 |

## 7789-5 Square drive adaptor

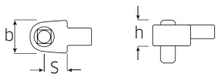
- 3/8" socket x 1/2" plug (10 x 12.5)



| Code | L mm | ∅ mm | ⚖ g |
|---|---|---|---|
| **58524091** | 15.5 | 29 | 28 |

## 734K Calibrating square drive insert tools

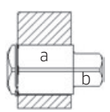
- without a ball or pin (so not suitable for bolt tightening)
- optimum measuring results during calibration thanks to reduced lateral forces



| Code | size | ■ " | ⚙ mm | b mm | h mm | S mm | ⚖ g |
|---|---|---|---|---|---|---|---|
| **58243004** | **4** | 1/4 | 9x12 | 20 | 16.7 | 17.5 | 76 |
| **58243005** | **5** | 3/8 | 9x12 | 20 | 16.7 | 17.5 | 76 |
| **58243012** | **12** | 3/8 | 14x18 | 27 | 21.5 | 25 | 199 |
| **58243020** | **20** | 1/2 | 14x18 | 27 | 21.5 | 25 | 218 |
| **58243040** | **40** | 3/4 | 14x18 | 40 | 29.3 | 25 | 410 |
| **58241100** | **100** | 3/4 | 22x28 | 43 | 29.3 | 55 | 907 |

## 70VK Calibrating square drive units

- without a ball or pin (so not suitable for bolt tightening)
- optimum measuring results during calibration thanks to reduced lateral forces



| Code | size | for No | a " | b " | L mm | ⚖ g |
|---|---|---|---|---|---|---|
| **59011014** | **11** | 734/4 | 3/8 | 1/4 | 24.7 | 12 |
| **59011003** | **3** | 735/5 | 3/8 | 3/8 | 27.6 | 17 |
| **59011012** | **12** | 734/10; 734/20 | 1/2 | 3/8 | 32.5 | 34 |
| **59011011** | **502 1/2** | 734/20 | 1/2 | 1/2 | 36.9 | 60 |
| **59011008** | **8** | 734/40; 734/80; 734/100 | 3/4 | 3/4 | 52.2 | 138 |

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# 6 SCREWDRIVERS


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3K DRALL®
>> Page 262

Electronics screwdrivers
>> Page 264

T-handled screwdrivers
>> Page 265

Offset screwdrivers
>> Page 267

# Impressive diversity.
# **DRALL⁺ screwdrivers**.

Made in Germany

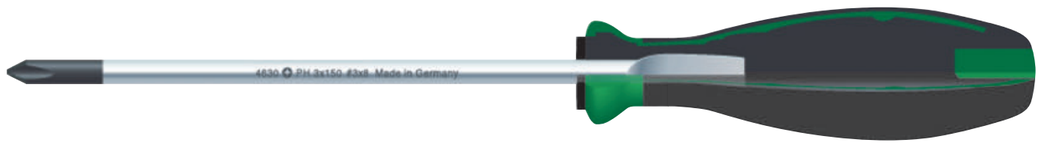
For professionals who constantly face new challenges in their daily work: the DRALL⁺ screwdriver series with the 2-component cushioned handle. DRALL⁺ screwdrivers are a byword for long dependability, functional integrity and comfortable handling, which makes light work of any task.

## SAFE.

The flange-like hand stop ❶ prevents injuries caused by unintentional slipping – and also stops the tool rolling away.

## FAST.

The lower end of the handle (multifunction zone ❷) is deliberately made extra-long. This enables the thumb and index finger to wrap around more easily and spin the screwdriver.



## CONVENIENT.

Convenient marking on the head makes it easy to pick the right profile quickly.

## EXTREME.

For use under extreme conditions, the DRALL+ is also available with a metal impact cap.

## PRACTICAL.

The black handle component made of soft, elastic thermoplastic elastomer (TPE) and the special shape of the handle means DRALL+ screwdrivers fit particularly snugly in the hand.

## ROBUST.

The core is made of high-grade knock-resistant polypropylene (PP). The tang is firmly anchored in the core to allow force to be transferred through it.

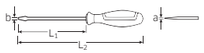
## INDIVIDUAL.

The four handle sizes for the screwdrivers are designed specifically to match the drive profiles.

| DRALL+ is available for the following screw-head profiles |
|---|
| Slotted |
| PH cross-head |
| PZ cross-head |
| TORX® |
| TORX® Tamper Resistant with a central bore |
| Hexagonal |
| TORQ-SET® |

## 4620 ⊖ Screwdrivers for slotted screws DRALL+

- DIN ISO 2380-1, -2, DIN 5264, ISO 2380-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **46 20 30 35** | **1** | 0.6 | 3.5 | 75 | 160 | 25 | 10 |
| **46 20 30 40** | **2** | 0.8 | 4.0 | 100 | 185 | 34 | 10 |
| **46 20 30 55** | **3** | 1.0 | 5.5 | 125 | 240 | 79 | 10 |
| **46 20 30 65** | **4** | 1.2 | 6.5 | 150 | 265 | 109 | 10 |
| **46 20 30 80** | **5** | 1.6 | 8.0 | 175 | 300 | 136 | 10 |
| **46 20 31 00** | **6** | 1.6 | 10.0 | 200 | 325 | 163 | 5 |
| **46 20 31 20** | **7** | 2.0 | 12.0 | 250 | 375 | 215 | 5 |

## 4621 ⊖ Screwdrivers for slotted screws DRALL+

- parallel blades
- as per VSM (Swiss Standard)
- Chrome Alloy Steel, chrome plated
- black tips

| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **46 21 30 25** | **0** | 0.4 | 2.5 | 80 | 165 | 27 | 10 |
| **46 21 30 35** | **1** | 0.5 | 3.5 | 90 | 175 | 26 | 10 |
| **46 21 30 40** | **2** | 0.6 | 4.0 | 100 | 185 | 34 | 10 |
| **46 21 30 55** | **3** | 0.8 | 5.5 | 120 | 235 | 78 | 10 |
| **46 21 30 65** | **4** | 1.0 | 6.5 | 140 | 255 | 96 | 10 |
| **46 21 30 80** | **5** | 1.2 | 8.0 | 160 | 275 | 117 | 10 |
| **46 21 31 00** | **6** | 1.6 | 10.0 | 180 | 305 | 174 | 10 |

## 4622 ⊖ Screwdrivers for slotted screws DRALL+

- DIN ISO 2380-1, -2, DIN 5264, ISO 2380-1, -2
- with hexagon
- Chrome Alloy Steel, chrome plated
- black tips

| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **46 22 30 55** | **1** | 1.0 | 5.5 | 100 | 215 | 85 | 10 |
| **46 22 30 65** | **2** | 1.2 | 6.5 | 125 | 240 | 100 | 10 |
| **46 22 30 80** | **3** | 1.2 | 8.0 | 150 | 275 | 159 | 10 |
| **46 22 31 00** | **4** | 1.6 | 10.0 | 175 | 300 | 174 | 10 |
| **46 22 31 20** | **5** | 2.0 | 12.0 | 200 | 325 | 240 | 5 |
| **46 22 31 40** | **6** | 2.5 | 14.0 | 250 | 375 | 310 | 5 |

## 4622SK ⊖ Screwdrivers for slotted screws DRALL+

- DIN ISO 2380-1, -2, DIN 5264, ISO 2380-1, -2
- with impact cap and hexagonal shank
- Chrome Alloy Steel, chrome plated
- black tips

| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **46 22 32 40** | **1** | 0.8 | 4.0 | 90 | 195 | 50 | 10 |
| **46 22 32 55** | **2** | 1.0 | 5.5 | 100 | 215 | 106 | 10 |
| **46 22 32 65** | **3** | 1.2 | 6.5 | 125 | 240 | 135 | 5 |
| **46 22 32 80** | **4** | 1.2 | 8.0 | 150 | 275 | 191 | 5 |
| **46 22 32 00** | **5** | 1.6 | 10.0 | 175 | 300 | 226 | 5 |
| **46 22 32 20** | **6** | 2.0 | 12.0 | 200 | 325 | 267 | 5 |
| **46 22 33 40** | **7** | 2.5 | 14.0 | 250 | 375 | 340 | 5 |

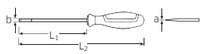
## 4724 ⊖ Carburettor screwdrivers DRALL

- DIN ISO 2380-1, -2, DIN 5264, ISO 2380-1, -2
- stubby
- Chrome Alloy Steel, chrome plated
- black tips

| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **47 24 10 45** | **1** | 0.6 | 3.5 | 25 | 80 | 34 | 10 |
| **47 24 10 60** | **2** | 1.0 | 5.5 | 25 | 80 | 32 | 10 |
| **47 24 10 80** | **3** | 1.2 | 8.0 | 25 | 80 | 39 | 10 |

## 4628 ⊖ Electricians screwdrivers for slotted screws DRALL+

- DIN ISO 2380-1, -2, DIN 5264, ISO 2380-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **46 28 30 25** | **1** | 0.4 | 2.5 | 60 | 145 | 20 | 10 |
| **46 28 30 35** | **2** | 0.6 | 3.5 | 75 | 160 | 40 | 10 |
| **46 28 31 35** | **3** | 0.6 | 3.5 | 100 | 185 | 41 | 10 |
| **46 28 30 40** | **4** | 0.8 | 4.0 | 125 | 210 | 36 | 10 |
| **46 28 30 55** | **5** | 1.0 | 5.5 | 150 | 265 | 92 | 10 |
| **46 28 31 55** | **6** | 1.0 | 5.5 | 200 | 315 | 102 | 10 |

## 4630 ⊕ Cross-head screwdrivers DRALL+

- Phillips-Recess®
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips

| Code | PH size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46 30 30 00** | **0** | 60 | 145 | 20 | 10 |
| **46 30 30 01** | **1** | 80 | 185 | 35 | 10 |
| **46 30 30 02** | **2** | 100 | 215 | 90 | 10 |
| **46 30 30 03** | **3** | 150 | 275 | 146 | 10 |





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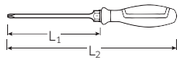
## 4631 Cross-head screwdrivers DRALL+

- Phillips-Recess®
- extra long
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips

| Code | PH size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46 31 30 01** | **1** | 250 | 355 | 110 | 1 |
| **46 31 30 02** | **2** | 250 | 365 | 122 | 1 |

## 4632 Cross-head screwdrivers DRALL+

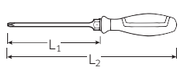
- with hexagon
- Phillips-Recess®
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



| Code | PH size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46 32 30 01** | **1** | 80 | 185 | 45 | 10 |
| **46 32 30 02** | **2** | 100 | 215 | 100 | 10 |
| **46 32 30 03** | **3** | 150 | 275 | 170 | 5 |
| **46 32 30 04** | **4** | 200 | 325 | 237 | 5 |

## 4632SK Cross-head screwdrivers DRALL+

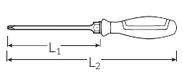
- with impact cap and hexagonal shank
- Phillips-Recess®
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



| Code | PH size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46 32 31 01** | **1** | 85 | 190 | 58 | 10 |
| **46 32 31 02** | **2** | 100 | 215 | 120 | 10 |
| **46 32 31 03** | **3** | 150 | 275 | 194 | 5 |

## 4640 Cross-head screwdrivers DRALL+

- POZIDRIV/SUPADRIV®
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



| Code | PZ size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46 40 30 00** | **0** | 60 | 145 | 35 | 10 |
| **46 40 30 01** | **1** | 80 | 185 | 44 | 10 |
| **46 40 30 02** | **2** | 100 | 215 | 89 | 10 |
| **46 40 30 03** | **3** | 150 | 275 | 145 | 5 |

## 4636 TORQ-SET® screwdrivers DRALL+

- TORQ-SET®
- hexagonal blade
- chrome plated
- black tips

| code | mm/" | $L_1$ mm | $L_2$ mm | " | g | |
|---|---|---|---|---|---|---|
| **46 36 30 02** | **2** | 100 | 215 | 1/4 | 92 | 5 |
| **46 36 30 04** | **4** | 100 | 215 | 1/4 | 93 | 5 |
| **46 36 30 06** | **6** | 100 | 215 | 1/4 | 92 | 5 |
| **46 36 30 08** | **8** | 100 | 215 | 1/4 | 93 | 5 |
| **46 36 30 10** | **10** | 100 | 215 | 1/4 | 93 | 5 |
| **46 36 30 16** | **1/4** | 150 | 265 | 5/16 | 138 | 5 |

## 4650 TORX® screwdrivers DRALL+

- for inside TORX® screws
- Chrome Alloy Steel, chrome plated
- black tips

| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **46 50 30 05** | **T5** | 1.4 | 60 | 145 | 30 | 5 |
| **46 50 30 06** | **T6** | 1.6 | 60 | 145 | 35 | 5 |
| **46 50 30 07** | **T7** | 2.0 | 60 | 145 | 35 | 5 |
| **46 50 30 08** | **T8** | 2.3 | 60 | 145 | 33 | 5 |
| **46 50 30 09** | **T9** | 2.5 | 60 | 145 | 35 | 5 |
| **46 50 30 10** | **T10** | 2.7 | 80 | 165 | 35 | 5 |
| **46 50 30 15** | **T15** | 3.3 | 80 | 165 | 38 | 5 |
| **46 50 30 20** | **T20** | 3.8 | 100 | 205 | 50 | 5 |
| **46 50 30 25** | **T25** | 4.4 | 100 | 205 | 50 | 5 |
| **46 50 30 27** | **T27** | 5.0 | 115 | 230 | 90 | 5 |
| **46 50 30 30** | **T30** | 5.5 | 115 | 230 | 90 | 5 |
| **46 50 30 40** | **T40** | 6.6 | 115 | 240 | 131 | 5 |
| **46 50 30 45** | **T45** | 7.8 | 130 | 255 | 136 | 5 |

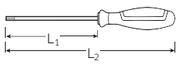
## 4650L TORX® screwdrivers DRALL+

- for inside TORX® screws
- extra long
- Chrome Alloy Steel, chrome plated
- black tips

| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **46 50 31 15** | **T15** | 3.3 | 250 | 335 | 45 | 5 |
| **46 50 31 20** | **T20** | 3.8 | 250 | 355 | 180 | 5 |
| **46 50 31 25** | **T25** | 4.4 | 250 | 355 | 180 | 5 |
| **46 50 31 30** | **T30** | 5.5 | 250 | 365 | 125 | 5 |

## 4656 TORX® screwdrivers DRALL+

- with hollow point (TORX® TAMPER RESISTANT)
- Chrome Alloy Steel, chrome plated
- black tips



| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **46563008** | **T8** | 2.3 | 60 | 145 | 35 | 5 |
| **46563009** | **T9** | 2.5 | 60 | 145 | 35 | 5 |
| **46563010** | **T10** | 2.7 | 80 | 165 | 39 | 5 |
| **46563015** | **T15** | 3.3 | 80 | 165 | 39 | 5 |
| **46563020** | **T20** | 3.8 | 100 | 205 | 42 | 5 |
| **46563025** | **T25** | 4.4 | 100 | 205 | 50 | 5 |
| **46563027** | **T27** | 5.0 | 115 | 230 | 90 | 5 |
| **46563030** | **T30** | 5.5 | 115 | 230 | 90 | 5 |
| **46563040** | **T40** | 6.6 | 115 | 240 | 120 | 5 |
| **46563045** | **T45** | 7.8 | 130 | 255 | 118 | 5 |

## 4734 Cross-head screwdrivers DRALL

- Phillips-Recess®
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- stubby
- Chrome Alloy Steel, chrome plated
- black tips

| Code | PH size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **47341001** | **1** | 25 | 80 | 27 | 10 |
| **47341002** | **2** | 25 | 80 | 31 | 10 |

## 4744 Cross-head screwdrivers DRALL

- POZIDRIV/SUPADRIV®
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- stubby
- Chrome Alloy Steel, chrome plated
- black tips

| Code | PZ size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **47441001** | **1** | 25 | 80 | 28 | 10 |
| **47441002** | **2** | 25 | 80 | 34 | 10 |

## 10507N KK Ball ended hexagon drivers DRALL+

- for use on hexagon socket head screws
- swivel angle up to 25° each side
- Chrome Alloy Steel, chrome plated
- black tips

| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **73103003** | **3** | 300 | 385 | 56 | 5 |
| **73103005** | **5** | 300 | 415 | 132 | 10 |

## 12500N Nut spinners DRALL+

- DIN 3125
- Chrome Vanadium, chrome plated

| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43093004** | **4** | 125 | 230 | 58 | 10 |
| **43093045** | **4.5** | 125 | 230 | 49 | 10 |
| **43093005** | **5** | 125 | 230 | 58 | 10 |
| **43093055** | **5.5** | 125 | 230 | 58 | 10 |
| **43093006** | **6** | 125 | 240 | 98 | 10 |
| **43093007** | **7** | 125 | 240 | 114 | 10 |
| **43093008** | **8** | 125 | 240 | 115 | 10 |
| **43093009** | **9** | 125 | 240 | 118 | 10 |
| **43093010** | **10** | 125 | 240 | 122 | 10 |
| **43093011** | **11** | 125 | 250 | 160 | 5 |
| **43093012** | **12** | 125 | 250 | 168 | 5 |
| **43093013** | **13** | 125 | 250 | 170 | 5 |

## 12506 Nut spinners DRALL+

- flexible
- max. torque 8 N·m
- matt chrome plated

| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43103206** | **6** | 175 | 290 | 167 | 10 |
| **43103207** | **7** | 175 | 290 | 168 | 10 |
| **43103208** | **8** | 175 | 290 | 170 | 10 |

## ES 12500N/7

- 175 x 350 x 39 mm
- 7 pieces

| Code | g |
|---|---|
| **96838300** | 1060 |

| No | Content |
|---|---|
| **12500N** | 7; 8; 9; 10; 11; 12; 13 mm |

## TCS 12500N/5

- 175 x 350 x 45 mm
- 5 pieces

| Code | g |
|---|---|
| **96838757** | 730 |

| No | Content |
|---|---|
| **12500N** | 7; 8; 10; 12; 13 mm |

## 4691/7 DRALL+ set of screwdrivers

Set of 7 **DRALL+** screwdrivers
content:
⊖ 4620:
size 1 (0.6 x 3.5 x 75 mm)
size 2 (0.8 x 4.0 x 100 mm)
size 3 (1.0 x 5.5 x 125 mm)
size 4 (1.2 x 6.5 x 150 mm)
⊖ 4628: size 1 (0.4 x 2.5 x 60 mm)
⊕ 4630: PH1; PH2

| Code | g | |
|---|---|---|
| **96 46 91 15** | 580 | 1 |

## 4692/8 DRALL+ set of screwdrivers

Set of 8 **DRALL+** screwdrivers
Content:
⊖ 4620:
size 1 (0.6 x 3.5 x 75 mm)
size 2 (0.8 x 4.0 x 100 mm)
size 3 (1.0 x 5.5 x 125 mm)
size 4 (1.2 x 6.5 x 150 mm)
size 5 (1.6 x 8.0 x 175 mm)
⊕ 4630: PH1; PH2; PH3

| Code | g | |
|---|---|---|
| **96 46 92 15** | 840 | 1 |

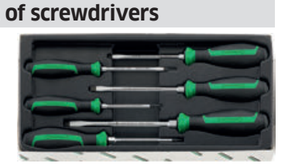
## 4693/9 DRALL+ set of screwdrivers

Set of 9 **DRALL+** screwdrivers
Content:
⊖ 4622:
size 1 (1.0 x 5.5 x 100 mm)
size 2 (1.2 x 6.5 x 125 mm)
size 3 (1.2 x 8.0 x 150 mm)
size 4 (1.6 x 10.0 x 175 mm)
⊖ 4628: size 1 (0.4 x 2.5 x 60 mm)
⊕ 4632: PH1; PH2
⊖ 4724: size 2 (1.0 x 5.5 x 25 mm)
⊕ 4734: PH2

| Code | g | |
|---|---|---|
| **96 46 93 15** | 950 | 1 |

## 4696/6 DRALL+ set of screwdrivers

Set of 6 **DRALL+** screwdrivers
with an impact cap
Content:
⊖ 4622SK:
size 1 (0.8 x 4.0 x 90 mm)
size 2 (1.0 x 5.5 x 100 mm)
size 3 (1.2 x 6.5 x 125 mm)
size 4 (1.2 x 8.0 x 150 mm)
⊕ 4632SK: PH1; PH2



| Code | g | |
|---|---|---|
| **96 46 96 15** | 870 | 1 |

## 4697/8 DRALL+ set of screwdrivers

Set of 8 **DRALL+** screwdrivers
Content:
⊖ 4620:
size 1 (0.6 x 3.5 x 75 mm)
size 2 (0.8 x 4.0 x 100 mm)
⊖ 4622:
size 1 (1.0 x 5.5 x 100 mm)
size 2 (1.2 x 6.5 x 125 mm)
size 3 (1.2 x 8.0 x 150 mm)
⊕ 4732: PH1; PH2; PH3

| Code | g | |
|---|---|---|
| **96 46 97 15** | 930 | 1 |

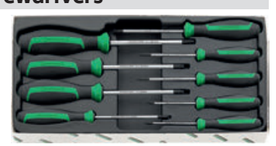
## 4694/9 DRALL+ set of TORX® screwdrivers

Set of 9 **DRALL+** screwdrivers
for TORX® screws
Content:
4650: T8, T9, T10, T15, T20, T25, T27, T30, T40

| Code | g | |
|---|---|---|
| **96 46 94 15** | 730 | 1 |

## 4699/9 DRALL+ set of TORX® screwdrivers

Set of 9 **DRALL+** screwdrivers
for TORX® screws
(TORX® TAMPER RESISTANT).
Content:
4656: T8, T9, T10, T15, T20, T25, T27, T30, T40
(with hollow point)



| Code | g | |
|---|---|---|
| **96 46 99 15** | 740 | 1 |

## TCS 4620/4630

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96 83 82 78** | 590 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4630** | PH1; PH2; PH3 |

## TCS 4620/4640

- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838784** | 410 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4640** | PZ1; PZ2; PZ3 |

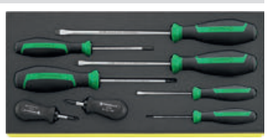
## TCS 4622/4632

- 175 x 350 x 35 mm
- 6 pieces

| Code | g |
|---|---|
| **96838783** | 845 |

| | No | Content |
|---|---|---|
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 3 (1.2 x 8.0 x 150 mm)<br>size 4 (1.6 x 10.0 x 175 mm) |
| | **4632** | PH2; PH3 |

## TCS 4620-4734/8



- 175 x 350 x 40 mm
- 8 pieces

| Code | g |
|---|---|
| **96838769** | 503 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |

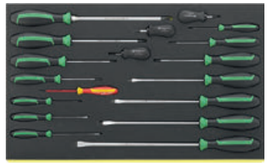
## TCS 4620/4660VDE+10767

- 530 x 350 x 35 mm
- 27 pieces

| Code | g |
|---|---|
| **96831168** | 2200 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm)<br>size 6 (1.6 x 10.0 x 200 mm)<br>size 7 (2.0 x 12.0 x 200 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **4632** | PH4 |
| | **4640** | PZ0; PZ1; PZ2 |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm) |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734**<br>**4744** | PH2<br>PZ1 |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

## TCS 4620/4660VDE



- 530 x 350 x 40 mm
- 18 pieces

| Code | g |
|---|---|
| **96831179** | 1689 |

| | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm)<br>size 6 (1.6 x 10.0 x 200 mm)<br>size 7 (2.0 x 12.0 x 200 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **4632** | PH4 |
| | **4640** | PZ0; PZ1; PZ2 |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm) |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734**<br>**4744** | PH2<br>PZ1 |





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## TCS 4621/4734/16

- 530 x 350 x 40 mm
- 16 pieces

| Code | g |
|---|---|
| **96832098** | 1490 |

| | No | Content |
|---|---|---|
| | **4621** | size 0 (0.4 x 2.5 x 80 mm)<br>size 1 (0.5 x 3.5 x 90 mm)<br>size 2 (0.6 x 4.0 x 100 mm)<br>size 4 (1.0 x 6.5 x 140 mm)<br>size 5 (1.2 x 8.0 x 160 mm) |
| | **4631** | PH1; PH2 |
| | **4632** | PH1; PH2; PH3 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |
| | **10506** | 0.8 x 4.0 x 300 mm |
| | **10518** | 1.0 x 5.5 x 410 mm |
| | **12600** | 500 g |
| | **12922E** | ∅ 6 mm |

## TCS 4622/4650+10760+10766

- 530 x 350 x 40 mm
- 36 pieces

| Code | g |
|---|---|
| **96831196** | 1895 |

| | No | Content |
|---|---|---|
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 4 (1.6 x 10.0 x 175 mm)<br>size 5 (2.0 x 12.0 x 200 mm) |
| | **4630** | PH1 |
| | **4632** | PH3 |
| | **4650** | sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |
| | **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10766/9** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |

## TCS 4650

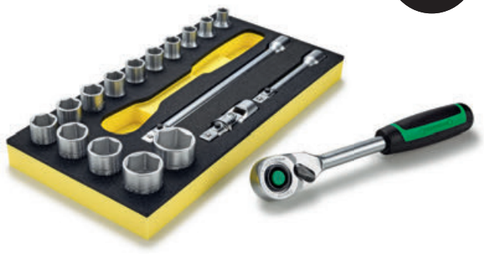
- 175 x 350 x 35 mm
- 8 pieces

| Code | g |
|---|---|
| **96838767** | 340 |

| | No | Content |
|---|---|---|
| | **4650** | sizes T8; T9; T10; T15; T20; T25; T27; T30 |

### Tool Control System.

Safety-conscious inlays.



Designed to fit our Tool Trolleys and Tool Boxes. With yellow signal cut-outs to show whether all the tools are in their places.

### Tool Trolley 95VA.

Good is now better.

STAHLWILLE's Tool Trolley 95VA is equipped with a three-stage safety system – to ensure maximum safety.

# It's all in the handle.
# 3K DRALL® screwdrivers.

Made in Germany

High-grade materials and ergonomic design that redefines standards: STAHLWILLE's 3K DRALL® screwdrivers unite these positive qualities in a manner which is close to perfect. The result is a long-life, ergonomically designed tool providing strain-free working combined with maximum force transmission – even with greasy hands.

## RESILIENT.

3K DRALL® grips consist of 3 components: a highly resistant core made of polypropylene (PP 1), a soft insert made of skin-friendly thermoplastic elastomer 2 and two special fibre-coated surfaces 3 for a significant improvement in power transmission and occupational safety.

## SAFE.

The blades are made of exceptionally fine industrial-grade chrome alloy steel, through-hardened and anchored in the grip in such a way that they stay there.

## ROBUST.

Whether you use the straight-bladed or Phillips/Pozidriv type - the cross-hatched blade tips will accurately and safely transmit maximum force to the screw head.

## VERSATILE.

The lever hole allows even more power and torque if necessary.

## CONVENIENT.

The screwdrivers are available in a set – either conveniently housed in plastic inlays or TCS safety inlays, designed for use with STAHLWILLE Tool Trolleys and Tool Boxes.

## 4820 ⊖ 3K DRALL® screwdrivers for slotted screws

- DIN 5265, ISO 2380
- Chrome Alloy Steel, matt chrome plated
- black tips

| Code | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **48201035** | 0.6 | 3.5 | 75 | 170 | 63 | 10 |
| **48201040** | 0.8 | 4.0 | 100 | 195 | 32 | 10 |
| **48202055** | 1.0 | 5.5 | 125 | 220 | 58 | 10 |
| **48201065** | 1.2 | 6.5 | 150 | 265 | 100 | 10 |
| **48201080** | 1.6 | 8.0 | 175 | 290 | 120 | 10 |
| **48201100** | 1.6 | 10.0 | 200 | 315 | 158 | 5 |
| **48202100** | 2.0 | 12.0 | 250 | 375 | 218 | 5 |

## 4830 ⊕ 3K DRALL® cross-head screwdrivers

- Phillips-Recess®
- DIN 5262, ISO 8764
- Chrome Alloy Steel, matt chrome plated
- black tips

| Code | PH size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **48301000** | **0** | 60 | 155 | 28 | 10 |
| **48301001** | **1** | 80 | 175 | 50 | 10 |
| **48301002** | **2** | 100 | 215 | 70 | 10 |
| **48301003** | **3** | 150 | 275 | 126 | 5 |
| **48301004** | **4** | 200 | 325 | 251 | 5 |

## 4840 ⊕ 3K DRALL® cross-head screwdrivers

- POZIDRIV/SUPADRIV®
- DIN 5262, ISO 8764
- Chrome Alloy Steel, matt chrome plated
- black tips

| Code | PZ size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **48401001** | **1** | 80 | 175 | 33 | 10 |
| **48401002** | **2** | 100 | 215 | 70 | 10 |

## 4856 ⚙ 3K DRALL® TORX® screwdrivers

- with hollow point (TORX® TAMPER RESISTANT)
- Chrome Alloy Steel, matt chrome plated
- black tips

| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **48560006** | **T6 *** | 1.6 | 50 | 145 | 45 | 5 |
| **48560007** | **T7** | 2.0 | 50 | 145 | 37 | 5 |
| **48560008** | **T8** | 2.3 | 60 | 155 | 39 | 5 |
| **48560009** | **T9** | 2.5 | 60 | 155 | 50 | 5 |
| **48560010** | **T10** | 2.7 | 80 | 175 | 26 | 5 |
| **48560015** | **T15** | 3.3 | 80 | 175 | 52 | 5 |
| **48560020** | **T20** | 3.8 | 100 | 215 | 32 | 5 |
| **48560025** | **T25** | 4.4 | 100 | 215 | 55 | 5 |
| **48560027** | **T27** | 5.0 | 115 | 230 | 58 | 5 |
| **48560030** | **T30** | 5.5 | 115 | 230 | 63 | 5 |
| **48560040** | **T40** | 6.6 | 115 | 240 | 86 | 5 |

* without hollow point

## 4891 3K DRALL® set of screwdrivers

Set of 6 3K DRALL® screwdrivers
Content:
⊖ 4820: 0.6 x 3.5 x 75 mm
0.8 x 4.0 x 100 mm
1.0 x 5.5 x 125 mm
1.2 x 6.5 x 150 mm
⊕ 4830: PH1; PH2

| Code | g | |
|---|---|---|
| **96489110** | 530 | 1 |

## 4892 3K DRALL® set of screwdrivers

Set of 8 3K DRALL® screwdrivers
Content:
⊖ 4820: 0.6 x 3.5 x 75 mm
0.8 x 4.0 x 100 mm
1.0 x 5.5 x 125 mm
1.2 x 6.5 x 150 mm
1.6 x 8.0 x 175 mm
⊕ 4830: PH1; PH2; PH3

| Code | g | |
|---|---|---|
| **96489210** | 745 | 1 |

## 4899 ⚙ 3K DRALL® set of TORX® screwdrivers

Set of 9 3K DRALL® screwdrivers for TORX® screws (TORX® TAMPER RESISTANT).
Content:
⚙ 4856: T8; T9; T10; T15; T20; T25; T27; T30; T40
(with hollow point)

| Code | g | |
|---|---|---|
| **96489910** | 513 | 1 |

## TCS 4820/4830

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838184** | 555 |

| | No | Content |
|---|---|---|
| | **4820** | size 0.6 x 3.5 x 75 mm<br>size 0.8 x 4.0 x 100 mm<br>size 1.0 x 5.5 x 125 mm<br>size 1.2 x 6.5 x 150 mm |
| | **4830** | PH1; PH2; PH3 |

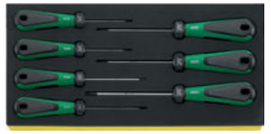
## TCS 4724/4840+10767

- 530 x 350 x 45 mm
- 24 pieces

| Code | g |
|---|---|
| **96830706** | 1755 |

| | No | Content |
|---|---|---|
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734**<br>**4744** | PH2<br>PZ1 |
| | **4820** | size 0.6 x 3.5 x 75 mm<br>size 0.8 x 4.0 x 100 mm<br>size 1.2 x 6.5 x 150 mm<br>size 1.6 x 10.0 x 200 mm<br>size 2.0 x 12.0 x 250 mm |
| | **4830**<br>**4840** | PH1; PH2; PH3<br>PZ1 |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **7756** | |
| | **12922E** | ∅ 6 mm |

## TCS 4856



- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838755** | 447 |

| | No | Content |
|---|---|---|
| | **4856** | sizes T8; T9; T10; T15; T20; T25; T30 |

## 4798 Set of reversible screwdrivers

- bag made of extremely tough textile

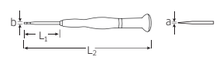
Content: 11 pieces
⊖ 0.6 x 3.5; 0.8 x 4.0; 1.0 x 5.5; 1.2 x 6.5 mm
⊕ PH1; PH2
⊕ PZ1; PZ2
◉ 3; 4; 5; 6 mm
◉ 3; 4; 5; 6 mm (ball end)
◉ T10; T15; T20; T25; T30; T40

| Code | g | |
|---|---|---|
| **96479802** | 745 | 1 |

# Electronics screwdrivers

## 4751 ⊖ Screwdrivers for slotted screws

- DIN ISO 8764



| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **47513001** | **1** | 0.16 | 0.8 | 40 | 140 | 12 | 5 |
| **47513002** | **2** | 0.18 | 1.0 | 40 | 140 | 12 | 5 |
| **47513003** | **3** | 0.25 | 1.2 | 40 | 140 | 12 | 5 |
| **47513004** | **4** | 0.3 | 1.5 | 40 | 140 | 12 | 5 |
| **47513005** | **5** | 0.3 | 1.8 | 60 | 160 | 12 | 5 |
| **47513006** | **6** | 0.4 | 2.0 | 60 | 160 | 12 | 5 |
| **47513007** | **7** | 0.4 | 2.5 | 75 | 175 | 12 | 5 |
| **47513008** | **8** | 0.5 | 3.0 | 75 | 175 | 14 | 5 |

## 4752 ⊕ Cross-head screwdrivers

- Phillips-Recess®
- DIN ISO 2380

| Code | PH size | $L_1$ mm | $L_2$ mm | ⊕ M | americ. No | ∅ mm | g | |
|---|---|---|---|---|---|---|---|---|
| **47523010** | **00** | 40 | 140 | – | – | 2.5 | 12 | 5 |
| **47523020** | **0** | 60 | 160 | –2 | 0–1 | 3 | 14 | 5 |
| **47523001** | **1** | 80 | 180 | 2–3 | 2–4 | 4.5 | 24 | 5 |

## 4753 ◉ Hexagon socket screwdrivers

| Code | mm/" | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **47533007** | **0.7 / 0.028** | 40 | 140 | 12 | 5 |
| **47533009** | **0.9 / 0.035** | 40 | 140 | 12 | 5 |
| **47533013** | **1.3 / 0.050** | 40 | 140 | 12 | 5 |
| **47533015** | **1.5** | 50 | 150 | 12 | 5 |

## 4797 Set of electronic screwdrivers

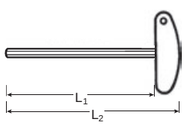
- bag made of extremely tough textile

Content 7 pieces:
⊖ 4751: size 4 (0.3 x 1.5 x 40 mm); size 6 (0.4 x 2.0 x 60 mm);
size 7 (0.4 x 2.5 x 75 mm); size 8 (0.5 x 3.0 x 75 mm)
⊕ 4752: PH00, PH0, PH1

| Code | g | |
|---|---|---|
| **96479715** | 234 | 1 |

## 10768 T-handled screwdrivers

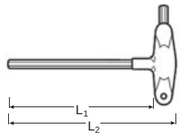
- for socket head screws
- Chrome Vanadium, matt chrome plated
- black tips



| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43 25 00 20** | **2** | 100 | 116 | 10 | 10 |
| **43 25 00 25** | **2.5** | 100 | 116 | 12 | 10 |
| **43 25 00 30** | **3** | 150 | 166 | 17 | 10 |
| **43 25 00 40** | **4** | 150 | 175 | 45 | 10 |
| **43 25 00 50** | **5** | 200 | 225 | 60 | 10 |
| **43 25 00 60** | **6** | 200 | 225 | 78 | 10 |
| **43 25 00 80** | **8** | 200 | 235 | 150 | 5 |
| **43 25 01 00** | **10** | 200 | 235 | 210 | 5 |

## 10768-2K Hexagon key wrenches

- with 2-component T-handle
- for socket head screws
- with two tips
- Chrome Vanadium, matt chrome plated
- black tips



| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43 25 20 20** | **2** | 100 | 125 | 33 | 10 |
| **43 25 20 25** | **2.5** | 100 | 125 | 42 | 10 |
| **43 25 20 30** | **3** | 150 | 174 | 42 | 10 |
| **43 25 20 40** | **4** | 150 | 176 | 50 | 10 |
| **43 25 20 50** | **5** | 200 | 227 | 73 | 10 |
| **43 25 20 60** | **6** | 200 | 228 | 92 | 10 |
| **43 25 20 80** | **8** | 200 | 235 | 178 | 5 |
| **43 25 21 00** | **10** | 200 | 235 | 247 | 5 |

## ES 10768/6

- 350 x 350 x 37 mm
- 6 pieces

| Code | g |
|---|---|
| **96 83 81 19** | 780 |

| | No | Content |
|---|---|---|
| | **10768** | 3; 4; 5; 6; 8; 10 mm |

## TCS 10768-2K/6

TCS

- 350 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96 83 87 53** | 792 |

| | No | Content |
|---|---|---|
| | **10768-2K** | 3; 4; 5; 6; 8; 10 mm |

## TCS 10768/8

TCS

- 350 x 350 x 40 mm
- 8 pieces

| Code | g |
|---|---|
| **96 83 87 86** | 800 |

| | No | Content |
|---|---|---|
| | **10768** | 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

## 10769 TORX®-screwdrivers

- T-handled
- for inside TORX® screws
- Chrome Vanadium, matt chrome plated
- black tips

| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **43 29 00 08** | **T8** | 2.3 | 80 | 96 | 12 | 5 |
| **43 29 00 09** | **T9** | 2.5 | 80 | 96 | 13 | 5 |
| **43 29 00 10** | **T10** | 2.7 | 100 | 116 | 14 | 5 |
| **43 29 00 15** | **T15** | 3.3 | 100 | 116 | 16 | 10 |
| **43 29 00 20** | **T20** | 3.8 | 100 | 125 | 36 | 10 |
| **43 29 00 25** | **T25** | 4.4 | 110 | 135 | 41 | 10 |
| **43 29 00 27** | **T27** | 5 | 110 | 135 | 49 | 10 |
| **43 29 00 30** | **T30** | 5.5 | 130 | 155 | 59 | 10 |
| **43 29 00 40** | **T40** | 6.6 | 130 | 165 | 102 | 10 |
| **43 29 00 45** | **T45** | 7.8 | 130 | 165 | 119 | 10 |
| **43 29 00 50** | **T50** | 8.8 | 130 | 165 | 137 | 5 |

## ES 10769/7

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838120** | 450 |

| | No | Content |
|---|---|---|
| | **10769** | sizes T10; T15; T20; T25; T27; T30; T40 |

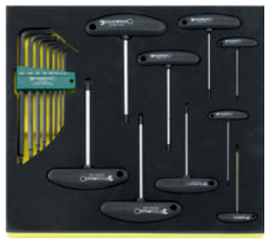
## ES 10769B/7

- 175 x 350 x 35 mm
- 7 pieces

| Code | g |
|---|---|
| **96838129** | 420 |

| | No | Content |
|---|---|---|
| | **10769B** | sizes T10; T15; T20; T25; T27; T30; T40 |

## TCS 10769+10771/17



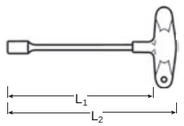
- 350 x 350 x 30 mm
- 17 pieces

| Code | g |
|---|---|
| **96832099** | 940 |

| | No | Content |
|---|---|---|
| | **10769** | sizes T9; T10; T15; T20; T25; T30; T40; T45; T50 |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |

## 12507-2K T-handled nut spinners

- with 2-component T-handle
- Chrome Vanadium, matt chrome plated



| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43232060** | **6** | 200 | 224 | 83 | 10 |
| **43232070** | **7** | 200 | 234 | 115 | 10 |
| **43232080** | **8** | 200 | 234 | 135 | 10 |
| **43232090** | **9** | 200 | 234 | 137 | 10 |
| **43232100** | **10** | 200 | 234 | 160 | 10 |
| **43232110** | **11** | 200 | 240 | 169 | 5 |
| **43232120** | **12** | 200 | 240 | 171 | 5 |
| **43232130** | **13** | 200 | 240 | 176 | 5 |

## 10769B TORX® screwdrivers with hollow point

- with hollow point (TORX® TAMPER RESISTANT)
- shaft nickel-plated and chrome plated
- tips hardened
- Chrome Vanadium, matt chrome plated
- black tips

| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **43300010** | **T10** | 2.7 | 100 | 116 | 14 | 5 |
| **43300015** | **T15** | 3.3 | 100 | 116 | 16 | 5 |
| **43300020** | **T20** | 3.8 | 100 | 125 | 36 | 5 |
| **43300025** | **T25** | 4.4 | 110 | 135 | 41 | 5 |
| **43300027** | **T27** | 5.0 | 110 | 135 | 49 | 5 |
| **43300030** | **T30** | 5.5 | 130 | 155 | 59 | 5 |
| **43300040** | **T40** | 6.6 | 130 | 165 | 102 | 5 |

## TCS 12507-2K/5

- 175 x 350 x 40 mm
- 5 pieces

| Code | g |
|---|---|
| **96838761** | 792 |

| | No | Content |
|---|---|---|
| | **12507-2K** | 7; 8; 10; 12; 13 mm |





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## TCS 10765/10768/12507/19

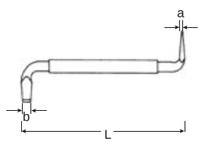
- 530 x 350 x 30 mm
- 19 pieces

| Code | g |
|---|---|
| **96830621** | 1610 |

| | No | Content |
|---|---|---|
| | **10765/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10768** | 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **12507-2K** | 8; 10; 13 mm |

## 10546 Offset screwdrivers

- DIN 5200
- for slotted screws
- centre handle covered with impact proof plastic
- Chrome Vanadium, chrome plated



| Code | size | a mm | b mm | L mm | g | |
|---|---|---|---|---|---|---|
| **73272001** | **1** | 0.6 | 3.5 | 90 | 9 | 10 |
| **73272002** | **2** | 0.8 | 4 | 100 | 12 | 10 |
| **73272003** | **3** | 1 | 5.5 | 125 | 29 | 10 |
| **73272004** | **4** | 1.2 | 8 | 150 | 69 | 10 |

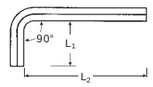
## 10551 Offset screwdrivers

- DIN 5208
- for recessed head screws, Phillips-Recess®
- centre handle covered with impact proof plastic
- Chrome Vanadium, chrome plated

| Code | PH size | L mm | g | |
|---|---|---|---|---|
| **73282012** | **1 x 2** | 125 | 29 | 10 |
| **73282023** | **2 x 3** | 150 | 73 | 10 |

## 10760CV Hexagon key wrenches

- DIN ISO 2936
- for socket head screws
- Chrome Vanadium, nickel-plated (sizes 0.7; 0.9; 1.3 mm, gunmetal finish)



| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43150070** | **0.7** | 8 | 32 | 1 | 10 |
| **43150090** | **0.9** | 10 | 32 | 1 | 10 |
| **43150130** | **1.3** | 12 | 40 | 1 | 10 |
| **43150150** | **1.5** | 14 | 45 | 1 | 10 |
| **43150002** | **2** | 16 | 50 | 2 | 10 |
| **43150250** | **2.5** | 18 | 56 | 3 | 10 |
| **43150003** | **3** | 20 | 63 | 4 | 10 |
| **43150350** | **3.5** | 22 | 66 | 7 | 10 |
| **43150004** | **4** | 25 | 70 | 10 | 10 |
| **43150005** | **5** | 28 | 80 | 18 | 10 |
| **43150006** | **6** | 32 | 90 | 29 | 10 |
| **43150007** | **7** | 34 | 95 | 42 | 10 |
| **43150008** | **8** | 36 | 100 | 59 | 10 |
| **43150009** | **9** | 38 | 105 | 80 | 10 |
| **43150010** | **10** | 40 | 112 | 103 | 10 |
| **43150011** | **11** | 42 | 119 | 130 | 10 |
| **43150012** | **12** | 45 | 125 | 169 | 5 |
| **43150014** | **14** | 56 | 140 | 261 | 5 |
| **43150017** | **17** | 63 | 160 | 442 | 5 |
| **43150019** | **19** | 70 | 180 | 603 | 5 |
| **43150022** | **22** | 80 | 200 | 895 | 1 |
| **43150024** | **24** | 90 | 224 | 1220 | 1 |
| **43150027** | **27** | 100 | 250 | 1692 | 1 |
| **43150030** | **30** | 112 | 280 | 2434 | 1 |
| **43150032** | **32** | 125 | 315 | 3117 | 1 |
| **43150036** | **36** | 140 | 355 | 4430 | 1 |

## 10760aCV Hexagon key wrenches

- for socket head screws
- Chrome Vanadium, nickel-plated (sizes 0.028; 0.035; 0.050 ", gunmetal finish)

| Code | " | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43150070** | **0.028** | 8 | 32 | 1 | 10 |
| **43150090** | **0.035** | 10 | 32 | 1 | 10 |
| **43150130** | **0.050** | 12 | 40 | 1 | 10 |
| **43550003** | **3/64** | 14 | 45 | 1 | 10 |
| **43550004** | **1/16** | 15 | 45 | 1 | 10 |
| **43550005** | **5/64** | 16 | 50 | 2 | 10 |
| **43550006** | **3/32** | 17 | 51 | 3 | 10 |
| **43550007** | **7/64** | 20 | 54 | 4 | 10 |
| **43550008** | **1/8** | 22 | 57 | 5 | 10 |
| **43550009** | **9/64** | 23 | 63 | 7 | 10 |
| **43550010** | **5/32** | 25 | 65 | 10 | 10 |
| **43550012** | **3/16** | 29 | 70 | 15 | 10 |
| **43550014** | **7/32** | 32 | 80 | 23 | 10 |
| **43550016** | **1/4** | 32 | 87 | 32 | 10 |
| **43550018** | **9/32** | 35 | 95 | 45 | 10 |
| **43550020** | **5/16** | 40 | 98 | 59 | 10 |
| **43550022** | **11/32** | 41 | 105 | 75 | 10 |
| **43550024** | **3/8** | 45 | 110 | 95 | 10 |
| **43550028** | **7/16** | 48 | 124 | 143 | 10 |
| **43550032** | **1/2** | 50 | 133 | 201 | 5 |
| **43550034** | **9/16** | 57 | 152 | 292 | 5 |
| **43550036** | **5/8** | 59 | 160 | 380 | 5 |
| **43550040** | **3/4** | 70 | 180 | 605 | 5 |
| **43550044** | **7/8** | 80 | 200 | 945 | 1 |





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## 10760CV Hexagon key wrenches

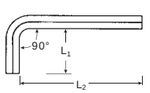
- DIN ISO 2936 (metric)
- for socket head screws
- Chrome Vanadium, nickel-plated

| Code | No | g | |
|---|---|---|---|
| **96435505** | **10760CV/8 [1]** *NEW* | 708 | 1 |
| **96431501** | **10760CV/9 [2]** | 252 | 1 |
| **96435504** | **10760aCV/10T [3]** | 286 | 1 |
| **96435502** | **10760aCV/13 [4]** | 126 | 1 |

[1]) Content: 3; 4; 5; 6; 8; 10; 12; 14 mm (in textile bag)
[2]) Content: 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm (in holder)
[3]) Content: 1/16; 5/64; 3/32; 1/8; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" (in textile bag)
[4]) Content (in two holders): 0.028; 0.035; 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4"

## 10765 Hexagon key wrenches

- DIN ISO 2936
- for socket head screws
- extra long
- Chrome Vanadium, nickel-plated



| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43210015** | **1.5** | 14 | 90 | 3 | 10 |
| **43210002** | **2** | 16 | 100 | 3 | 10 |
| **43210025** | **2.5** | 18 | 112 | 5 | 10 |
| **43210003** | **3** | 20 | 126 | 9 | 10 |
| **43210004** | **4** | 25 | 140 | 20 | 10 |
| **43210005** | **5** | 28 | 160 | 31 | 10 |
| **43210006** | **6** | 32 | 180 | 50 | 10 |
| **43210007** | **7** | 34 | 190 | 74 | 10 |
| **43210008** | **8** | 36 | 200 | 100 | 10 |
| **43210009** | **9** | 38 | 210 | 134 | 10 |
| **43210010** | **10** | 40 | 224 | 179 | 10 |
| **43210012** | **12** | 45 | 250 | 287 | 5 |
| **43210014** | **14** | 56 | 280 | 440 | 5 |
| **43210017** | **17** | 63 | 320 | 742 | 5 |
| **43210019** | **19** | 70 | 360 | 1048 | 5 |

## 10765/9 Hexagon key wrenches

- for socket head screws
- DIN ISO 2936
- extra long
- Chrome Vanadium, nickel-plated
- content: 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm
- in holder

| Code | g | |
|---|---|---|
| **96432101** | 415 | 5 |

## 10766 Key wrenches

- for inside TORX® screws
- Chrome Vanadium, chrome plated

| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **43220008** | **T8** | 2.3 | 16 | 44 | 3 | 10 |
| **43220009** | **T9** | 2.5 | 16 | 48 | 3 | 10 |
| **43220010** | **T10** | 2.7 | 17 | 51 | 3 | 10 |
| **43220015** | **T15** | 3.3 | 18 | 54 | 5 | 10 |
| **43220020** | **T20** | 3.8 | 19 | 57 | 7 | 10 |
| **43220025** | **T25** | 4.4 | 20 | 60 | 9 | 10 |
| **43220027** | **T27** | 5.0 | 21 | 64 | 15 | 10 |
| **43220030** | **T30** | 5.5 | 24 | 70 | 20 | 10 |
| **43220040** | **T40** | 6.6 | 26 | 76 | 29 | 10 |

## 10766 Key wrenches

- for inside TORX® screws
- Chrome Vanadium, chrome plated
- in holder

| Code | No | g | |
|---|---|---|---|
| **96432201** | **10766/6 [1]** | 105 | 1 |
| **96432202** | **10766/9 [2]** | 120 | 1 |

[1]) Content: sizes T15; T20; T25; T27; T30; T40
[2]) Content: sizes T8; T9; T10; T15; T20; T25; T27; T30; T40

## 10771 Key wrenches

- for inside TORX® screws
- extra long
- with ball end on long arm
- swivel angle up to 25° each side
- Chrome Vanadium, gunmetal finish

| Code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **43270010** | **T10** | 2.7 | 23 | 121 | 10 | 5 |
| **43270015** | **T15** | 3.3 | 27 | 136 | 10 | 5 |
| **43270020** | **T20** | 3.8 | 29 | 148 | 20 | 5 |
| **43270025** | **T25** | 4.4 | 33 | 163 | 24 | 5 |
| **43270027** | **T27** | 5.0 | 36 | 176 | 28 | 5 |
| **43270030** | **T30** | 5.5 | 38 | 191 | 30 | 5 |
| **43270040** | **T40** | 6.6 | 43 | 210 | 35 | 5 |

## 10771/8 Key wrenches

- for inside TORX® screws
- extra long
- with ball end on long arm
- swivel angle up to 25° each side
- Chrome Vanadium, gunmetal finished
- Content: sizes T9; T10; T15; T20; T25; T27; T30; T40
- in holder

| Code | g | |
|---|---|---|
| **96432701** | 290 | 1 |

## 10767 Ball ended hexagon key wrenches

- for hexagon socket head screws
- with ball end on long arm
- swivel angle up to 25° each side
- Chrome Vanadium, gunmetal finish

| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43570130** | **1.3** | 12 | 72 | 1 | 10 |
| **43260015** | **1.5** | 14 | 89 | 2 | 10 |
| **43260002** | **2** | 16 | 99 | 3 | 10 |
| **43260025** | **2.5** | 18 | 112 | 5 | 10 |
| **43260003** | **3** | 20 | 124 | 8 | 10 |
| **43260004** | **4** | 25 | 138 | 17 | 10 |
| **43260005** | **5** | 28 | 158 | 30 | 10 |
| **43260006** | **6** | 32 | 178 | 50 | 10 |
| **43260008** | **8** | 36 | 198 | 99 | 10 |
| **43260010** | **10** | 40 | 222 | 175 | 10 |
| **43260012** | **12** | 45 | 248 | 280 | 10 |

## 10767H Ball ended hexagon key wrenches

- for hexagon key wrenches
- swivel angle up to 25° each side
- with ball end on long arm
- facilitates quick, safe work in awkward places
- screws stay on the head once attached
- Chrome Vanadium, gunmetal finish

| Code | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46231003** | **3** | 20 | 126 | 8 | 10 |
| **46231004** | **4** | 25 | 140 | 17 | 10 |
| **46231005** | **5** | 28 | 160 | 30 | 10 |
| **46231006** | **6** | 32 | 180 | 50 | 10 |
| **46231008** | **8** | 36 | 200 | 100 | 10 |
| **46231010** | **10** | 40 | 224 | 175 | 10 |

## 10767a Ball ended hexagon key wrenches

- for hexagon socket head screws
- with ball end on long arm
- swivel angle up to 25° each side
- Chrome Vanadium, gunmetal finish

| Code | " | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **43570004** | **1/16** | 14 | 78 | 2 | 10 |
| **43570005** | **5/64** | 16 | 87 | 4 | 10 |
| **43570006** | **3/32** | 18 | 99 | 5 | 10 |
| **43570007** | **7/64** | 20 | 108 | 8 | 10 |
| **43570008** | **1/8** | 20 | 119 | 10 | 10 |
| **43570009** | **9/64** | 23 | 132 | 13 | 10 |
| **43570010** | **5/32** | 25 | 145 | 17 | 10 |
| **43570012** | **3/16** | 26 | 159 | 26 | 10 |
| **43570014** | **7/32** | 29 | 170 | 39 | 10 |
| **43570016** | **1/4** | 31 | 184 | 60 | 10 |
| **43570020** | **5/16** | 36 | 202 | 100 | 10 |
| **43570024** | **3/8** | 38 | 222 | 157 | 10 |

## 10767H/9 Set: Ball ended hexagon key wrenches

- for recessed hexagonal screws
- swivel angle up to 25° each side
- from size 3 mm with ring
- with ball end on long arm
- facilitates quick, safe work in awkward places
- screws stay on the head once attached
- Chrome Vanadium, gunmetal finish
- Content: 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm
- in holder

| Code | g | |
|---|---|---|
| **96432602** | 401 | 5 |

## 10767 Ball ended hexagon key wrenches

- Chrome Vanadium, gunmetal finish
- in holder

| Code | No | g | |
|---|---|---|---|
| **96432601** | **10767/9 [1])** | 411 | 5 |
| **96435701** | **10767a/8 [2])** | 280 | 1 |
| **96435702** | **10767a/13 [3])** | 465 | 1 |

[1]) Content: 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm
[2]) Content: 5/64; 3/32; 1/8; 5/32; 3/16; 7/32; 1/4; 5/16"
[3]) Content: 0.050; 1/16; 5/64; 3/32; 7/64; 1/8; 9/64; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8"





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STAHLWILLE
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MADE IN GERMANY

# 7 PLIERS & CUTTERS


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Wire stripping pliers, cable shear, crimping pliers, various cutting pliers
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Sets of tools
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Electronics pliers
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# Accurate. Strong. Reliable.
# STAHLWILLE pliers, cutters & wrenches.

Made in Germany

For accurate work and a powerful grip – STAHLWILLE pliers & cutters with multi-component grips. The carefully crafted handle shape and the surface texture ensure firm grip and strain-free handling – even with greasy hands. The special plastic we have used is also resistant to aggressive fluids and, at the end of the lifecycle, can be properly disposed of, because it does not contain PVC.

7

## DURABLE.

Smooth-running lap-joints and high-quality materials for a long tool life.

## ERGONOMICALLY REFINED.

Work without repetitive strain injury thanks to ergonomically designed cushion grip handles.

## SAFE.

The anti-slip protection prevents your hands slipping off towards the jaws.

## ACCURATE.

Specially hardened, high-precision cutting edges enable clean, effortless cutting, even of piano wire.

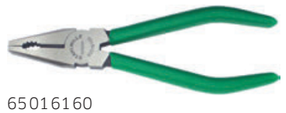
# Combination pliers

## 6501 Combination pliers

- DIN ISO 5746
- precision cutting edges for all wires, incl. piano wire
- induction hardened cutting edges, approx. 62 HRC
- for long life

65013160

65015160


65016160

| Code | L mm | Head | Handles | ③ | ④ | ⑤ | ⑥ | g |
|---|---|---|---|---|---|---|---|---|
| **65013160** | 160 | polished | multi-component handles with softer layers | 1.8 | 1.5 | 10 | 16 | 183 |
| **65013180** | 180 | | | 2 | 1.8 | 12 | 16 | 226 |
| **65013200** | 200 | | | 2.5 | 2 | 13 | 16 | 312 |
| **65015160** | 160 | chrome plated | multi-component handles with softer layers | 1.8 | 1.5 | 10 | 16 | 190 |
| **65015180** | 180 | | | 2 | 1.8 | 12 | 16 | 230 |
| **65015200** | 200 | | | 2.5 | 2 | 13 | 16 | 310 |
| **65016160** | 160 | polished | dip-coated with sure-grip surface | 1.8 | 1.5 | 10 | 16 | 165 |
| **65016180** | 180 | | | 2 | 1.8 | 12 | 16 | 205 |
| **65016200** | 200 | | | 2.5 | 2 | 13 | 16 | 288 |

③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire
⑤ Cutting capacity in mm for cable
⑥ Cutting capacity in mm² for cable

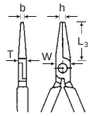
# Flat nose pliers

## 6507 Flat nose pliers, short

- DIN ISO 5745
- short, flat serrated jaws

65075160

65076160



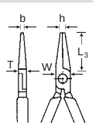

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65075160** | 160 | chrome plated | multi-component handles with softer layers | 30 | 17 | 10 | 5 | 9 | 180 |
| **65076160** | 160 | polished | dip-coated with sure-grip surface | 30 | 17 | 10 | 5 | 9 | 151 |

## 6508 Flat nose pliers, long

- DIN ISO 5745
- long, flat serrated jaws

65085160

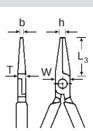
65086160




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65085160** | 160 | chrome plated | multi-component handles with softer layers | 50 | 15 | 8 | 3 | 5 | 160 |
| **65086160** | 160 | polished | dip-coated with sure-grip surface | 50 | 15 | 8 | 3 | 5 | 113 |

## 6509 Flat nose pliers, long, with cutter

- designed for gripping and manipulating electronic components
- long, thin, flat serrated jaws
- induction hardened cutting edges approx. 60 HRC
- for soft and hard wires




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65095160** | 160 | chrome plated | multi-component handles with softer layers | 50 | 15 | 8 | 3 | 5 | 160 |





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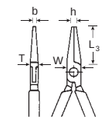
## 6510 Mechanics flat nose pliers

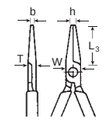
- designed for use in fine mechanical and electronics industries
- flat, slim, long serrated jaws
- box joint, for long life
- serrated gripping areas




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65105190** | 190 | chrome plated | dip-coated with sure-grip surface | 75 | 13.5 | 8.5 | 2 | 4.5 | 121 |

## 6516 Mechanics flat nose pliers

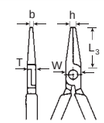
- designed for use by instrument mechanics
- flat blunt, serrated jaws
- wear resistant




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65165200** | 200 | chrome plated | dip-coated with sure-grip surface | 40 | 13.5 | 9.5 | 2.5 | 9.5 | 158 |

## 6511 Relay pliers

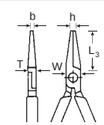
- DIN 5235
- Form A, flat pointed
- for use on contact and relay springs and on small components
- smooth jaws




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65115135** | 140 | chrome plated | dip-coated with sure-grip surface | 33 | 13 | 7.5 | 1 | 1.5 | 72 |

## 6512 Relay pliers

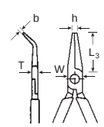
- DIN 5235
- Form B, flat blunt
- for use on contact and relay springs and on small components
- smooth jaws




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65125135** | 140 | chrome plated | dip-coated with sure-grip surface | 33 | 13 | 7.5 | 1 | 3.5 | 78 |

## 6513 Relay pliers

- DIN 5235
- Form C, flat bent, 45° in line with jaws
- for use on contact and relay springs and on small components
- smooth jaws




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65135135** | 140 | chrome plated | dip-coated with sure-grip surface | 31 | 13 | 7.5 | 1 | 3.5 | 78 |





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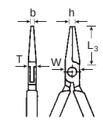
## 6518 Mechanics gripping pliers

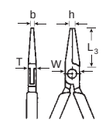
- Form A, flat blunt
- designed for use by instrument mechanics
- wide precision jaws, smooth, tapering
- box joint for precise movement




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65 18 51 30** | 130 | chrome plated | dip-coated with sure-grip surface | 24 | 11.5 | 7 | 2 | 6.5 | 76 |

## 6519 Mechanics gripping pliers

- Form B, flat pointed
- designed for use by instrument mechanics
- flat pointed precision jaws, smooth, tapering
- box joint for precise movement

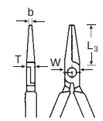



| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65 19 51 30** | 130 | chrome plated | dip-coated with sure-grip surface | 24 | 11.5 | 7 | 1.5 | 2 | 72 |

# Round nose pliers

## 6523 Round nose pliers, short

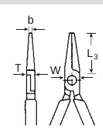
- DIN ISO 5745
- for bending wire loops and rings
- short, round, ground jaws
- fine serrations on gripping areas




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | b mm | g |
|---|---|---|---|---|---|---|---|---|
| **65 23 51 60** | 160 | chrome plated | multi-component handles with softer layers | 30 | 18 | 10 | 3 | 185 |

## 6524 Round nose pliers, long

- DIN ISO 5745
- for bending wire loops and rings
- long, round, ground jaws
- fine serrations on gripping areas




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | b mm | g |
|---|---|---|---|---|---|---|---|---|
| **65 24 51 60** | 160 | chrome plated | multi-component handles with softer layers | 47 | 15.5 | 8.5 | 2.5 | 155 |





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# Snipe nose pliers

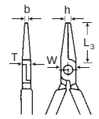
## 6529 Snipe nose pliers with cutter (radio- or telephone pliers)

- DIN ISO 5745
- Form A (straight)
- half round, long tapering, serrated jaws
- with burner hole
- precision cutting edges for soft and hard wires
- induction hardened cutting edges, approx. 60 HRC

65293160

65295160

65296160




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65293145** | 140 | polished | multi-component handles with softer layers | 44 | 15 | 8 | 2.5 | 2 | 115 |
| **65293160** | 160 | | | 51 | 16 | 9 | 3 | 2.5 | 155 |
| **65293200** | 200 | | | 73 | 17 | 9 | 3 | 2.5 | 197 |
| **65295145** | 140 | chrome plated | multi-component handles with softer layers | 44 | 15 | 8 | 2.5 | 2 | 115 |
| **65295160** | 160 | | | 51 | 16 | 9 | 3 | 2.5 | 150 |
| **65295200** | 200 | | | 73 | 17 | 9 | 3 | 2.5 | 200 |
| **65296145** | 140 | polished | dip-coated with sure-grip surface | 44 | 15 | 8 | 2.5 | 2 | 92 |
| **65296160** | 160 | | | 51 | 16 | 9 | 3 | 2.5 | 125 |
| **65296200** | 200 | | | 73 | 17 | 9 | 3 | 2.5 | 187 |

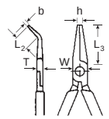
## 6530 Snipe nose pliers with cutter (radio- or telephone pliers)

- DIN ISO 5745
- Form B, bent 45°
- half round, long tapering, serrated jaws
- with burner hole
- precision cutting edges for soft and hard wires
- induction hardened cutting edges, approx. 60 HRC

65303200

65305200

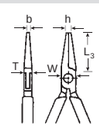
65306200




| Code | L mm | Head | Handles | $L_2$ mm | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **65303160** | 160 | polished | multi-component handles with softer layers | 24 | 55 | 16 | 9 | 3 | 2.5 | 145 |
| **65303200** | 200 | | | 28 | 76 | 17 | 9 | 3.5 | 2.5 | 198 |
| **65305160** | 160 | chrome plated | multi-component handles with softer layers | 24 | 55 | 16 | 9 | 3 | 2.5 | 170 |
| **65305200** | 200 | | | 28 | 76 | 17 | 9 | 3.5 | 2.5 | 200 |
| **65306160** | 160 | polished | dip-coated with sure-grip surface | 24 | 55 | 16 | 9 | 3 | 2.5 | 146 |
| **65306200** | 200 | | | 28 | 76 | 17 | 9 | 3.5 | 2.5 | 178 |

## 6531 Mechanics snipe nose pliers

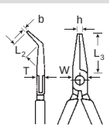
- Form A (straight)
- designed for use on miniature electronic and mechanical components
- half round extra thin, long tapering jaws with fine serration
- box joint for precise movement




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65315170** | 170 | chrome plated | dip-coated with sure-grip surface | 63 | 13.5 | 8 | 2.5 | 2 | 101 |

## 6532 Mechanics snipe nose pliers

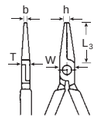
- Form B, bent 45°
- designed for use on miniature electronic and mechanical components
- half round extra thin, long tapering jaws with fine serrations
- box joint for precise movement




| Code | L mm | Head | Handles | $L_2$ mm | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **65325170** | 170 | chrome plated | dip-coated with sure-grip surface | 24 | 54 | 13.5 | 8 | 2.5 | 2 | 98 |

## 6533 Mechanics snipe nose pliers

- half round, long tapering, serrated jaws



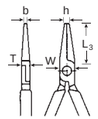

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65335160** | 160 | chrome plated | dip-coated with sure-grip surface | 50 | 15 | 8 | 3 | 2.5 | 129 |

## 6534 Mechanics snipe nose pliers

- Form A (straight)
- half round, long tapering, serrated jaws

65345200

65345280



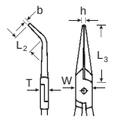

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65345200** | 200 | chrome plated | multi-component handles with softer layers | 76 | 16 | 10 | 3 | 2.5 | 220 |
| **65345280** | 280 | chrome plated | dip-coated with sure-grip surface | 73 | 20 | 9.5 | 3 | 2.5 | 255 |

## 6535 Mechanics snipe nose pliers

- Form B (bent 45°)
- half round, long tapering, serrated jaws

65355200

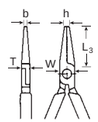
65355280




| Code | L mm | Head | Handles | $L_2$ mm | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **65355200** | 200 | chrome plated | multi-component handles with softer layers | 28 | 68 | 17 | 9.5 | 3.5 | 2.5 | 220 |
| **65355280** | 280 | chrome plated | dip-coated with sure-grip surface | 28 | 66 | 20 | 9.5 | 3 | 2.5 | 255 |

## 6536 Snipe nose pliers (needle pliers)

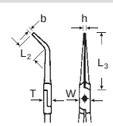
- DIN ISO 9655
- Form A (straight)
- designed for use on electronic components
- half round, extra long tapering jaws with fine serration




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65365160** | 160 | chrome plated | dip-coated with sure-grip surface | 58 | 15 | 8.5 | 4 | 3 | 110 |

## 6537 Snipe nose pliers (needle pliers)

- Form B, bent 45°
- designed for use on electronic components
- half round, extra long tapering jaws with fine serration




| Code | L mm | Head | Handles | $L_2$ mm | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **65375160** | 160 | chrome plated | dip-coated with sure-grip surface | 25 | 54 | 14 | 8 | 1 | 3 | 115 |





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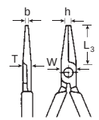
## 6538 Mechanics snipe nose pliers

- designed for use on miniature mechanical components
- half round tapering jaws
- wear resisting serration




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65385200** | 200 | chrome plated | dip-coated with sure-grip surface | 38 | 13 | 9.5 | 2.5 | 2 | 157 |

# Circlip Pliers

## 6543 Circlip pliers for inside circlips

- DIN 5256 C
- straight
- H.D. drop forged
- precision points

64434002

65436002

| Code | size | L mm | tips ∅ mm | for circlips mm | Head | Handles | g |
|---|---|---|---|---|---|---|---|
| **65434000** | **J 0** | 140 | 0.9 | 8–13 | mattchrome plated | chrome plated, chequered | 90 |
| **65434001** | **J 1** | 140 | 1.3 | 12–25 | | | 90 |
| **65434002** | **J 2** | 180 | 1.8 | 19–60 | | | 135 |
| **65434003** | **J 3** | 225 | 2.3 | 40–100 | | | 195 |
| **65434004** | **J 4** | 320 | 3.2 | 85–140 | | | 419 |
| **65436000** | **J 0** | 140 | 0.9 | 8–13 | polished | dip-coated with sure-grip surface | 100 |
| **65436001** | **J 1** | 140 | 1.3 | 12–25 | | | 100 |
| **65436002** | **J 2** | 180 | 1.8 | 19–60 | | | 150 |
| **65436003** | **J 3** | 225 | 2.3 | 40–100 | | | 215 |
| **65436004** | **J 4** | 320 | 3.2 | 85–140 | | | 462 |

## 6544 Circlip pliers for inside circlips

- DIN 5256 D
- bent 90°
- H.D. drop forged
- precision points

65444021

65446021



| Code | size | L mm | tips ∅ mm | for circlips mm | Head | Handles | g |
|---|---|---|---|---|---|---|---|
| **65444001** | **J 01** | 130 | 0.9 | 8–13 | mattchrome plated | chrome plated, chequered | 90 |
| **65444011** | **J 11** | 130 | 1.3 | 12–25 | | | 90 |
| **65444021** | **J 21** | 170 | 1.8 | 19–60 | | | 135 |
| **65444031** | **J 31** | 215 | 2.3 | 40–100 | | | 195 |
| **65444041** | **J 41** | 300 | 3.2 | 85–140 | | | 416 |
| **65446001** | **J 01** | 130 | 0.9 | 8–13 | polished | dip-coated with sure-grip surface | 100 |
| **65446011** | **J 11** | 130 | 1.3 | 12–25 | | | 100 |
| **65446021** | **J 21** | 170 | 1.8 | 19–60 | | | 150 |
| **65446031** | **J 31** | 215 | 2.3 | 40–100 | | | 215 |
| **65446041** | **J 41** | 300 | 3.2 | 85–140 | | | 432 |



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## 6545 Circlip pliers for outside circlips

- DIN 5254 A
- straight
- H.D. drop forged
- precision points
- with wear resistant compression spring

65454002

65456002

| Code | size | L mm | tips ∅ mm | for circlips mm | Head | Handles | g |
|---|---|---|---|---|---|---|---|
| **65454000** | **A 0** | 140 | 0.9 | 3–10 | mattchrome plated | chrome plated, chequered | 95 |
| **65454001** | **A 1** | 140 | 1.3 | 10–25 | | | 95 |
| **65454002** | **A 2** | 180 | 1.8 | 19–60 | | | 145 |
| **65454003** | **A 3** | 210 | 2.3 | 40–100 | | | 205 |
| **65454004** | **A 4** | 315 | 3.2 | 85–140 | | | 437 |
| **65456000** | **A 0** | 140 | 0.9 | 3–10 | polished | dip-coated with sure-grip surface | 105 |
| **65456001** | **A 1** | 140 | 1.3 | 10–25 | | | 105 |
| **65456002** | **A 2** | 180 | 1.8 | 19–60 | | | 160 |
| **65456003** | **A 3** | 210 | 2.3 | 40–100 | | | 232 |
| **65456004** | **A 4** | 315 | 3.2 | 85–140 | | | 491 |

## 6546 Circlip pliers for outside circlips

- DIN 5254 B
- bent 90°
- H.D. drop forged
- precision points
- with wear resistant compression spring

65464021

65466021

| Code | size | L mm | tips ∅ mm | for circlips mm | Head | Handles | g |
|---|---|---|---|---|---|---|---|
| **65464001** | **A 01** | 125 | 0.9 | 3–10 | mattchrome plated | chrome plated, chequered | 95 |
| **65464011** | **A 11** | 125 | 1.3 | 10–25 | | | 95 |
| **65464021** | **A 21** | 170 | 1.8 | 19–60 | | | 145 |
| **65464031** | **A 31** | 200 | 2.3 | 40–100 | | | 111 |
| **65464041** | **A 41** | 290 | 3.2 | 85–140 | | | 431 |
| **65466001** | **A 01** | 125 | 0.9 | 3–10 | polished | dip-coated with sure-grip surface | 105 |
| **65466011** | **A 11** | 125 | 1.3 | 10–25 | | | 105 |
| **65466021** | **A 21** | 170 | 1.8 | 19–60 | | | 160 |
| **65466031** | **A 31** | 200 | 2.3 | 40–100 | | | 236 |
| **65466041** | **A 41** | 290 | 3.2 | 85–140 | | | 468 |

## 6547 Special circlip pliers for slotted circlips

- for slotted circlips (as used on shafts of engines, gearboxes, differentials, clutches etc.)
- with wear resistant compression spring

65474170

65476170

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **65474170** | 170 | mattchrome plated | chrome plated, chequered | 154 |
| **65476170** | 170 | polished | dip-coated with sure-grip surface | 162 |





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# Waterpump Pliers

## 6551 Waterpump pliers

- DIN ISO 8976 (No 207 c)
- box joint
- 7 adjustment positions (175 mm 6 adjustment positions)
- anti-squeeze protection
- Chrome Vanadium

65515240

65516175

| Code | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65515240** | 245 | 34 | chrome plated | multi-component handles with softer layers | 330 |
| **65516175** | 177 | 24 | black lacquered, jaws polished | black lacquered, box frame polished, dip-coated | 173 |
| **65516240** | 240 | 34 | | | 320 |
| **65516300** | 302 | 45 | | | 520 |

## 6572 Waterpump pliers FastGRIP

- **patent**
- DIN ISO 8976
- box joint with dual support
- fast adjustment on the work piece via push button
- freely and easily adjustable with 10 snap-in points (180 mm), 12 snap-in points (240 mm), 15 snap-in points (300 mm)
- induction hardened jaw toothing - extremely hard and durable
- safety clamping protection against squeezing injuries
- Chrome Vanadium

| Code | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65726180** | 180 | 28 | polished | dip-coated with sure-grip surface | 236 |
| **65726240** | 240 | 37 | | | 405 |
| **65726300** | 300 | 44 | | | 530 |

## 6573 PowerGRIP pliers wrench

- **patent**
- box joint
- fast adjustment via button press directly on the work piece
- freely adjustable, easy super fine adjustment
- high transmission ratio for noticeable amplification of manual force
- for work pieces with parallel surfaces (nuts, screws etc.)
- also ideal for bending thin parallel work pieces (e.g. metal sheet)
- parallel jaws without profile to protect surface coated work pieces
- "ratchet effect" for screws by using the jaw stroke
- extremely resistant overall construction, high quality tempered

| Code | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65735180** | 192 | 36 | chrome plated | dip-coated with sure-grip surface | 291 |
| **65735250** | 253 | 46 | | | 485 |
| **65735300** | 300 | 60 | | | 661 |

## 6554 Waterpump pliers, with rapid adjustment

- DIN ISO 8976 (No 207 c)
- box joint "hook" adjustment
- jaw with slot
- Chrome Vanadium

| Code | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65544250** | 255 [1]) | 52 | chrome plated | chrome plated, chequered | 476 |
| **65544375** | 375 | 61 | | | 1066 |

[1]) anti-squeeze protection



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## 6954 Spare springs for No 6554

| Code | Spare spring for No | g |
|---|---|---|
| **69540002** | 65544250 | 3 |
| **69540003** | 65544375 | 4 |

## 6515 MINI-waterpump pliers

- box joint
- 4 adjustment positions
- anti-squeeze protection
- Chrome Vanadium

| Code | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65156125** | 125 | 25 | black lacquered, polished | dip-coated with sure-grip surface | 118 |

# Pipe Wrenches

## 6549 Pipe wrenches

- Type B
- 45°
- DIN 5234

| Code | size | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|---|
| **65490315** | **1** | 330 | 35 | red lacquered | red lacquered | 780 |
| **65490420** | **1 ½** | 445 | 62 | | | 1626 |
| **65490555** | **2** | 560 | 78 | | | 2780 |

## 6556 Swedish pattern wrenches

- Type A
- 90°
- DIN 5234

| Code | size | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|---|
| **65560310** | **1** | 320 | 44 | red lacquered | red lacquered | 780 |
| **65560420** | **1 ½** | 420 | 64 | | | 1560 |
| **65560560** | **2** | 540 | 83 | | | 2676 |

## 6557 S-shaped Swedish pattern wrenches

- Type C
- DIN 5234

| Code | size | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|---|
| **65570320** | **1** | 330 | 40 | red lacquered, polished | red lacquered | 811 |
| **65570416** | **1 ½** | 440 | 60 | | | 1595 |
| **65570535** | **2** | 560 | 70 | | | 2677 |





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## 6558 “Heavy-duty” pipe wrenches

- US-standard GGG-W-651 Type II, category A

| Code | size | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|---|
| **65580250** | **10"** | 250 | 49 | black lacquered, polished | red lacquered | 805 |
| **65580300** | **12"** | 300 | 61 | | | 1255 |
| **65580350** | **14"** | 350 | 61 | | | 1665 |
| **65580450** | **18"** | 450 | 77 | | | 2660 |
| **65580600** | **24"** | 600 | 90 | | | 3955 |

## 6559 “Stillson” pipe wrenches

- US-standard GGG-W-651 Type I, category A

| Code | size | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|---|
| **65590250** | **10"** | 250 | 35 | black lacquered, polished | red lacquered | 550 |
| **65590300** | **12"** | 300 | 43 | | | 750 |
| **65590350** | **14"** | 350 | 49 | | | 1080 |
| **65590450** | **18"** | 450 | 61 | | | 1725 |
| **65590600** | **24"** | 600 | 77 | | | 2745 |

# Self Grip Wrenches

## 6561 Wide jaw self grip wrench

- 80 mm jaw width, quick release lever
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65612175** | 175 | 20 | bright nickel-plated | bright nickel-plated | 364 |

## 6562 Parallel jaw self grip wrench

- forged jaws, quick release lever
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65622250** | 250 | 50 | bright nickel-plated | bright nickel-plated | 700 |





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## 6562/1, 6562/2 Parallel jaw self grip wrenches

- forged jaws, quick release lever
- for small round parts (V-cutout in one jaw) and also suitable for larger workpieces
- also ideal for gently gripping sensitive workpieces
- Chrome Vanadium

6562/1

6562/2

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65622100** | 250 | 100 | bright nickel-plated | bright nickel-plated | 998 |
| **65622200** | 250 | 200 | | | 1100 |

## 6962 Plastic protective jaws for parallel jaw self grip wrenches No 6562/1 and No 6562/2

- 1 pair
- provides additional protection for clamped workpieces

| Code | g |
|---|---|
| **69620001** | 10 |

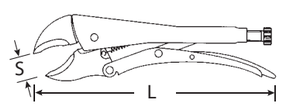
## 6563 Universal self grip wrenches

- forged jaws (one straight, one contoured), quick release lever
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65632175** | 175 | 25 | bright nickel-plated | bright nickel-plated | 365 |
| **65632250** | 250 | 30 | | | 500 |

## 6564 Self grip wrenches

- forged contoured jaws
- quick release lever, wire cutter
- Chrome Vanadium




| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65642145** | 145 | 14 | bright nickel-plated | bright nickel-plated | 175 |
| **65642175** | 175 | 30 | | | 323 |
| **65642250** | 250 | 40 | | | 550 |
| **65642300** | 300 | 65 | | | 977 |





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## 6565 Welders self grip wrench

- with quick release lever
- **malleable cast iron jaws**
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65652280** | 280 | 65 | bright nickel-plated | bright nickel-plated | 941 |

## 6566 Pipe welders self grip wrench

- with quick release lever
- **malleable cast iron jaws**
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65662280** | 280 | 85 | bright nickel-plated | bright nickel-plated | 944 |

## 6567 C-Clamp self grip wrenches

- with quick release lever
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65672175** | 175 | 75 | bright nickel-plated | bright nickel-plated | 236 |
| **65672280** | 280 | 85 | | | 694 |

## 6568 Long reach grip wrenches

- extra large capacity
- quick release lever
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65682460** | 460 | 180 | bright nickel-plated | bright nickel-plated | 1100 |
| **65682600** | 600 | 240 | | | 1372 |

## 6571 Long nose self grip wrench

- specially suitable for narrow, tapering access
- with quick-release lever
- Chrome Vanadium

| Code | L mm | S mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65712165** | 165 | 23 | bright nickel-plated | bright nickel-plated | 190 |





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# Wire Twisting Pliers

## 6575 Wire twisting pliers

- for wire locking of metal fasteners
- with side cutter, serrated jaws for positive grip
- jaws angled by 40°
- suitable for locking wires up to ∅ 1.6 mm (dec. in. 0.06)
- **for clockwise and anticlockwise use**
- with automatic return action
- Chrome Vanadium

65751220

65751280

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **65751220** | 230 | gunmetal finish, polished | gunmetal finish | 330 |
| **65751280** | 280 | | | 440 |

# Various Gripping Pliers

## 6576N Connector pliers

- replaceable plastic jaws
- 4 adj. positions
- for use on screw connections incl. Canon-connectors, or any light alloy or other tube connections, surfaces of which must not be damaged
- Chrome Vanadium

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **65765231** | 230 | chrome plated | with dip-coated | 288 |

## 6976 Loose plastic jaws for No 6576N

| Code | g |
|---|---|
| **69760001** | 4 |



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# Side Cutters

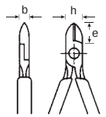
## 6600 Side cutters

- DIN ISO 5749
- Form B
- precision cutting edges for all wires incl. piano wire
- high quality alloy steel
- bevelled cutting edges induction hardened, approx. 63 HRC

66003160

66005160

66006160




| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66003130** | 125 | polished | multi-component handles with softer layers | 24 | 17 | 8.6 | 2.8 | 2.3 | 1.5 | 1.25 | 110 |
| **66003145** | 140 | | | 25.7 | 18.5 | 8.2 | 3 | 2.5 | 1.8 | 1.6 | 147 |
| **66003160** | 160 | | | 29.5 | 22.5 | 9.5 | 3 | 2.8 | 2 | 1.6 | 188 |
| **66003180** | 180 | | | 32 | 23.5 | 11 | 3.8 | 3 | 2.5 | 2 | 242 |
| **66005130** | 125 | chrome plated | multi-component handles with softer layers | 24 | 17 | 8.6 | 2.8 | 2.3 | 1.5 | 1.25 | 105 |
| **66005145** | 140 | | | 25.7 | 18.5 | 8.2 | 3 | 2.5 | 1.8 | 1.6 | 160 |
| **66005160** | 160 | | | 29.5 | 22.5 | 9.5 | 3 | 2.8 | 2 | 1.6 | 190 |
| **66005180** | 180 | | | 32 | 23.5 | 11 | 3.8 | 3 | 2.5 | 2 | 255 |
| **66006130** | 125 | polished | dip-coated with suregrip surface | 24 | 17 | 8.6 | 2.8 | 2.3 | 1.5 | 1.25 | 92 |
| **66006145** | 140 | | | 25.7 | 18.5 | 8.2 | 3 | 2.5 | 1.8 | 1.6 | 121 |
| **66006160** | 160 | | | 29.5 | 22.5 | 9.5 | 3 | 2.8 | 2 | 1.6 | 165 |
| **66006180** | 180 | | | 32 | 23.5 | 11 | 3.8 | 3 | 2.5 | 2 | 205 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

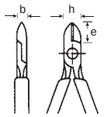
## 6602 Heavy-duty side cutters

- DIN ISO 5749
- Form A
- precision cutting edges for all wires incl. piano wire
- high quality alloy steel
- bevelled cutting edges induction hardened, approx. 63 HRC

66023200

66025200

66026200




7

| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66023140** | 140 | polished | multi-component handles with softer layers | 23.5 | 20 | 9 | 4 | 3.1 | 2 | 1.5 | 156 |
| **66023160** | 160 | | | 25.5 | 25 | 9.5 | 4 | 3.4 | 2.5 | 2 | 203 |
| **66023180** | 180 | | | 27.5 | 26.5 | 10.5 | 4 | 3.8 | 2.7 | 2.2 | 251 |
| **66023200** | 200 | | | 31 | 28 | 11.5 | 4 | 4 | 3 | 2.5 | 305 |
| **66023250** | 250 | | | 32 | 29.5 | 12 | 4 | 4 | 3.5 | 3 | 407 |
| **66025140** | 140 | chrome plated | multi-component handles with softer layers | 23.5 | 20 | 9 | 4 | 3.1 | 2 | 1.5 | 145 |
| **66025160** | 160 | | | 25.5 | 25 | 9.5 | 4 | 3.4 | 2.5 | 2 | 210 |
| **66025180** | 180 | | | 27.5 | 26.5 | 10.5 | 4 | 3.8 | 2.7 | 2.2 | 245 |
| **66025200** | 200 | | | 31 | 28 | 11.5 | 4 | 4 | 3 | 2.5 | 310 |
| **66025250** | 250 | | | 32 | 29.5 | 12 | 4 | 4 | 3.5 | 3 | 409 |
| **66026140** | 140 | polished | dip-coated with suregrip surface | 23.5 | 20 | 9 | 4 | 3.1 | 2 | 1.5 | 140 |
| **66026160** | 160 | | | 25.5 | 25 | 9.5 | 4 | 3.4 | 2.5 | 2 | 170 |
| **66026180** | 180 | | | 27.5 | 26.5 | 10.5 | 4 | 3.8 | 2.7 | 2.2 | 230 |
| **66026200** | 200 | | | 31 | 28 | 11.5 | 4 | 4 | 3 | 2.5 | 260 |
| **66026250** | 250 | | | 32 | 29.5 | 12 | 4 | 4 | 3.5 | 3 | 375 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire



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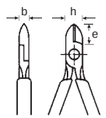
## 6601 Side cutter

- as No 6600, fitted with double leaf spring
- mini bevel



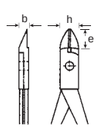

| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66016110** | 110 | polished | dip-coated with suregrip surface | 15 | 15 | 8.5 | 2.5 | 1.5 | 1.2 | 0.8 | 79 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

# Oblique Cutter

## 6612 Mechanics oblique cutter

- suitable for use on miniature mechanical and electronic components
- precision cutting edges for hard and soft wire
- head angled by 28°
- Cu-wire 0,25 mm ∅ may be cut at tips
- alloy steel of highest quality
- induction hardened mini-bevelled cutting edges, approx. 60 HRC




| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **66125185** | 185 | chrome plated | dip-coated with sure-grip surface | 14 | 13.5 | 9.5 | 2 | 1.8 | 1.5 | 145 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire

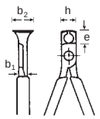
# Top Cutters

## 6618 Heavy-duty top cutters

- DIN ISO 5748
- precision cutting edges for all wires, incl. piano wire
- alloy steel of highest quality
- induction hardened bevelled cutting edges, approx. 63 HRC

66185160

66186160




| Code | L mm | Head | Handles | e mm | h mm | $b_1$ mm | $b_2$ mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **66185160** | 160 | chrome plated | multi-component handles with softer layers | 17 | 26 | 11.5 | 24 | 3.8 | 3 | 2.5 | 2 | 240 |
| **66186160** | 160 | polished | dip-coated with sure-grip surface | 17 | 26 | 11.5 | 24 | 3.8 | 3 | 2.5 | 2 | 211 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

## 6617 Lever action top cutters

- DIN ISO 5748
- for piano wire
- special steel

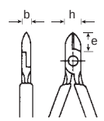
| Code | L mm | Head | Handles | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|
| **66170180** | 180 | polished | black lacquered | 3.5 | 3 | 2.5 | 2.25 | 394 |
| **66170215** | 215 | | | 4 | 3.5 | 2.8 | 2.5 | 440 |
| **66170235** | 235 | | | 4 | 3.5 | 3 | 2.75 | 467 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

# Plastic side-cutters

## 6670 Plastic side-cutter

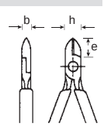
- for plastic injection mouldings
- with particularly narrow, straight cutting edges
- with no bevel to enable flush trimming of sprues and burrs
- only for thin sprues made of soft thermoplastic
- with spring-loaded opening
- induction-hardened cutting edges




| Code | L mm | Head | Handles | e mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|
| **66706120** | 120 | polished | dip-coated with sure-grip surface | 13 | 11 | 7 | 56 |

## 6671 Plastic side-cutter

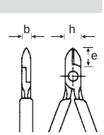
- for plastic injection mouldings
- with particularly narrow, straight cutting edges
- 45° angled
- with no bevel to enable flush trimming of sprues and burrs
- only for thin sprues made of soft thermoplastic
- with spring-loaded opening
- induction-hardened cutting edges




| Code | L mm | Head | Handles | e mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|
| **66716120** | 120 | polished | dip-coated with sure-grip surface | 12 | 11 | 7 | 56 |

## 6672 Plastic side-cutters

- for plastic injection mouldings
- with straight cutting edges
- 20° angled
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges

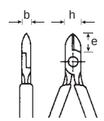



| Code | L mm | Head | Handles | e mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|
| **66726130** | 130 | polished | dip-coated with sure-grip surface | 22 | 16 | 9 | 107 |
| **66726145** | 145 | | | 25 | 17 | 10 | 120 |
| **66726160** | 160 | | | 28 | 18 | 10 | 161 |



## 6673 Plastic side-cutters

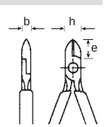
- for plastic injection mouldings
- with raised cutting edges
- 20° angled
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges




| Code | L mm | Head | Handles | e mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|
| **66736130** | 130 | polished | dip-coated with sure-grip surface | 22 | 17 | 8.5 | 107 |
| **66736145** | 145 | | | 23 | 18 | 9.5 | 119 |
| **66736160** | 160 | | | 28 | 18 | 10.5 | 165 |

## 6674 Plastic side-cutter

- for plastic injection mouldings
- with convex cutting edge
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges




| Code | L mm | Head | Handles | e mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|
| **66746160** | 160 | polished | dip-coated with sure-grip surface | 28 | 20 | 11 | 162 |



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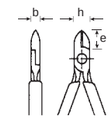
## 6676 Plastic side-cutters

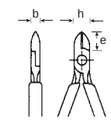
- for plastic injection mouldings
- with straight cutting edges
- 30° angled
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges




| Code | L mm | Head | Handles | e mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|
| **66766130** | 130 | polished | dip-coated with sure-grip surface | 19 | 16.5 | 8.5 | 105 |
| **66766145** | 145 | | | 21 | 18.5 | 9.5 | 125 |
| **66766160** | 160 | | | 28 | 20 | 11 | 165 |

## 6677 Plastic side-cutter

- for plastic injection mouldings
- with straight cutting edges
- 90° angled
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges




| Code | L mm | Head | Handles | e mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|
| **66776160** | 160 | polished | dip-coated with sure-grip surface | 25 | 21 | 10 | 166 |

# Wire Stripping Pliers

## 6622 Wire stripping pliers

- with adjustment screw to cut insulation only on wire or cable
- max. 5 mm ∅ 10 mm² conductor cross-section

66225160

66226160

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66225160** | 160 | chrome plated | multi-component handles with softer layers | 195 |
| **66226160** | 160 | polished | dip-coated with sure-grip surface | 134 |

## 6623 Wire stripping pliers

- for wires from 0.5 to 5 mm ∅
- self adjusting
- cutter hole for cutting wire or stranded wires up to 5 mm ∅
- special steel

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66235160** | 160 | chrome plated | multi-component handles with softer layers | 175 |

## 6923 Replacement stripping knives (1 pair) for No 6623

| Code | g |
|---|---|
| **69230001** | 11 |

## 6624 Wire stripping pliers

- for wires from 0.3 to 1.2 mm ∅
- self adjusting
- cutter hole for cutting wire or stranded wires up to 5 mm ∅
- special alloy steel

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66245160** | 160 | chrome plated | multi-component handles with softer layers | 186 |





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# Cable Shear

## 6630 Cable shear

- for copper- and light alloy cables
- easy, single handed operation
- special cutting edges geometry to avoid pressure marks and frayed ends
- adjustable joint
- anti-squeeze protection
- not suitable for steel- or armoured cables

| Code | L mm | Head | Handles | ⑦ | ⑧ | ⑨ | g |
|---|---|---|---|---|---|---|---|
| **66305220** | 220 | chrome-plated | dip-coated with sure-grip surface | 16 | 35 | 70 | 290 |

⑦ cutting capacity in mm² for single wire Al-/Cu-Cable
⑧ cutting capacity in mm² for multiple wire Al-/Cu-Cable
⑨ cutting capacity in mm² for thin wire Al-/Cu-Cable

# Crimping Pliers

## 6634 Crimping pliers

- with half round profile
- for reliable crimping of terminal sleeves DIN 46228
- 8 deep slots with tapering side walls
- crimping within the size marked profiles in one operation

| Code | L mm | Head | Handles | crimping range mm² | g |
|---|---|---|---|---|---|
| **66346220** | 220 | gunmetal finish | dip-coated with sure-grip surface | 0.25; 0.5; 0.75; 1; 1.5; 2.5; 4; 6; 10; 16 | 240 |

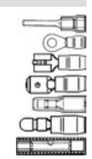
## 6637 Crimping pliers

- for use with terminal sleeves with or without an insulating collar in accordance with DIN 46228
- high precision crimping
- easy-action force transmission coupled with simple handling
- unlockable autolock
- accurately ground profiles
- crimp shape: □

| Code | L mm | Head | Handles | crimping range mm² | g |
|---|---|---|---|---|---|
| **66370195** | 195 | gunmetal finish | with plastic sleeves | 0.08 - 10 | 298 |

## 6638 Crimping pliers

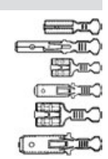
- for red/blue/yellow insulated cable lugs, pin-type cable lugs, flat plugs and sleeves, round plugs and sleeves, butt and parallel connectors
- unlockable autolock
- easy handling
- stripping and cutting device, refer to No 6966
- crimp shape: ⬭



| Code | L mm | Head | Handles | crimping range mm² | g |
|---|---|---|---|---|---|
| **66380220** | 220 | gunmetal finish | with plastic sleeves | red = 0.5–1 (AWG 20–18); blue = 1.5–2.5 (AWG 16–14); yellow = 4–6 (AWG 12–10) | 477 |

## 6639 Crimping pliers

- for non-insulated flat plugs and flat sleeves for nominal DIN widths F2.8; F4.8; F6.3; F9.5
- unlockable autolock
- easy handling
- stripping and cutting device, refer to No 6966
- crimp shape: ⬭



| Code | L mm | Head | Handles | crimping range mm² | g |
|---|---|---|---|---|---|
| **66390220** | 220 | gunmetal finish | with plastic sleeves | 0.25–0.5 (AWG 24–20); 0.5–1 (AWG 20–18); 4–6 (AWG 12–10); 1.5–2.5 (AWG 16–14) | 483 |



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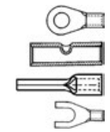
## 6640 Crimping pliers

- for non-insulated cable lugs and tubular cable lugs with closed crimp sleeves
- unlockable autolock
- easy handling
- stripping and cutting device, refer to No 6966
- crimp shape:



| Code | L mm | Head | Handles | crimping range mm² | g |
|---|---|---|---|---|---|
| **66400220** | 220 | gunmetal finish | with plastic sleeves | 0.1–0.35 (AWG 26–22); 0.5–1 (AWG 20–18); 1.5–2.5 (AWG 16–14); 4–6 (AWG 12–10); 10–16 (AWG 8–6) | 465 |

## 6641 Crimping pliers

- for use with terminal sleeves with or without an insulating collar in accordance with DIN 46228
- unlockable autolock
- easy handling
- stripping and cutting device, refer to No 6966
- crimp shape:

| Code | L mm | Head | Handles | crimping range mm² | g |
|---|---|---|---|---|---|
| **66410220** | 220 | gunmetal finish | with plastic sleeves | 0.14–0.5;0.75–1.5;2.5;4;6;10 | 536 |

## 6966 Stripping and cutting tool

- for stripping wires from 0.5 to 6 mm ∅
- cables can also be cut
- for use with crimping pliers No 6638, 6639, 6640 and 6641

| Code | g |
|---|---|
| **69660000** | 37 |

# Various Cutting Pliers

## 6660 Steel fixers pincers

- DIN ISO 9242
- limit on opening angle to ensure single-handed closure (registered design)
- little effort required due to optimised cutter geometry
- induction-hardened cutters provide excellent resistance to wear
- special steel
- drop-forged
- oil hardened

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66601220** | 224 | polished | black lacquered | 318 |
| **66601250** | 250 | | | 390 |
| **66601280** | 280 | | | 475 |

## 6661 Pincers

- DIN ISO 9243
- special steel
- drop-forged
- oil hardened

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66611180** | 180 | polished | black lacquered | 322 |
| **66611200** | 200 | | | 350 |





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## 6662 Heavy-duty steel fixer pincers

- DIN ISO 9243
- induction-hardened cutting edges
- high wear resistance
- extremely low cutting force effort due to very large lever effect and optimum cutting edges geometry
- clearly damped cutting shock due to "elastic" pliers body, therefore ideal for continuous use special steel
- ultra-slim design, ideal for binding recessed reinforcing bars
- special steel
- drop-forged
- oil hardened

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66624300** | 300 | chrome plated, polished | chrome plated | 478 |

## 6706 Set with 3 pliers, polished

dip-coated,
in plastic inlay
Content:
**6501** Combination pliers, 180 mm
**6602** Heavy-duty side cutter, 160 mm
**6529** Snipe nose pliers, 200 mm

| Code | g |
|---|---|
| **96650008** | 750 |

## 6705 Set with 3 pliers, polished

dip-coated,
in plastic inlay
Content:
**6551** Waterpump pliers, 240 mm, lacquered
**6501** Combination pliers, 180 mm
**6602** Heavy-duty side cutter, 160 mm

| Code | g |
|---|---|
| **96650007** | 880 |

## 6703 Set with 3 pliers, chrome plated

multi-component handles with softer layers,
in plastic inlay
Content:
**6501** Combination pliers, 180 mm
**6602** Heavy-duty side cutter, 160 mm
**6529** Snipe nose pliers, 200 mm

| Code | g |
|---|---|
| **96650005** | 810 |

## 6704 Set with 3 pliers, chrome plated

multi-component handles with softer layers (No 6501, 6602),
in plastic inlay
Content:
**6551** Waterpump pliers, 240 mm
**6501** Combination pliers, 180 mm
**6602** Heavy-duty side cutter, 160 mm

| Code | g |
|---|---|
| **96650006** | 900 |

## 6702 Set with 4 pliers, chrome plated

handles chequered, in plastic inlay
Content:
**6543** Circlip pliers, J2
**6544** Circlip pliers, J21
**6545** Circlip pliers, A2
**6546** Circlip pliers, A21

| Code | g |
|---|---|
| **96650004** | 590 |





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# Sets of pliers in plastic inlays also suitable for workbench No WB620, tool trolleys No 90, 95, 95VA, 98VA, magazine case No 920 and wheely box No 922N (modular system see page 46–79)

## ES 6501-6602/7A

- 530 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838121** | 2085 |

| No | |
|---|---|
| **65015180** | 180 mm |
| **65295200** | 200 mm |
| **65434002** | J2 180 mm |
| **65454002** | A2 180 mm |
| **65516240** | 240 mm |
| **65642250** | 250 mm |
| **66025160** | 160 mm |

## ES 6501-6602/7B

- 530 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838132** | 2055 |

| No | |
|---|---|
| **65015200** | 200 mm |
| **65295160** | 160 mm |
| **65434002** | J2 180 mm |
| **65454002** | A2 180 mm |
| **65516240** | 240 mm |
| **65642250** | 250 mm |
| **66025160** | 160 mm |

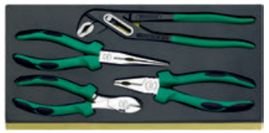
## TCS 6501-6602/3

- 175 x 350 x 40 mm
- 3 pieces

| Code | g |
|---|---|
| **96838775** | 1125 |

| No | |
|---|---|
| **65015200** | 200 mm |
| **65516300** | 302 mm |
| **66025180** | 180 mm |

## TCS 6501-6602/4

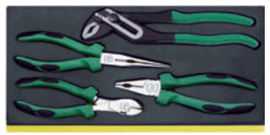


- 175 x 350 x 35 mm
- 4 pieces

| Code | g |
|---|---|
| **96838179** | 1070 |

| No | |
|---|---|
| **65015180** | 180 mm |
| **65295200** | 200 mm |
| **65516240** | 240 mm |
| **66025160** | 160 mm |

## TCS 6501-6602/4N



- 175 x 350 x 35 mm
- 4 pieces

| Code | g |
|---|---|
| **96830622** | 1145 |

| No | |
|---|---|
| **65015180** | 180 mm |
| **65295200** | 200 mm |
| **65726240** | 240 mm |
| **66025160** | 160 mm |





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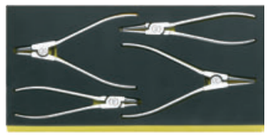
### TCS 6543-6564/3

- 175 x 350 x 30 mm
- 3 pieces

| Code | g |
|---|---|
| **96838180** | 975 |

| | No | |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65642250** | 250 mm |

### TCS 6543-6546/4

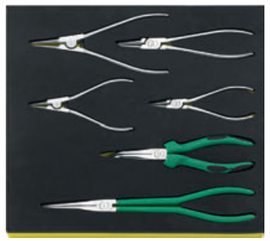


- 175 x 350 x 30 mm
- 4 pieces

| Code | g |
|---|---|
| **96830608** | 626 |

| | No | |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65444021** | J21 170 mm |
| | **65454002** | A2 180 mm |
| | **65464021** | A21 170 mm |

### TCS 6534-6545/6



- 350 x 350 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96832100** | 1070 |

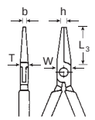
| | No | |
|---|---|---|
| | **65345280** | 280 mm |
| | **65355200** | 200 mm |
| | **65434001**<br>**65434002** | J1 140 mm<br>J2 180 mm |
| | **65454001**<br>**65454002** | A1 140 mm<br>A2 180 mm |

7

## Electronics Pliers, suitable for electrostatic discharge (ESD) applications

### 6517 Electronics flat nose pliers

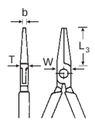
- DIN ISO 9655
- designed for use on miniature electronic and mechanical components
- welded on double leaf spring
- precision jaws, smooth, tapering
- box joint for precise movement




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65176120** | 125 | polished | dip-coated with sure-grip surface, ESD applications | 20 | 9 | 6.5 | 1.5 | 3 | 47 |

### 6526 Electronics round nose pliers

- DIN ISO 9655
- designed for use on miniature electronic and mechanical components
- welded on double leaf spring
- smooth, thin, round precision jaws
- box joint for precise movement




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | b mm | g |
|---|---|---|---|---|---|---|---|---|
| **65266120** | 125 | polished | dip-coated with sure-grip surface, ESD applications | 22 | 9 | 6.5 | 1.25 | 45 |



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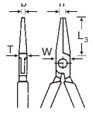
## 6540 Electronics snipe nose pliers

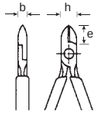
- DIN ISO 9655
- designed for use on miniature electronic and mechanical components
- welded on double leaf spring
- half round, smooth precision jaws, tapering
- box joint for precise movement




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65406120** | 125 | polished | dip-coated with sure-grip surface, ESD applications | 21 | 9 | 6.5 | 1 | 1 | 50 |

## 6603 Electronics side cutter

- strong, slim pattern
- suitable for use on miniature electronic components
- precision cutting edges, mini bevel, suitable for soft and hard wire, incl. piano wire
- Cu-wire of 0.2 mm ∅ can be cut at the tips
- welded on double leaf spring
- alloy steel of highest quality
- induction hardened cutting edges, approx. 63 HRC

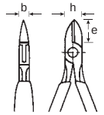



| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66036115** | 115 | polished | dip-coated with sure-grip surface, ESD applications | 14 | 11 | 6.5 | 1.5 | 1 | 0.8 | 0.5 | 60 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

## 6605 Electronics side cutter

- DIN ISO 9654
- with wire catch to prevent uncontrolled disposal of off-cuts
- box joint for precise movement
- precision cutting edges, mini bevel, suitable for soft and hard wire
- welded on double leaf spring
- alloy steel of highest quality
- induction hardened cutting edges, approx. 63 HRC

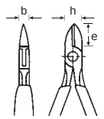



| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66056110** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 13 | 10.5 | 7 | 1.5 | 1 | 0.8 | 0.6 | 64 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

## 6606 Electronics side cutters

- DIN ISO 9654
- strong model
- box joint for precise movement
- precision cutting edges, mini bevel, suitable for piano wire
- Cu-wire 0.25 mm ∅ can be cut at tips
- welded on double leaf spring
- alloy steel of highest quality
- induction hardened cutting edges, approx. 63 HRC




| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66066110** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 13 | 12 | 7.5 | 1.5 | 1 | 0.8 | 0.6 | 64 |
| **66066130** | 125 | | | 18 | 16 | 10 | 1.7 | 1.2 | 1 | 0.8 | 104 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire





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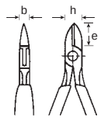
## 6607 Electronics side cutters

- DIN ISO 9654
- slim tapered head for use in confined spaces
- box joint for precise movement
- precision cutting edges, no bevel suitable for flush cutting of soft and medium hard wire
- Cu- and diode wires
- welded on double leaf spring
- alloy steel of highest quality
- induction hardened cutting edges, approx. 63 HRC

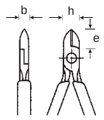



| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | g |
|---|---|---|---|---|---|---|---|---|---|
| **66076110** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 13 | 12 | 7.5 | 1.5 | 1 | 64 |
| **66076130** | 125 | | | 18 | 16 | 10 | 1.5 | 1 | 104 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire

## 6604 Mini-electronics side cutter

- DIN ISO 9654
- light, slim pattern, especially suitable for use on miniature electronic components
- precision cutting edges
- mini bevel, suitable for soft and hard wire
- Cu-wire of 0.2 mm ∅ can be cut at the tips
- welded on double leaf spring
- alloy steel of highest quality
- induction hardened cutting edges, approx. 63 HRC

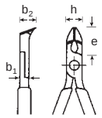



| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66046110** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 11 | 9 | 6 | 1 | 0.8 | 0.6 | 0.4 | 49 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

## 6613 Electronics oblique cutter

- DIN ISO 9654
- tapered head for use in confined spaces
- precision cutting edges for hard and soft wire
- head angled by 55°
- Cu-wire 0.25 mm ∅ may be cut at the tips
- welded on double leaf spring
- alloy steel of highest quality
- induction hardened mini-bevelled cutting edges, approx. 62 HRC

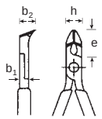



| Code | L mm | Head | Handles | e mm | h mm | $b_1$ mm | $b_2$ mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **66136115** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 11 | 11 | 7.5 | 10.5 | 1 | 0.8 | 0.6 | 0.4 | 60 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

## 6614 Electronics oblique cutter

- DIN ISO 9654
- as No 6613, but without bevelled cutting edges
- for flush cutting of soft and medium hard Cu- and diode wires




| Code | L mm | Head | Handles | e mm | h mm | $b_1$ mm | $b_2$ mm | ① | ② | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **66146115** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 11 | 11 | 7.5 | 10.5 | 1 | 0.6 | 55 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire





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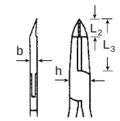
## 6615 Electronics oblique cutter

- DIN ISO 9654
- slim, extended head for delicate cuts in confined spaces
- box joint for precise movement
- precision cutting edges with mini bevel for Cu- and diode wires
- head angled by 30°
- welded on double leaf spring
- alloy steel of highest quality

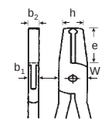



| Code | L mm | Head | Handles | $L_2$ mm | $L_3$ mm | h mm | b mm | ① | ② | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **66156115** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 8 | 18 | 8 | 6 | 0.6 | 0.3 | 47 |

① Cutting capacity in mm for soft wire ② Cutting capacity in mm for medium hard wire

## 6619 Electronics top cutter

- DIN ISO 9654
- slim long head for use in confined space
- box joint for precise movement
- precision cutting edges for Cu- and diode wires
- mini-bevel
- welded on double leaf spring
- alloy steel of highest quality

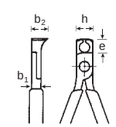



| Code | L mm | Head | Handles | e mm | h mm | $b_1$ mm | $b_2$ mm | ① | ② | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **66196115** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 15.5 | 5.5 | 6 | 5 | 0.6 | 0.3 | 65 |

① Cutting capacity in mm for soft wire ② Cutting capacity in mm for medium hard wire

## 6620 Electronics top cutter

- DIN ISO 9654
- precision cutting edges for soft and hard wires
- mini-bevel
- head angled 90°
- pointed head
- Cu-wire 0.25 mm ∅ may be cut at the tips
- welded on double leaf spring
- alloy steel of highest quality
- induction hardened cutting edges, approx. 60 HRC

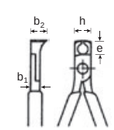



| Code | L mm | Head | Handles | e mm | h mm | $b_1$ mm | $b_2$ mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **66206115** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 6.5 | 11 | 7.5 | 11 | 1 | 0.8 | 0.6 | 0.4 | 83 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

## 6621 Electronics top cutter

- DIN ISO 9654
- as No 6620, but without bevelled cutting edge
- for flush cutting of soft and medium hard Cu- and diode wires
- alloy steel of highest quality
- induction hardened cutting edges, approx. 60 HRC




| Code | L mm | Head | Handles | e mm | h mm | $b_1$ mm | $b_2$ mm | ① | ② | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **66216115** | 112 | polished | dip-coated with sure-grip surface, ESD applications | 6.5 | 11 | 7.5 | 11 | 1 | 0.6 | 84 |

① Cutting capacity in mm for soft wire ② Cutting capacity in mm for medium hard wire

STAHLWILLE
STAHLWILLE
STAHLWILLE
12921M 2 1/4"
STAHLWILLE
STAHLWILLE GERMANY

# 8 TUBE TOOLS, OTHER TOOLS


Pipe tools
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Hammers
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Chisels, drift pins, centre punches, pin punches
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Scrapers, files, hacksaws
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Thread tools
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Screw extractor, stud remover, nut splitters
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Miscellaneous tools
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Tweezers, wire cutter
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# As versatile as the work day is demanding.
# **STAHLWILLE problem-solvers.**

Made in Germany

Approved procedures are becoming ever more complex and special-purpose tools are often required for service and repair work. Screw extractors, hooks and picks, pipe cutters and scrapers are just a few of the many problem solvers that STAHLWILLE offers.

## STRONG.

The chain pipe cutter No. 157 is even suitable for stainless steel pipes up to 1.8 mm wall thickness and is infinitely adjustable.

## THE JOB SAVER.

STAHLWILLE's screw extractor No 901: removing broken-off screws from tapped holes is a simple matter with this tool – without damaging the workpiece. Simple to use, top quality and »Made in Germany«.

FOD

## UNBREAKABLE.

Indispensable aid that helps you »think round corners« in confined working spaces. With unbreakable stainless steel mirrors – FOD compliant.

## COMPACT.

Space-saving, but precise. Small bore pipe cutter No 155 for pipes made of copper, brass, light alloy, hard plastic and thin-walled steel pipes, with a maximum cutting depth of 2.0 mm.

## GENTLE.

Resilient but workpiece-friendly. Deadblow mallet No 10959 with steel shot in the hollow head ensures recoil-free strikes.

## DURABLE.

The ergonomic three-square engineer's scraper No. 10670 features a 360° two-component cushioned handle and always fits snugly in the hand, even in the most demanding applications. The special steel composition ensures the renowned STAHLWILLE durability.

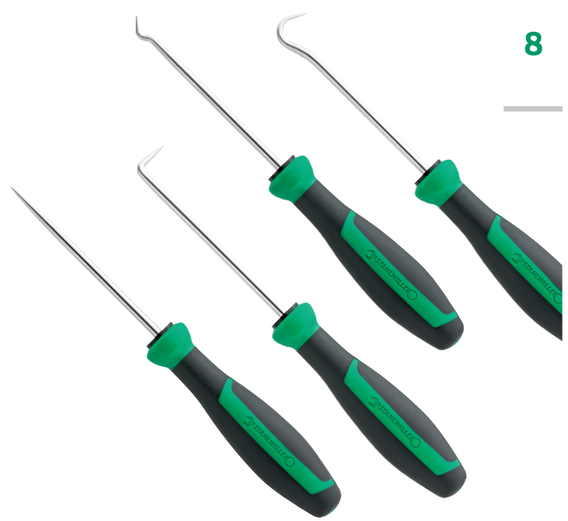
Ex

## TO THE POINT.

This extremely bright LED torch No. 13126-1 is very durable, ATEX rated for Zone 1 and even waterproof to IP68. Its luminous efficacy of 77 lumen means you will always be on the bright side.

## UNIVERSAL.

Universally applicable hooks and picks for fitting and removing small components such as simmerring seals and O-rings, seals, trim strip clips and panelling without damaging them. Also indispensable helpers in many other situations.



## 150 EXPRESS pipe cutters

- with one cutting wheel and two guide rollers
- for steel, copper, brass, aluminium and hard plastic tubes

| Code | size | " | mm | mm | Cutting depth max. mm | g | |
|---|---|---|---|---|---|---|---|
| **60021001** | **1** [1] | 1/8-1 1/4 | 3-32 | 6-43 | 4.5 | 1166 | 1 |
| **60021002** | **2** [1] | 1/8-2 | 3-50 | 10-63 | 7 | 2149 | 1 |
| **60121001** | **1/3** [2] | 1/8-1 1/4 | 3-32 | 6-43 | 4.5 | 1113 | 1 |
| **60121002** | **2/3** [2] | 1/8-2 | 3-50 | 10-63 | 7 | 1975 | 1 |

[1]) with wide guide rollers
[2]) with three cutting wheels

## 153 METAL pipe cutter

- for use on copper, brass, light alloy, PVC and thin walled steel tubes
- with deburring tool (3 cutting edges) inside handle
- forged
- chrome plated

| Code | " | mm | Cutting depth max. mm | g | |
|---|---|---|---|---|---|
| **60010000** | 1/8-1 3/8 | 3-35 | 2.5 | 356 | 1 |

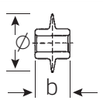
## 155 Small bore pipe cutter

- for use on copper, brass, light alloy, PVC and thin walled steel tubes

| Code | " | mm | Cutting depth max. mm | g | |
|---|---|---|---|---|---|
| **60070001** | 1/8-5/8 | 3-16 | 2 | 102 | 1 |

## SR150 Cutting wheels

- for steel pipes



| Code | size | for pipe cutter | Ø mm | b mm | g | |
|---|---|---|---|---|---|---|
| **69020101** | **1** | 150/1 | 25 | 14 | 14 | 10 |
| **69020201** | **2** | 150/2 | 32 | 19 | 28 | 10 |
| **69020301** | **3 + 4** | 150/3 + 4 | 41 | 19 | 38 | 10 |

## SR153 Cutting wheels

| Code | for pipe cutter | Ø mm | b mm | g | |
|---|---|---|---|---|---|
| **69010001** | 153 | 20 | 6 | 6 | 10 |

## SR155 Cutting wheels

| Code | for pipe cutter | Ø mm | b mm | g | |
|---|---|---|---|---|---|
| **69110001** | 155 | 20 | 5 | 5 | 10 |

## 157 Chain pipe cutter

- infinitely adjustable
- with twist handle
- also suitable for special steel pipes up to 1.8 mm wall thickness
- chain length 270 mm

| Code | mm | Cutting depth max. mm | g | |
|---|---|---|---|---|
| **60110001** | 25-75 | 2 | 665 | 1 |

## K157 Chain

| Code | g | |
|---|---|---|
| **69130001** | 183 | 1 |

## RL 150/153/1500 Guide rollers

- for pipe cutters

| Code | No | for pipe cutter | Ø mm | b mm | g | |
|---|---|---|---|---|---|---|
| **69020107** | **RL 1500/1** | 150/1 | 23 | 21.5 | 62 | 2 |
| **69070202** | **RL 1500/2** | 150-151/2 | 28 | 27.5 | 117 | 5 |
| **69020302** | **RL 150/3/4** | 150-151/3 + 4 | 33 | 19 | 115 | 5 |
| **69010002** | **RL 153** | 153 | 12 | 12 | 10 | 5 |

## BL/BZ 150/153/1500 Spindles

- for wheels and guide rollers

| Code | No | wheel-bolt | roller-bolt | for pipe cutter | Ø mm | L mm | g | |
|---|---|---|---|---|---|---|---|---|
| **69020104** | **BL 150/1** | x [1] | | 150/1 | 7.5 | 29 | 10 | 1 |
| **69020103** | **BZ 1500/1** | | x [2] | 150/1 | 7.5 | 38.5 | 14 | 10 |
| **69070203** | **BZ 1500/2** | | x | 150-151/2 | 9 | 46 | 23 | 10 |
| **69070204** | **BL 1500/2** | x | | 150-151/2 | 9 | 38 | 19 | 10 |
| **69020303** | **BZ 150/3/4** | x | x | 150-151/3 + 4 | 9 | 36 | 17 | 10 |
| **69020304** | **BL 150/4N** | x [3] | | 150/4 | 9 | 40 | 21 | 1 |
| **69010003** | **BZ 153** | | x | 153 | 4 | 18.5 | 2 | 10 |
| **69010004** | **BL 153** | x | | 153 | 4.75 | 13 | 2 | 1 |

BL = wheel bolt
BZ = roller bolt
[1]) wheel- and roller bolt for 150/1 until 1985. wheel bolt for 150/1 from 1986
[2]) roller bolt for 150/1 from 1986
[3]) wheel bolt for 150/4 from 2009

## RI 1500 Spacing washers

- when required to fit pipe cutters No 150/1, 150/2 or No 150/4 with 3 cutting wheels (to work in confined spaces), a total of 4 spacing washers is required. Simply exchange the 2 guide rollers for 2 cutting wheels No SR150 with 2 spacing washers to each

| Code | size | for pipe cutter | Ø mm | b mm | g | |
|---|---|---|---|---|---|---|
| **68020101** | **1** | 150/1 | 14 | 3.9 | 8 | 6 |
| **68020201** | **2** | 150/2, 151/2 | 16 | 4.45 | 4 | 6 |
| **68020301** | **4** | 150/4 *) | 18 | 9.5 | 18 | 1 |

*) for 150/4 from 2009





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## 10955 Plastic hammers

- with interchangeable heads of impact resisting cellulose acetate and ash handles

| Code | ∅ mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70160027** | **27** | 265 | 90 | 235 | 6 |
| **70160032** | **32** | 280 | 100 | 320 | 6 |
| **70160035** | **35** | 290 | 105 | 376 | 2 |
| **70160040** | **40** | 320 | 110 | 545 | 2 |
| **70160050** | **50** | 340 | 115 | 873 | 2 |

## 10955R Spare plastic heads

- of impact resisting cellulose acetate
- these are lightly heated and then tapped into position

| Code | ∅ mm | g | |
|---|---|---|---|
| **79040027** | **27** | 14 | 5 |
| **79040032** | **32** | 22 | 10 |
| **79040035** | **35** | 29 | 10 |
| **79040040** | **40** | 39 | 10 |
| **79040050** | **50** | 69 | 10 |

## 10958 Embossing hammer

- aluminium
- cylindrical
- with hickory handle

| Code | ∅ mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70240040** | 40 | 340 | 155 | 648 | 2 |

## 10940 Rubber composition hammers

- DIN 5128
- with two plane faces

| Code | ∅ mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70140001** | **55** | 320 | 90 | 317 | 2 |
| **70140002** | **65** | 350 | 115 | 527 | 2 |
| **70140003** | **75** | 350 | 130 | 780 | 2 |
| **70140004** | **90** | 380 | 140 | 1220 | 2 |

## 10956 Nylon hammers

- with interchangeable heads of shockproof nylon vestamid and hickory handles

| Code | ∅ mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70171027** | **27** | 265 | 90 | 232 | 6 |
| **70171032** | **32** | 280 | 100 | 336 | 6 |
| **70171035** | **35** | 290 | 105 | 413 | 2 |
| **70171040** | **40** | 320 | 110 | 546 | 2 |
| **70171050** | **50** | 340 | 115 | 865 | 2 |
| **70171060** | **60** | 380 | 135 | 1339 | 2 |

## 10956R Spare nylon heads

- these are lightly heated and then tapped into position

| Code | ∅ mm | g | |
|---|---|---|---|
| **79050027** | **27** | 11 | 10 |
| **79050032** | **32** | 18 | 10 |
| **79050035** | **35** | 23 | 10 |
| **79050040** | **40** | 31 | 10 |
| **79050050** | **50** | 53 | 10 |
| **79050060** | **60** | 83 | 10 |

## 10959 Dead blow hammers NEW

- the hollow head is partially filled with steel shot which adds to the weight, prevents recoil
- with interchangeable heads made of medium-hard polyurethane and with a hickory handle

| Code | ∅ mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70190130** | **30** | 330 | 110 | 460 | 6 |
| **70191035** | **35** | 335 | 110 | 580 | 6 |
| **70190140** | **40** | 355 | 115 | 760 | 2 |
| **70191050** | **50** | 365 | 120 | 1250 | 2 |
| **70191060** | **60** | 360 | 145 | 1900 | 2 |

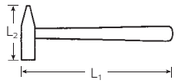
## 10959R Spare heads NEW

| Code | ∅ mm | g | |
|---|---|---|---|
| **79091030** | **30** | 19 | 1 |
| **79091035** | **35** | 26 | 1 |
| **79091040** | **40** | 38 | 1 |
| **79091050** | **50** | 72 | 1 |
| **79091060** | **60** | 118 | 1 |

## 10961 Engineers hammers

NEW

- metal overstrike sleeves provide excellent protection against "misses"
- ergonomically designed, doubly shaped hickory handles
- lacquered handle end improves grip
- complies with DIN 1041
- DIN and weight are punched into the hammer head



| Code | g | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70 11 00 09** | **200** | 280 | 95 | 254 | 6 |
| **70 11 00 10** | **300** | 300 | 105 | 400 | 6 |
| **70 11 00 11** | **500** | 320 | 118 | 600 | 6 |
| **70 11 00 13** | **800** | 350 | 130 | 951 | 2 |
| **70 11 00 15** | **1000** | 360 | 135 | 1132 | 2 |
| **70 11 00 16** | **1500** | 380 | 145 | 1617 | 1 |
| **70 11 00 17** | **2000** | 400 | 155 | 2285 | 2 |

## 10962 Club hammers

NEW

- metal overstrike sleeves provide excellent protection against "misses"
- ergonomically designed, doubly shaped hickory handles
- lacquered handle end improves grip
- complies with DIN 6475
- DIN and weight are punched into the club hammer head

| Code | g | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70 11 10 10** | **1000** | 260 | 95 | 1410 | 2 |
| **70 11 10 15** | **1250** | 260 | 100 | 1660 | 2 |
| **70 11 10 20** | **1500** | 280 | 110 | 1910 | 2 |

## 10970 Engineers hammers

- with ash handles

| Code | lb. | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **70 12 00 01** | **1/4** | 270 | 67 | 176 | 6 |
| **70 12 00 05** | **1/2** | 290 | 82 | 320 | 6 |
| **70 12 00 06** | **3/4** | 310 | 93 | 454 | 6 |
| **70 12 00 02** | **1** | 320 | 99 | 572 | 6 |
| **70 12 00 04** | **1 1/2** | 350 | 118 | 790 | 2 |
| **70 12 00 03** | **2** | 380 | 126 | 1045 | 2 |

## ES 10956/10961/2

- 175 x 350 x 45 mm
- 2 pieces

| Code | g |
|---|---|
| **96 83 81 25** | 1130 |

| | No | |
|---|---|---|
| | **10956** | ∅ 35 mm |
| | **10961** | 500 g |

## ES 10956/10970/2

- 175 x 350 x 45 mm
- 2 pieces

| Code | g |
|---|---|
| **96 83 81 31** | 1075 |

| | No | |
|---|---|---|
| | **10956** | ∅ 35 mm |
|  | **10970** | 1 lb. |

## 100 Ribbed cold chisels

- chrome vanadium steel, chrome plated

| Code | size | L mm | b mm | g | |
|---|---|---|---|---|---|
| **70 01 00 06** | **6** | 150 | 20 | 165 | 10 |
| **70 01 00 08** | **8** | 200 | 26 | 305 | 5 |
| **70 01 00 10** | **10** | 250 | 30 | 507 | 5 |
| **70 01 00 12** | **12** | 300 | 35 | 807 | 5 |

## 102 Cold chisels

- DIN 6453
- flat
- chrome vanadium steel, lacquered silver

| Code | size | L mm | b mm | g | |
|---|---|---|---|---|---|
| **70 02 00 02** | **125** | 125 | 15 | 96 | 10 |
| **70 02 00 03** | **150** | 150 | 18 | 172 | 10 |
| **70 02 00 04** | **175** | 175 | 21 | 269 | 10 |
| **70 02 00 05** | **200** | 200 | 24 | 379 | 5 |
| **70 02 00 07** | **250** | 250 | 25 | 521 | 5 |
| **70 02 00 08** | **300** | 300 | 26 | 591 | 5 |

## 103 Cross-cut chisels

- DIN 6451
- flat
- chrome vanadium steel, lacquered silver

| Code | size | L mm | b mm | g | |
|---|---|---|---|---|---|
| **70 04 00 03** | **150** | 150 | 16 | 147 | 10 |
| **70 04 00 04** | **175** | 175 | 17 | 239 | 10 |
| **70 04 00 05** | **200** | 200 | 18 | 340 | 5 |

## 110 Grooving chisel

- flat
- chrome vanadium steel, lacquered silver

| Code | L mm | b mm | g | |
|---|---|---|---|---|
| **70 08 00 01** | 240 | 26 | 298 | 5 |

## 112 Grooving chisel

- as No 110, but with finger protector

| Code | L mm | b mm | g | |
|---|---|---|---|---|
| **70080002** | 240 | 26 | 434 | 5 |

## 112/1 Finger protector

- for cold chisels No 102 and cross-cut chisels No 103 from 200 mm onward
- for grooving chisel No 110, shaft section 23 x 13 mm

| Code | g | |
|---|---|---|
| **79160001** | 101 | 5 |

## 104 Drift pins

- DIN 6458
- octagonal
- chrome vanadium, lacquered silver

| Code | size | ● mm | ● mm | L mm | g | |
|---|---|---|---|---|---|---|
| **70060007** | **120 x 2** | 2 | 10 | 120 | 60 | 10 |
| **70060010** | **120 x 3** | 3 | 10 | 120 | 60 | 10 |
| **70060002** | **120 x 4** | 4 | 10 | 120 | 62 | 10 |
| **70060008** | **120 x 5** | 5 | 10 | 120 | 64 | 10 |
| **70060003** | **120 x 6** | 6 | 10 | 120 | 66 | 10 |
| **70060009** | **120 x 8** | 8 | 12 | 120 | 68 | 10 |

## 105 Centre punches

- DIN 7250
- octagonal
- chrome vanadium, lacquered silver

| Code | size | ● mm | L mm | g | |
|---|---|---|---|---|---|
| **70050001** | **100 x 10** | 10 | 100 | 52 | 10 |
| **70050005** | **120 x 10** | 10 | 120 | 63 | 10 |
| **70050002** | **120 x 12** | 12 | 120 | 90 | 10 |

## ES 102/108/109/4

- 175 x 350 x 30 mm
- 4 pieces

| Code | g |
|---|---|
| **96838123** | 555 |

| | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6; 100 x 3.4 mm |

## 108 Parallel pin punches

- DIN 6450
- octagonal
- chrome vanadium, lacquered silver

| Code | size | ● mm | ● mm | L mm | g | |
|---|---|---|---|---|---|---|
| **70071152** | **115 x 2** | 2 | 8 | 115 | 29 | 10 |
| **70070013** | **125 x 3** | 3 | 8 | 125 | 35 | 10 |
| **70070001** | **150 x 2.5** | 2.5 | 10 | 150 | 65 | 10 |
| **70070002** | **150 x 3** | 3 | 10 | 150 | 62 | 10 |
| **70070003** | **150 x 4** | 4 | 10 | 150 | 64 | 10 |
| **70070004** | **150 x 5** | 5 | 10 | 150 | 67 | 10 |
| **70070005** | **150 x 6** | 6 | 10 | 150 | 72 | 10 |
| **70070006** | **150 x 8** | 8 | 10 | 150 | 81 | 10 |
| **70070009** | **175 x 3** | 3 | 10 | 175 | 57 | 10 |
| **70070010** | **175 x 4** [1] | 4 | 10 | 175 | 64 | 10 |
| **70070012** | **175 x 6** | 6 | 10 | 175 | 69 | 10 |
| **70070008** | **200 x 8** | 8 | 12 | 200 | 141 | 10 |
| **70070011** | **200 x 10** | 10 | 12 | 200 | 159 | 10 |

[1]) for use on Mercedes-Benz (retaining pins of disc brake pads)
● diameter of tip
● size of handle. octagon

## 109 Pin punches

- with guide bush

| Code | size | ● mm | ● mm | L mm | g | |
|---|---|---|---|---|---|---|
| **70090001** | **1** | 0.9 | 5 | 80 | 7 | 10 |
| **70090002** | **2** | 1.4 | 5.5 | 82 | 12 | 10 |
| **70090003** | **3** | 1.8 | 6 | 86 | 12 | 10 |
| **70090004** | **4** | 2.4 | 7 | 95 | 18 | 10 |
| **70090005** | **5** | 2.8 | 7 | 97 | 19 | 10 |
| **70090006** | **6** | 3.4 | 8 | 100 | 25 | 10 |
| **70090007** | **7** | 3.9 | 9 | 100 | 27 | 10 |
| **70090008** | **8** * | 5.9 | 10 | 103 | 47 | 10 |

● diameter of tip
● diameter of handle
* without guide bush

## ES 102/105/108/8

- 175 x 350 x 33 mm
- 8 pieces

| Code | g |
|---|---|
| **96838124** | 900 |

| | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **105** | 120 x 12 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |

8



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## 102-5/6 Sets: Chisels, pins, punches

Content 6 pieces:
1 each
- No 106/125 mm
- No 106/150 mm
- No 107/125 mm
- No 104/120 x 2; 120 x 4 mm
- No 105/120 x 10 mm

D = in plastic stand
T = in textile bag

| Code | No | g | |
|---|---|---|---|
| **98812201** | **102-5/6 D** | 445 | 1 |
| **98812202** | **102-5/6 T** | 470 | 5 |

## 104-5/6D Set: Drift pins, centre punches

Content 6 pieces:
1 each
- No 104/120 x 2; 120 x 3; 120 x 4; 120 x 5; 120 x 6 mm
- No 105/120 x 10 mm

in plastic stand

| Code | g | |
|---|---|---|
| **96700601** | 417 | 1 |

## 105-8/6K Pin punch-/centre punch set

Content 6 pieces:
1 each
- No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6 mm DIN 6450/ Form C
- No 105/120 x 10 mm DIN 7250

in plastic container stand

| Code | g | |
|---|---|---|
| **96700711** | 483 | 1 |

## 108/6 Sets: Parallel pin punches

Content 6 pieces:
1 each
- No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm

D = in plastic stand
T = in textile bag

| Code | No | g | |
|---|---|---|---|
| **96700701** | **108/6 D** | 450 | 1 |
| **96700702** | **108/6 T** | 460 | 5 |

## TCS 102-109/10956/10961/6

- 175 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838181** | 1605 |

| No | Content |
|---|---|
| **10956** | ⌀ 35 mm |
| **10961** | 500 g |
| **102** | 175 mm |
| **108** | 150 x 6; 175 x 6 mm |
| **109** | size 6; 100 x 3.4 mm |

## TCS 102-108/11

- 175 x 350 x 33 mm
- 11 pieces

| Code | g |
|---|---|
| **96838754** | 1665 |

| No | Content |
|---|---|
| **102** | 150; 200; 250 mm |
| **105** | 120 x 10; 120 x 12 mm |
| **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |

## TCS 102-108/10959/10961 MF

- 530 x 350 x 40 mm
- 12 pieces

| Code | g |
|---|---|
| **96830355** | 3343 |

| No | Content |
|---|---|
| **102** | 200 mm |
| **103** | 150 mm |
| **105** | 120 x 10 mm |
| **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| **10959** | ⌀ 40 mm |
| **10961** | 500; 800 g |
| **12718** | |





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## TCS 102-108/10959/12718/13

- 530 x 350 x 40 mm
- 13 pieces

| Code | g |
|---|---|
| **96830226** | 3730 |

| | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8; 200 x 8 mm |
| | **10959** | ∅ 40 mm |
| | **10961** | 500; 800 g |
| | **12718** | |

## TCS 102-108/10961/10

- 175 x 350 x 40 mm
- 10 pieces

| Code | g |
|---|---|
| **96830361** | 1569 |

| | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **105** | 120 x 12 mm |
| | **108** | 115 x 2; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 175 x 4; 200 x 8 mm |
| | **10961** | 500 g |

## TCS 102-108/10959/10961/13

- 530 x 350 x 60 mm
- 13 pieces

| Code | g |
|---|---|
| **96830177** | 5800 |

| | No | Content |
|---|---|---|
| | **102** | 200; 300 mm |
| | **103** | 175 mm |
| | **105** | 120 x 12 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 50 mm |
| | **10961** | 500; 800; 1000 g |

## TCS 102-108/10959/10961/16

- 530 x 350 x 45 mm
- 16 pieces

| Code | g |
|---|---|
| **96830609** | 3715 |

| | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 40 mm |
| | **10961** | 500 g |
| | **12373** | |
| | **12600** | 500 g |
| | **12718** | |
| | **12935/3** | 3 m |
| | **65642250** | 250 mm |
| | **39Pkw** | 400 mm |

## TCS 102-108/10956/10961/18

- 530 x 350 x 55 mm
- 18 pieces

| Code | g |
|---|---|
| **96830620** | 3653 |

| | No | Content |
|---|---|---|
| | **102** | 150 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10956** | ∅ 50 mm |
| | **10961** | 300; 500 g |
| | **10672** | 20 x 315 mm |
| | **12374** | |
| | **12900N** | 150 mm/6" |
| | **12965N** | |





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## 10757 Four-sided bradawl

- for punching and preparing leather, plastics and other soft materials and for marking holes in wood
- to prevent wood screws slipping off the mark

| Code | Blade mm | L mm | g | |
|---|---|---|---|---|
| **77593000** | 6 x 100 | 215 | 137 | 1 |

## 10758 Round-shank bradawl

- for punching and preparing leather, plastics and other soft materials and for marking holes in wood
- to prevent wood screws slipping off the mark

| Code | Blade mm | L mm | g | |
|---|---|---|---|---|
| **77592000** | 6 x 100 | 215 | 82 | 1 |

## 10669 Fine scraper

- three-sided hollow-profile scraper with black plastic protective cap
- black plastic handle

| Code | Blade mm | L mm | g | |
|---|---|---|---|---|
| **72060100** | 25 x 8 | 147 | 28 | 5 |

## 10670 Three square engineers scrapers

- special steel

| Code | L mm | g | |
|---|---|---|---|
| **72063101** | **210** | 106 | 5 |
| **72063103** | **260** | 124 | 5 |
| **72063104** | **285** | 140 | 5 |
| **72063105** | **310** | 152 | 5 |

## 10672 Flat engineers scrapers

- special steel

| Code | Dimensions mm | g | |
|---|---|---|---|
| **72053104** | **20 x 315** | 227 | 5 |
| **72053105** | **25 x 365** | 367 | 5 |

## 10676 Three square engineers bearing scraper

- special steel

| Code | Dimensions mm | g | |
|---|---|---|---|
| **72083103** | 85 x 12 x 315 | 160 | 5 |

## 12025 Engineers file, round

- DIN 8349
- cut 2

| Code | L mm | g | |
|---|---|---|---|
| **72123100** | 210 | 118 | 5 |

## 12030 Engineers file, half round

- DIN 8349
- cut 2

| Code | L mm | g | |
|---|---|---|---|
| **72133100** | 260 | 339 | 5 |

## 12035 Engineers file, three-square

- DIN 8349
- cut 2

| Code | L mm | g | |
|---|---|---|---|
| **72143100** | 210 | 201 | 5 |

## 12036 Engineers file, hand

- DIN 8349
- cut 2

| Code | L mm | g | |
|---|---|---|---|
| **72173102** | 260 | 305 | 5 |

## 12800 Set warding files

Content 6 pieces:
- 1 file each, hand, flat, half round, three square, square, round
- DIN 7283
- in textile bag

| Code | L mm | g | |
|---|---|---|---|
| **72230001** | 100 | 165 | 5 |

## 13100 Set of needle files

Content 6 pieces:
- 1 file each, round, half round, three square, square, hand, flat
- in textile bag

| Code | L mm | g | |
|---|---|---|---|
| **96722801** | 140 | 50 | 1 |





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## 12050 Tubular hacksaw

- with blade size 300 mm/12"

| Code | L mm | g | |
|---|---|---|---|
| **72210000** | 465 | 490 | 1 |

## 12053 Hacksaw frame

| Code | L mm | g | |
|---|---|---|---|
| **72210002** | 252 | 159 | 1 |

## 12050R Spare hacksaw blades for No 12050

- 10 pieces
- H.S. Steel
- 24 teeth per inch

| Code | L mm | g | |
|---|---|---|---|
| **79180001** | 300 | 174 | 1 |

## 12053R Spare hacksaw blades for No 12053

- 6 pieces
- Chrome Alloy Tool Steel
- 32 teeth per inch

| Code | L mm | g | |
|---|---|---|---|
| **79180002** | 158 | 20 | 1 |

## ES 10670–13110/11

- 530 x 350 x 35 mm
- 11 pieces

| Code | g |
|---|---|
| **96838173** | 2120 |

| | No | |
|---|---|---|
| | **10670** | 265 mm |
| | **12025** | 210 mm |
| | **12030** | 260 mm |
| | **12035** | 210 mm |
| | **12036** | 260 mm |
| | **12050** | 465 mm |
| | **12320** | |
| | **12321** | |
| | **12377** | |
| | **12935/3** | 3 m |
| | **13110** | 300 mm |

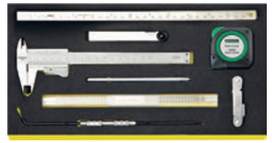
## TCS 10356-12965/5

- 175 x 350 x 40 mm
- 5 pieces

| Code | g |
|---|---|
| **96838790** | 595 |

| | No | |
|---|---|---|
| | **12053** | 158 mm |
| | **10356** | 40 mm |
| | **10356R** | 10 pieces |
| | **12320** | |
| | **12965** | |

## TCS 11095-13110/8



- 175 x 350 x 40 mm
- 8 pieces

| Code | g |
|---|---|
| **96838789** | 700 |

| | No | |
|---|---|---|
| | **12000** | ISO |
| | **11095/20** | 0.05 - 1.00 mm |
| | **12935/3** | 3 m |
| | **12321** | |
| | **12322** | |
| | **12665/52** | 0.25 - 6 mm |
| | **12900N** | 150 mm/6" |
| | **13110** | 300 mm |

## 12000 Universal thread restorers

- suitable for inside and outside threads

| Code | size | L mm | g | |
|---|---|---|---|---|
| **72100004** | **ISO** | 230 | 115 | 10 |
| **72100003** | **SAE** | 230 | 118 | 10 |
| **72100002** | **WW** | 230 | 122 | 10 |

| \|---- ISO ----\| Pitch mm | metr. thread | \|---- Ww ----\| threads per inch | Whitworth thread | SAE/USS threads per inch |
|---|---|---|---|---|
| 0,80 | 5 | 24 | 3/16 + 7/32 | 24 |
| 1,00 | 6 + 7 | 20 | 1/4 | 20 |
| 1,25 | 8 + 9 | 18 | 5/16 | 18 |
| 1,50 | 10 + 11 | 16 | 3/8 | 16 |
| 1,75 | 12 | 14 | 7/16 | 14 |
| 2,00 | 14 + 16 | 12 | 1/2 + 9/16 | 13 |
| 2,50 | 18, 20, 22 | 11 | 5/8 + 11/16 | 12 |
| 3,00 | 24 + 27 | 10 | 3/4 + 13/16 | 11 |

## TCS 12025-13110/11

TCS

- 530 x 350 x 35 mm
- 11 pieces

| Code | g |
|---|---|
| **96838759** | 2410 |

| | No | |
|---|---|---|
| | **12025** | 210 mm |
| | **12030** | 260 mm |
| | **12035** | 210 mm |
| | **12036** | 260 mm |
| | **12050** | 300 mm |
| | **12320** | |
| | **12321** | |
| | **12718** | |
| | **12935/3** | 3 m |
| | **12965N** | |
| | **13110** | 300 mm |

## 900 Screw EXTRACTOR

- for left-hand threads

| Code | size | for bolts | ■ mm | ■ " | L mm | recommend. Drill | g | |
|---|---|---|---|---|---|---|---|---|
| **71010001** | **1** | M3-M4 1/8-5/32" | 3 | 1/8 | 49 | 2 mm 5/64" | 3 | 10 |
| **71010002** | **2** | M5-M7 3/16-1/4" | 3.4 | 9/64 | 54 | 3 mm 7/64" | 6 | 10 |
| **71010003** | **3** | M8 5/16" | 4.9 | 3/16 | 59 | 5 mm 3/16" | 12 | 10 |
| **71010004** | **4** | M10-M12 3/8-7/16" | 7 | 9/32 | 65 | 6.4 mm 1/4" | 25 | 5 |
| **71010005** | **5** | M14-M16 1/2-9/16" | 9 | 23/64 | 88 | 8 mm 5/16" | 50 | 5 |
| **71010006** | **6** | M18-M22 5/8-3/4" | 12 | 31/64 | 95 | 12 mm 15/32" | 103 | 5 |

## 900/6T Screw EXTRACTOR set

- for left-hand threads
- in textile bag

| Code | Content | g | |
|---|---|---|---|
| **96710101** | 1 each No 900 size 1-6 | 230 | 1 |

## 901 Screw EXTRACTOR

- with centre punch tip
- double-edged

| Code | size | for bolts | ⬢ mm | ⬢ " | L mm | recommend. Drill | g | |
|---|---|---|---|---|---|---|---|---|
| **71050001** | **1** | M5-M6 3/16-1/4" | 6.35 | 1/4 | 60 | 3.2 mm 1/8" | 6 | 1 |
| **71050002** | **2** | M8-M10 5/16-3/8" | 9.5 | 3/8 | 67 | 4.8 mm 3/16" | 16 | 1 |
| **71050003** | **3** | M10-M12 7/16-1/2" | 12.7 | 1/2 | 75 | 6.4 mm 1/4" | 30 | 1 |
| **71050004** | **4** | M12-M16 1/2-9/16" | 15.9 | 5/8 | 90 | 9.5 mm 3/8" | 60 | 1 |
| **71050005** | **5** | M16-M20 5/8-3/4" | 19 | 3/4 | 90 | 11.1 mm 7/16" | 100 | 1 |

## 901/5T Set of screw extractors

- for extracting sheared screws, bolts and stud screws from threaded holes
- suitable for right- hand and left-hand threads
- in textile bag

| Code | g | |
|---|---|---|
| **96710505** | 248 | 1 |

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## 904 Stud remover

- suitable for all sizes of studs from 6-12 mm
- also suitable for percussion screwdriver use
- will cope with rusted or scale-coated screws with a minimum of 3 mm protruding
- Chuck: size 36 mm
- Clamping screw: size 24 mm

| Code | " | g | |
|---|---|---|---|
| **71340000** | 3/8 | 346 | 1 |

## 905/25 Stud remover set

- M5-M16, 3/16"-5/8"
- 25 pieces
- 5 HSS twist drills sizes (3.2; 4.8; 6.4; 8; 8.7 mm)
- 5 fluted removal pins sizes 1–5 for threads M5–M16
- 5 splined nuts, sizes 1–5
- 10 drill guides, sizes 1–10
- in black plastic box

| Code | g | |
|---|---|---|
| **96713025** | 605 | 1 |

## 906 Spare parts

- removal pins and splined nuts, in pairs in plastic bags

| Code | size | for threads | g | |
|---|---|---|---|---|
| **71310001** | **1** | M5-M6 3/16-1/4" | 5 | 1 |
| **71310002** | **2** | M7-M8 1/4-5/16" | 10 | 1 |
| **71310003** | **3** | M10 3/8" | 33 | 1 |
| **71310004** | **4** | M12 7/16" | 46 | 1 |
| **71310005** | **5** | M14-M16 1/2-9/16" | 64 | 1 |

## 12615 Nut splitters

- zinc plated
- mechanical
- for splitting seized or overtightened nuts up to class 8
- does not damage the threaded pin
- as the spindle is tightened, the nutsplitter body has to be locked with an open-jaw spanner to prevent it turning
- cutting chisel made of high-grade alloy tool steel

| Code | size | for nuts mm | Max. torque in N·m | g | |
|---|---|---|---|---|---|
| **71250011** | **1** | 10-18 | 40 | 193 | 1 |
| **71250012** | **2** | 19-27 | 60 | 386 | 1 |

## 12665 Screw pitch gauge

- 0.25 to 6 mm and 4 to 62 t.p.i. (metric/Whitworth threads)

| Code | size | g | |
|---|---|---|---|
| **77270003** | **52** | 70 | 10 |

## 12900N Vernier calliper

- as per DIN 862
- vernier readings 1/20 mm and 1/128"
- stainless steel
- in plastic pouch

| Code | measuring range mm/" | g | |
|---|---|---|---|
| **77371001** | 150/6 | 185 | 1 |

## 12900/1N Vernier calliper

- with metal housing cover and metal buttons
- mechanical system made of stainless, hardened steel
- with or without thumb wheel (included in delivery for customer to fit if required)
- large LCD display with clear read-offs, figures 9 mm high
- display accuracy 0.01 mm/ 0.0005"
- measuring tips ground fine and lapped
- ON/OFF button
- with depth gauge
- unit of measure in mm or imperial, zeroing possible at any position
- incl. 2 x 3 V batteries (type CR2032) packaged in accordance with UN 3091, Class 9
- in plastic case

| Code | measuring range mm/" | g | |
|---|---|---|---|
| **77371002** | 150/6 | 312 | 1 |





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## 12900/3 Tyre-tread Vernier gauge

- sturdy brass construction
- smooth ground surface

| Code | measuring range mm | g | |
|---|---|---|---|
| **77371004** | 30 | 41 | 1 |

## 12900/4 Electronic tyre-tread Vernier gauge

- large LCD display with clear read-offs, figures 9.5 mm high
- display accuracy 0.01 mm/ 0.0005"
- ON/OFF push button
- unit of measure switchable mm/inch
- zeroing possible in any position
- incl. 1 x 3 V battery (type CR2032) packaged in accordance with UN 3091, Class 9

| Code | measuring range mm/" | g | |
|---|---|---|---|
| **77371005** | 25/1 | 60 | 1 |

## 12935 Tape measure

- with tape lock
- metric-inch scales

| Code | size | L m | g | |
|---|---|---|---|---|
| **77040010** | **3** | 3 | 92 | 10 |
| **77040011** | **5** | 5 | 164 | 10 |

## 13110 Steel rule

- metric-inch scales
- length 300 mm

| Code | Divisions Top Edge " | Divisions Lower Edge mm | g | |
|---|---|---|---|---|
| **77460001** | 1/16, 1/32, 1/64 | 0.5; 1 | 26 | 5 |

## 12915 Ratchet tap holders

- with ratchet
- steel
- chrome plated

| Code | size | Capacity mm | DIN [1] | ISO [2] | L mm | g | |
|---|---|---|---|---|---|---|---|
| **77390001** | **1** | 2.0-5.0 | M3-8 | M1-6 | 85 | 180 | 1 |
| **77390002** | **2** | 4.6-8 | M5-12 | M6-12 | 110 | 305 | 1 |

[1]) for taps DIN
[2]) for taps ISO

## 12932 Padlock

| Code | g | |
|---|---|---|
| **77210002** | 85 | 1 |

## 12250 Force feed oil can

- metal container
- brass pump
- Content: 500 ccm

| Code | g | |
|---|---|---|
| **77010001** | 275 | 1 |

## 12251 Plastic oil can

- made of plastic
- Content: 250 ccm

| Code | g | |
|---|---|---|
| **77110002** | 60 | 5 |

## 12320 Electricians cable knife

- with stainless blade

| Code | Blade mm | g | |
|---|---|---|---|
| **77020000** | 90 | 78 | 10 |

## 12321 Scribing iron

- with knurled centre-section
- 1 straight and 1 offset blade
- blades gunmetal finished

| Code | L mm | g | |
|---|---|---|---|
| **77100000** | 250 | 31 | 10 |





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## 12322 Tungsten carbide scribing iron

- straight type
- sturdy shank with tungsten carbide tip
- can be reground
- holder and clip

| Code | L mm | g | |
|---|---|---|---|
| **77100001** | 150 | 40 | 10 |

## 12374 Wire brush

- wood, steel wire dia. 0.35 mm

| Code | L mm | Rows | g | |
|---|---|---|---|---|
| **77090000** | 290 | 4 | 129 | 10 |

## 12377 Wire brush

- with brass coated steel bristles

| Code | L mm | g | |
|---|---|---|---|
| **77090010** | 270 | 140 | 24 |

## 12378 File brush

| Code | L mm | g | |
|---|---|---|---|
| **77250000** | 260 | 74 | 5 |

## 13115 Brass wire brush

- for use on light alloys

| Code | L mm | Rows | g | |
|---|---|---|---|---|
| **77470001** | 280 | 4 | 134 | 1 |

## 12481 Scraper

| Code | L mm | b mm | g | |
|---|---|---|---|---|
| **77070000** | 212 | 60 | 65 | 10 |

## 12600 Magnetic lifters

- loss of adhesion above 80° C

| Code | lifting power g | ∅ mm | L mm | g | |
|---|---|---|---|---|---|
| **77260027** | **270 [1]** | 5 | 500 | 30 | 1 |
| **77260025** | **500** | 8 | 460 | 70 | 1 |
| **77260060** | **1800** | 15 | 525 | 230 | 1 |
| **77260200** | **3000** | 19 | 535 | 297 | 1 |

[1]) miniature magnetic lifter with tiny head, very powerful

## 12910 Adjustable hook spanners

- for slotted nuts as per DIN 1810
- adjustable

| Code | size | mm | g | |
|---|---|---|---|---|
| **44010001** | **1** | 20-42 | 90 | 5 |
| **44010002** | **2** | 45-90 | 245 | 5 |
| **44010003** | **3** | 95-165 | 686 | 5 |

## 12920N Telescopic mirror

- with non-twisting, oval-section telescopic rod

| Code | dimensions mirrors mm | L mm | g | |
|---|---|---|---|---|
| **77401001** | 65 x 43 | 310-750 | 65 | 1 |

## 12920NR-1 Replacement mirror for No 12920N

| Code | g | |
|---|---|---|
| **79401001** | 39 | 1 |

## 12920NR-2 Stainless steel replacement mirror for No 12920N

| Code | g | |
|---|---|---|
| **79401002** | 43 | 1 |

## 12921M Telescopic stainless steel mirror

FOD

- unbreakable mirrors made of stainless steel (prevents FOD)
- no bolted joints (prevents FOD)
- rust-proof stainless steel telescopic arm
- universal joint (180° action), self-tensioning
- special plastic handle ensures a firm grip and safe working, resistant to chemicals

| Code | size | mm | L mm | g | |
|---|---|---|---|---|---|
| **77401032** | **1 1/4"/32 mm** | ∅ 32 | 171-699 | 60 | 1 |
| **77401045** | **1 3/4" x 2 3/4"/45 x 70 mm** | ▭ 45 x 70 | 178-927 | 76 | 1 |
| **77401057** | **2 1/4"/57 mm** | ∅ 57 | 178-921 | 70 | 1 |





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## 12921N Telescopic mirrors

| Code | ∅ mm | L mm | g | |
|---|---|---|---|---|
| **77401030** | **30** | 265-705 | 108 | 1 |
| **77401040** | **40** | 275-715 | 115 | 1 |
| **77401050** | **50** | 285-725 | 110 | 1 |
| **77401060** | **60** | 295-735 | 130 | 1 |

## 12921NR Replacement mirror for 12921N

| Code | ∅ mm | g | |
|---|---|---|---|
| **79401030** | **30** | 10 | 1 |
| **79401040** | **40** | 15 | 1 |
| **79401050** | **50** | 20 | 1 |
| **79401060** | **60** | 27 | 1 |

## 13120N Telescopic mirror

- illuminated (LED) and with batteries (approx. 150 hours of light)
- for inspecting numerous kinds of joints
- the LED light source can be detached and used as a separate penlight
- the concave mirror provides 5-times magnification
- with non-twisting, oval-section telescopic rod

| Code | ∅ mm | L mm | g | |
|---|---|---|---|---|
| **77480002** | **55** | 310-750 | 235 | 1 |

## 13120R Replacement concave mirror for No 13120N, No 13120-1

| Code | ∅ mm | g | |
|---|---|---|---|
| **79401055** | 55 | 22 | 1 |

## 12922E Claw lifter

- with ergonomic handle

| Code | ∅ mm | L mm | g | |
|---|---|---|---|---|
| **77401103** | **6** | 540 | 113 | 1 |
| **77407203** | **8** | 540 | 148 | 1 |

## 12965N Safety knife

- blade adjustable by means of slider
- spare blades can be stored inside the handle
- blade changes without tools
- with hanging hole
- ideally suited for cutting card, rubber, leather, wood etc.
- tool body made of cast zinc

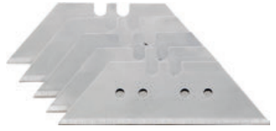
| Code | L mm | g | |
|---|---|---|---|
| **77621001** | 174 | 200 | 1 |

## 12965-1 Self-retracting cutter

- with automatic blade retraction
- spare blades can be stored inside the handle
- blade changes without tools
- with hanging hole
- ideally suited for cutting card, rubber, leather, wood etc.
- tool body made of cast zinc

| Code | L mm | g | |
|---|---|---|---|
| **77621002** | 174 | 197 | 1 |

## 12965R Spare blades



- 5 pieces
- for No 12965N, 12965-1

| Code | g | |
|---|---|---|
| **79250001** | 25 | 1 |

## 12965-2 Snap-off blade cutter 9 mm

- with three 9 mm snap-off blades (one blade fitted, two in the magazine)
- slider with blade-locking function
- includes blade snap-off tool and protective cap
- with stainless steel blade guide
- ideally suited for cutting card, rubber, leather, wood etc.
- tool body made of cast zinc

| Code | L mm | g | |
|---|---|---|---|
| **77621003** | 145 | 60 | 1 |

## 12965-2R Spare blades 9 mm

- 10 pieces
- für No 12965-2

| Code | g | |
|---|---|---|
| **79251003** | 26 | 1 |

## 12965-3 Snap-off blade cutter 18 mm

- with three 18 mm snap-off blades (one blade fitted, two in the magazine)
- slider with blade-locking function
- automatic blade reloading
- ergonomic design with synthetic caoutchouc inlay
- with stainless steel blade guide and hanging hole
- ideally suited for cutting card, rubber, leather, wood etc.
- tool body made of cast zinc

| Code | L mm | g | |
|---|---|---|---|
| **77621004** | 168 | 249 | 1 |





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## 12965-3R Spare blades 18 mm

- 10 pieces
- for No 12965-3

| Code | g | |
|---|---|---|
| **79251004** | 75 | 10 |

## 12967 Wire stripping knife with hooked blade

- for cutting round the outer cable insulation and longitudinal cuts
- accurate, fast and safe stripping of all popular round cables from 4-28 mm ∅
- no damage to the inner conductors thanks to infinitely variable adjustment of the cutting depth

| Code | g | |
|---|---|---|
| **77620010** | 82 | 1 |

## 12967R Spare blade for No 12967



| Code | g | |
|---|---|---|
| **79250010** | 2 | 1 |

## 10554 ⊖ EURO voltage tester

- built to conform to the new EN standard
- tested to conform to the currently valid VDE GS standard
- with plastic handle
- AC 125-250 V

| Code | a mm | b mm | L mm | g | |
|---|---|---|---|---|---|
| **77450001** | 1 | 3.5 | 190 | 37 | 10 |

## 13000-13003 Hooks and picks

NEW

- universally applicable for punching holes in soft materials, fitting and removing small components such as simmerring seals and O-rings, seals, trim strip clips and panelling

| Code | No | L mm | Model | g | |
|---|---|---|---|---|---|
| **77101000** | **13000** | 155 | straight | 22 | 5 |
| **77101001** | **13001** | 155 | 45° | 22 | 5 |
| **77101002** | **13002** | 155 | 90° | 22 | 5 |
| **77101003** | **13003** | 155 | rounded | 24 | 5 |

## 13000/4 Set of hooks and picks

NEW

- Content: No 13000 (straight), 13001 (45°), 13002 (90°), 13003 (round)
- universally applicable for punching holes in soft materials, fitting and removing small components such as simmerring seals and O-rings, seals, trim strip clips and panelling
- in textile bag

| Code | L mm | g | |
|---|---|---|---|
| **96722802** | 165 | 144 | 1 |

## 13009 Split-pin puller

NEW

| Code | L mm | g | |
|---|---|---|---|
| **77101010** | 265 | 138 | 5 |

## 13126-1 LED torch

Ex

- ex-rated for zone 1
- Certifications: SEV 08 ATEX 0164, II 2G Ex e ib IIC T4, II 2D Ex e ibD 21 T98°C
- powerful, extremely durable 2 watt LEDs
- robust, electrically non-conducting, corrosion-proof housing made of ABS/polycarbonate
- high impact resistance and reduced glare thanks to rubber sheathed bezel
- consistently bright beam throughout 80% of the lifetime of the alkaline batteries due to eLED circuitry
- zoom with a twist of the bezel
- rubberised front pushbutton for continuous or momentary action
- waterproof to IP 68 down to 3 m depth of water
- hydrogen scrubber catalyst, polarised battery contacts and 0-psi vent minimize explosive risk from leaking batteries
- battery compartment designed to facilitate rapid battery change
- Brightness: 250 lumen
- Range: 100 m
- Burn time: 5 hrs.
- Batteries: 4 AA/LR06, alkaline, 1.5 V (not supplied)

| Code | Dimensions mm | g | |
|---|---|---|---|
| **77490011** | 170 x 40 x 35 | 79 | 1 |

## 13126-2 LED penlight

Ex

- ex-rated for zone 1
- Certifications: II 2G Ex e ib IIB T4 Gb, II 2D Ex ib IIIC T60°C IP6X Db
- three times brighter than conventional pen torches thanks to powerful LEDs
- bobust, electrically non-conducting, corrosion-proof housing made of ABS/polycarbonate
- high impact resistance and reduced glare thanks to rubber sheathed bezel
- consistently bright beam throughout 80% of the lifetime of the alkaline batteries due to eLED circuitry
- rubberised rear pushbutton for continuous or momentary action
- easy storage due to integrated clip holder close to bezel
- waterproof to IP 68 down to 3 m depth of water
- Brightness: 35 lumen
- Range: 64 m
- Burn time: 3 hrs.
- Batteries: 2 AAA/LR03, alkaline, 1.5 V (not supplied)

| Code | Dimensions mm | g | |
|---|---|---|---|
| **77490012** | 132 x 24 x 22 | 20 | 1 |

## 13126-3 LED headlamp

Ex

- ex-rated for zone 1
- Certifications: SEV 08 ATEX 0163X, II 2G Ex ib IIC T4, II 2D Ex ibD 21 T55°C
- waterproof construction for use in all weather conditions
- three beam modes - white spot, white diffused and red diffused
- high and low power settings
- large-format ON/OFF button can be easily operated even when wearing heavy gloves
- LED torch module can be removed from housing and used as stand-alone portable working torch
- beam adjustable using twist knob - no breakable hinges
- with adjustable, elasticated textile strap
- durable, high-impact construction made of ABS/polycarbonate
- waterproof to IP 68 down to 10 m depth of water
- Brightness: 65 lumen
- Range: 60 m
- Burn time: 13 hrs.
- Batteries: 3 AAA/LR03, alkaline, 1.5 V (not supplied)

**Torch module**

| Code | Dimensions mm | g | |
|---|---|---|---|
| **77490013** | 76 x 38 x 45 | 81 | 1 |

## 13128 LED torch

- high-end power LED
- fast adjustment of light beam thanks to single-handed zoom action
- switch with textured profile for 2-stage steady light or flash-light function
- designed to facilitate rapid battery change
- convenient belt-mounted holder with Velcro fastener
- Brightness: 320 lumen
- Range: 260 m
- Burn time: 50 hrs.
- Batteries: 4 batteries, AAA/LR03, 1.5 V

| Code | Dimensions mm | g | |
|---|---|---|---|
| **77490004** | 130 x 37 x 37 | 250 | 1 |

## 13130 Tweezers

- straight
- blunt
- finely milled inside
- stainless steel

| Code | L mm | g | |
|---|---|---|---|
| **77500001** | 160 | 26 | 5 |

## 13131 Tweezers

- bent
- blunt
- finely milled inside
- stainless steel

| Code | L mm | g | |
|---|---|---|---|
| **77510001** | 155 | 30 | 5 |

## 13148 Wire cutter

- for cutting cables, brass, copper, aluminium
- strain-free working thanks to comfy-fit 2-component handle with finger rest
- cutting edges made of stainless steel (INOX HRC 56)
- one wavy/saw edge

| Code | L mm | g | |
|---|---|---|---|
| **75270002** | 150 | 93 | 1 |

STAHLWILLE
Made in Germany
12935/3
300 CM / 122 INCH
WHITWORTH 55°

# 9 PULLERS

Standard pullers, pullers
>> Page 322

Counter stays, slide hammers, separating fixtures
>> Page 324

Ball joint separators
>> Page 325

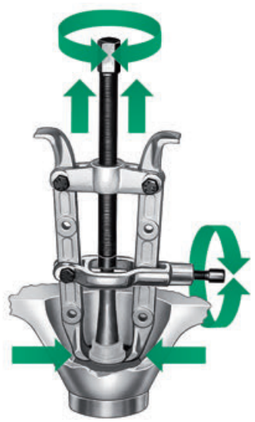
# For improved safety.
# **STAHLWILLE pullers.**

Made in Germany

Designed with practical applications in mind, drop forged, precision machined on the latest machine tools, hardened and tempered: the STAHLWILLE puller range offers numerous products for a wide variety of applications. For example, standard pullers, cell terminal pullers, ejectors, counter stays, ball joint pullers and wheel hub pullers. Made, of course, in Germany as premium quality tools.

## 2 Vs 3

**Two- or three-legged pullers?**
A three-legged puller is generally preferable to a two-legged one provided there is sufficient space because it distributes the pulling forces more evenly.



## RESILIENT.

Heavy-duty extractor hooks made of oil-hardened chrome vanadium steel with special-purpose access geometry for use in tight spaces. Radii adapted for shafts and axles.

## SAFE.

To prevent damage to shafts, the centre is fitted in a freely-swivelling mount.

## RELIABLE.

Excellent running characteristics of the thread itself thanks to high-grade hardening and tempering and the special coatings on the thrust spindles.

## MORE ROBUST.

High flexural strength thanks to legs with accurately calculated profiles and smooth, milled guides.

## POWERFUL.

Smooth running and high force transmission through the nut with its hard-wearing, smooth thread contours.

## 11050 Standard pullers

- **two-armed**, with sliding permanently parallel extractor hooks, zinc plated
- for extracting gearwheels, ball bearings, pulleys and similar parts from shafts or axles
- for removing ball bearings, bearing outer races and bushes from holes
- hooks can be used as internal or external hooks

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71 13 00 11** | **1** | 25–80 | 100 | 4.5 | 80 | 999 | 1 |
| **71 13 00 12** | **2** | 25–130 | 100 | 4.5 | 80 | 1103 | 1 |
| **71 13 00 13** | **3** | 50–160 | 150 | 6.5 | 150 | 2754 | 1 |
| **71 13 00 14** | **4** | 60–200 | 150 | 6.5 | 150 | 3085 | 1 |
| **71 13 00 15** | **5** | 80–250 | 200 | 11.0 | 320 | 7000 | 1 |
| **71 13 00 16** | **6** | 80–350 | 200 | 11.0 | 320 | 8400 | 1 |

## H 11050 Arms for pullers No 11050/11051

- 1 piece

| Code | size | for puller No | g | |
|---|---|---|---|---|
| **79 13 00 11** | **1** | 11050-1, -2<br>11051-1, -2 | 238 | 1 |
| **79 13 00 12** | **3** | 11050-3, -4<br>11051-3, -4 | 602 | 1 |
| **79 13 00 13** | **5** | 11050-5, -6 | 1596 | 1 |

## 11053 Standard pullers

- **two-armed**, with swivelling extractor hooks for larger reaches, zinc plated
- for extracting gearwheels, ball bearings, pulleys and similar parts from shafts or axles
- hooks can be used as internal or external hooks
- for internal extraction, simply turn the hooks and spindle round
- the large leverage effect ensures a firm grip on the part to be extracted, whether internal or external

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71 15 02 11** | **1** | 50–300 | 270 | 6.0 | 120 | 4330 | 1 |
| **71 15 02 12** | **2** | 50–400 | 400 | 6.0 | 120 | 6000 | 1 |

## 11051 Standard pullers

- **three-armed**, with sliding permanently parallel extractor hooks, zinc plated
- for extracting gearwheels, ball bearings, pulleys, fan wheels and similar parts from shafts or axles
- for removing ball bearings, bearing outer races and bushes from holes
- hooks can be used as internal or external hooks

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71 08 00 11** | **1** | 25–80 | 100 | 5.5 | 55 | 1280 | 1 |
| **71 08 00 12** | **2** | 25–120 | 100 | 5.5 | 55 | 1422 | 1 |
| **71 08 00 13** | **3** | 25–160 | 150 | 7.0 | 70 | 3507 | 1 |
| **71 08 00 14** | **4** | 25–200 | 150 | 7.0 | 70 | 3690 | 1 |

## 11054 Pullers

- **three-armed**, with swivelling extractor hooks for larger reaches, zinc plated
- for extracting gearwheels, ball bearings, pulleys and similar parts from shafts or axles
- hooks can be used as internal or external hooks
- for internal extraction, simply turn the hooks and spindle round
- the efficient leverage effect forces the hooks firmly onto the part to be extracted

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71 15 03 11** | **1** | 50–300 | 270 | 12.0 | 220 | 4990 | 1 |
| **71 15 03 12** | **2** | 50–400 | 400 | 12.0 | 220 | 8000 | 1 |

## 11056 Set: Pullers

- consisting of the most common two- and three-armed pullers with two- and three-armed, sliding, parallel extractor hooks
- for extracting gearwheels, ball bearings, pulleys and similar parts from shafts or axles
- hooks can be used as internal or external hooks
- the efficient leverage effect forces the hooks firmly onto the part to be extracted

| Code | Clamp. width mm | Clamp. depth mm | g | |
|---|---|---|---|---|
| **96 71 13 11** | 120 | 100/200/250 | 7000 | 1 |





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## 12150 Pullers

- **two-armed** version with swivelling, double-action extractor hooks, zinc plated
- for extracting gearwheels, ball bearings, pulleys and similar parts from shafts or axles
- for removing ball bearings, bearing outer races and bushes from holes
- for internal extraction, simply swivel the hooks and turn the spindle round or just turn the hooks round

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71140211** | **1** | 20–150 | 80 | 3.5 | 50 | 708 | 1 |
| **71140212** | **2** | 40–220 | 130 | 4.0 | 60 | 1675 | 1 |

## 11040 Battery terminal pullers

- **two-armed**, with a self-centring quick-action clamp and automatic feed, zinc plated
- for extracting battery terminal clamps, smaller ball bearings, pulleys etc.
- as force is applied through the spindle, the extractor hooks automatically apply increasing force to the part being extracted
- particularly suited to car electrics, compressed air system repairs and similar applications due to the compact design and small hooks

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71120011** | **1** | 10–60 | 45 | 2.5 | 25 | 245 | 1 |
| **71120012** | **2** | 10–70 | 65 | 3.0 | 35 | 261 | 1 |
| **71120013** | **3** | 10–100 | 80 | 3.5 | 45 | 315 | 1 |

## 12152 Three arm pullers

- **three-armed** version with swivelling, double-action extractor hooks, zinc plated
- for extracting gearwheels, ball bearings, pulleys and similar parts from shafts or axles
- for removing ball bearings, bearing outer races and bushes from holes
- for internal extraction, simply swivel the hooks and turn the spindle round or just turn the hooks round

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71140311** | **1** | 20–150 | 80 | 4.0 | 60 | 920 | 1 |
| **71140312** | **2** | 40–200 | 130 | 4.5 | 70 | 2235 | 1 |

## 11042 Battery terminal pullers

- **three-armed**, with a self-centring quick-action clamp and automatic feed, zinc plated
- for extracting battery terminal clamps, smaller ball bearings, pulleys etc.
- as force is applied through the spindle, the extractor hooks automatically apply increasing force to the part being extracted
- particularly suited to car electrics, compressed air system repairs and similar applications due to the compact design and small hooks

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71180011** | **1** | 10–60 | 45 | 2.5 | 25 | 299 | 1 |
| **71180012** | **2** | 10–70 | 65 | 3.0 | 35 | 340 | 1 |
| **71180013** | **3** | 10–100 | 80 | 3.5 | 45 | 692 | 1 |

## 11055 Two arm pullers

- **two-armed**, with swivelling extractor hooks and lateral clamp clip, zinc plated
- when the clamp clip is tightened, the claws of the extractor hooks locate under the part to be extracted and lever it free as force is applied before extraction begins
- for extracting gearwheels, ball bearings, pulleys, drop arms and similar parts from shafts or axles
- the clamp clip presses the extractor hooks firmly against the part being extracted

| Code | size | Clamp. width mm | Clamp. depth mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71190011** | **1** | 20–70 | 85 | 5.0 | 120 | 1211 | 1 |
| **71190012** | **2** | 20–100 | 100 | 6.0 | 120 | 1643 | 1 |
| **71190013** | **3** | 30–150 | 150 | 8.0 | 150 | 2907 | 1 |

## 11060 Internal pullers

- for extracting ball bearings, bearing outer races and bushes; zinc plated
- to be used with counter stay No 11061 and slide hammer No 11062
- even bearings which are tight up against the walls are securely gripped due to the excellent clamping effect

| Code | size | Clamp. width mm | Max. torque in N·m | g | |
|---|---|---|---|---|---|
| **71160010** | **0** | 8–12 | 30 | 102 | 1 |
| **71161011** | **1** | 12–16 | 30 | 110 | 1 |
| **71160021** | **1a** | 16–20 | 30 | 116 | 1 |
| **71160012** | **2** | 20–27 | 30 | 131 | 1 |
| **71160013** | **3** | 27–36 | 60 | 365 | 1 |
| **71160015** | **5** | 36–46 | 60 | 385 | 1 |
| **71160016** | **6** | 46–58 | 60 | 558 | 1 |
| **71160017** | **7** | 58–70 | 60 | 612 | 1 |
| **71160018** | **8** | 70–100 | 60 | 1659 | 1 |





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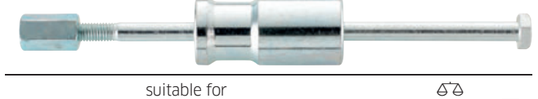
## 11061 Counter stays

- to be used with internal puller No 11060; zinc plated
- insert and open up the internal puller
- screw the spindle of the counter-stay into the internal puller
- extract the workpiece

| Code | size | suitable for No 11060 | Max.torque in N·m | g | |
|---|---|---|---|---|---|
| **71170011** | **1** | sizes 0-2 | 30 | 654 | 1 |
| **71170012** | **2** | sizes 3-7 | 60 | 1518 | 1 |
| **71170013** | **3** | size 8 | 60 | 2317 | 1 |

## 11062 Slide hammers

- to be used with internal puller No 11060; zinc plated
- for extracting ball bearings if it is not possible to use puller No 11061 because there is insufficient space



| Code | size | suitable for No 11060 | g | |
|---|---|---|---|---|
| **71161001** | **1** | sizes 0-2 | 650 | 1 |
| **71161002** | **2** | sizes 3; 5 | 1435 | 1 |

## 12613 Separating fixtures

- zinc plated
- for use with No 12614 of same sizes
- for separating and extracting ball bearings, roller bearings, bushes, wheels and other tightly fitting parts
- applying uniform pulling force to the side bolts will gently separate workpieces; apply puller No 12614
- apply force to pull off

| Code | size | Clamp. width mm | Opening mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71030010** | **0** | 5–60 | 60 | 2.0 | 30 | 562 | 1 |
| **71030011** | **1** | 12–75 | 75 | 2.5 | 40 | 787 | 1 |
| **71030012** | **2** | 22–115 | 115 | 4.0 | 70 | 2020 | 1 |
| **71030013** | **3** | 30–155 | 155 | 5.0 | 90 | 3740 | 1 |

## 12614 Pullers

- zinc plated
- for use with No 12613 of same sizes
- for extracting ball bearings, roller bearings, bushes, wheels and other tight fitting parts
- the puller is connected to separator No 12613 to enable the workpiece to be extracted

| Code | size | Clamp. width mm | Extraction bolts mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71040010** | **0** | 45–110 | 110 | 2.0 | 30 | 910 | 1 |
| **71040011** | **1** | 55–140 | 155 | 2.5 | 40 | 1220 | 1 |
| **71040012** | **2** | 60–215 | 200 | 4.0 | 70 | 2802 | 1 |
| **71040013** | **3** | 85–295 | 315 | 5.0 | 90 | 6820 | 1 |

## V 12614 Extensions

- 1 pair, for use with puller No 12614
- extensions for the extraction bolts on the puller for use with longer workpieces

| Code | size | for No | L mm | g | |
|---|---|---|---|---|---|
| **79440011** | **1** | 12614-0, -1 | 100 | 89 | 1 |
| **79440012** | **2** | 12614-2 | 150 | 233 | 1 |
| **79440013** | **3** | 12614-3 | 150 | 743 | 1 |

## 11030 Universal wheel hub pullers

- with three extractor hooks, zinc plated
- for extracting wheel hubs on HGV's and cars up to a hole diameter of 225 mm
- the axially mounted threaded bush enables the workpiece to be freed by gently tapping the end of the spindle

| Code | size | Arms | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|
| **71110013** | **1** | 3 | 14.0 | 280 | 3566 | 1 |
| **71110015** | **2** | 5 | 14.0 | 280 | 4568 | 1 |

## H 11030 Arm for No 11030

- 1 piece

| Code | g | |
|---|---|---|
| **79100010** | 524 | 1 |





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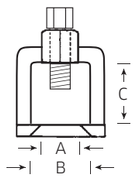
## 11041 Ball joint separators

- zinc plated
- for forcing out ball pins on vehicles



| Code | size | A mm | B mm | C mm | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|---|
| **71230011** | **1** | 18 | 37 | 37 | 50 | 285 | 1 |
| **71230012** | **2** | 23 | 45 | 45 | 120 | 476 | 1 |
| **71230013** | **3** | 29 | 55 | 60 | 160 | 910 | 1 |
| **71230014** | **4** | 39 | 70 | 80 | 280 | 2024 | 1 |

size 1 for passenger vehicles
size 2 for passenger vehicles and vans
size 3 + 4 for trucks

## SP 11040-12150 Spindles

| Code | No | for puller No | g | |
|---|---|---|---|---|
| **79281011** | **SP 11040-1** | 11040-1; 11042-1 | 108 | 1 |
| **79281111** | **SP 11040-2** | 11040-2; 11042-2 | 1 | 1 |
| **79281012** | **SP 11040-3** | 11040-3; 11042-3 | 66 | 1 |
| **79281019** | **SP 11041-1** | 11041-1 | 74 | 1 |
| **79281020** | **SP 11041-2** | 11041-2 | 94 | 1 |
| **79281021** | **SP 11041-3** | 11041-3 | 360 | 1 |
| **79281022** | **SP 11041-4** | 11041-4 | 231 | 1 |
| **79281013** | **SP 11050-1** | 11050-1, -2; 11051-1, -2; 11056; 12150-1, 12152-1, 12614-0, -1 | 171 | 1 |
| **79281014** | **SP 11050-3** | 11050-3, -4; 11051-3, -4; 12614-2 | 590 | 1 |
| **79281015** | **SP 11050-5** | 11050-5, -6 | 1235 | 1 |
| **79281023** | **SP 11053-1** | 11053-1, -2; 11054-1,-2; 12614-3 | 876 | 1 |
| **79281016** | **SP 11055-1** | 11055-1 | 177 | 1 |
| **79281017** | **SP 11055-2** | 11055-2 | 176 | 1 |
| **79281018** | **SP 11055-3** | 11055-3 | 592 | 1 |
| **79281034** | **SP 12150-2** | 12150-2; 12152-2 | 440 | 1 |

## 12616 Universal ball joint separator

- zinc plated
- DIN/ISO 7803
- for extracting ball-joints on cars and light delivery vans

| Code | Fork opening mm | Clear height mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|
| **71050010** | 18–22 | 20–50 | 3.5 | 70 | 611 | 1 |

## 12623 Ball joint separator

- zinc plated
- for extracting ball-joints especially on BMW, Fiat, Ford, Mercedes-Benz, Nissan, Opel, Toyota, VW/Audi and Volvo cars

| Code | Fork opening mm | Clear height mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|
| **71050011** | 20 | 12–50 | 3.5 | 40 | 1284 | 1 |

## 12623-1 Ball joint separator

- zinc plated
- for vehicles with aluminium chassis
- for extracting ball-joints, especially on Audi A6 and A8 after model year 1999 and for other vehicles with limited work space

| Code | Fork opening mm | Clear height mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|
| **71050012** | 24 | 60–80 | 3.5 | 40 | 1577 | 1 |

## 12623-3 Ball joint separator

- zinc plated
- on heavy goods vehicles, buses and construction site vehicles

| Code | Fork opening mm | Clear height mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|
| **71050014** | 35–45 | 115 | 20 | 200 | 2900 | 1 |

## 12623-4 Ball joint separator

- zinc plated
- on medium-sized and heavy HGV's, buses and construction site and other special vehicles

| Code | Fork opening mm | Clear height mm | Max. loading in t | Max. torque in N·m | g | |
|---|---|---|---|---|---|---|
| **71050015** | 27–36 | 90 | 10 | 100 | 2790 | 1 |





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STAHLWILLE
11095/ 13
.040
1,00mm
.016
0,40mm
.020
0,50mm
.024
0,60mm
.028
0,70mm
Made in Germany

# 10 SPECIAL AUTOMOTIVE TOOLS


KABELEX® tools and sets
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Car body repair tools
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Tools for vehicle doors
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# The right solution is always on hand.
# STAHLWILLE special-purpose tools for the automotive industry.

Made in Germany

Together with leading automotive manufacturers, STAHLWILLE develops special-purpose tools and brand-specific tool compilations. Continuous new and further developments of tools ensure that production and workshops always have high-quality and well thought-out tool solutions at hand.

## VERSATILE.

Tool assortments specially designed for individual vehicle marques guarantee optimised, efficient work processes. Whether in the workshop, in production or on the racetrack – application engineers appreciate the advantages of STAHLWILLE special automotive tools.



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## INDIVIDUAL.

STAHLWILLE's KABELEX® range. More than 30 different tools to release cable connectors quickly and easily – without cutting them off, which saves time and money. Available as single tools, individually combined sets or special sets for certain vehicle marques.

## SAFE.

Twin suction lifters made by STAHLWILLE and the three-component glass removal set ensure that windscreens and other car glass panes are easily and safely removed, fitted and transported.

## POWERFUL.

It would be hard to imagine garage and production environments without compressed air tools. Hardly surprising, then, that STAHLWILLE offer such a wide range of tried-and-tested, job-specific sockets.

## EFFICIENT.

Often enough, corroded or seized parts – like glow-plugs – slow down repair and servicing jobs. STAHLWILLE's glow-plug socket pliers make it that much easier to remove and refit these connectors, even in hard-to-reach places.

| Plug system | Tools | Private cars | | | | | | | | | | | Lorries | | | | Contact size mm | No |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BMW | Fiat | Ford | Mazda | Mercedes-Benz | Opel | PSA | Renault | Volvo | VW/Audi Seat/Skoda Porsche | | MAN | Mercedes-Benz | Scania | Volvo | | |
| **Round plug systems/ crimp-contacts** (The complete tool consists of ejection tool with bush) | | ● | ● | | | ● | ● | | | ● | ● | | ● | ● | | ● | ∅ 1,5 | 1501 + 1511 |
| | | ● | ● | | | ● | ● | | | ● | ● | | ● | ● | | ● | ∅ 3,5 | 1502 + 1512 |
| | | | | | | | | | | | | | ● | ● | ● | ● | ∅ 4 ABS | 1503 + 1513, 1523 |
| | | ● | | | | ● | ● | | | | | | | | | | ∅ 2,5 | 1504 + 1514 |
| | | | ● | | | ● | ● | ● | | | | | | | | | ∅ 2,3 | 1505 + 1515 |
| | | | | | | | | | | | | | ● | ● | | | ∅ 4 | 1506 + 1516 |
| **Round plug systems/ soldered contacts** | | | ● | ● | ● | | | | | | | | | | | | ∅ 1,5 pin contact | 1575 |
| | | | | | | ● | | | | | | | | | | | ∅ 4 | 1584 |
| | | | ● | | | ● | | | | | | | | | | | ∅ 2,5 | 1585 |
| **Flat plug systems with 2 or more locking tongues Crimp contacts** | | ● | | ● | | ● | ● | ● | ● | | ● | | ● | | | | 2,8 | 1551 |
| | | ● | ● | ● | | | ● | ● | ● | | ● | | ● | | | | 5,8 | 1552 |
| | | | | | | ● | ● | ● | ● | ● | ● | | | | | | 1,6 | 1556 |
| | | | | | | ● | | | | | ● | | | | | | 9,5 Maxi Power Timer-contacts | 1559 |
| | | | | | | | ● | | | | | | | | | | 2,8 Ducon | 1565 |
| | | | | | | | ● | | | | | | | | | | 1,5 Ducon | 1566 |
| | | | | | | | | | | | | | ● | | | | VKR box contact | 1577 |
| | | | | | | | | | | | | | ● | | | ● | MKR/MKS-contacts | 1577-1 |
| | | ● | | | | ● | | | | | | | | | | | SLK-contacts (primary) | 1578K-1 |
| | | ● | | | | ● | | | | | | | | | | | SLK-contacts 97 (primary+secundary) | 1578K-2 |
| | | ● | | | | ● | | | | | | | | | | | LSK-contacts | 1589K |
| | | | | | | ● | | | | | | | | | | | 1,65 E 95 | 1587 |
| | | ● | ● | ● | | ● | ● | ● | ● | ● | ● | | ● | ● | ● | ● | 2,8/5,8 Junior Power Timer-contacts Standard Power Timer-contacts | 1591 |
| **Flat plug systems with 2 locking tongues asymmetrical Crimp contacts** | | | | | | | | | | | ● | | | | | | 0,64 MQS asymmetrically | 1556-1 |
| | | | | | | | | | | | ● | | ● | | | | 2,8 | 1557 |
| | | | | | | | | | | | ● | | | | | | 4,8 | 1558 |
| **Flat plug systems with 1 locking tongue Crimp contacts** | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | | | | 2,8/5,8 | 1553 |
| | | ● | | | | | | ● | ● | ● | | | | | | | 2,8 | 1554 |
| | | ● | | | | | | ● | ● | | | | | | | | 5,8 | 1555 |
| | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | ● | Several Pid-Pod | 1562 |
| | | | | | | | | ● | | | | | | | | | 0,8 Ducon | 1563 |
| | | | | | | | ● | | | | | | | | | | 1,5 Ducon | 1564 |
| | | | ● | ● | ● | | ● | ● | ● | | ● | | | | | | 1,6 Without box | 1574 |
| | | | | | | | | | | | | | ● | | | | 2,8 | 1576 |



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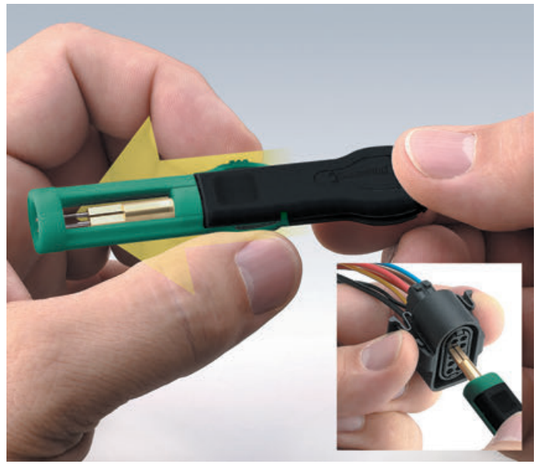

## STAHLWILLE KABELEX® Protect
### For workshops and cable configuration

- bicoloured handle:
  - with locking blade cover, to protect the fine blade and guard against injury
  - easier to handle for fine and intricate work on miniature connectors
- releases cable connectors quickly and easily without cutting them off – saves time and money
- also available in carefully selected sets
- over 30 different cable extractors available
- blades made of extremely tough and durable chrome vanadium and special spring steel

## 1501–1506 Ejection tools KABELEX®

- for round snap-in receptacles, including dismantling sleeve

| Code | No | for contact sizes ∅ mm | g | |
|---|---|---|---|---|
| **96746230** | **1501 + 1511 (e.g. BMW, Mercedes-Benz, Fiat, MAN, Opel, Porsche, Seat, Skoda, VW/Audi)** | 1.5 | 45 | 1 |
| **96746231** | **1502 + 1512 (e.g. BMW, Mercedes-Benz, Fiat, MAN, Opel, Porsche, Seat, Skoda, VW/Audi)** | 3.5 | 59 | 1 |
| **96746232** | **1503 + 1513 for ABS (lorries) please order corresponding assembly sleeve No 1523 (e.g. Mercedes-Benz, MAN, Scania) separately** | 4.0 | 79 | 1 |
| **96746233** | **1504 + 1514 (e.g. BMW, Mercedes-Benz, Opel)** | 2.5 | 60 | 1 |
| **96746234** | **1505 + 1515 (e.g. Ford, Opel, PSA, Renault)** | 2.3 | 46 | 1 |
| **96746235** | **1506 + 1516 (e.g. Mercedes-Benz trucks, MAN, Scania)** | 4.0 | 72 | 1 |

## 1511–1516 Dismantling sleeves KABELEX®

| Code | No | for contact sizes ∅ mm | L mm | inside ∅ mm | outside ∅ mm | g | |
|---|---|---|---|---|---|---|---|
| **78600001** | **1511 for No 1501** | 1.5 | 30 | 2.9 | 3.3 | 1 | 10 |
| **78600002** | **1512 for No 1502** | 3.5 | 30 | 4.4 | 5.0 | 1 | 10 |
| **78600003** | **1513 for No 1503** | 4.0 | 45 | 6.0 | 6.5 | 2 | 10 |
| **78600004** | **1514 for No 1504** | 2.5 | 30 | 4.0 | 4.4 | 1 | 10 |
| **78600005** | **1515 for No 1505** | 2.3 | 35 | 3.0 | 3.3 | 8 | 10 |
| **78600006** | **1516 for No 1506 (for 4.0 mm MOLEX-contacts)** | 4.0 | 35 | 5.6 | 6.0 | 1 | 10 |

## 1523 Assembly sleeve KABELEX® ABS

- for No 1503

| Code | for contact sizes ∅ mm | L mm | inside ∅ mm | outside ∅ mm | g | |
|---|---|---|---|---|---|---|
| **78610001** | 4.0 | 50 | 4.0 | 6.5 | 5 | 3 |

## 1551/1552 Cable extractor tools KABELEX®

- for flat snap-in receptacles, e.g. BMW, Ford, Opel, Porsche, Seat, Skoda, VW/Audi

| Code | No | for contact sizes ▭ mm | g | |
|---|---|---|---|---|
| **74620001** | **1551** | 2.8 | 19 | 1 |
| **74640002** | **1552** | 5.8 | 19 | 1 |

## 1553–1555 Cable extractor tools KABELEX®

- for flat plug-in sockets locked in terminals with single release channel

| Code | No | for contact sizes ▭ mm | g | |
|---|---|---|---|---|
| **74620003** | **1553 (e.g. BMW, Mercedes-Benz, Ford, MAN, Opel, Porsche, PSA, Renault, Seat, Skoda, VW/Audi)** | 2.8; 5.8 | 16 | 1 |
| **74620004** | **1554 (e.g. BMW, PSA, Renault)** | 2.8 | 16 | 1 |
| **74620005** | **1555 (e.g. BMW)** | 5.8 | 16 | 1 |

## 1556 Cable extractor tool KABELEX®

- for flat plug-in sockets, Micro Timer II, III contacts, e.g. Mercedes-Benz, Opel, Porsche, PSA, Renault, Saab, Seat, Skoda, VW/Audi

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74620006** | 1.6 | 17 | 1 |





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## 1556-1 Cable extractor tool KABELEX®

- for flat plug-in sockets with asymmetrically positioned latches in terminals with two release, channels, Seat, Skoda, VW/Audi

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74612006** | 0.64 | 19 | 1 |

## 1557/1558 Cable extractor tools KABELEX®

- for flat plug-in sockets with asymmetrically positioned latches in terminals with two release channels, Seat, Skoda, VW/Audi

| Code | No | for contact sizes ▭ mm | g | |
|---|---|---|---|---|
| **74620007** | **1557** | 2.8 | 21 | 1 |
| **74620008** | **1558** | 4.8 | 22 | 1 |

## 1559 Cable extractor tool KABELEX®

- for flat plug-in sockets, Maxi Power Timer contacts, Mercedes-Benz, VW/Audi

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74620009** | 9.5 | 39 | 1 |

## 1562 Cable extractor tool KABELEX®

- for flat plug-in sockets, Pit-Pod contacts, all vehicle makes

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74620012** | diverse | 25 | 1 |

## 1574 Cable extractor tool KABELEX®

- for flat plug-in sockets, Micro-Timer I contacts and ABS plug-in housing, Fiat, Ford, Mazda, Opel, PSA, Renault, Saab, VW/Audi

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74620024** | 1.6 | 15 | 1 |

## 1575 Cable extractor tool KABELEX®

- for round soldered pin contacts, Ford, for flat plug-in sockets (retention by locking device on terminal), Fiat, Mazda, Toyota

| Code | for contact sizes ∅ mm | for contact sizes ▭ mm | g | |
|---|---|---|---|---|
| **74620025** | 1.5 | 2.8; 5.8 | 15 | 1 |

## 1576 Cable extractor tool KABELEX®

- for flat plug-in sockets with single latch (flat plug without box), e.g. MAN

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74620026** | 2.8 | 18 | 1 |

## 1577 Cable extractor tool KABELEX®

- for flat plug-in sockets, VKR Box contacts, e.g. MAN

| Code | g | |
|---|---|---|
| **74620027** | 49 | 1 |

## 1577-1 Cable extractor tool KABELEX®

- for flat plug-in sockets, MKR/MKS contacts, e.g. MAN/Volvo

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74615027** | 1.5 | 23 | 1 |

## 1578K-1 Cable extractor tool KABELEX®

- for flat plug-in sockets, SLK contacts (primary), e.g. BMW, Mercedes-Benz

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74610028** | 2.8 | 35 | 1 |

## 1578K-2 Cable extractor tool KABELEX®

- for flat plug-in sockets, SLK contacts 97 (primary, secondary), e.g. BMW, Mercedes-Benz

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74612028** | 2.8 | 35 | 1 |

## 1584/1585 Cable extractor tools KABELEX®

- for round soldered contacts, Mercedes-Benz

| Code | No | for contact sizes ∅ mm | g | |
|---|---|---|---|---|
| **74620034** | **1584** | 4.0 | 13 | 1 |
| **74620035** | **1585** | 2.5 | 11 | 1 |





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## 1587 Cable extractor tool KABELEX®

- for flat plug-in sockets, E-95 contacts, Mercedes-Benz

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74620037** | 1.65 | 23 | 1 |

## 1589K Cable extractor tool KABELEX®

- for flat plug-in sockets, LSK contacts, e.g. BMW, Mercedes-Benz

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74610039** | 8 | 45 | 1 |

## 1700 MAN/ Volvo Tool set KABELEX®

- for MAN/Volvo, Mercedes-Benz trucks

Content 14 pieces:
No 1501, 1502, 1503, 1506: ejection tools for contact sizes ∅ 1.5; 3.5; 4.0 (ABS) and 4.0 mm
No 1511, 1512, 1513, 1516: dismantling sleeves for contact sizes ∅ 1.5; 3.5; 4.0 (ABS) and 4.0 mm
No 1523: assembly sleeve (ABS)
No 1553, 1591: cable extractor tools for contact sizes ▭ 2.8 and 5.8 mm
No 1576: cable extractor tool for flat plugs without box ▭ 2.8 mm
No 1577: cable extractor tool for VKR Box contacts ▭
No 1577-1: cable extractor tools for MKR/MKS contacts ▭ 1.5 mm

| Code | g | |
|---|---|---|
| **96747208** | 1300 | 1 |

## 1560 Tool set KABELEX®

- for round plug connections (incl. ABS)

Content 10 pieces:
1 each No 1501: ejection tool for contact sizes ∅ 1.5 mm
1 each No 1502: ejection tool for contact sizes ∅ 3.5 mm
1 each No 1503: ejection tool for contact sizes ∅ 4.0 mm
assembly or dismantling sleeve (ABS)
2 each No 1511: dismantling sleeves for contact sizes ∅ 1.5 mm (1 each mounted)
2 each No 1512: dismantling sleeves for contact sizes ∅ 3.5 mm (1 each mounted)
2 each No 1513: dismantling sleeves for contact sizes ∅ 4.0 mm (1 each mounted)
1 each No 1523: assembly sleeve (ABS)

| Code | g | |
|---|---|---|
| **96747201** | 560 | 1 |

## 1591 Cable extractor tool KABELEX®

- for flat plug-in sockets in terminals with two release channels, Junior Power Timer contacts, Standard Power Timer contacts, e.g. BMW, Mercedes-Benz, Fiat, Ford, MAN, Opel, PSA, Renault, Saab, VW/Audi

| Code | for contact sizes ▭ mm | g | |
|---|---|---|---|
| **74620041** | 2.8; 5.8 | 25 | 1 |

## 1570/2 Universal set KABELEX®

Content 12 pieces:
No 1501, 1502, 1505: ejection tools for contact sizes ∅ 1.5; 3.5; 2.3 mm
No 1511, 1512, 1515: dismantling sleeves for contact sizes ∅ 1.5; 3.5; 2.3 mm
No 1553: cable extractor tool for plugs with one release channel ▭ 2.8 and 5.8 mm
No 1556: cable extractor tool for Micro-Timer II, III contacts ▭ 1.6 mm
No 1559: cable extractor tool for Maxi-Power Timer contacts ▭ 9.5 mm
No 1562: cable extractor tool for Pit-Pod contacts
No 1574: cable extractor tool for Micro-Timer I contacts and ABS plug-in housing ▭ 1.6 mm
No 1591: cable extractor tool for plugs with two release channels ▭ 2.8 and 5.8 mm

| Code | g | |
|---|---|---|
| **96747304** | 1230 | 1 |

**STAHLWILLE KABELEX®.**
The specialists.

Efficiency in the workplace – when it pays to be competitive, removing cables on vehicles safely and quickly gives you that advantage. This is why STAHLWILLE offers over 30 different cable removing tools for cars. The fine but highly resilient blades are made of chrome vanadium and special spring steel.





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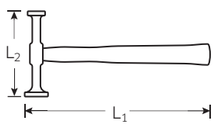
# Car body repair tools and pullers

## 10775 Dinging hammer



| Code | ∅ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|
| **70130002** | 30/40 | 300 | 155 | 516 | 2 |

## 10776 Special planishing hammer

- large extra thin faces
- square face chequered

| Code | ∅ mm | □ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|---|
| **70130010** | 46 | 40 | 320 | 115 | 521 | 2 |

## 10780 Planishing hammer

- short

| Code | ∅ mm | □ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|---|
| **70130003** | 32 | 25 | 300 | 100 | 346 | 2 |

## 10785 Planishing hammer

- short
- round face chequered

| Code | ∅ mm | □ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|---|
| **70130004** | 40 | 35 | 300 | 96 | 484 | 2 |

## 10790 Pecking hammer

- with round face and ball pein

| Code | ∅ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|
| **70130005** | 18/41 | 300 | 158 | 479 | 2 |

## 10795 Pecking hammer

- with round face and acorn shaped pein

| Code | ∅ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|
| **70130006** | 20/41 | 300 | 160 | 461 | 2 |

## 10800 Pecking hammer

- short
- round flat face and pointed pein

| Code | ∅ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|
| **70130007** | 35 | 300 | 135 | 357 | 2 |

## 10805 Pecking hammer

- round flat face
- oblong, thin pein, approx. 1 mm thick

| Code | ∅ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|
| **70130008** | 40 | 300 | 160 | 446 | 2 |

## 10806 Pecking hammer

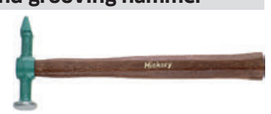
- extra large thin face and pein

| Code | ∅ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|
| **70130011** | 40 | 300 | 135 | 764 | 2 |

## 10811 Planishing and grooving hammer

| Code | ∅ mm | ▭ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|---|
| **70130012** | 30 | 36 x 10 | 320 | 160 | 545 | 2 |

## 10812 Planishing and grooving hammer



| Code | ∅ mm | ▭ mm | L1 mm | L2 mm | g | |
|---|---|---|---|---|---|---|
| **70130013** | 30 | 25 x 5 | 300 | 115 | 344 | 2 |





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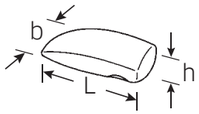
## 10835 Wedge dolly



| Code | L mm | b mm | h mm | g | |
|---|---|---|---|---|---|
| **70210002** | 130 | 55 | 32 | 958 | 1 |

## 10841 Thin dolly

| Code | L mm | b mm | h mm | g | |
|---|---|---|---|---|---|
| **70210005** | 107 | 66 | 28 | 984 | 1 |

## 10842 Diabolo dolly

| Code | ∅ mm | h mm | g | |
|---|---|---|---|---|
| **70210006** | 57 | 60 | 658 | 1 |

## 10845 Toe dolly

| Code | L mm | b mm | h mm | g | |
|---|---|---|---|---|---|
| **70210008** | 120 | 55 | 22 | 770 | 1 |

## 10855 Universal anvil dolly

| Code | L mm | b mm | h mm | g | |
|---|---|---|---|---|---|
| **70210010** | 70/60 | 50/45 | 58 | 1110 | 1 |

## 10861 Toe dolly

- chequered surface

| Code | L mm | b mm | h mm | g | |
|---|---|---|---|---|---|
| **70210014** | 120 | 55 | 30 | 1033 | 1 |

## 10865 Heel dolly

| Code | L mm | b mm | h mm | g | |
|---|---|---|---|---|---|
| **70210012** | 80 | 60 | 35 | 1070 | 1 |

## 10880 Bumping spoon

| Code | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|
| **70220001** | 460 | 200 | 1866 | 1 |

$L_1$ = length overall, $L_2$ = working length

## 10885 Bumping spoon

| Code | L mm | g | |
|---|---|---|---|
| **70220002** | 500 | 2210 | 1 |

## 10890 Body spoon

| Code | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|
| **70220003** | 270 | 130 | 552 | 1 |

$L_1$ = length overall, $L_2$ = working length

## 10895 Body spoon

| Code | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|
| **70220004** | 390 | 200 | 1035 | 1 |

$L_1$ = length overall, $L_2$ = working length

## 10905 Body file holder

- with coarse blade

| Code | L mm | b mm | h mm | g | |
|---|---|---|---|---|---|
| **72160000** | 365 | 35 | 110 | 765 | 2 |

L = Length, b = Width, h = Height

## 11005 Pry bar

- head and point polished

| Code | L mm | ∅ mm | g | |
|---|---|---|---|---|
| **72090000** | 400 | 14 | 477 | 6 |

## 11006 Lever bar

- special steel
- bright nickel-plated

| Code | L mm | b mm | g | |
|---|---|---|---|---|
| **72090002** | 400 | 14 | 498 | 6 |

## 11007 Lever bar

- special steel
- bright nickel-plated

| Code | L mm | b mm | g | |
|---|---|---|---|---|
| **72090003** | 400 | 17 | 641 | 6 |

## 10923 Body file holder

- from beech wood
- for flat blades

| Code | L mm | g | |
|---|---|---|---|
| **72200002** | 530 | 302 | 1 |

## 10906-10916 Spare blades for No 10905 and No 10923

| Code | No | shape | teeth per inch | L mm | g | |
|---|---|---|---|---|---|---|
| **79060001** | **10906** | fine, radial cut | 15 | 350 | 321 | 10 |
| **79060002** | **10907** | medium, radial cut | 12 | 350 | 286 | 10 |
| **79060003** | **10908** | coarse, radial cut | 9 | 350 | 279 | 10 |
| **79060012** | **10915** | medium, angled cut | 12 | 350 | 282 | 10 |
| **79060013** | **10916** | coarse, angled cut | 9 | 350 | 252 | 10 |

## 10922 Body file holder

- from beech wood
- for half round radius file blades

| Code | L mm | g | |
|---|---|---|---|
| **72200001** | 530 | 255 | 1 |

## 10921 File blade for No 10922

- coarse
- without swarf breaker
- half round
- radial cut

| Code | teeth per inch | L mm | g | |
|---|---|---|---|---|
| **79060004** | 9 | 350 | 216 | 5 |

## 12752 Tin snips

- lever action
- spring-assisted for self-opening action
- heavy duty cutting: sheet steel up to 1.8 mm or stainless steel sheet up to 1.2 mm

| Code | shape | L mm | L " | g | |
|---|---|---|---|---|---|
| **75230001** | **L** | 260 | 10 1/2 | 532 | 1 |
| **75230002** | **R** | 260 | 10 1/2 | 595 | 1 |

L = left hand cutting
R = right hand cutting

## 12753 Tin snips

- lever action
- spring-assisted for self-opening action
- heavy duty cutting: sheet steel sheet up to 1.8 mm or stainless steel sheet up to 1.2 mm

| Code | shape | L mm | L " | g | |
|---|---|---|---|---|---|
| **75240001** | **L** | 260 | 10 1/2 | 473 | 1 |
| **75240002** | **R** | 260 | 10 1/2 | 473 | 1 |

L = left hand cutting
R = right hand cutting

## 12727 Spot weld milling cutter

- HSSE steel
- for spot-weld removal on car body or sheet metal construction
- replaceable milling cutter size ∅ 10 mm
- cutting depth adjustment by set screw
- avoids distortion damage to sheet metal

| Code | L mm | g | |
|---|---|---|---|
| **72260001** | 72 | 19 | 5 |

## 12728 Replacement milling cutter

| Code | L mm | g | |
|---|---|---|---|
| **79260001** | 13 | 4 | 10 |

## 12729/12730 Spot weld drills

- for clean, burr-free removal of spot-weld
- self-cutting centre point avoids running off spot weld
- can be reground

| Code | No | ∅ mm | g | |
|---|---|---|---|---|
| **72270007** | **12729** | 7 | 18 | 5 |
| **72270008** | **12730** | 8 | 30 | 5 |





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## Tools for vehicle doors

### 12770 Lever bar

- powder coated for improved slide effect
- for removal of doors trims in cars

| Code | L mm | g | |
|---|---|---|---|
| **74593101** | 260 | 168 | 5 |

### 12770/3 Plastic lever bar

- for removing trim and rubbing strips of all kinds on bodywork and around windscreens, rear and side windows
- the broad area of contact prevents damage such as scratching of painted surfaces, deformation of strips and damage of glass

| Code | L mm | g | |
|---|---|---|---|
| **74590003** | 300 | 209 | 1 |

### 12770/2 Lever bar

- for levering off fragile caps, decorative trim (strips and rings), switches, rubber or fabric trim without damaging them
- finely honed, rounded edges ensure the vehicle paintwork and surrounding materials are not damaged or scratched

| Code | L mm | g | |
|---|---|---|---|
| **74593102** | 185 | 20 | 1 |

## Tools for fitting/removing vehicle glass

### 10352 Two double suction lifters

- suction cap ∅ 120 mm
- mechanical action with safety lock
- special ABS-plastic
- oil and acid resistant
- with belt slots in the handles
- carrying capacity 60 kg

| Code | g | |
|---|---|---|
| **74280001** | 1405 | 1 |

### 10350N Windscreen replacement set VERITRAC

Content 5 pieces:
1 guide handle; 1 draw handle;
1 coil cutting wire (50 m);
2 double suction lifters

| Code | g | |
|---|---|---|
| **98742711** | 1760 | 1 |

### 10352/1 Double suction lifter

- suction cap ∅ 120 mm
- mechanical action with safety lock
- special ABS-plastic
- oil and acid resistant
- with belt slots in the handles
- carrying capacity 30 kg

| Code | g | |
|---|---|---|
| **74280005** | 670 | 1 |

### 10351/1 Draw handle

- for drawing cutting wire through adhesive seal

| Code | g | |
|---|---|---|
| **74270001** | 90 | 1 |

### SD10351N Spare cutting wire

- steel wire ∅ 0.6 mm
- easy wire removal without the rest unrolling

| Code | L m | g | |
|---|---|---|---|
| **79270011** | 50 | 170 | 1 |

## 10351N Windscreen removal set VERITRAC

- as 10350N, but without double suction lifters

| Code | g | |
|---|---|---|
| **96742711** | 458 | 1 |

## 10351/2 Guide handle

- for fixing and clamping cutting wire inside vehicle

| Code | g | |
|---|---|---|
| **74270002** | 195 | 1 |

## 10351/3 Guide handle

- for fixing and clamping cutting wire inside vehicle
- extra long extension makes it especially suited to recessed glass

| Code | g | |
|---|---|---|
| **74270006** | 190 | 1 |

## 1474/2 Wire insert awl

- for feeding or pulling cutting wire through hardened adhesive

| Code | g | |
|---|---|---|
| **78033102** | 69 | 1 |

## 12718 Flat scraper

- for removing residues of sealant and adhesive

| Code | L mm | g | |
|---|---|---|---|
| **72033101** | 265 | 164 | 5 |

## 10356 Scraper

- for removing residues of adhesive and stickers from vehicle glass
- blade 40 mm wide, 0.3 mm thick, interchangeable with cover

| Code | Length mm | Width mm | g | |
|---|---|---|---|---|
| **74270005** | 165 | 40 | 85 | 1 |

## 10356R Spare blades

- 10 pieces

| Code | g | |
|---|---|---|
| **79270015** | 52 | 1 |

## 12749 Scraper with reversible tungsten steel blade

- for removing residues of adhesive and stickers from vehicle glass
- can also be used for scraping metal and seals

| Code | L mm | g | |
|---|---|---|---|
| **72313101** | 460 | 458 | 1 |

## 12749R Spare blade

- for scraper No 12749

| Code | g | |
|---|---|---|
| **79310001** | 19 | 1 |

## 10354 Tension strap with ratchet

- for clamping and fixing freshly fitted vehicle glass
- synthetic webbing

| Code | Length mm | Width mm | lifting power daN | g | |
|---|---|---|---|---|---|
| **74270003** | 4500 | 25 | 800 | 310 | 1 |

## 10355 Wire insert probe

- for threading cutting wire through hardened adhesive
- 2.5 mm steel tubing
- with brass handle

| Code | g | |
|---|---|---|
| **74270004** | 115 | 1 |





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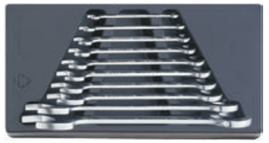
# Workshop sets

## 806/10 Tool set

- 99 tools, in plastic inlays (modular system see page 46–56)
- 9x1/3 and 1x3/3 inlays for 4 drawers (No 98VA for 2 drawers)
- suitable for workbench No WB620, tool trolleys No 90, 95, 95VA, 98VA, magazine case No 920 and wheely box No 922N

| Code | kg |
|---|---|
| **98830001** | 13.8 |


**96838126**

**96838127**

**96838128**

**96838110**

**96838112**

**96838113**

**96838121**

**96838123**

**96838125**

**96838237**

| 96838126 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

| 96838127 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm |

| 96838128 | No | Content |
|---|---|---|
| | **13** | 16; 17; 18; 19; 20; 21; 22; 24 mm |

| 96838110 | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

| 96838112 | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

| 96838113 | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

| 96838121 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65516240** | 240 mm |
| | **65642250** | 250 mm |
| | **66025160** | 160 mm |

| 96838123 | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6; 100 x 3.4 mm |

| 96838125 | No | Content |
|---|---|---|
| | **10956** | ⌀ 35 mm |
| | **10961** | 500 g |

| 96838237 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm) |
| | **4630** | PH1; PH2; PH3 |





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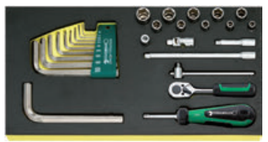
## 806/9 TCS TCS tool set

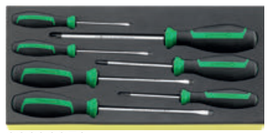
- 98 tools, in TCS inlays (Tool Control System see page 57–79)
- 7x1/3, 1x2/3 and 1x3/3 inlays for 4 drawers (No 98VA for 2 drawers)
- suitable for workbench No WB620,
  tool trolleys No 90, 95, 95VA, 98VA;
  magazine case No 920 and wheely box No 922N

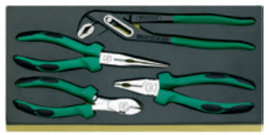
| Code | kg |
|---|---|
| **98830004** | 13.2 |

**96838175**


**96838176**

**96838177**


**96838278**


**96838179**

**96838180**

**96838181**

**96838183**

**96838182**

| 96838175 | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |

| 96838176 | No | Content |
|---|---|---|
| | **40** | 1/4" O 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |

| 96838176 | No | Content |
|---|---|---|
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **10760CV** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm |

| 96838177 | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

| 96838278 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4630** | PH1; PH2; PH3 |

| 96838179 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65516240** | 240 mm |
| | **66025160** | 160 mm |

| 96838180 | No | Content |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65454002** | A2 180 mm |
| | **65642250** | 250 mm |

| 96838181 | No | Content |
|---|---|---|
| | **102** | 175 mm |
| | **108** | 150 x 6; 175 x 6 mm |
| | **109** | size 6 (100 x 3.4 mm) |
| | **10956** | ∅ 35 mm |
| | **10961** | 500 g |

| 96838182 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 24 x 27; 30 x 32 mm |

| 96838183 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm |





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## 2500 TCS — Workshop set for BMW vehicles

TCS

- 283 tools, in TCS inlays (Tool Control System see page 57–79)
- 7x1/3, 1x2/3 and 4x3/3 inlays for 7 drawers (No 98VA for 3.5 drawers)

| Code | kg |
|---|---|
| **97830600** | 27 |

**96838192**

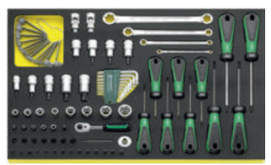
**96830679**

**96830605**

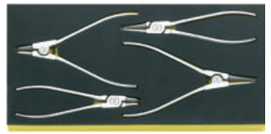
**96830602**

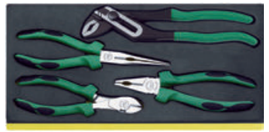
**96830603**

**96838177**


**96830607**

**96830706**


**96830608**


**96830622**

**96830604**

**96830609**

| 96838192 | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22 mm |

| 96830679 | No | Content |
|---|---|---|
| | **40** | 1/4" O 3; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |

| 96830679 | No | Content |
|---|---|---|
| | **40L** | 1/4" O 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **41K** | 1/4" O, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" O, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P** | 1/4" O, ⊕ PH1; PH2; PH3; PH4 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/4** | 1/4" ■ O 100 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **409** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **736/40** | 5/16" O, ■ D8 |
| | **1435** | size T55 |

| 96830605 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24 mm |
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm |
| | **24** | 10 x 11 mm |

| 96830602 | No | Content |
|---|---|---|
| | **46** | 3/8" O 10; 11; 12; 13 mm |
| | **47** | 3/8" O 10; 11; 12; 13; 14; 15; 16 mm |
| | **1049** | 3/8" O 9 mm |
| | **49X** | 3/8" O sizes M6; M8; M10 |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/5** | 3/8" ■ O 125 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **435** | 3/8" ■ |
| | **452QR** | 3/8" ■ |
| | **456** | 3/8" O 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |

| 96830603 | No | Content |
|---|---|---|
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm (2x) |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2" O |

| 96838177 | No | Content |
|---|---|---|
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |

| 96830607 | No | Content |
|---|---|---|
| | **21TX** | sizes E6 x E8; E10 x E12; E14 x E18; E20 x E24 |
| | **40TX** | 1/4" O sizes E4; E5; E6; E7; E8 |

**Continuation see next page**

| 96830607 | No | Content |
|---|---|---|
| | **44KTXB** | 1/4" O sizes T10; T15; T20; T25; T27; T30; T40 |
| | **409M** | 3/8" ■ 1/4" O |
| | **415B** | 1/4" O |
| | **3115/1** | 1/4" ■ ⬢ |
| | **45TX** | 3/8" O sizes E10; E12; E14 |
| | **47TX** | 3/8" O sizes E8; E10 |
| | **49TX** | 3/8" O size T40 |
| | **50TX** | 1/2" O sizes E11; E16; E18; E20; E24 |
| | **54TX**<br>**54TXB** | 1/2" O sizes T45; T50; T55; T60<br>1/2" O sizes T30; T40; T45; T50 |
| | **PZ 1221**<br>**PZ 1222**<br>**PZ 1223** | PZ1<br>PZ2<br>PZ3 |
| | **1410**<br>**1411**<br>**1412**<br>**1413**<br>**1427** | size T6<br>size T7<br>size T8<br>size T9<br>size T25 (65 mm) |
| | **1440**<br>**1441**<br>**1442**<br>**1443**<br>**1444**<br>**1445**<br>**1446** | size T10<br>size T15<br>size T20<br>size T25<br>size T27<br>size T30<br>size T40 |
| | **4856** | sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30 |
| | **10766/9** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |
| | | TORX® controller |

| 96830706 | No | Content |
|---|---|---|
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734**<br>**4744** | PH2<br>PZ1 |
| | **4820** | size 0.6 x 3.5 x 75 mm<br>size 0.8 x 4.0 x 100 mm<br>size 1.2 x 6.5 x 150 mm<br>size 1.6 x 10.0 x 200 mm<br>size 2.0 x 12.0 x 250 mm |
| | **4830**<br>**4840** | PH1; PH2; PH3<br>PZ1 |
| | **7756** | |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **12922E** | ∅ 6 mm |

| 96830608 | No | Content |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65444021** | J21 170 mm |
| | **65454002** | A2 180 mm |
| | **65464021** | A21 170 mm |

| 96830622 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65726240** | 240 mm |
| | **66025160** | 160 mm |

| 96830604 | No | Content |
|---|---|---|
| | **49** | 3/8" O 5; 6; 7 mm |
| | **54** | 1/2" O 8; 10; 12; 14; 17 mm |
| | **2309K** | 1/2" O 17; 19 mm |
| | **12506** | 6; 7 mm |

| 96830609 | No | Content |
|---|---|---|
| | **102** | 200 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 40 mm |
| | **10961** | 500 g |
| | **12373** | |
| | **12600** | 500 g |
| | **12718** | |
| | **12935/3** | 3 m |
| | **39Pkw** | 400 mm |
| | **65642250** | 250 mm |

## 2501N TCS Workshop set for BMW motorbikes

TCS

- 215 tools, in TCS inlays (Tool Control System see page 57–79)
- 2x1/3, 2x2/3 and 5x3/3 inlays for 7 drawers (No 98VA for 3.5 drawers)

| Code | kg |
|---|---|
| **97830606** | 24.5 |

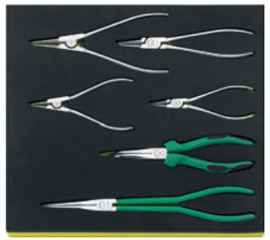
**96832096**

**96832095**

**96832097**

**96832098**

**96832099**


**96832100**



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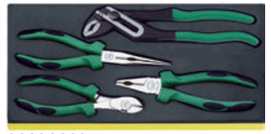
96832102

96832101



96830622

| 96832096 | No | Content |
|---|---|---|
| | **13** | 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 27; 29. 30; 32; 34 mm |

| 96832095 | No | Content |
|---|---|---|
| | **40** | 1/4" O 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **40TX** | 1/4" O sizes E8; E10 |
| | **44K** | 1/4" O, ⬢ 3; 4; 5; 6; 8 mm |
| | **44KTXB** | 1/4" O sizes T8; T10; T15; T20; T25; T27; T30; T40 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2**<br>**405/4** | 1/4" ■ O 54 mm<br>1/4" ■ O 100 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **45TX** | 3/8" O sizes E8; E10; E12; E14 |
| | **49** | 3/8" O 5; 6; 8 mm |
| | **49TX** | 3/8" O sizes T25; T45 |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **435** | 3/8" ■ |
| | **456** | 3/8" O 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm |
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm |
| | **54** | 1/2" O 10; 12 mm |
| | **54TX** | 1/2" O sizes T40; T50; T55; T60 |
| | **506** | 1/2" ■ 300 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **1054TX**<br>**2054TX** | 1/2" O sizes T50; T55<br>1/2" O sizes T40; T45 |

| 96832097 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 24 mm |
| | **21TX** | sizes E6 x E8; E10 x E12 |

| 96832098 | No | Content |
|---|---|---|
| | **4621** | size 0 (0.4 x 2.5 x 80 mm)<br>size 1 (0.5 x 3.5 x 90 mm)<br>size 2 (0.6 x 4.0 x 100 mm)<br>size 4 (1.0 x 6.5 x 140 mm)<br>size 5 (1.2 x 8.0 x 160 mm) |
| | **4631** | PH1; PH2 |
| | **4632** | PH1; PH2; PH3 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |
| | **10506** | 0.8 x 4.0 x 300 mm |
| | **10518** | 1.0 x 5.5 x 410 mm |
| | **12600** | 500 g |
| | **12922E** | ∅ 6 mm |

| 96832099 | No | Content |
|---|---|---|
| | **10769** | sizes T9; T10; T15; T20; T25; T30; T40; T45; T50 |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |

| 96832100 | No | Content |
|---|---|---|
| | **65345280** | 280 mm |
| | **65355200** | 200 mm |
| | **65434001**<br>**65434002** | J1 140 mm<br>J2 180 mm |
| | **65454001**<br>**65454002** | A1 140 mm<br>A2 180 mm |

| 96832102 | No | Content |
|---|---|---|
| | **46**<br>**4600**<br>**4606** | 3/8" O 20.8 mm-13/16"<br>3/8" O 16 mm-5/8"<br>3/8" O 18 mm-11/16" |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10768** | 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **12507-2K** | 8; 10 mm |

| 96832101 | No | Content |
|---|---|---|
| | **102** | 150 mm |
| | **103** | 150 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10356** | |
| | **10670** | 285 mm |
| | **10672** | 20 x 315 mm |
| | **10959** | ∅ 40 mm |
| | **10961** | 300; 500 g |
| | **12374** | |
| | **12900N** | |
| | **12965N** | |

| 96830622 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65726240** | 240 mm |
| | **66025160** | 160 mm |

## 2502 TCS Workshop set for BMW motorbikes

- entry-level set
- 139 tools, in TCS inlays (Tool Control System see page 57–79)
- 3x3/3, 1x1/3 inlays for 4 drawers (No 98VA for 2 drawers)

| Code | kg |
|---|---|
| **97830607** | 12.4 |

**96830180**

**96830181**

**96830182**

**96833414**

| 96830180 | No | Content |
|---|---|---|
| | **40** | 1/4" O 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **400** | 1/4" ■ 150 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **409** | 3/8" ■ 1/4" O |
| | **410** | 1/4" O, 1/2" ■, 28 mm |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **52** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |
| | **509/3** | 1/2" ■ O 75 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2" O |
| | **1204/21-1** | 4 x ⊕; 4 x ⊕; 9 x ⊕; 3 x O |
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65516240** | 240 mm |
| | **66025160** | 160 mm |

| 96830181 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **4734** | PH2 |

| 96830181 | No | Content |
|---|---|---|
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |
| | **12800** | |

| 96830182 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24 mm |
| | **17** | 8; 10; 13; 17; 19 mm |
| | **105-8/6 K** | No 105/120 x 10 mm<br>No 108/150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6 mm |
| | **10961** | 300 g |
| | **12320** | |
| | **12935/3** | 3 m |

| 96833414 | No | Content |
|---|---|---|
| | **1054**<br>**2054** | 1/2" O 8; 10 mm<br>1/2" O 5; 6 mm |
| | **1054TX**<br>**2054TX** | 1/2" O sizes T30; T50<br>1/2" O sizes T40; T45 |

**Tool Trolley 95VA.**
Good is now better.

STAHLWILLE's Tool Trolley 95VA is equipped with a three-stage safety system – to ensure maximum safety.

10



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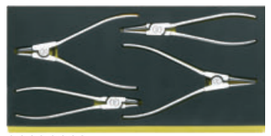
## 3026 TCS Tool set for Mercedes-Benz cars

- 306 tools, in TCS inlays (Tool Control System see page 57–79)
- 4x1/3, 1x2/3 and 7x3/3 inlays for 9 drawers (No 98VA for 4.5 drawers)

| Code | kg |
|---|---|
| **97830208** | 36.4 |

**96830166**

**96830353**


**96830608**

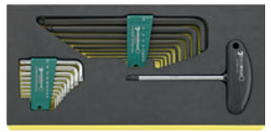
**96831609**

**96833415**

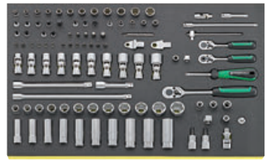
**96833416**

**96833417**

**96833418**


**96833419**

**96833420**


**96833442**

**96833460**

| 96830166 | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

| 96830353 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

| 96830608 | No | Content |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65444021** | J21 170 mm |
| | **65454002** | A2 180 mm |
| | **65464021** | A21 170 mm |

| 96831609 | No | Content |
|---|---|---|
| | **17** | 8; 10; 12; 13; 17; 19 mm |

| 96833415 | No | Content |
|---|---|---|
| | **12506** | 6; 7; 8 mm |
| | **12507-2K** | 8; 10; 13 mm |
| | **65015180** | 180 mm |
| | **65295145** | 140 mm |
| | **65516240** | 240 mm |
| | **66005145** | 140 mm |
| | **66025180**<br>**66025200** | 180 mm<br>200 mm |

| 96833416 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4621** | size 1 (0.5 x 3.5 x 90 mm)<br>size 5 (1.2 x 8.0 x 160 mm) |
| | **4628** | size 1 (0.4 x 2.5 x 60 mm) |
| | **4630** | PH1; PH2; PH3 |
| | **4650**<br>**4650L** | sizes T6; T7; T8; T10; T15; T20; T25; T27; T30<br>sizes T15; T20; T25; T30 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |

| 96833417 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 19; 21; 22; 24; 27; 30; 32 mm |
| | **21TX** | sizes E6 x E8; E10 x E12; E14 x E18; E20 x E24 |
| | **24** | 10 x 11 mm |

| 96833418 | No | Content |
|---|---|---|
| | **39Pkw** | 400 mm |
| | **102** | 150 mm; 200 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 35 mm |



**Continuation see next page**

| 96833418 | No | Content |
|---|---|---|
| | **10961** | 500 g |
| | **11006** | 400 mm |
| | **12600** | 3000 g |

| 96833419 | No | Content |
|---|---|---|
| | **10766/9** | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |
| | **10767H/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10769** | size T45 |

| 96833420 | No | Content |
|---|---|---|
| | **50D IMP** | 1/2" O 32; 36 mm |
| | **2309K** | 1/2" O 17; 19 mm |
| | **59X** | 3/4" O M18 |
| | **556** | 3/4" ■ 320 mm |
| | **558** | 510 mm |
| | **11095/20** | 20 blades, 0.05 - 1.00 mm |
| | **12374** | |
| | **12718** | |
| | **12900N** | 150 mm/6" |
| | **12900/3** | |
| | **12935/3** | 3 m |
| | **65642250** | 250 mm |

| 96833442 | No | Content |
|---|---|---|
| | **40** | 1/4" O 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | **40TX** | 1/4" O sizes E4; E5; E6; E7; E8 |
| | **41K** | 1/4" O, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" O, ⬢ 3; 4; 5; 6; 8 mm |
| | **44P**<br>**44PZ** | 1/4" O, ⊕ PH1; PH2<br>1/4" O, ⊕ PZ1; PZ2 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |
| | **409** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **415B** | 1/4" O |
| | **45TX** | 3/8" O sizes E10; E12; E14 |
| | **46** | 3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |
| | **47** | 3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |
| | **49TX** | 3/8" O sizes T40; T45 |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/6** | 3/8" ■ O 160 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **435** | 3/8" ■ |
| | **442** | 1/4" O 3/8" O |

| 96833442 | No | Content |
|---|---|---|
| | **456** | 3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm |
| | **736/10**<br>**736/10-1** | 1/4" O, ■ D 6.3<br>5/16" O, ■ D 8 |
| | **PZ 1221**<br>**PZ 1222** | 1/4" ⬢ ⊕ PZ1<br>1/4" ⬢ ⊕ PZ2 |
| | **1410**<br>**1411**<br>**1412**<br>**1413**<br>**1427** | size T6<br>size T7<br>size T8<br>size T9<br>size T25 (65 mm) |
| | **1440**<br>**1441**<br>**1442**<br>**1443**<br>**1444**<br>**1445**<br>**1446** | size T10<br>size T15<br>size T20<br>size T25<br>size T27<br>size T30<br>size T40 |
| | **1350**<br>**1356**<br>**1357**<br>**1358**<br>**1359** | M4<br>M5<br>M6<br>M8<br>M10 |

| 96833460 | No | Content |
|---|---|---|
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 26; 27; 28; 30; 32; 34 mm |
| | **50TX** | 1/2" O sizes E11; E16; E18; E20; E24 |
| | **54** | 1/2" O 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **54KK** | 1/2" O 6; 7; 8; 10 mm |
| | **54TX** | 1/2" O sizes T50; T55; T60 |
| | **54X** | 1/2" O sizes M8; M10; M12; M14; M16 |
| | **506** | 1/2" ■ 300 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509W/2** | 1/2" ■ O 52 mm |
| | **509W/5** | 1/2" ■ O 130 mm |
| | **509W/10** | 1/2" ■ O 255 mm |
| | **509QR/2** | 1/2" ■ O 52 mm |
| | **509QR/5** | 1/2" ■ O 130 mm (2x) |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2" O |
| | **2054X** | 1/2" O sizes M8; M10 |
| | **3054X** | 1/2" O sizes M12; M14 |





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## 3022 TCS Tool set for Mercedes-Benz HGVs

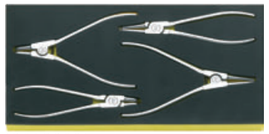
- 264 tools, in TCS inlays (Tool Control System see page 57–79)
- 3x1/3, 1x2/3 and 8x3/3 inlays for 10 drawers (No 98VA for 5 drawers)

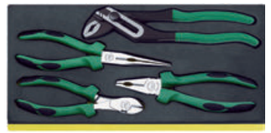
| Code | kg |
|---|---|
| **97830209** | 47.8 |

**96830172**

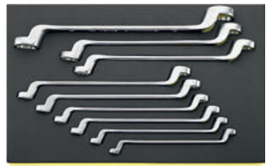
**96830174**

**96830221**


**96830608**


**96830622**

**96833399**


**96833400**

**96833401**

**96833402**

**96833403**

**96833404**

**96833413**

| 96830172 | No | Content |
|---|---|---|
| | **51IMP** | 1/2" O 24; 27 mm |
| | **54** | 1/2" O 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **2309**<br>**2309K** | 1/2" O 22 mm<br>1/2" O 17; 19 mm |

| 96830174 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm |

| 96830221 | No | Content |
|---|---|---|
| | **55** | 3/4" O 22; 24; 27; 30; 32; 34; 36; 38; 41; 46; 50 mm |
| | **552** | 3/4" ■ |
| | **556** | 3/4" ■ |
| | **558** | 510 mm |
| | **559/8**<br>**559/16** | 3/4" ■ O 200 mm<br>3/4" ■ O 400 mm |
| | **568** | 1/2" ■ 3/4" O |

| 96830608 | No | Content |
|---|---|---|
| | **65434002** | J2 180 mm |
| | **65444021** | J21 170 mm |
| | **65454002** | A2 180 mm |
| | **65464021** | A21 170 mm |

| 96830622 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295200** | 200 mm |
| | **65726240** | 240 mm |
| | **66025160** | 160 mm |

| 96833399 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 4 (1.2 x 6.5 x 150 mm) |
| | **4621** | size 1 (0.5 x 3.5 x 90 mm)<br>size 5 (1.2 x 8.0 x 160 mm) |
| | **4630**<br>**4640** | PH1; PH2; PH3<br>PZ1; PZ2 |
| | **4650** | sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |

| 96833400 | No | Content |
|---|---|---|
| | **20** | 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 26; 25 x 28; 27 x 32; 30 x 32; 36 x 41 mm |

| 96833401 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32; 34 x 36; 36 x 41 mm |
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15 mm |
| | **21TX** | E6 x E8; E10 x E12; E14 x E18; E2 0x E24 mm |

**Continuation see next page**

| 96833402 | No | Content |
|---|---|---|
| | **102** | 150; 200 mm |
| | **105** | 120 x 12 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **10959** | ∅ 50 mm |
| | **10961** | 500; 1000 g |
| | **12374** | |
| | **12600** | 3000 g |

| 96833403 | No | Content |
|---|---|---|
| | **10669** | |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |
| | **12025** | 210 mm |
| | **12030** | 260 mm |
| | **12035** | 210 mm |
| | **12036** | 260 mm |
| | **12718** | |
| | **12900N** | 150 mm/6" |
| | **12900/3** | |
| | **12935/3** | 3 m |

| 96833404 | No | Content |
|---|---|---|
| | **50** | 1/2" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 26; 27; 28; 30; 32; 34 mm |
| | **50TX** | 1/2" O sizes E11; E16; E18; E20; E24 |
| | **54TX** | 1/2" O sizes T50; T55; T60 |
| | **54X** | 1/2" O sizes M6; M8; M10; M12; M14; M16 |
| | **504/15** | 1/2" ■ 397 mm |
| | **506** | 1/2" ■ 300 mm |
| | **509/2** | 1/2" ■ O 52 mm |
| | **509/5** | 1/2" ■ O 130 mm |
| | **509/10** | 1/2" ■ O 255 mm |
| | **509W/2** | 1/2" ■ O 52 mm |
| | **509W/5** | 1/2" ■ O 130 mm |
| | **509W/10** | 1/2" ■ O 255 mm |
| | **510** | 1/2" ■ O 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **514** | 3/4" ■ 1/2" O |

| 96833413 | No | Content |
|---|---|---|
| | **40** | 1/4" O 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 |
| | **40TX** | 1/4" O sizes E4; E5; E6; E7; E8 |
| | **41K** | 1/4" O ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm |
| | **44K** | 1/4" O ● 3; 4; 5; 6; 8 |
| | **44P**<br>**44PZ** | 1/4" O, ⊕ PH1, PH2<br>1/4" O, ⊕ PZ1; PZ2 |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/2** | 1/4" ■ O 54 mm |
| | **405/6** | 1/4" ■ O 150 mm |
| | **407** | 1/4" ■ O 38 mm |

| 96833413 | No | Content |
|---|---|---|
| | **409** | 3/8" ■ 1/4" O |
| | **412** | 1/4" O O |
| | **415** | 1/4" ■ |
| | **415B** | 1/4" ■ |
| | **45TX** | 3/8" O E10; E12; E14 |
| | **49TX** | 3/8" O T40; T45 |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/6** | 3/8" ■ O 160 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **431** | 1/4" ■ 3/8" O |
| | **432** | 1/2" ■ 3/8" O |
| | **435** | 3/8" ■ |
| | **442** | 1/4" O 3/8" O |
| | **456** | 3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm |
| | **1410**<br>**1411**<br>**1412**<br>**1413**<br>**1427** | T6<br>T7<br>T8<br>T9<br>T25 |
| | **1440**<br>**1441**<br>**1442**<br>**1443**<br>**1444**<br>**1445**<br>**1446** | T10<br>T15<br>T20<br>T25<br>T27<br>T30<br>T40 |





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## 1100 TCS Tool set for Porsche

TCS

- 228 tools, in TCS inlays (Tool Control System see page 57–79)
- 1x1/3, 1x2/3 and 5x3/3 inlays for 6 drawers (No 98VA for 3 drawers)

| Code | kg |
|---|---|
| **97830411** | 24.7 |

**96830192**

**96830193**

**96830194**

**96830195**

**96831196**

**96830198**

**96830197**

| 96830192 | No | Content |
|---|---|---|
| | **40** | 1/4" ○ 3.5; 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm |
| | **40TX** | 1/4" ○ sizes E4; E5; E6; E7; E8 |
| | **44** | 1/4" ○ 3; 4; 5; 6 mm |
| | **400** | 1/4" ■ 150 mm |
| | **404** | 1/4" ■ 116 mm |
| | **405/6** | 1/4" ■ ○ 150 mm |
| | **407** | 1/4" ■ ○ 38 mm |
| | **409M** | 3/8" ■ 1/4" ○ |
| | **415** | 1/4" ■ |
| | **415SGB N** | 1/4" ○ |
| | **45** | 3/8" ○ 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |
| | **45TX** | 3/8" ○ E10; E12; E14 |
| | **46** | 3/8" ○ 20.8 mm-13/16" |
| | **49** | 3/8" ○ 4; 5; 6; 7; 8; 10 mm |
| | **425** | 3/8" ■ 165 mm |
| | **427/3** | 3/8" ■ ○ 76 mm |
| | **427/10** | 3/8" ■ ○ 240 mm |
| | **428** | 3/8" ■ ○ 46 mm |

| 96830192 | No | Content |
|---|---|---|
| | **432M** | 1/2" ■ 3/8" ○ |
| | **435** | 3/8" ■ |
| | **50** | 1/2" ○ 19; 21; 22; 24; 27; 30; 32 mm |
| | **50TX** | 1/2" ○ sizes E11; E16; E18; E20; E24 |
| | **52** | 1/2" ○ 16; 17; 18; 19; 22; 24; 27; 30; 32 mm |
| | **54** | 1/2" ○ 6; 7; 8; 10 mm |
| | **54TX** | 1/2" ○ sizes T45; T50; T55; T60 |
| | **54X** | 1/2" ○ sizes M6; M8; M12; M14 |
| | **506** | 1/2" ■ 300 mm |
| | **509/5** | 1/2" ■ ○ 130 mm |
| | **509/10** | 1/2" ■ ○ 255 mm |
| | **510** | 1/2" ■ ○ 71 mm |
| | **512** | 1/2" ■ |
| | **514M** | 3/4" ■ 1/2" ○ |
| | **1410** | size T6 |
| | **1411** | size T7 |
| | **1412** | size T8 |
| | **1413** | size T9 |
| | **1440** | size T10 |
| | **1441** | size T15 |
| | **1442** | size T20 |
| | **1443** | size T25 |
| | **1444** | size T27 |
| | **1445** | size T30 |
| | **1446** | size T40 |
| | **1427** | size T25 (65 mm) |

| 96830193 | No | Content |
|---|---|---|
| | **12** | 5.5; 12; 14 mm (2x) |
| | **13** | 7; 11 mm (2x); 6; 8; 9; 10; 12; 13; 14; 15; 16; 17; 18; 19; 20; 22; 24; 30; 32; 36 mm (1x) |
| | **14** | 17 mm |

| 96830194 | No | Content |
|---|---|---|
| | **20** | 10 x 11; 12 x 13; 14 x 15; 17 x 19; 19 x 22 mm |
| | **21TX** | sizes E6 x E8; E10 x E12; E14 x E18; E20 x E24 |
| | **23** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22; 21 x 23; 24 x 27; 30 x 32 mm |
| | **24** | 8 x 10; 11 x 13; 12 x 14; 17 x 19; 22 x 24 mm |

| 96830195 | No | Content |
|---|---|---|
| | **29** | 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22 mm |

| 96831196 | No | Content |
|---|---|---|
| | **4622** | size 1 (1.0 x 5.5 x 100 mm)<br>size 2 (1.2 x 6.5 x 125 mm)<br>size 4 (1.6 x 10.0 x 175 mm)<br>size 5 (2.0 x 12.0 x 200 mm) |
| | **4630** | PH1 |
| | **4632** | PH3 |
| | **4650** | sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30 |
| | **4724** | size 2 (1.0 x 5.5 x 25 mm) |
| | **4734** | PH2 |
| | **10760CV/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |

**Continuation see next page**

| 96831196 | No | Content |
|---|---|---|
| | 10766/9 | sizes T8; T9; T10; T15; T20; T25; T27; T30; T40 |

| 96830197 | No | Content |
|---|---|---|
| | 65016180 | 180 mm |
| | 65434002 | J2 180 mm |
| | 65454002 | A2 180 mm |
| | 65464021 | A21 170 mm |
| | 65516240 | 240 mm |
| | 66026160 | 160 mm |

| 96830198 | No | Content |
|---|---|---|
| | 100 | 150 mm |
| | 103 | 150 mm |
| | 104 | 120 x 4; 120 x 6 mm |
| | 105 | 120 x 12 mm |
| | 108 | 150 x 4 mm |
| | 10670 | 265 mm |
| | 10940 | ∅ 55 mm |
| | 10955 | ∅ 35 mm |
| | 10961 | 150 x 4 mm |
| | 11095 | ∅ 35 mm |
| | 12005 | |
| | 12036 | 260 mm |
| | 12321 | |
| | 12905 | |
| | 12935/3 | 3 m |

## 1120 TCS Workshop set for VW/Audi (basic)

- 241 tools, in TCS inlays (Tool Control System see page 57–79)
- 3x1/3, 3x2/3 and 4x3/3 inlays for 7 drawers (No 98VA for 4 drawers)

| Code | kg |
|---|---|
| 97830820 | 30.7 |

96831608

96831613

96831615

96831585

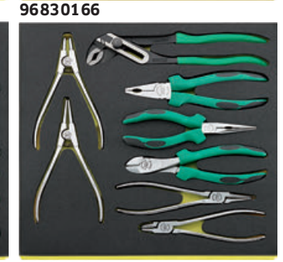
96831609

96830877

96831610

96830166

96831614


96831584

| 96831608 | No | Content |
|---|---|---|
| | 40 | 1/4" O 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm |
| | 40TX | 1/4" O sizes E4; E5; E6; E8 |
| | 41K | 1/4" O, ⊖ 1.0 x 5.5 mm |
| | 44K | 1/4" O, ● 3; 4; 5; 6 mm |
| | 44KTX | 1/4" O sizes T10; T15; T20; T25; T27 |
| | 44P | 1/4" O, ⊕ PH1; PH2 |
| | 400 | 1/4" ■ 150 mm |
| | 405W/2<br>405W/4 | 1/4" ■ O 100 mm |





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| 96831608 | No | Content |
|---|---|---|
| | **405W/6** | 1/4" ■ **O** 150 mm |
| | **407** | 1/4" ■ **O** 38 mm |
| | **409** | 3/8" ■ 1/4" **O** |
| | **412** | 1/4" **O O** |
| | **415** | 1/4" ■ |
| | **431** | 1/4" ■ 3/8" **O** |
| | **432** | 1/2" ■ 3/8" **O** |
| | **50** | 1/2" **O** 8; 9; 10; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm |
| | **52** | 1/2" **O** 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm |
| | **54TX** | 1/2" **O** sizes T25; T27; T30; T40; T45; T50; T55; T60 |
| | **506** | 1/2" ■ 300 mm |
| | **509W/2** | 1/2" ■ **O** 52 mm |
| | **509W/5** | 1/2" ■ **O** 130 mm |
| | **509W/10** | 1/2" ■ **O** 255 mm |
| | **510** | 1/2" ■ **O** 71 mm |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" **O** |
| | **514** | 3/4" ■ 1/2" **O** |
| | **556** | 3/4" ■ 320 mm |
| | **558** | 510 mm |
| | **568** | 1/2" ■ 3/4" **O** |
| | **1410**<br>**1411**<br>**1412**<br>**1413** | size T6<br>size T7<br>size T8<br>size T9 |

| 96831613 | No | Content |
|---|---|---|
| | **4620** | size 1 (0.6 x 3.5 x 75 mm)<br>size 2 (0.8 x 4.0 x 100 mm)<br>size 3 (1.0 x 5.5 x 125 mm)<br>size 4 (1.2 x 6.5 x 150 mm)<br>size 5 (1.6 x 8.0 x 175 mm)<br>size 6 (1.6 x 10.0 x 200 mm)<br>size 7 (2.0 x 12.0 x 200 mm) |
| | **4622SK** | size 1 (0.8 x 4.0 x 90 mm)<br>size 2 (1.0 x 5.5 x 100 mm)<br>size 3 (1.2 x 6.5 x 125 mm) |
| | **4632**<br>**4632SK** | PH1; PH2; PH3<br>PH1; PH2 |
| | **4724** | size 1 (0.6 x 3.5 x 25 mm) |
| | **4734** | PH2 |

| 96831615 | No | Content |
|---|---|---|
| | **13** | 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm |
| | **24** | 10 x 11 mm |

| 96831585 | No | Content |
|---|---|---|
| | **39Pkw** | 400 mm |
| | **102** | 150; 200 mm |
| | **105** | 120 x 10 mm |
| | **108** | 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm |
| | **7756** | |
| | **10956N** | ∅ 35 mm |
| | **10961** | 500 g |
| | **11095** | 0.05–1 mm |
| | **12320** | |
| | **12373** | |

| 96831585 | No | Content |
|---|---|---|
| | **12600** | 500 g |
| | **12718** | |
| | **12920N** | |
| | **12935/3** | 3 m |
| | **65632250** | 250 mm |

| 96831609 | No | Content |
|---|---|---|
| | **17** | 8; 10; 12; 13; 17; 19 mm |

| 96830877 | No | Content |
|---|---|---|
| | **54** | 1/2" **O** 5; 6; 7; 8; 10; 12; 14; 17; 19 mm |
| | **54KK** | 1/2" **O** 5; 6; 7; 8; 10 mm |

| 96831610 | No | Content |
|---|---|---|
| | **50D IMP** | 1/2" **O** 32; 36 mm |
| | **50TX** | 1/2" **O** sizes E10; E12; E14; E16; E18; E20 |
| | **54X**<br>**59X** | 1/2" **O** sizes M5; M6; M8; M10; M12; M14; M16<br>3/4" **O** size M18 |
| | **1054X/M8** | 1/2" **O** 80 mm |
| | **2309K** | 1/2" **O** 17; 19 mm |
| | **3054X/M10**<br>**3054X/M12**<br>**3054X/M14** | 1/2" **O** 140 mm |

| 96830166 | No | Content |
|---|---|---|
| | **20** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

| 96831614 | No | Content |
|---|---|---|
| | **4650** | sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30 |
| | **10767/9** | 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm |
| | **10771/8** | sizes T9; T10; T15; T20; T25; T27; T30; T40 |

| 96831584 | No | Content |
|---|---|---|
| | **65015180** | 180 mm |
| | **65295160** | 160 mm |
| | **65434002** | J2 180 mm |
| | **65444021** | J21 170 mm |
| | **65454002** | A2 180 mm |
| | **65464021** | A21 170 mm |
| | **65726240** | 240 mm |
| | **66025180** | 180 mm |

## 1120/1 TCS Additional set for VW

- 66 tools, in TCS inlays (Tool Control System see page 57–79)
- 2x1/3 und 1x2/3 inlays for 2 drawers (No 98VA for 1 drawer)

| Code | kg |
|---|---|
| **97830821** | 6.6 |

**96831601**

**96831602**

**96831607**

| 96831601 | No | Content |
|---|---|---|
| | **12507-2K** | 8; 10; 13 mm |
| | **65015180** | 180 mm |
| | **65295145** | 140 mm |
| | **65305200** | 200 mm |
| | **66005145** | 140 mm |
| | **66025200** | 200 mm |

| 96831602 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

| 96831607 | No | Content |
|---|---|---|
| | **40DL** | 1/4" O 8 mm |
| | **415B** | 1/4" O |
| | **46** | 3/8" O 12 mm |
| | **51** | 1/2" O 10; 13; 14; 15; 16; 17; 18; 19 mm |
| | **54TX** | 1/2" O sizes T30; T40; T45; T50; T55 |
| | **512** | 1/2" ■ |
| | **513** | 3/8" ■ 1/2" O |
| | **1162** | 0.6 x 3.5 mm |
| | **1164** | 0.8 x 4.0 mm |
| | **1166** | 1.0 x 5.5 mm |
| | **1166/1** | 1.2 x 6.5 mm |
| | **1168** | 1.6 x 8.0 mm |
| | **PZ 1221** | PZ1 |
| | **PZ 1222** | PZ2 |
| | **PZ 1223** | PZ3 |
| | **1299** | 2 mm |
| | **1300** | 3 mm |
| | **1301** | 4 mm |
| | **1302** | 5 mm |
| | **1303** | 6 mm |
| | **1304** | 8 mm |

| 96831607 | No | Content |
|---|---|---|
| | **1410** | size T6 |
| | **1411** | size T7 |
| | **1412** | size T8 |
| | **1413** | size T9 |
| | **1414** | size T10 |
| | **1415** | size T15 |
| | **1416** | size T20 |
| | **1417** | size T25 |
| | **1418** | size T27 |
| | **1419** | size T30 |
| | **1420** | size T40 |
| | **1421** | size T45 |
| | **1435** | size T55 |

## 1120/2 TCS Additional set for Audi

- 73 tools, in TCS inlays (Tool Control System see page 57–79)
- 2x1/3, 1x2/3 and 1x3/3 inlays for 3 drawers (No 98VA for 1.5 drawers)

| Code | kg |
|---|---|
| **97830822** | 8 |

**96831602**

**96831603**

**96831601**

**96831695**

| 96831602 | No | Content |
|---|---|---|
| | **10** | 6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32 mm |

| 96831603 | No | Content |
|---|---|---|
| | **543** | 5/16" O 1/2" O |
| | **736/10** | 1/4" O, ■ D 6,3 |
| | **736/10-1** | 5/16" O, ■ D 8 |
| | **1350** | M4 |
| | **1356** | M5 |
| | **1357** | M6 |
| | **1358** | M8 |
| | **1359** | M10 |
| | **12506-2K** | 6; 7; 8 mm |

| 96831601 | No | Content |
|---|---|---|
| | **12507-2K** | 8; 10; 13 mm |
| | **65015180** | 180 mm |
| | **65295145** | 140 mm |
| | **65305200** | 200 mm |
| | **66005145** | 140 mm |
| | **66025200** | 200 mm |





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| 96831695 | No | Content |
|---|---|---|
| | **46** | 3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |
| | **47** | 3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm |
| | **427/3** | 3/8" ■ O 76 mm |
| | **427/6** | 3/8" ■ O 160 mm |
| | **427/10** | 3/8" ■ O 240 mm |
| | **427W/3** | 3/8" ■ O 76 mm |
| | **427W/5** | 3/8" ■ O 125 mm |
| | **427W/6** | 3/8" ■ O 160 mm |
| | **428** | 3/8" ■ O 46 mm |
| | **435** | 3/8" ■ |
| | **456** | 3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm |
| | **4650L** | sizes T15; T20; T25; T30 |

## 1120/3 TCS Bodywork set for VW/Audi

- 9 tools, in TCS inlay (Tool Control System see page 57–79)
- 3/3 inlay for 1 drawer (No 98VA for 0.5 drawers)

| Code | kg |
|---|---|
| **96831586** | 4.4 |

| | No | Content |
|---|---|---|
| | **112** | 240 mm |
| | **10670** | 265 mm |
| | **10961** | 200; 1000 g |
| | **12752L**<br>**12752R** | |
| | **65632175** | 175 mm |
| | **65642145**<br>**65642250** | 145 mm<br>250 mm |

# Special tools for cars

## Special tools for carburettors

### 10503 Screwdriver

- for adjusting slotted screws
- matt chrome
- black tip

| Code | L mm | Blade mm | g | |
|---|---|---|---|---|
| **73213101** | 365 | 0.8 x 5.0 x 260 | 100 | 10 |

### 10506 Screwdriver

- for setting correct CO-valve on mixture screen, idling mixture on Pierburg carburettors: BMW, Ford, Opel, Peugeot, Renault, Mercedes-Benz cars
- choke adjustment Audi 80, VW Passat 1.3-1.5; 1.6 l
- matt chrome
- black tip

| Code | L mm | Blade mm | g | |
|---|---|---|---|---|
| **73010001** | 350 | 0.8 x 4.0 x 300 | 55 | 10 |

### 10507N KK Ball ended hexagon driver

- for hexagon socket head screws 3 mm
- for mixture regulation on distributor of K-Jetronic
- mattchrome
- blacktip

| Code | L mm | g | |
|---|---|---|---|
| **73103003** | 385 | 56 | 5 |

### 10518 Screwdriver

- for adjustment (slotted screws)
- matt chrome
- black tip

| Code | L mm | Blade mm | g | |
|---|---|---|---|---|
| **73213102** | 525 | 1.0 x 5.5 x 410 | 159 | 10 |

### 11085 Jet reamers

- 16 pieces in case (0.33; 0.4; 0.45; 0.5; 0.6; 0.7; 0.75; 0.8; 0.9; 1.0; 1.1; 1.2; 1.4; 1.6; 1.8; 2.0 mm)
- with holder

| Code | g | |
|---|---|---|
| **74310001** | 25 | 10 |





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## 12504 Bit holder

- for all screwdriver bits
- flexible shaft
- for adjustment

| Code | L mm | ○ " | Blade mm | g | |
|---|---|---|---|---|---|
| **18 10 30 16** | 290 | 1/4 | 150 | 168 | 10 |

## 54TX-T20 Screwdriver socket

- for inside TORX® screws, size T20
- 1/2" ○-drive
- use on mounting screws for choke-switch on choke-flap L-Jetronic

| Code | g | |
|---|---|---|
| **03 10 00 20** | 71 | 5 |

## 540-22 CROW-FOOT spanner

- 22 mm
- 3/8" ○-drive
- on through-flow jet of 2B4-carburettor
- for use with reducing adaptor No 513

| Code | Type | g | |
|---|---|---|---|
| **02 20 00 22** | **BMW: series 3, 518, 520** | 64 | 1 |

## 513 Reducing adaptor

- 1/2" socket x 3/8" plug

| Code | Type | g | |
|---|---|---|---|
| **13 03 00 02** | **BMW: series 3, 518, 520** | 60 | 5 |

## 1062 Socket

- bi-hexagon, 27 mm
- 1/2" ○--drive
- for diesel injectors

| Code | Type | g | |
|---|---|---|---|
| **03 83 00 27** | **BMW: M21: E30 = 324td, E28 = 524td, E34 = 524td, M51: E36 = 325td, E34 = 525tds** | 255 | 5 |

## 1023 Special ring spanner

- single ended
- angled
- 13 mm
- use on mounting screws of injection pump

| Code | Type | g | |
|---|---|---|---|
| **41 11 00 13** | **Citroën: all diesel<br>VW/Audi: Audi 80 L, CL, GL, CD, Golf, Jetta, Caddy, Passat** | 67 | 1 |

## 51-27 Socket

- extra deep
- bi-hexagon, 27 mm
- 1/2" ○-drive
- for injection nozzles on diesel car engines

| Code | Type | g | |
|---|---|---|---|
| **03 02 00 27** | **Mercedes-Benz** | 280 | 5 |

## 51-30 Socket

- 30 mm
- 1/2" ○-drive
- for injectors

| Code | Type | g | |
|---|---|---|---|
| **03 02 00 30** | **Mercedes-Benz** | 341 | 5 |

## 3000 Socket

- multi-spline
- 1.5 x 58 mm
- 1/2" ○-drive
- for use on pre-chamber with indirect injection

| Code | Type | g | |
|---|---|---|---|
| **03 39 00 01** | **Mercedes-Benz diesel** | 185 | 10 |

## 3505 Special extension

| Code | L mm | g | |
|---|---|---|---|
| **13 21 00 01** | 120 | 186 | 1 |

## 1054-13 INHEX sockets

- for hexagon socket head screws, 13 mm
- length 70 mm
- 1/2" ○-drive
- for oil drain plug on engine

| Code | Type | g | |
|---|---|---|---|
| **03 15 07 13** | **VW/Audi:<br>for engines with fuel injection** | 130 | 5 |





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# Special tools for valves and pistons

## 11063 Valve seating-ring pliers

- for pulling valve stem seals and removal of valve spring base on VW-Audi engines with overhead camshaft i.e. Golf, Passat, Audi 80, Audi 100, BMW and Mercedes-Benz
- bright nickel-plated

| Code | L mm | g | |
|---|---|---|---|
| **74290001** | 250 | 340 | 1 |

## 11063/1 Valve seating-ring pliers

- for extracting poorly accessible valve shaft seals, e.g. in four-valve engines
- joint and jaws made of gun-finished hardened sheet steel
- handles made of nickel-plated shaped sheet steel

| Code | L mm | g | |
|---|---|---|---|
| **74290002** | 270 | 345 | 1 |

## 11068 Piston ring compressors

- made of spring steel
- stepless adjustment
- c/w hexagon key wrench

| Code | size | Clamp. width mm | Height mm | g | |
|---|---|---|---|---|---|
| **74140000** | **0** | 40-75 | 50 | 106 | 1 |
| **74140001** | **1** [1] | 57-125 | 80 | 230 | 1 |
| **74140003** | **2** | 90-175 | 80 | 270 | 1 |
| **74140005** | **5** | 90-175 | 165 | 603 | 1 |

[1]) Fiat-No A 60 605 (Type 126, 127, 128, X 1/9, 130, 131, 132, 850T, 238)

## 11069 Piston ring pliers

- for mounting and removing piston rings
- bright nickel-plated

| Code | size | for piston rings mm | L mm | g | |
|---|---|---|---|---|---|
| **74152001** | **1** [1] | 50-100 | 200 | 245 | 1 |
| **74152002** | **2** | 80-120 | 240 | 279 | 1 |
| **74152003** | **3** | 110-160 | 240 | 394 | 1 |
| **74152005** | **5** [2] | 60-160 | 220 | 194 | 1 |

[1]) Fiat-No A 60 182 (Type 126, 127, 133, 850T)
[2]) with V-shaped contact faces for safe and positive manipulation of piston rings

## 11095–11097 Precision feeler gauges

- nickel-plated case
- tapered blades

| Code | No | Sizes | L mm | g | |
|---|---|---|---|---|---|
| **74240001** | **11095/13** | 0.05; 0.10; 0.15; 0.20; 0.25; 0.30; 0.40; 0.50; 0.60; 0.70; 0.80; 0.90; 1.00 mm | 100 | 62 | 10 |
| **74240002** | **11095/20** | 0.05; 0.10; 0.15; 0.20; 0.25; 0.30; 0.35; 0.40; 0.45; 0.50; 0.55; 0.60; 0.65; 0.70; 0.75; 0.80; 0.85; 0.90; 0.95; 1.00 mm | 100 | 96 | 10 |
| **74240005** | **11097/26** | 1 1/2; 2; 2 1/2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25/**1000"** | 100 | 80 | 10 |

## 12108 Valve spring tool

- incorporating 2 clamping and 2 compression facilities which are interchangeable
- suitable for most car engines, some without removing cylinder head

| Code | g | |
|---|---|---|
| **74570001** | 780 | 1 |

## 12705 Motor mechanics stethoscope

- steel probe
- plastic handle and sound tubes

| Code | g | |
|---|---|---|
| **74060001** | 137 | 1 |

## 40-3 Socket

AS HPQ

- hexagon, 3 mm
- 1/4" O-drive
- for releasing and tightening screws on the expansion valve

| Code | Type | g | |
|---|---|---|---|
| **01010003** | **BMW: X6 model E71, 7 Series model F01/F02** | 7 | 10 |

## 732/10-10 Ring insert tool

- 10 mm
- valve adjustment
- tightening torque 8–12 N·m

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58 22 10 10** | **BMW: all except Diesel** | 9x12 | 44 | 1 |

## 1054-10 INHEX socket

- for hexagon socket head screws, 10 mm
- length 140 mm
- 1/2" O-drive
- for cylinder head bolts

| Code | Type | g | |
|---|---|---|---|
| **03 15 14 10** | **Mercedes-Benz** | 150 | 5 |

## 3054X-M10 Screwdriver socket

- for tri-square socket head screws (XZN®), size M10
- length 140 mm
- 1/2" O-drive
- for cylinder head bolts and drive shaft bolts

| Code | Type | g | |
|---|---|---|---|
| **03 26 14 10** | **Mercedes-Benz** | 142 | 5 |

## 3054X-M12 Screwdriver socket

- for cylinder head bolts with tri-square socket head M12

| Code | Type | g | |
|---|---|---|---|
| **03 26 14 12** | **Mercedes-Benz** | 160 | 5 |

## 3004 Screwdriver bit

- for tri-square socket head screws (XZN®), size M12
- length 55 mm
- 1/2" O-drive
- for cylinder head bolts

| Code | Type | g | |
|---|---|---|---|
| **03 23 00 12** | **Mercedes-Benz** | 71 | 5 |

## 54CV/9 Set screwdriver sockets

- for spline socket head screws (Ribe-CV®)
- for brakes and cylinders head bolts
- in sturdy, stackable ABS plastic case

Content 9 pieces:
No 54CV: M5; M6; M7; M8; M9; M10; M12; M13; M14

| Code | Type | g | |
|---|---|---|---|
| **96 03 19 01** | **Fiat, Alfa** | 1225 | 1 |

## 54CV Screwdriver sockets

- for spline socket head screws (Ribe-CV®)
- length 60 mm
- 1/2" O-drive
- for brakes and cylinder head bolts

| Code | size | Type | g | |
|---|---|---|---|---|
| **03 09 00 07** | **M7** | **Fiat** | 70 | 5 |
| **03 09 00 08** | **M8** | **Fiat** | 78 | 5 |
| **03 09 00 09** | **M9** | **Fiat (1.2 l; 8V/16V)** | 92 | 5 |
| **03 09 00 10** | **M10** | **Fiat (1.2 l; 8V/16V)** | 95 | 5 |
| **03 09 00 12** | **M12** | **Fiat (2.0 l)** | 119 | 5 |
| **03 09 00 13** | **M13** | **Fiat, Alfa (e.g. 1.6 l; 16V)** | 125 | 5 |
| **03 09 00 14** | **M14** | **Alfa (e.g. 1.6 l; 16V)** | 126 | 5 |
| **03 09 00 16** | **M16** | **Alfa (e.g.1.6 l; 16V)** | 163 | 5 |

**STAHLWILLE fine-tooth ratchet.**
Efficiency in confined spaces.

**512SG-QR N** 1/2"

**512QR N** 1/2"

**517QR** 1/2"

QR FOD 4,5° 80

Eighty teeth provide a ratchet angle of only 4.5° – facilitating efficient working in confined spaces. In contrast to conventional fine-tooth ratchets, no less than eight teeth engage at once here, ensuring maximum load capacity and, at the same time, smooth action and durability.

# Special tools for chassies and steering

## 40TX-E8 Socket

HPQ

- for external TORX® screws, size E8
- 1/4" O-drive
- for steering lock screws

| Code | Type | g | |
|---|---|---|---|
| **01270008** | **BMW** | 10 | 10 |

## 24-17x19 OPEN-Ring spanner

AS DRIVE

- bi-hexagon, 17 x 19 mm
- use on wingpump manifold (hydro-steering)

| Code | Type | g | |
|---|---|---|---|
| **41081719** | **BMW** | 150 | 10 |

## 55-36 Socket

AS DRIVE HPQ

- hexagon, 36 mm
- 3/4" O-drive
- use on vibration damper

| Code | Type | g | |
|---|---|---|---|
| **05010036** | **BMW: series 5, 6 and 7, except 518-520i** | 386 | 2 |

## 11060-3 Internal puller

- capacity 27–36mm
- for taper roller bearing outer ring on steering housing
- to be used with counter stay No 11061-2

| Code | Type | g | |
|---|---|---|---|
| **71160013** | **Mercedes-Benz** | 365 | 1 |

## 11061-2 Counter stay with reduction unit

- for taper roller bearing outer ring on steering housing

| Code | Type | g | |
|---|---|---|---|
| **71170012** | **Mercedes-Benz** | 1518 | 1 |

## 540-22 CROW-FOOT spanner

- 22 mm
- 3/8" O-drive
- use on track-rods

| Code | Type | g | |
|---|---|---|---|
| **02200022** | **BMW: series 3, 518, 520** | 64 | 1 |

## 513 Reducing adaptor

HPQ

- 1/2" socket x 3/8" plug

| Code | Type | g | |
|---|---|---|---|
| **13030002** | **BMW: series 3, 518, 520** | 60 | 5 |

## 1417 Bit

- for inside TORX® screws, size T25
- 1/4" ⬢-drive
- for screws on sunroof E30

| Code | Type | g | |
|---|---|---|---|
| **08130025** | **BMW** | 6 | 10 |

## 3054X-M10 Screwdriver socket

- for tri-square socket head screws (XZN®), size M10
- on drive shaft bolts

| Code | Type | g | |
|---|---|---|---|
| **03261410** | **Mercedes-Benz** | 142 | 5 |

## 46-19 Socket

AS DRIVE HPQ

- Fiat-No A 57 052
- bi-hexagon, 19 mm
- 3/8" O-drive
- for front mounting screw of top steering link on front wheel suspension

| Code | Type | g | |
|---|---|---|---|
| **02020019** | **Fiat: 1500, 125** | 112 | 10 |

## 12495 Brass punch

- ∅ 20 mm, length 200 mm
- for use on bushes bearing rings
- steering pivot pin

| Code | g | |
|---|---|---|
| **77130000** | 533 | 5 |





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# Special tools for ignition and electrics

## 3466 Spark plug socket

- 3/8" O-drive
- with magnet, outside dia 25.5 mm
- for deep seated plugs

| Code | mm/" | L mm | g | |
|---|---|---|---|---|
| **02140036** | **16-5/8** | 85 | 180 | 5 |

## 4600 Spark plug socket

- 3/8" O-drive
- with rubber insert

| Code | mm/" | L mm | g | |
|---|---|---|---|---|
| **02120036** | **16-5/8** | 60 | 84 | 10 |

## 4606 Spark plug socket

- 3/8" O-drive
- with rubber insert

| Code | mm/" | L mm | g | |
|---|---|---|---|---|
| **02130018** | **18-11/16** | 65 | 132 | 10 |

## 46 Sockets

- 3/8" O-drive
- with rubber insert

| Code | mm/" | L mm | g | |
|---|---|---|---|---|
| **02020208** | **20.8-13/16** | 65 | 151 | 10 |

## 51 Sockets

- 1/2" O-drive
- with rubber insert

| Code | mm/" | L mm | g | |
|---|---|---|---|---|
| **03020216** | **16-5/8** | 83 | 137 | 10 |
| **03020208** | **20.8-13/16** | 83 | 194 | 10 |

## 51S Sockets

- 1/2" O-drive
- with rubber insert

| Code | mm/" | L mm | g | |
|---|---|---|---|---|
| **03240208** | **20.8-13/16** | 83 | 196 | 10 |

## 5100 Rubber insert

- for size 20.8 mm (No 46; 51; 51S)

| Code | g | |
|---|---|---|
| **09010001** | 6 | 5 |

## 10626 Spark plug connector pliers

- forged
- with 45° offset, curved jaws
- for extracting and replacing sparkplug connectors

| Code | L mm | g | |
|---|---|---|---|
| **76530001** | 195 | 223 | 1 |

## 12375 Spark plug brush

- wood, brass wire dia 0.15 mm

| Code | L mm | Rows | g | |
|---|---|---|---|---|
| **74160001** | 150 | 3 x 5 | 17 | 10 |

# Tools for heater plugs

## 25GK Ratchet ring spanner

- angled
- extra long
- for hard-to-reach heater plugs (e.g. BMW, Mercedes-Benz, Peugeot, Renault, Seat, VW/Audi)
- 8 mm for contact rail bolts, 12 mm for diesel heater plugs
- chrome plated

| Code | mm | L mm | g | |
|---|---|---|---|---|
| **41180812** | **8 x 12** | 255 | 156 | 1 |

## 3047 Spark plug sockets

- extra long
- for hard-to-reach heater plugs
- 3/8" O-drive
- 10 mm e.g. for Renault, VW/Audi TDi
- 12 mm e.g. for BMW, Mercedes-Benz (201, 202 four-valve technology), Ford, Opel, Renault

| Code | mm | L mm | g | |
|---|---|---|---|---|
| **02180010** | **10** | 140 | 138 | 1 |
| **02180012** | **12** | 140 | 138 | 1 |





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## 46-12 Socket

- extra deep
- bi-hexagon, 12 mm
- 3/8" O-drive
- use on glow plugs of diesel engines

| Code | Type | g | |
|---|---|---|---|
| **02020012** | **BMW: 324d; 524d** | 57 | 10 |

# Testing tools for car electrics

## 12905 Car circuit tester

- for car electrics 6-12 volt and 24 volt
- with pointed probe
- cover cap
- connecting lead with alligator clip

| Code | L mm | g | |
|---|---|---|---|
| **77380001** | 120 | 73 | 10 |

## 7756 Automotive voltage tester (complete set)

- testing unit for electric and electronic car components
- 3-48 volt
- 2 LEDs to indicate voltage and plus or minus pole
- complete in Pc-bag

Content:
1 basic unit with 1.5 m cable, testing tip, integrated mechanical sliding needle
1 crocodile terminal
1 jaw clamp

| Code | g | |
|---|---|---|
| **77560002** | 100 | 1 |

# Special tools for brakes and wheels

## ES 721/15/3/2

- 530 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838172** | 5060 |

| | No | Content |
|---|---|---|
| | **2309K** | 1/2" O 17; 19; 21 mm |
| | **721/15 Quick** | 30–150 N·m |
| | **35c Pkw** | 17; 19; 22 mm; ■ 1/2" |
| | **10599/2** | 245 mm |

## 34c/35c Wheel braces

- DIN 3119/ISO 6788
- forged centre section, pressed-in extension arms with extra deep forged socket heads
- Chrome Alloy Steel, chrome plated

| Code | No | mm/" | L mm | g | |
|---|---|---|---|---|---|
| **43030005** | **34c Lkw** | 24; 27; 32; ■ 3/4" | 400 | 2058 | 1 |
| **43030006** | **35c Pkw** | 17; 19; 22; ■ 1/2" | 400 | 5020 | 1 |

## 39 Tyre levers

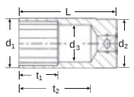
- handy, sturdy construction, purposefully shaped
- Chrome Alloy Steel

| Code | No | L mm | g | |
|---|---|---|---|---|
| **74010401** | **39 Pkw** | 400 | 358 | 5 |
| **74010601** | **39/1 Lkw** | 600 | 897 | 5 |
| **74010602** | **39/1 Lkw** | 600 | 1180 | 5 |
| **74010603** | **39/1 Lkw** | 600 | 900 | 5 |

## 51S Socket

AS HPQ

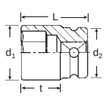
- 1/2" O-drive
- extra deep
- DIN 3124/ISO 2725-1, E DIN EN 3710, E DIN EN 3709 (testloads)
- with rubber insert for spark plugs and for tightening and untightening wheel nuts on Japanese cars
- HPQ® high performance steel, chrome plated



| Code | mm/" | d1 mm | d2 mm | d3 mm | L mm | t1 mm | t2 mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03240208** | **20.8-13/16** | 27.7 | 26 | 20 | 83 | 22 | 66.2 | 196 | 10 |

## 2309 IMPACT sockets

- 1/2" O-drive
- for power drivers
- extra deep
- with reduced outside diameter
- Chrome Alloy Steel, gunmetal finish



| Code | mm | d1 mm | d2 mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **23090017** | **17** | 25.7 | 30 | 85 | 68 | 242 | 5 |
| **23090019** | **19** | 28.2 | 30 | 85 | 67.5 | 257 | 5 |
| **23090221** | **21** | 30.7 | 30 | 85 | 66.5 | 272 | 5 |
| **23090022** | **22** | 32 | 30 | 85 | 66.5 | 311 | 5 |

for wheel nuts

## 2309K Wheel nut sockets

- 1/2" O-drive
- with plastic sleeve
- sleeve extension protects not only wheel bolts and nuts but also the wheel and holes

| Code | mm | L mm | ∅ mm | g | |
|---|---|---|---|---|---|
| **23091017** | **17** | 86 | 27 | 235 | 1 |
| **23091019** | **19** | 86 | 29 | 250 | 1 |
| **23091221** | **21** | 86 | 31 | 265 | 1 |

## 10599/2 Balance weight pliers

- with cutter for cutting and trimming lead weights (with or without adhesive foil)
- Chrome Vanadium, chrome plated

| Code | L mm | g | |
|---|---|---|---|
| **76294003** | 245 | 380 | 1 |

## 10613 Brake spring pliers

- for rivetted brake linings/shoes
- Chrome Vanadium, bright nickel-plated

| Code | L mm | g | |
|---|---|---|---|
| **76413001** | 210 | 245 | 6 |

## 10613/1 Brake spring pliers

- with flexible anvil
- for rivetted and glued brake linings/shoes

| Code | L mm | g | |
|---|---|---|---|
| **76413021** | 330 | 461 | 2 |

## 12371 Brake calliper file

- for removing dust, rust and dirt from brake calliper groove

| Code | L mm | g | |
|---|---|---|---|
| **74543101** | 260 | 130 | 5 |

## 12373 Steel wire brush

- special slim design

| Code | L mm | Rows | g | |
|---|---|---|---|---|
| **77440001** | 230 | 2 | 65 | 10 |

## 12900/3 Tyre-tread Vernier gauge

- sturdy brass construction
- smooth ground surface

| Code | measuring range mm | g | |
|---|---|---|---|
| **77371004** | 30 | 41 | 1 |

## 12900/4 Electronic tyre-tread Vernier gauge

- large LCD display with clear read-offs, figures 9.5 mm high
- display accuracy 0.01 mm/ 0.0005"
- ON/OFF push button
- unit of measure switchable mm/inch
- zeroing possible in any position
- incl. 1 x 3 V battery (type CR2032) packaged in accordance with UN 3091, Class 9

| Code | measuring range mm/" | g | |
|---|---|---|---|
| **77371005** | 25/1 | 60 | 1 |





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## 54-7 INHEX socket

- for hexagon socket head screws, 7 mm
- 1/2" O-drive
- for changing brake linings

| Code | Type | g | |
|---|---|---|---|
| **03050007** | **BMW: 518, 520i, 525i, 528i** | 75 | 5 |

## 1049-9 INHEX socket

- for hexagon socket head screws, 9 mm
- 3/8" O-drive
- for brake calliper retainers

| Code | Type | g | |
|---|---|---|---|
| **02151009** | **BMW, MINI** | 62 | 5 |

## 733/10-11 Open ring insert tool

AS DRIVE

- 11 mm
- use with Service-MANOSKOP® torque wrench No 730/5 Quick
- for flare nuts on brake lines and bleed screws

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58231011** | **Mercedes-Benz** | 9x12 | 55 | 1 |

## 733/10-12 Open ring insert tool

AS DRIVE

- 12 mm
- for flare nuts on brake pressure regulator
- tightening torque 15–18 N·m

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58231012** | **BMW** | 9x12 | 59 | 1 |

## 733/10-14 Open ring insert tool

AS DRIVE

- 14 mm
- for flare nuts on main brake cylinder
- tightening torque 16–25 N·m (BMW)
- for flare nuts on brake lines and bleed screws (Mercedes-Benz)

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58231014** | **BMW, Mercedes-Benz** | 9x12 | 60 | 1 |

## 733/10-17 Open ring insert tool

AS DRIVE

- 17 mm
- for flare nuts on main brake cylinder
- tightening torque 16–25 N·m

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58231017** | **BMW** | 9x12 | 64 | 1 |

## 733/10-19 Open ring insert tool

AS DRIVE

- 19 mm
- for flare nuts on main brake regulator
- tightening torque 30–40 N·m

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58231019** | **BMW** | 9x12 | 70 | 1 |

## 54CV/9 Set screwdriver sockets

- for spline socket head screws (Ribe-CV®)
- for brakes and cylinders head bolts
- in sturdy, stackable ABS plastic case

Content 9 pieces:
No 54CV: M5; M6; M7; M8; M9; M10; M12; M13; M14

| Code | Type | g | |
|---|---|---|---|
| **96031901** | **Fiat, Alfa** | 1225 | 1 |

## 54CV Screwdriver sockets

- for spline socket head screws (Ribe-CV®)
- length 60mm
- 1/2" O-drive
- for brakes and cylinder head bolts

| Code | Size | Type | g | |
|---|---|---|---|---|
| **03090007** | **M7** | **Fiat** | 70 | 5 |
| **03090009** | **M9** | **Fiat (1.2 l; 8V/16V)** | 92 | 5 |
| **03090013** | **M13** | **Fiat, Alfa (e.g. 1.6 l; 16V)** | 125 | 5 |

# Special tools for lubrication service

## 12005 Strap wrenches

- for oil filters etc., up to 180 mm ∅
- non-slip rubber cloth tape, 22 mm width

| Code | No | L mm | g | |
|---|---|---|---|---|
| **76500001** | **12005** | 236 | 264 | 1 |
| **79150001** | **12005/1 [1])** | 600 | 69 | 1 |

[1]) spare strap

## 12007 Oil filter wrenches

- adjustable for diameters 80-110 mm
- hardened anti-slip cams ensure safety during use

| Code | No | L mm | g | |
|---|---|---|---|---|
| **76521001** | **12007/1 [1])** | 150 | 226 | 1 |
| **76521002** | **12007/2 [2])** | 240 | 319 | 1 |

[1]) with 1/2" ▢
[2]) with lever handle

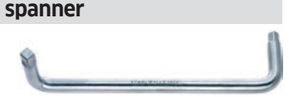
## 10765-12 ◉ Hexagon key wrench

- Fiat-No A 5013
- for hexagon socket
- long
- 12 mm
- for oil drain plug on engine, gearbox and rear axle

| Code | Type | g | |
|---|---|---|---|
| **43210012** | **Fiat** | 287 | 5 |

## 1058 Oil service spanner

- bent
- 8 and 10 mm outside square
- for drain plugs on sump, gearbox, differential



| Code | Type | g | |
|---|---|---|---|
| **44730810** | **Peugeot, Renault** | 315 | 5 |

## 1015 Oil filter claw

- for loosening of oil filters on cars

| Code | ▢ " | Clamp. width mm | total height mm | length of claws mm | g | |
|---|---|---|---|---|---|---|
| **74620002** | 3/8 | 68-120 | 65 | 50 | 530 | 1 |

## 3045 Special socket

- for oil filters
- 74 mm
- 14-point
- 10 mm dia. bore and outside hexagon 22 mm ∅

| Code | total height mm | g | |
|---|---|---|---|
| **74370001** | 52 | 131 | 1 |

## 3046 Special sockets

- for fitting and removing oil filter covers when changing oil filter cartridges

| Code | ⬡ mm | ▢ " | Type | g | |
|---|---|---|---|---|---|
| **02111032** | **32** | 3/8 | **e.g. Audi, MAN, Vauxhall Astra, Corsa, VW Passat** | 130 | 1 |
| **02111036** | **36** | 3/8 | **e.g. BMW, Mercedes-Benz cars, 100 D Transporter, MAN, Vauxhall Vectra B DI 16V, VW Lupo 1.2 TDi, model year 99** | 160 | 1 |

## 54-14 ◉ INHEX socket

- for hexagon socket head screws, 14 mm
- 1/2" ▢-drive
- for use on oil drain plug

| Code | Type | g | |
|---|---|---|---|
| **03050014** | **Mercedes-Benz** | 135 | 5 |

## 1054-13 ◉ INHEX sockets

- for hexagon socket head screws, 13 mm
- length 70 mm
- 1/2" ▢-drive
- for oil drain plug on engine

| Code | Type | g | |
|---|---|---|---|
| **03150713** | **Lancia** | 130 | 5 |

## 1054KK-5 INHEX socket

- with ball-point hexagon
- 5 mm
- length 238 mm
- 1/2" O-drive
- for use on socket head screws with difficult access up to an angle of 25°
- 5 mm for use on sump screws of 5 cylinder diesel engine, van T4

| Code | Type | g | |
|---|---|---|---|
| **03310005** | **VW/Audi** | 145 | 5 |

## 1054KK-8 INHEX socket

- 8 mm
- length 238 mm

| Code | Type | g | |
|---|---|---|---|
| **03310008** | **VW/Audi** | 154 | 5 |

# Special tools for engine and gear transmission

## 50TX-E10 Socket

HPQ

- for external TORX® screws, size E10
- 1/2" O-drive
- use on mounting screws for GETRAG 260 gearbox, as well as on automatic gearboxes fitted to US and Japanese models

| Code | Type | g | |
|---|---|---|---|
| **03270010** | **BMW** | 55 | 10 |

## 50TX-E12 Socket

HPQ

- size E12

| Code | Type | g | |
|---|---|---|---|
| **03270012** | **BMW** | 60 | 10 |

## 50TX-E14 Socket

HPQ

- size E14

| Code | Type | g | |
|---|---|---|---|
| **03270014** | **BMW** | 56 | 10 |

## 54TX-T27 Screwdriver socket

- for inside TORX® screws, size T27
- 1/2" O-drive
- use on switchgear of automatic gearbox 3HP 22, 4HP 22

| Code | Type | g | |
|---|---|---|---|
| **03100027** | **BMW** | 72 | 5 |

## 1418 Bit

- for inside TORX® screws, size T27
- 1/4" ⬢-drive
- use on switchgear on automatic gearbox 3HP 22, 4HP 22

| Code | Type | g | |
|---|---|---|---|
| **08130027** | **BMW** | 6 | 10 |

## 730N/5 Service MANOSKOP® torque wrench

- 10–50 N·m
- with tool carrier for insert tools
- for tightening ZF switch-gear and adjustment brakebelt BW 65 on automatic gearbox
- to use with ratchet insert tool No 735/10

| Code | Type | g | |
|---|---|---|---|
| **50181005** | **BMW** | 1054 | 1 |

## 735/10 Ratchet insert tool

- reversible
- 1/2" O-drive

| Code | mm | g | |
|---|---|---|---|
| **58250010** | 9x12 | 147 | 1 |

## 6547 Special circlip pliers

- use on retaining ring on gear box main shaft (all "GETRAG" and ZF gear boxes S4-18/3)

| Code | Type | g | |
|---|---|---|---|
| **65474170** | **BMW** | 154 | 1 |





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## 1054-10 INHEX socket

- for hexagon socket head screws, 10 mm
- length 140 mm
- 1/2" O-drive
- for bolts on car engines

| Code | Type | g | |
|---|---|---|---|
| **03 15 14 10** | **Mercedes-Benz** | 150 | 5 |

## 51-27 Socket

AS HPQ

- bi-hexagon, 27 mm
- 1/2" O-drive
- for rotating engine through hexagon on crankshaft

| Code | Type | g | |
|---|---|---|---|
| **03 02 00 27** | **Mercedes-Benz** | 280 | 5 |

## 3049-8 INHEX socket

- for hexagon socket head screws, 8mm
- length 24mm
- 3/8" O-drive
- for use on mounting screws on fluid fly-wheel

| Code | Type | g | |
|---|---|---|---|
| **02 15 24 08** | **Mercedes-Benz** | 28 | 5 |

## 11060-1a Internal puller

- capacity 16–20 mm
- for sealing ring and bearing on crankshaft
- use with counter stay No 11061-1

| Code | Type | g | |
|---|---|---|---|
| **71 16 00 21** | **Mercedes-Benz** | 116 | 1 |

## 11061-1 Counter stay

- use with internal puller No 11060-1a

| Code | g | |
|---|---|---|
| **71 17 00 11** | 654 | 1 |

## 11060-2 Internal puller

- capacity 20–27 mm
- for bearing bush of idler gear on oil pump drive
- use with counter stay No 11061-2

| Code | Type | g | |
|---|---|---|---|
| **71 16 00 12** | **Mercedes-Benz** | 131 | 1 |

## 11061-2 Counter stay

- use with internal puller No 11060-2

| Code | g | |
|---|---|---|
| **71 17 00 12** | 1518 | 1 |

## 730/2 Quick Service-MANOSKOP® torque wrench

- 4-20 N·m

| Code | Type | g | |
|---|---|---|---|
| **50 18 40 02** | **VW/Audi** | 315 | 1 |

## 734/5 Square drive insert tool

- 3/8" O-drive
- for use with Service-MANOSKOP® torque wrench No 730/2 Quick

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58 24 00 05** | **VW/Audi** | 9x12 | 76 | 1 |

## 12717 Pin wrench

- offset
- distance between pins 18 mm
- pin dia. ∅ 2.9 mm, length 140 mm
- for ring nut of tension pulley on 1.6 l diesel

| Code | Type | g | |
|---|---|---|---|
| **44 70 00 18** | **2/80 Golf, Jetta, Passat, Audi 80** | 76 | 10 |





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# Special tools miscellaneous

## 157 Chain exhaust-pipe cutter

- infinitely adjustable
- with twist handle
- also suitable for special steel pipes up to 1.8 mm wall thickness
- chain length 270 mm

| Code | mm | g | |
|---|---|---|---|
| **60110001** | 25-75 | 665 | 1 |

## K157 Chain

| Code | g | |
|---|---|---|
| **69130001** | 183 | 1 |

## 1225 Special extension

- offset
- for use on magnetic switch diesel pump

| Code | ■ " | g | |
|---|---|---|---|
| **12250001** | 3/8 | 128 | 5 |

## 10614 Hose clip pliers

- for self tightening hose clips
- nickel-plated

| Code | L mm | g | |
|---|---|---|---|
| **76460000** | 220 | 293 | 1 |

## 10615/1 Hose clip pliers CLIC

- for CLIC hose clips e.g. Alfa Romeo, Audi, BMW, Opel, Peugeot, VW
- work can be carried out at various angles due to stepless swivelling jaws

| Code | L mm | g | |
|---|---|---|---|
| **76460013** | 200 | 189 | 1 |

## 10623/1 Hose clip pliers

- registered design
- with rotating jaws and multiple locking positions
- single-handed use even with wide openings due to variable-geometry joint
- especially for 12 and 15 mm wide, large-format hose clips, e.g. for Alfa Romeo, Audi, Citroën, Fiat, Ford, Mercedes-Benz, Opel, Peugeot, Porsche, Renault, VW

| Code | L mm | g | |
|---|---|---|---|
| **76460012** | 290 | 414 | 1 |

## 10623/2 Hose clip pliers

- registered design
- with Bowden cable and multiple locking positions
- especially for 12 and 15 mm spring-steel hose clips, suitable for use near cooling and heating systems up to a diameter of 42 mm
- access to hard-to-reach places using Bowden cable remote action (length 610 mm), e.g. for Alfa Romeo, Audi, Citroën, Fiat, Ford, Mercedes-Benz, Opel, Peugeot, Porsche, Renault, VW

| Code | L mm | g | |
|---|---|---|---|
| **76540001** | 300 | 565 | 1 |

## Replacement Bowden cable for No 10623/2

| Code | g | |
|---|---|---|
| **79540001** | 120 | 1 |

## 10625 Ear clamp pincers

- for application of 1 and 2-ear clamps on shaft sleeves, radiator and fuel lines e.g. for Audi, BMW, Ford, GM, Honda, Mazda, Mercedes-Benz, Nissan, Opel, VW
- quality steel, black paint finish

| Code | L mm | g | |
|---|---|---|---|
| **76540002** | 225 | 340 | 1 |

## 10625/2 Hose clip pliers

- for correctly closing hose clips without ears, for shaft sleeves on Audi, Mercedes-Benz, Toyota and VW
- Quality steel, nickel-plated
- jaws gunmetal finished

| Code | L mm | g | |
|---|---|---|---|
| **76540003** | 200 | 173 | 1 |

## 12718 Flat scraper

- special steel
- for removal of gasket seals on carburettor, valve cover, cylinder head etc.

| Code | L mm | g | |
|---|---|---|---|
| **72033101** | 265 | 164 | 5 |

## 12763 Pull hook for rubber exhaust mountings

- with T-bar
- chromium-plated, black dip-coated
- for pulling rubber loops on exhaust mountings
- all cars except Ford

| Code | L mm | g | |
|---|---|---|---|
| **74200002** | 220 | 118 | 5 |

## 12771 Extractor pliers

- for removing fixing plugs on door trims, outside trims, rubber bumper covers etc.
- joint and jaws made of hardened sheet steel
- handles made of shaped sheet steel

| Code | L mm | g | |
|---|---|---|---|
| **76480001** | 230 | 205 | 1 |

## 12975 Fuel hose clamp

- capacity up to ∅ 20 mm
- for stopping fuel flow temporarily

| Code | g | |
|---|---|---|
| **74340001** | 38 | 10 |

## 1435 Bit

- for inside TORX® screws, size T55
- 5/16" ⬢-drive
- for screws in rear seats
- for use with bit-holder insert tool No 736/40

| Code | Type | g | |
|---|---|---|---|
| **08140055** | **BMW: X6 model E71, series 7 model F01/F02** | 20 | 10 |

## 736/40 Bit holder insert tool

- internal hex drive 5/16"
- for use with bit No 1435

| Code | Type | mm | g | |
|---|---|---|---|---|
| **58261040** | **BMW: X6 model E71, series 7 model F01/F02** | 14x18 | 114 | 1 |

## 1445 Bit

- for inside TORX® tamper resistant screws, size T30
- 1/4" ⬢-drive
- use on sensor screws wheel house (models with airbag system)

| Code | Type | g | |
|---|---|---|---|
| **08160030** | **BMW** | 6 | 10 |

## 12506-6 Hexagon nut spinner

- flexible
- 6 mm
- for screws on hose clips of radiator hose
- max. tightening torque 8 N·m

| Code | Type | g | |
|---|---|---|---|
| **43103206** | **BMW** | 167 | 10 |

## 440-17 CROW-RING spanner

AS PART

- 17 mm
- 3/8" ○-drive
- for use on pipes for air conditioning unit

| Code | Type | g | |
|---|---|---|---|
| **02190017** | **Mercedes-Benz** | 40 | 1 |

## 440-19 CROW-RING spanner

AS PART

- 19 mm

| Code | g | |
|---|---|---|
| **02190019** | 40 | 1 |

## 440-22 CROW-RING spanner

- 22 mm

| Code | g | |
|---|---|---|
| **02 19 00 22** | 57 | 1 |

## 440-24 CROW-RING spanner

- 24 mm

| Code | g | |
|---|---|---|
| **02 19 00 24** | 57 | 1 |

## 735/20 Ratchet insert tool, fine tooth

- reversible
- 1/2" ■-drive
- use with Service-MANOSKOP® torque wrench No 730/20 Quick

| Code | Typ | mm | g | |
|---|---|---|---|---|
| **58 25 00 20** | **Mercedes-Benz** | 14x18 | 302 | 1 |

## 730R/5 Quick Service-MANOSKOP® torque wrench

- 6-50 N·m
- 3/8" ■-drive
- for general service work

| Code | Type | g | |
|---|---|---|---|
| **96 50 40 05** | **Mercedes-Benz** | 994 | 1 |

## 730R/12 Quick Service-MANOSKOP® torque wrench

- 25-130 N·m
- 1/2" ■-drive
- for valve adjustment

| Code | Type | g | |
|---|---|---|---|
| **96 50 40 12** | **Mercedes-Benz** | 1488 | 1 |

## 730R/20 Quick Service-MANOSKOP® torque wrench

- 40-200 N·m
- 1/2" ■-drive

| Code | Type | g | |
|---|---|---|---|
| **96 50 40 20** | **Mercedes-Benz** | 1626 | 1 |

## 11060-1 Internal puller

- capacity 12–16 mm
- for use on bearings, seals and bushes

| Code | Type | g | |
|---|---|---|---|
| **71 16 10 11** | **Mercedes-Benz** | 110 | 1 |

## 11060-2 Internal puller

- capacity 20–27 mm

| Code | Type | g | |
|---|---|---|---|
| **71 16 00 12** | **Mercedes-Benz** | 131 | 1 |

## 11060-3 Internal puller

- capacity 27–36 mm

| Code | Type | g | |
|---|---|---|---|
| **71 16 00 13** | **Mercedes-Benz** | 365 | 1 |

## 11060-5 Internal puller

- capacity 36–46 mm

| Code | Type | g | |
|---|---|---|---|
| **71 16 00 16** | **Mercedes-Benz** | 558 | 1 |

## 11060-6 Internal puller

- capacity 46–58 mm

| Code | Type | g | |
|---|---|---|---|
| **71 16 00 16** | **Mercedes-Benz** | 558 | 1 |





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## 11061-1 Counter stay

- for internal puller No 11060/0–2
- for use on bearings, seals and bushes

| Code | g | |
|---|---|---|
| **71 17 00 11** | 654 | 1 |

## 11061-2 Counter stay

- for internal puller No 11060/3–7

| Code | Type | g | |
|---|---|---|---|
| **71 17 00 12** | **Mercedes-Benz** | 1518 | 1 |

## 12506-7 Hexagon nut spinner

- flexible
- 7 mm
- for screws on hose clips of radiator hose
- max. tightening torque 8 N·m

| Code | Type | g | |
|---|---|---|---|
| **43 10 32 07** | **Mercedes-Benz** | 168 | 10 |

## 10760CV-17 Hexagon key wrench

- Fiat No A 89601 up to A 89611 (2.5 mm up to 17 mm see page 267)
- for hexagon socket head screws

| Code | g | |
|---|---|---|
| **43 15 00 17** | 442 | 5 |

## 720Nf/80 Standard-MANOSKOP® torque wrench

- 160–800 N·m
- 3/4" ◘-drive

| Code | Type | g | |
|---|---|---|---|
| **50 19 00 81** | **VW: LT Syncro** | 5650 | 1 |

## 730/5 Quick Service-MANOSKOP® torque wrench

- 6–50 N·m
- for general service work

| Code | Type | g | |
|---|---|---|---|
| **50 18 40 05** | **VW/Audi** | 780 | 1 |

## 732/10-13 Ring insert tool

AS DATA

- 13 mm
- for use with Service-MANOSKOP® torque wrench No 730/5 Quick

| Code | Typ | mm | g | |
|---|---|---|---|---|
| **58 22 10 13** | **VW/Audi** | 9x12 | 55 | 1 |

## 735/10 Ratchet insert tool

- reversible
- 1/2" ■-drive
- for use with Service-MANOSKOP® torque wrench No 730/5 Quick

| Code | Typ | mm | g | |
|---|---|---|---|---|
| **58 25 00 10** | **VW/Audi** | 9x12 | 147 | 1 |

## 730/20 Quick Service-MANOSKOP® torque wrench

- 40–200 N·m

| Code | Type | g | |
|---|---|---|---|
| **50 18 40 20** | **VW/Audi** | 1310 | 1 |

## 735/20 Ratchet insert tool

- reversible
- 1/2" ■-drive
- for use with Service-MANOSKOP® torque wrench No 730/20 Quick

| Code | Typ | mm | g | |
|---|---|---|---|---|
| **58 25 00 20** | **VW/Audi** | 14x18 | 302 | 1 |

## 730/40 Quick Service-MANOSKOP® torque wrench

- capacity 80–400 N·m

| Code | Type | g | |
|---|---|---|---|
| **50 18 40 40** | **VW/Audi** | 1540 | 1 |



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## 735/40 Ratchet insert tool

- reversible
- 3/4" ■-drive
- for use with Service-MANOSKOP® torque wrench No 730/40 Quick

| Code | Typ | mm | g | |
|---|---|---|---|---|
| **58250040** | **VW/Audi** | 14x18 | 515 | 1 |

## 1068 Air filter claw

- for loosening of filter cartridges on air brakes (trucks)

| Code | " | Clamp. width mm | total height mm | length of claws mm | g | |
|---|---|---|---|---|---|---|
| **74620011** | 1/2 | 100-145 | 85 | 60 | 925 | 1 |

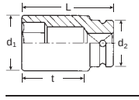
## 1421 Bit screwdriver socket

- for inside TORX® screws
- outside ⬢ 1/4" C 6.3 size T45
- length 26 mm
- for use on door hinges
- drive tools: f.e. ratchet reversible No 725/4B and ratchet tap holder No 1820 or ratchet reversible No 725/4B and torque wrench

| Code | Type | g | |
|---|---|---|---|
| **08130045** | **VW: Golf III** | 8 | 10 |

## 2509 IMPACT sockets

- 3/4" O-drive
- for power drivers
- extra deep
- with reduced diameter
- Chrome Alloy Steel, gunmetal finish



| Code | mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **25090027** | **27** | 40.5 | 44 | 100 | 72.5 | 672 | 2 |
| **25090030** | **30** | 44.3 | 44 | 100 | 72.5 | 728 | 2 |
| **25090032** | **32** | 46.8 | 44 | 100 | 72 | 778 | 2 |
| **25090033** | **33** | 48 | 44 | 100 | 72 | 803 | 2 |

for Trilex wheels

# Special tools for HGVs

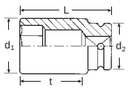
## 34c Lkw Wheel brace

- DIN 3119/ISO 6788
- forged centre section, pressed-in extension arms with extra deep forged socket heads
- Chrome Alloy Steel, chrome plated

| Code | mm/" | L mm | g | |
|---|---|---|---|---|
| **43030005** | 24; 27; 32; ■ 3/4" | 400 | 2058 | 1 |

## 2609 IMPACT sockets

- 1" O-drive
- for power drivers
- extra deep
- with reduced outside diameter
- Chrome Alloy Steel, gunmetal finish



| Code | mm | $d_1$ mm | $d_2$ mm | L mm | t mm | g | |
|---|---|---|---|---|---|---|---|
| **26090027** | **27** | 42.3 | 54 | 110 | 80 | 1001 | 2 |
| **26090030** | **30** | 46 | 54 | 110 | 79.5 | 1047 | 2 |
| **26090032** | **32** | 48.5 | 54 | 110 | 79 | 1015 | 2 |
| **26090033** | **33** | 49.8 | 54 | 110 | 78.5 | 1102 | 2 |

for wheel nuts

## 39 Tyre levers

- handy, sturdy construction, purposefully shaped
- Chrome Alloy Steel

| Code | No | L mm | g | |
|---|---|---|---|---|
| **74010601** | **39/1 Lkw** | 600 | 897 | 5 |
| **74010602** | **39/1 Lkw** | 600 | 1180 | 5 |
| **74010603** | **39/1 Lkw** | 600 | 900 | 5 |

## 24-17x19 OPEN-RING spanner

- bi-hexagon, 17 x 19 mm
- for all threaded connectors on injector pipes

| Code | Type | g | |
|---|---|---|---|
| **41 08 17 19** | **BMW** | 150 | 10 |

## 3054X-M12 Screwdriver socket

- for tri-square socket head screws (XZN®), size 12
- length 140 mm
- ∅ 11.5 mm
- 1/2" O-drive for cylinder head bolts with tri-square socket head M12

| Code | Type | g | |
|---|---|---|---|
| **03 26 14 12** | **Mercedes-Benz** | 160 | 5 |

## 51-30 Socket

- extra deep
- bi-hexagon, 30 mm
- 1/2" O-drive
- on injector post

| Code | Type | g | |
|---|---|---|---|
| **03 02 00 30** | **Mercedes-Benz** | 341 | 5 |

## 11068-2 Piston ring compressor

- of special spring steel
- infinitely variable adjustment
- c/w adj. spanner
- capacity ∅ 90–175 mm

| Code | Type | g | |
|---|---|---|---|
| **74 14 00 03** | **Mercedes-Benz** | 270 | 1 |

## 440-27MB CROW-RING spanner

- for setting of electronic injection on 440-HP-engines

| Code | Type | g | |
|---|---|---|---|
| **02 19 10 27** | **Mercedes-Benz** | 92 | 1 |

## 55-30 Socket

- hexagon, 30 mm
- 3/4" O-drive
- for U-bolt nuts, front

| Code | Type | g | |
|---|---|---|---|
| **05 01 00 30** | **Mercedes-Benz** | 313 | 5 |

## 3678 4-pin socket

- length 72 mm
- 1/2" O-drive
- for use on pressure nut of injector post

| Code | Type | g | |
|---|---|---|---|
| **03 81 00 01** | **Mercedes-Benz** | 151 | 5 |

## 55-36 Socket

- 36 mm
- 3/4" O-drive
- for U-bolt nuts, rear

| Code | Type | g | |
|---|---|---|---|
| **05 01 00 36** | **Mercedes-Benz** | 386 | 2 |

## 1054-10 INHEX socket

- for hexagon socket head screws, 10 mm
- length 140 mm
- 1/2" O-drive, for cylinder head bolts

| Code | Type | g | |
|---|---|---|---|
| **03 15 14 10** | **Mercedes-Benz** | 150 | 5 |

## 24-10x12 OPEN-RING spanner

- hexagon, 10 x 12 mm
- for general service work

| Code | Type | g | |
|---|---|---|---|
| **41 08 10 12** | **Mercedes-Benz** | 59 | 10 |





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## 440-30 CROW-RING spanner

- 30 mm
- 1/2" ○-drive
- for use on hydraulic pipe flare nuts

| Code | g | |
|---|---|---|
| **03 19 00 30** | 155 | 1 |

## 540-19 CROW-FOOT spanner

- 19 mm
- for use on new push connector for pneumatic installations on new light-weight truck series

| Code | Type | g | |
|---|---|---|---|
| **02 20 00 19** | **Mercedes-Benz** | 64 | 1 |

## 540-24 CROW-FOOT spanner

- 24 mm

| Code | g | |
|---|---|---|
| **02 20 00 24** | 60 | 1 |

## 730R/2 Quick Service-MANOSKOP® torque wrench

NEW

- capacity 4-20 N·m
- 3/8" ■-drive
- for use on new push connector for pneumatic installations on new light-weight truck series

| Code | Type | g | |
|---|---|---|---|
| **96 50 40 02** | **Mercedes-Benz** | 455 | 1 |

## 730R/40/32 Quick Torque wrench set

- in steel case
- for general service work

Content 32 pieces:
1 Service-MANOSKOP® No 730/40 Quick, 80-400 N·m
1 ratchet insert tool No 735/20, reversible, 1/2" ■-drive
1 square drive insert tool No 734/20, 1/2" ■-drive
7 open ended insert tools No 731/40: 13; 15; 17; 19; 22; 27; 30 mm
1 open ended insert tool No 3731/40, 24 mm
7 ring insert tools No 732/40: 13; 15; 17; 19; 22; 24; 27 mm
10 sockets, bi-hexagon No 50: 13; 14; 15; 17; 19; 22; 24; 27; 30; 32 mm
4 accessories, 1/2" ○-drive:
-1 T-handle No 506
-1 extension No 509/10, 255 mm
-1 extension No 509/5, 130 mm
-1 extension No 509/2, 55 mm

| Code | Type | g | |
|---|---|---|---|
| **96 50 20 53** | **Mercedes-Benz** | 9739 | 1 |

## 54/12 ◉ Set of INHEX sockets

- for hexagon socket head screws
- insturdy, stackable ABS plastic case
- for general service work

Content 12 INHEX sockets:
No 54: 4; 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
No 3054/8, 8 mm
No 1054/10, 10 mm

| Code | Type | g | |
|---|---|---|---|
| **96 03 15 03** | **Mercedes-Benz** | 1894 | 1 |

## 721Nf/80 Standard-MANOSKOP® torque wrench

- 160–800 N·m
- 3/4" ■-drive
- for general service work

| Code | Type | g | |
|---|---|---|---|
| **50 20 00 81** | **Mercedes-Benz** | 6380 | 1 |

STAHLWILLE
T20
12174 VDE
13
12171 VDE
M10
12173 VDE

# 11 VDE TOOLS


Sets of tools
>> Page 376

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Torque wrenches
>> Page 378

Ratchets, sockets, screwdriver sockets, extensions
>> Page 378

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>> Page 379

Pliers
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# When things get hot, they keep cool.
# **VDE tools from STAHLWILLE.**

Made in Germany

The VDE range even permits completely safe work on live components up to 1000 volts. Certified in compliance with stringent VDE standards, these tools combine intelligent product design that is optimised to benefit users, high-grade materials, tight tolerances, outstanding ergonomics and long service lives with resilient, durable protective insulation.

The VDE range from STAHLWILLE comprises more than 130 tools in the premium quality you have come to expect. Spanners, fine tooth ratchets, torque wrenches, pliers, cutters and many sockets and screwdriver sockets – available individually or clearly arranged in a set box or case. STAHLWILLE's VDE range of tools leaves nothing to be desired.

## FLEXIBLE.

Interchangeable ratchet insert tool – the only insulated torque wrench with a ratchet insert tool that users can exchange themselves (9 x 12 mm, 3/8" ■).

## FAST.

With a QuickRelease safety lock that enables rapid tool changing but effectively protects against tool loss.

## ADJUSTABLE.

Fast adjustment without dismantling. End-users can easily readjust the tool themselves – without having to send it in and have it retested.

## EFFICIENT.

Proven QuickSelect setting of torque and an additional ring scale that allows fine adjustment.

## WEAR-RESISTANT.

In contrast to conventional torque wrenches, it is not necessary to reset the wrench to zero after each job to unload the spring.
In this way, users benefit from long-term accuracy and safe measurement results with less time required.

## 13300 VDE VDE case

- with 48 tools
- sturdy aluminium frame
- ergonomically designed carrying handle
- smooth-running rollers and integrated telescopic handle to simplify transport

| Code | kg |
|---|---|
| **96838193** | 13 |

| | No | Content |
|---|---|---|
| | **12171 VDE** | 3/8" **O** 7; 8; 9; 10; 11; 12; 13; 14; 16; 17; 18; 19; 20; 22 mm |
| | **12174 VDE** | 3/8" **O** sizes T20; T25; T30 |
| | **12175 VDE** | 3/8" **O** M8; M10 |
| | **12167/3 VDE** | 3/8" ■ **O** 94 mm |
| | **12167/6 VDE** | 3/8" ■ **O** 178 mm |
| | **12167/10 VDE** | 3/8" ■ **O** 258 mm |
| | **12165 VDE** | 3/8" ■ |
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 2 (0.5 x 3.0 x 100 mm)<br>size 3 (0.6 x 3.5 x 100 mm)<br>size 4 (0.8 x 4.0 x 100 mm) |
| | **4665 VDE**<br>**4675 VDE** | PH1; PH2; PH3<br>sizes T8; T10; T15; T20; T25; T30 |
| | **6501 VDE** | 200 mm |
| | **6508 VDE** | 160 mm |
| | **6530 VDE** | 200 mm |
| | **6551 VDE** | 250 mm |
| | **6602 VDE** | 180 mm |
| | **6630 VDE** | 220 mm |
| | **12188 VDE** | |
| | **12191 VDE** | |
| | **12192 VDE** | |
| | **12193 VDE** | |
| | **12194 VDE** | |
| | **12195 VDE** | |
| | **13209 VDE** | |

## 12171/19/4 VDE VDE tool case 3/8"

TCS

- in sturdy, stackable ABS plastic case

Content 23 pieces:
14 sockets with hexagon
No 12171 VDE: 7; 8; 9; 10; 11; 12; 13; 14; 16; 17; 18; 19; 20; 22 mm
3 screwdriver sockets for internal TORX® screws
No 12174 VDE: sizes T20; T25; T30
2 screwdriver sockets for tri-square socket head screws XZN®
No 12175 VDE: M8; M10
3 extensions No 12167/3 VDE (94 mm),
No 12167/6 VDE (178 mm),
No 12167/1 VDE (258 mm)
1 ratchet No 12165 VDE

| Code | g |
|---|---|
| **96022020** | 3056 |

## TCS 12171/19/4 VDE

TCS

- 350 x 350 x 45 mm
- 23 pieces

| Code | g |
|---|---|
| **96830041** | 2800 |

| | No | Content |
|---|---|---|
| | **12171 VDE** | 3/8" **O** 7; 8; 9; 10; 11; 12; 13; 14; 16; 17; 18; 19; 20; 22 mm |
| | **12174 VDE** | 3/8" **O** sizes T20; T25; T30 |
| | **12175 VDE** | 3/8" **O** M8; M10 |
| | **12167 VDE 3** | 3/8" ■ **O** 94 mm |
| | **12167 VDE 6** | 3/8" ■ **O** 178 mm |
| | **12167 VDE 10** | 3/8" ■ **O** 258 mm |
| | **12165 VDE** | 3/8" ■ |



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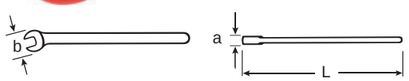
## 12160 VDE VDE single-ended open-jaw spanners

- Chrome Alloy Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

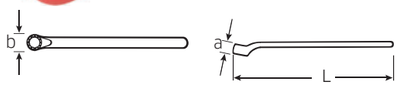



| Code | mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **44180010** | **10** | 140.7 | 26 | 10.5 | 48 | 1 |
| **44180013** | **13** | 166.4 | 32.5 | 11.5 | 80 | 1 |
| **44180014** | **14** | 181 | 34.5 | 11.5 | 88 | 1 |
| **44180017** | **17** | 200 | 40 | 12.5 | 146 | 1 |
| **44180019** | **19** | 218 | 44.5 | 13 | 184 | 1 |
| **44180022** | **22** | 248 | 50 | 13.5 | 254 | 1 |

## 12161 VDE VDE single-ended ring spanners

AS

- Chrome Alloy Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V




| Code | mm | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|---|
| **44190010** | **10** | 147.6 | 19.6 | 13 | 48 | 1 |
| **44190013** | **13** | 171.2 | 23.6 | 15 | 82 | 1 |
| **44190014** | **14** | 184.1 | 25.1 | 15 | 82 | 1 |
| **44190017** | **17** | 208.3 | 29.1 | 17 | 144 | 1 |
| **44190019** | **19** | 227.1 | 32 | 18 | 190 | 1 |
| **44190022** | **22** | 254.2 | 36.3 | 19 | 238 | 1 |

## 12160/6 VDE Set VDE single-ended open-jaw spanners

- 6 pieces
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V
- Chrome Alloy Steel, chrome plated
- roll-up wallet made of extremely tough textile with Velcro fastener

| Code | Content mm | g |
|---|---|---|
| **96404301** | 10; 13; 14; 17; 19; 22 | 950 |

## 12161/6 VDE Set VDE single-ended ring spanners

AS

- 6 pieces
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V
- Chrome Alloy Steel, chrome plated
- roll-up wallet made of extremely tough textile with Velcro fastener

| Code | Content mm | g |
|---|---|---|
| **96404302** | 10; 13; 14; 17; 19; 22 | 430 |

## TCS 12160 VDE

TCS

- 175 x 350 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96830042** | 900 |

| | No | Content |
|---|---|---|
| | **12160 VDE** | 10; 13; 14; 17; 19; 22 mm |

## TCS 12161 VDE

TCS

- 175 x 350 x 30 mm
- 6 pieces

| Code | g |
|---|---|
| **96830045** | 885 |

| | No | Content |
|---|---|---|
| | **12161 VDE** | 10; 13; 14; 17; 19; 22 mm |

**3/8" VDE QuickRelease fine-tooth ratchet.**
80 teeth, unfazed by 1000 V.

The 3/8" fine-tooth ratchet retains the compact shape, outstanding functionality and ergonomics of all STAHLWILLE fine-tooth ratchets, and provides optimum protection against live voltages in accordance with VDE standards.

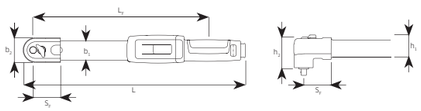
80

4,5°

## 730R/5 VDE VDE MANOSKOP® torque wrench with QuickRelease ratchet

QR

- click-type
- with double-insulated plastic sleeve against high voltages up to 1000 V
- DIN EN 60900
- AC/1000 V
- mount for interchangeable insert tools
- exchange of the ratchet 725QR VDE without having to recheck the insulation
- QuickRelease safety lock
- fast, accurate setting thanks to QuickSelect quick-action adjuster
- dual stop signal
- easy-to-read double scale with colour coding to differentiate between N·m/ft·lb
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- any force applied to the tool after the ‚click' or applied in the opposite direction to the current function – e.g. forcible loosening of a jammed screw - does not act on the trigger mechanism and cannot cause damage to it
- insulation made of non-slip, abrasion-proof special plastic, resistant to diluted alkalis, hydrocarbons, fuels and oils
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7791
- adjustment without disassembly and without having to recheck the insulation
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 3 %**

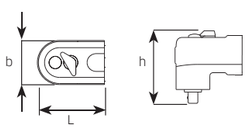


| Code | | | | | Fine scale | mm | ■ " | $b_1$ mm | $b_2$ mm | $h_1$ mm | $h_2$ mm | L mm | $L_F$ mm | $S_F$ mm | g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96550150** | 10–50 N·m | 7–37 ft·lb | 5 N·m | 1 ft·lb | 0.25 N·m | 9x12 | 3/8 | 43 | 49.5 | 36 | 59.5 | 390.5 | 308.5 | 28 | 1365 |

## 725QR VDE VDE QuickRelease ratchet insert tool

QR

- reversible
- with QuickRelease safety lock
- 30 teeth
- Chrome Alloy Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V
- exclusively for MANOSKOP® 730R VDE

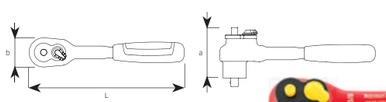


| Code | ■ " | mm | b mm | h mm | L mm | g | |
|---|---|---|---|---|---|---|---|
| **58253105** | 3/8 | 9x12 | 43 | 70.5 | 65.5 | 230 | 1 |

## 12165 VDE VDE QuickRelease ratchet, fine tooth, 3/8"

QR FOD 80 4,5°

- reversible
- 80 teeth
- with QuickRelease safety lock
- with double-insulated plastic sleeve for working under voltage
- with 2-component handle
- for use in confined spaces, re-engages after movement of 4.5°
- construction without screws prevents foreign object damage
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

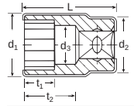


| Code | L mm | b mm | a mm | g | |
|---|---|---|---|---|---|
| **12430001** | 205 | 61 | 37 | 298 | 1 |

## 12171 VDE VDE sockets 3/8"

AS GKN HPQ

- HPQ® high performance steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **02380007** | **7** | 15.5 | 21.5 | 6 | 42 | 6 | 12.5 | 24 | 1 |
| **02380008** | **8** | 16.7 | 21.5 | 7 | 43 | 7 | 13.5 | 26 | 1 |
| **02380009** | **9** | 18 | 21.5 | 8 | 43 | 7 | 13.5 | 28 | 1 |
| **02380010** | **10** | 19.3 | 21.5 | 9 | 45 | 8.5 | 15.5 | 28 | 1 |
| **02380011** | **11** | 20.6 | 21.5 | 10 | 45 | 8.5 | 13.7 | 29 | 1 |
| **02380012** | **12** | 21.9 | 22.5 | 11 | 46 | 9.5 | 14.4 | 36 | 1 |
| **02380013** | **13** | 23 | 22.5 | 12 | 48 | 11.5 | 16.1 | 36 | 1 |
| **02380014** | **14** | 24.4 | 22.5 | 13 | 48 | 11.5 | 15.8 | 40 | 1 |
| **02380016** | **16** | 26.7 | 24 | 15 | 49 | 13.5 | 18.9 | 48 | 1 |
| **02380017** | **17** | 28 | 24 | 16 | 49 | 12.5 | 18.6 | 54 | 1 |
| **02380018** | **18** | 29.2 | 24 | 17 | 50 | 13.5 | 19.3 | 58 | 1 |
| **02380019** | **19** | 30.2 | 24 | 18 | 50 | 13.5 | 19 | 58 | 1 |
| **02380020** | **20** | 31.2 | 25 | 19 | 52 | 15.5 | 20.7 | 68 | 1 |
| **02380022** | **22** | 33.7 | 26 | 21 | 53 | 17 | 21.2 | 78 | 1 |

## 12167 VDE VDE extensions 3/8"

- Chrome-Alloy-Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **12420001** | **3** | 94 | 23 | 84 | 1 |
| **12420002** | **6** | 178 | 23 | 162 | 1 |
| **12420003** | **10** | 258 | 23 | 224 | 1 |



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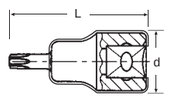
## 12174 VDE — VDE screwdriver sockets 3/8"

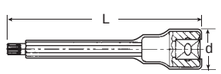
- for internal TORX® screws
- Chrome-Alloy-Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V



| Code | size | mm | L mm | d mm | g | |
|---|---|---|---|---|---|---|
| **02390020** | **T20** | 3.8 | 67 | 22.8 | 52 | 1 |
| **02390025** | **T25** | 4.4 | 67 | 22.8 | 52 | 1 |
| **02390030** | **T30** | 5.5 | 67 | 22.8 | 54 | 1 |
| **02390040** | **T40** | 6.6 | 67 | 22.8 | 56 | 1 |
| **02390045** | **T45** | 7.8 | 67 | 22.8 | 58 | 1 |

## 12175 VDE — VDE screwdriver sockets 3/8"

- for tri-square socket head screws (XZN®)
- Chrome-Alloy-Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V



| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **02370006** | **M6** ***NEW*** | 136 | 23 | 100 | 1 |
| **02370008** | **M8** | 136 | 23 | 98 | 1 |
| **02370010** | **M10** | 136 | 23 | 122 | 1 |

## 12177 VDE — VDE extensions 1/2"

- Chrome-Alloy-Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

| Code | size | L mm | d mm | g | |
|---|---|---|---|---|---|
| **13420001** | **3** | 93 | 27 | 130 | 1 |
| **13420002** | **5** | 148 | 27 | 206 | 1 |
| **13420003** | **10** | 273 | 27 | 380 | 1 |

## 432 VDE — VDE extending adaptor

NEW

HPQ

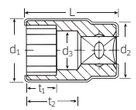
- 3/8" socket 1/2" plug (10 x 12.5)
- HPQ® high performance steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

| Code | L mm | d mm | g | |
|---|---|---|---|---|
| **12030005** | 68 | 22.6 | 84 | 1 |

## 12179 VDE — VDE sockets 1/2"

AS HPQ

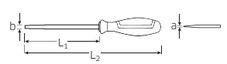
- HPQ® high performance steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V



| Code | mm | $d_1$ mm | $d_2$ mm | $d_3$ mm | L mm | $t_1$ mm | $t_2$ mm | g | |
|---|---|---|---|---|---|---|---|---|---|
| **03370010** | **10** | 19.5 | 27 | 9 | 56 | 9 | 22 | 60 | 1 |
| **03370011** | **11** | 20.8 | 27 | 10 | 56 | 9.5 | 22 | 64 | 1 |
| **03370012** | **12** | 22 | 27 | 11 | 56 | 13 | 22 | 64 | 1 |
| **03370013** | **13** | 23.3 | 27 | 12 | 56 | 13 | 22 | 64 | 1 |
| **03370014** | **14** | 24.9 | 27.7 | 13 | 56 | 13 | 20.5 | 70 | 1 |
| **03370017** | **17** | 29 | 28.7 | 15.2 | 56 | 15 | 19.6 | 82 | 1 |
| **03370019** | **19** | 31.2 | 30 | 18 | 56 | 16 | 21.7 | 94 | 1 |
| **03370022** | **22** | 34.7 | 31 | 21 | 60 | 16.5 | 24.9 | 116 | 1 |
| **03370024** | **24** | 37 | 31 | 21 | 60 | 18.5 | 24.9 | 130 | 1 |

## 4660 VDE — VDE electricians screwdrivers DRALL+

- for slotted screws
- Chrome Alloy Steel
- blade gunmetal finished
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V



| Code | size | a mm | b mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|---|
| **46603025** | **1** | 0.4 | 2.5 | 75 | 160 | 20 | 10 |
| **46603030** | **2** | 0.5 | 3.0 | 100 | 185 | 39 | 10 |
| **46603035** | **3** | 0.6 | 3.5 | 100 | 205 | 42 | 10 |
| **46603040** | **4** | 0.8 | 4.0 | 100 | 205 | 46 | 10 |
| **46603055** | **5** | 1.0 | 5.5 | 125 | 240 | 93 | 10 |
| **46603065** | **6** | 1.2 | 6.5 | 150 | 265 | 120 | 10 |
| **46603080** | **7** | 1.2 | 8.0 | 175 | 300 | 170 | 10 |

## 4665 VDE — VDE cross-head screwdrivers DRALL+

- Phillips-Recess®
- Chrome Alloy Steel
- blade gunmetal finished
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

| Code | PH size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46653000** | **0** | 60 | 145 | 35 | 10 |
| **46653001** | **1** | 80 | 185 | 47 | 10 |
| **46653002** | **2** | 100 | 215 | 89 | 10 |
| **46653003** | **3** | 150 | 275 | 159 | 10 |

## 4670 VDE — VDE cross-head screwdrivers DRALL+

- POZIDRIV/SUPADRIV®
- Chrome Alloy Steel
- blade gunmetal finished
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

| Code | PZ size | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|
| **46703000** | **0** | 60 | 145 | 36 | 10 |
| **46703001** | **1** | 80 | 185 | 46 | 10 |
| **46703002** | **2** | 100 | 215 | 89 | 10 |

## 4675 VDE — VDE TORX® screwdrivers DRALL+

- for inside TORX® screws
- Chrome Alloy Steel
- blade gunmetal finished
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

| code | size | mm | $L_1$ mm | $L_2$ mm | g | |
|---|---|---|---|---|---|---|
| **46753008** | **T8** | 2.3 | 60 | 145 | 22 | 10 |
| **46753010** | **T10** | 2.7 | 60 | 145 | 22 | 10 |
| **46753015** | **T15** | 3.3 | 75 | 180 | 40 | 10 |
| **46753020** | **T20** | 3.8 | 100 | 205 | 47 | 10 |
| **46753025** | **T25** | 4.4 | 100 | 205 | 51 | 10 |
| **46753030** | **T30** | 5.5 | 100 | 215 | 89 | 10 |

## 4695 VDE — VDE screwdriver set DRALL+

Content 6 screwdrivers **DRALL+**:
- VDE insulated up to1000 V
- DIN EN 60900
- AC/1000 V

⊖ 4660 VDE:
size 1 (0.4 x 2.5 x 75 mm)
size 3 (0.6 x 3.5 x 100 mm)
size 5 (1.0 x 5.5 x 125 mm)
size 6 (1.2 x 6.5 x 150 mm)
⊕ 4665 VDE: PH1; PH2

| Code | g |
|---|---|
| **96469515** | 595 |

## TCS 4660/4665 VDE

- 175 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838766** | 391 |

| | No | Content |
|---|---|---|
| | **4660 VDE** | size 1 (0.4 x 2.5 x 75 mm)<br>size 3 (0.6 x 3.5 x 100 mm)<br>size 5 (1.0 x 5.5 x 125 mm)<br>size 6 (1.2 x 6.5 x 150 mm) |
| | **4665 VDE** | PH1; PH2 |

## TCS 4665/4670 VDE

- 175 x 350 x 40 mm
- 7 pieces

| Code | g |
|---|---|
| **96838785** | 622 |

| | No | Content |
|---|---|---|
| | **4665 VDE** | PH0; PH1; PH2; PH3 |
| | **4670 VDE** | PZ0; PZ1; PZ2 |

## TCS 4675 VDE

- 175 x 350 x 40 mm
- 6 pieces

| Code | g |
|---|---|
| **96838793** | 385 |

| | No | Content |
|---|---|---|
| | **4675 VDE** | sizes T8; T10; T15; T20; T25; T30 |

## 4798 VDE — VDE set of interchangeable screwdrivers

- 14 pieces
- two-component handle with soft-grip zones for use as precision tools
- attachable rotating cap for interchangeable blades
- automatic locking system prevents inadvertent extraction
- VDE insulated up to 1000 V
- DIN EN 60900
- AC/1000 V

Content:
1x two-component handle
1x attachable rotating cap
⊖ 2.5 x 0.4; 3.0 x 0.5; 3.5 x 0.6; 4.0 x 0.8; 5.5 x 1.0; 6.5 x 1.2 mm
⊕ PH1; PH2
⊕ PZ2
T10; T15; T20

| Code | g |
|---|---|
| **96469511** | 814 |

## TCS 6501-6600/3 VDE

- 175 x 350 x 40 mm
- 3 pieces

| Code | g |
|---|---|
| **96838770** | 725 |

| | No | |
|---|---|---|
| | **65017180** | 180 mm |
| | **65297200** | 200 mm |
| | **66007160** | 160 mm |

## TCS 6501/6551/6600 VDE

- 175 x 350 x 40 mm
- 3 pieces

| Code | g |
|---|---|
| **96830039** | 918 |

| | No | |
|---|---|---|
| | **65017180** | 180 mm |
| | **65517240** | 240 mm |
| | **66007160** | 160 mm |

## 6501 VDE VDE combination pliers

- DIN ISO 5746
- precision cutting edges for all wires, incl. piano wire
- induction hardened cutting edges, approx. 62 HRC, for long life

65017160

65018160

| Code | L mm | Head | Handles | ③ | ④ | ⑤ | ⑥ | g |
|---|---|---|---|---|---|---|---|---|
| **65017160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 1.8 | 1.5 | 10 | 16 | 202 |
| **65017180** | 180 | | | 2 | 1.8 | 12 | 16 | 279 |
| **65017200** | 200 | | | 2.5 | 2 | 13 | 16 | 359 |
| **65018160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 1.8 | 1.5 | 10 | 16 | 186 |
| **65018180** | 180 | | | 2 | 1.8 | 12 | 16 | 186 |
| **65018200** | 200 | | | 2.5 | 2 | 13 | 16 | 317 |

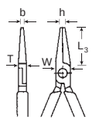
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire
⑤ Cutting capacity in mm for cable
⑥ Cutting capacity in $mm^2$

## 6507 VDE VDE flat nose pliers, short

- DIN ISO 5745
- short, flat serrated jaws

65077160

65078160



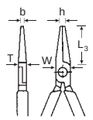

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65077160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 30 | 17 | 10 | 5 | 9 | 200 |
| **65078160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 30 | 17 | 10 | 5 | 9 | 181 |

## 6508 VDE VDE flat nose pliers, long

- DIN ISO 5745
- long, flat serrated jaws

65087160

65087160



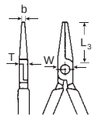

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65087160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 50 | 15 | 8 | 3 | 5 | 148 |
| **65088160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 50 | 15 | 8 | 3 | 5 | 166 |

## 6523 VDE VDE round nose pliers, short

- DIN ISO 5745
- for bending wire loops and rings
- short, round, ground jaws
- fine serrations on gripping areas

65237160

65238160



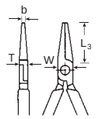

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | b mm | g |
|---|---|---|---|---|---|---|---|---|
| **65237160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 30 | 18 | 10 | 3 | 201 |
| **65238160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 30 | 18 | 10 | 3 | 176 |

## 6524 VDE VDE round nose pliers, long

- DIN ISO 5745
- for bending wire loops and rings
- long, round, ground jaws
- fine serrations on gripping areas

65247160

65248160



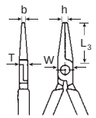

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | b mm | g |
|---|---|---|---|---|---|---|---|---|
| **65247160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 47 | 15.5 | 8.5 | 2.5 | 162 |
| **65248160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 47 | 15.5 | 8.5 | 2.5 | 156 |

## 6529 VDE VDE snipe nose pliers with cutter (radio- or telephone pliers)

- DIN ISO 5745
- Form A (straight)
- half round, long tapering, serrated jaws, with burner hole
- precision cutting edges for soft and hard wires
- induction hardened cutting edges, approx. 60 HRC

65297160

65298160



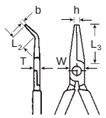

| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65297160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 51 | 16 | 9 | 3 | 2.5 | 174 |
| **65297200** | 200 | | | 73 | 17 | 9 | 3 | 2.5 | 226 |
| **65298160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 51 | 16 | 9 | 3 | 2.5 | 158 |
| **65298200** | 200 | | | 73 | 17 | 9 | 3 | 2.5 | 202 |

## 6530 VDE VDE snipe nose pliers with cutter (radio- or telephone pliers)

- DIN ISO 5745
- Form B, bent 45°
- half round, long tapering, serrated jaws, with burner hole
- precision cutting edges for soft and hard wires
- induction hardened cutting edges, approx. 60 HRC

65307160

65308160




| Code | L mm | Head | Handles | $L_2$ mm | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|---|
| **65307160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 24 | 55 | 16 | 9 | 3 | 2.5 | 185 |
| **65307200** | 200 | | | 28 | 76 | 17 | 9 | 3.5 | 2.5 | 230 |
| **65308160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, | 24 | 55 | 16 | 9 | 3 | 2.5 | 154 |
| **65308200** | 200 | | AC/1000 V | 28 | 76 | 17 | 9 | 3.5 | 3 | 201 |



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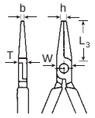
## 6533 VDE VDE mechanics snipe nose pliers

- half round, long tapering
- serrated jaws

65 337 160

65 338 160




| Code | L mm | Head | Handles | $L_3$ mm | W mm | T mm | h mm | b mm | g |
|---|---|---|---|---|---|---|---|---|---|
| **65 337 160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 50 | 15 | 8 | 3 | 2.5 | 147 |
| **65 338 160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 50 | 15 | 8 | 3 | 2.5 | 160 |

## 6551 VDE VDE waterpump wrench

- DIN ISO 8976 (No 207 c)
- with box joint and recess
- 7 positions
- anti-pinch mechanism
- chrome vanadium

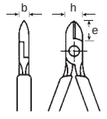
| Code | L mm | Jaw opening max. mm | Head | Handles | g |
|---|---|---|---|---|---|
| **65 517 240** | 250 | 35 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 358 |

## 6600 VDE VDE side cutters

- DIN ISO 5749
- Form B
- precision cutting edges for all wires incl. piano wire
- high quality alloy steel
- bevelled cutting edges induction hardened, approx. 63 HRC

66 007 160

66 008 160




| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66 007 145** | 140 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 19 | 20 | 8.2 | 3 | 2.5 | 1.8 | 1.6 | 155 |
| **66 007 160** | 160 | | | 23.5 | 20 | 9 | 3 | 2.8 | 2 | 1.6 | 215 |
| **66 007 180** | 180 | | | 25.5 | 25 | 9.5 | 3.8 | 3 | 2.5 | 2 | 260 |
| **66 008 145** | 140 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 19 | 20 | 8.2 | 3 | 2.5 | 1.8 | 1.6 | 149 |
| **66 008 160** | 160 | | | 23.5 | 20 | 9 | 3 | 2.8 | 2 | 1.6 | 190 |
| **66 008 180** | 180 | | | 25.5 | 25 | 9.5 | 3.8 | 3 | 2.5 | 2 | 249 |

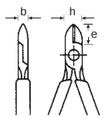
① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire

## 6602 VDE VDE heavy duty side cutters

- DIN ISO 5749
- Form A
- precision cutting edges for all wires incl. piano wire
- high quality alloy steel
- bevelled cutting edges induction hardened, approx. 63 HRC

66 027 200

66 028 200




| Code | L mm | Head | Handles | e mm | h mm | b mm | ① | ② | ③ | ④ | g |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **66 027 160** | 160 | chrome plated | dip-coated insulation, DIN EN 60900 AC/1000 V | 25.5 | 25 | 9.5 | 4 | 3.4 | 2.5 | 2 | 220 |
| **66 027 200** | 200 | | | 31 | 28 | 11.5 | 4 | 4 | 3 | 2.5 | 325 |
| **66 027 250** | 250 | | | 32 | 29.5 | 12 | 4 | 4 | 3.5 | 3 | 475 |
| **66 028 160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900 AC/1000 V | 25.5 | 25 | 9.5 | 4 | 3.4 | 2.5 | 2 | 210 |
| **66 028 180** | 180 | | | 27.5 | 26.5 | 10.5 | 4 | 3.8 | 2.7 | 2.2 | 250 |
| **66 028 200** | 200 | | | 31 | 28 | 11.5 | 4 | 4 | 3 | 2.5 | 305 |

① Cutting capacity in mm for soft wire
② Cutting capacity in mm for medium hard wire
③ Cutting capacity in mm for hard wire
④ Cutting capacity in mm for piano wire





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## 6622 VDE VDE wire stripping pliers

- with adjustment screw to cut insulation only on wire or cable
- max. 5 mm ∅ 10 mm² conductor cross-section

66227160

66228160

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66227160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 180 |
| **66228160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 168 |

## 6623 VDE VDE wire stripping pliers

- for wires from 0.5 to 5 mm ∅
- self adjusting
- cutter hole for cutting wire or stranded wires up to 5 mm ∅
- special steel

66237160

66238160

| Code | L mm | Head | Handles | g |
|---|---|---|---|---|
| **66237160** | 160 | chrome plated | dip-coated insulation DIN EN 60900, AC/1000 V | 214 |
| **66238160** | 160 | chrome plated | insulated, with plastic sleeves, DIN EN 60900, AC/1000 V | 184 |

## 6923 Replacement stripping knives (1 pair) for No 6623

| Code | g |
|---|---|
| **69230001** | 11 |

## 6630 VDE VDE cable shear

- for copper and light alloy cables
- easy, single handed operation
- special cutter geometry to avoid pressure marks and frayed ends
- adjustable joint
- anti-squeeze protection
- not suitable for steel or armoured cables

| Code | L mm | Head | Handles | ⑦ | ⑧ | ⑨ | g |
|---|---|---|---|---|---|---|---|
| **66307220** | 220 | chrome plated | dip-coated insulation, DIN EN 60900 AC/1000 V | 16 | 35 | 70 | 380 |

⑦ cutting capacity in mm² for single wire Al-/Cu-Cable
⑧ cutting capacity in mm² for multiple wire Al-/Cu-Cable
⑨ cutting capacity in mm² for thin wire Al-/Cu-Cable

## 12187 VDE VDE electrician's penknife

- with a straight blade
- handle made of viscoelastic, impact-resistant plastic
- with blade cover

| Code | Blade mm | g | |
|---|---|---|---|
| **77020700** | 50 | 98 | 1 |

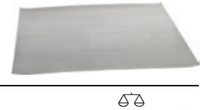
## 12188 VDE VDE electrician's penknife

- with a hooked blade
- for slitting and stripping moisture proof cables
- handle made of viscoelastic, impact-resistant plastic
- with blade cover

| Code | Blade mm | g | |
|---|---|---|---|
| **77020701** | 40 | 96 | 1 |

## 12189 VDE VDE insulating underlay mat

- tested to IEC 6111 Class 4
- for working on high-current components
- one side is smooth, one side with non-slip grooves



| code | Dimensions mm | g | |
|---|---|---|---|
| **77030700** | 1000 x 1000 x 3 | 3040 | 1 |

## 12190 VDE Bag for the VDE insulating underlay mat

- for the VDE insulating underlay mat

| Code | Measures mm | g | |
|---|---|---|---|
| **77030701** | 1000 x 300 | 784 | 1 |

## 12196 VDE VDE insulating underlay mat in bag

| Code | Measures mm | g | |
|---|---|---|---|
| **96404303** | 1000 x 300 | 3824 | 1 |

## 12191 VDE VDE barrier tape

- red & white markings
- for cordoning off construction sites and securing hazard zones
- full warning effect retained even over longer periods (light resistance rating: 5-6)
- made of polyethylene

| Code | L m | B mm | g | |
|---|---|---|---|---|
| **77030702** | 500 | 80 | 1500 | 1 |

## 12192 VDE VDE warning sign

- warning regarding hazardous electric voltages
- DIN EN ISO 7010-W012
- made of plastic

| Code | Dimensions mm | g | |
|---|---|---|---|
| **77030705** | 200 x 200 | 27 | 1 |

## 12193 VDE VDE prohibitory sign

- prohibitory sign „Do not switch on"
- DIN 4844, BGV A8 (accident prevention regulations)
- made of plastic

| Code | ∅ mm | g | |
|---|---|---|---|
| **77030706** | 200 | 48 | 1 |

## 12194/ 12195 VDE Self-clamping VDE insulating cable-end cap

- for insulating the ends of cables and individual wire cores
- made of viscoelastic insulating material
- with cross-section closure

| Code | ∅ mm | L mm | g | |
|---|---|---|---|---|
| **77030708** | 10 | 100 | 10 | 1 |
| **77030709** | 20 | 100 | 18 | 1 |

## 13209 VDE VDE hard case

- with detachable trolley castor system
- sturdy aluminium frame
- 2 locks
- ergonomically designed carrying handle
- robust jointed lid-prop
- tool-holder panel for storing tools from both sides, with 21 pockets and integrated document pouch
- ABS insert can be subdivided and includes cover with 6 pockets

| Code | Dimensions mm | g | |
|---|---|---|---|
| **81620700** | 460 x 375 x 235 | 6000 | 1 |



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## TORX® Screw Sizes. according to DIN

| DIN | 931/933 | 912 | 963/965 | 964/966 | 7984 | 7985 | 7991 | 7981 | 7982 | 7983 |
|---|---|---|---|---|---|---|---|---|---|---|
| M 2 | | | | | | | | | | |
| ST 2.2 | | | | | | | | | | |
| M 2.5 | | T8 | T8 | T8 | | | | | | |
| ST 2.9 | | | | | | | | T8 | T8 | T8 |
| M 3 | E4 | T10 | T10 | T10 | T10 | T10 | T10 | | | |
| M 3.5 | | | T15 | T15 | | T15 | | | | |
| ST 3.5 | | | | | | | | T10 | T10 | T10 |
| ST 3.9 | | | | | | | | T15 | T15 | T15 |
| M 4 | E5 | T20 | T20 | T20 | T20 | T20 | T20 | | | |
| ST 4.2 | | | | | | | | T20 | T20 | T20 |
| ST 4.8 | | | | | | | | T25 | T25 | T25 |
| M 5 | E6 | T25 | T25 | T25 | T25 | T25 | T25 | | | |
| ST 5.5 | | | | | | | | T25 | T25 | T25 |
| M 6 | E8 | T30 | T30 | T30 | T30 | T30 | T30 | | | |
| ST 6.3 | | | | | | | | T30 | T30 | T30 |
| M 7 | | | | | | | | | | |
| M 8 | E10 | T45 | T40 | T45 | T45 | T45 | T40 | | | |
| M 10 | E12 | T50 | T50 | T50 | T50 | T50 | T50 | | | |
| M 12 | E14 | T55 | | | T55 | | | | | |
| M 14 | E18 | T60 | | | T60 | | | | | |
| M 16 | E20 | T70 | | | T70 | | | | | |
| M 18 | E24 | T80 | | | T80 | | | | | |
| M 20 | E24 | T90 | | | T90 | | | | | |
| M 22 | | T100* | | | | | | | | |
| Camcar Licence sheet | TMF-16001 | TMF-17012 | TMF-17065 | TMF-17066 | TMF-17069 | TMF-17085 | TMF-17091 | TMF-17081 | TMF-17082 | TMF-17083 |

*Special screw

## Screw correlation for TORX®-Tools

| Size | mm | Screws metr. | Screws " |
|---|---|---|---|
| T5 | 1,4 | M1,4-M2 | - |
| T6 | 1,6 | M2 | - |
| T7 | 2,0 | M2,5 | 2,2 |
| T8 | 2,3 | M2,5 | - |
| T9 | 2,5 | M3 | 2,9 |
| T10 | 2,7 | M3-M3,5 | - |
| T15 | 3,3 | M3,5-M4 | 3,5 |
| T20 | 3,8 | M4-M5 | 4,2 |
| T25 | 4,4 | M4,5-M5 | 4,8 |
| T27 | 5,0 | M4,5-M5-M6 | - |
| T30 | 5,5 | M6-M7 | - |
| T40 | 6,6 | M7-M8 | - |
| T45 | 7,8 | M8-M10 | - |
| T50 | 8,8 | M10 | - |
| T55 | 11,2 | M12 | - |
| T60 | 13,2 | M14 | - |
| T70 | 15,5 | M16 | - |
| T80 | 17,6 | M18 | - |
| T90 | 19,9 | M20 | - |
| T100 | 22,1 | M22 | - |

## Screw correlation for TORX®-Tools

| Size | mm | Screws metr. | Screws " |
|---|---|---|---|
| E4 | 3,8 | M3 | 2,2-2,9 |
| E5 | 4,7 | M4 | - |
| E6 | 5,7 | M5 | - |
| E7 | 6,2 | M6 | - |
| E8 | 7,5 | M6-M7 | 3,5-4,2 |
| E10 | 9,4 | M8 | - |
| E11 | 10,1 | - | - |
| E12 | 11,1 | M10 | - |
| E14 | 12,9 | M12 | - |
| E16 | 14,7 | M12 | - |
| E18 | 16,6 | M14 | - |
| E20 | 18,4 | M16 | - |
| E24 | 22,1 | M18-M20 | - |



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**Inch Pound (in·lb) – Newtonmeter (N·m)**

| | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|
| **in·lb** | | | | | **N·m** | | | | | |
| 0 | 0,0 | 1,1 | 2,3 | 3,4 | 4,5 | 5,7 | 6,8 | 7,9 | 9,0 | 10,2 |
| 100 | 11,3 | 12,4 | 13,6 | 14,7 | 15,8 | 17,0 | 18,1 | 19,2 | 20,3 | 21,5 |
| 200 | 22,6 | 23,7 | 24,9 | 26,0 | 27,1 | 28,3 | 29,4 | 30,5 | 31,6 | 32,8 |
| 300 | 33,9 | 35,0 | 36,2 | 37,3 | 38,4 | 39,6 | 40,7 | 41,8 | 42,9 | 44,1 |
| 400 | 45,2 | 46,3 | 47,5 | 48,6 | 49,7 | 50,9 | 52,0 | 53,1 | 54,2 | 55,4 |
| 500 | 56,5 | 57,6 | 58,8 | 59,9 | 61,0 | 62,2 | 63,3 | 64,4 | 65,5 | 66,7 |
| 600 | 67,8 | 68,9 | 70,1 | 71,2 | 72,3 | 73,5 | 74,6 | 75,7 | 76,8 | 78,0 |
| 700 | 79,1 | 80,2 | 81,4 | 82,5 | 83,6 | 84,8 | 85,9 | 87,0 | 88,1 | 89,3 |
| 800 | 90,4 | 91,5 | 92,7 | 93,8 | 94,9 | 96,1 | 97,2 | 98,3 | 99,4 | 100,6 |
| 900 | 101,7 | 102,8 | 104,0 | 105,1 | 106,2 | 107,4 | 108,5 | 109,6 | 110,7 | 111,9 |
| 1000 | 113,0 | 114,1 | 115,3 | 116,4 | 117,5 | 118,7 | 119,8 | 120,9 | 122,0 | 123,2 |
| 1100 | 124,3 | 125,4 | 126,6 | 127,7 | 128,8 | 130,0 | 131,1 | 132,2 | 133,3 | 134,5 |
| 1200 | 135,6 | 136,7 | 137,9 | 139,0 | 140,1 | 141,3 | 142,4 | 143,5 | 144,6 | 145,8 |
| 1300 | 146,9 | 148,0 | 149,2 | 150,3 | 151,4 | 152,6 | 153,7 | 154,8 | 155,9 | 157,1 |
| 1400 | 158,2 | 159,3 | 160,5 | 161,6 | 162,7 | 163,9 | 165,0 | 166,1 | 167,2 | 168,4 |
| 1500 | 169,5 | 170,6 | 171,8 | 172,9 | 174,0 | 175,2 | 176,3 | 177,4 | 178,5 | 179,7 |
| 1600 | 180,8 | 181,9 | 183,1 | 184,2 | 185,3 | 186,5 | 187,6 | 188,7 | 189,8 | 191,0 |
| 1700 | 192,1 | 193,2 | 194,4 | 195,5 | 196,6 | 197,8 | 198,9 | 200,0 | 201,1 | 202,3 |
| 1800 | 203,4 | 204,5 | 205,7 | 206,8 | 207,9 | 209,1 | 210,2 | 211,3 | 212,4 | 213,6 |
| 1900 | 214,7 | 215,8 | 217,0 | 218,1 | 219,2 | 220,4 | 221,5 | 222,6 | 223,7 | 224,9 |
| 2000 | 226,0 | 227,1 | 228,3 | 229,4 | 230,5 | 231,7 | 232,8 | 233,9 | 235,0 | 236,2 |
| 2100 | 237,3 | 238,4 | 239,6 | 240,7 | 241,8 | 243,0 | 244,1 | 245,2 | 246,3 | 247,5 |
| 2200 | 248,6 | 249,7 | 250,9 | 252,0 | 253,1 | 254,3 | 255,4 | 256,5 | 257,6 | 258,8 |
| 2300 | 259,9 | 261,0 | 262,2 | 263,3 | 264,4 | 265,6 | 266,7 | 267,8 | 268,9 | 270,1 |
| 2400 | 271,2 | 272,3 | 273,5 | 274,6 | 275,7 | 276,9 | 278,0 | 279,1 | 280,2 | 281,4 |
| 2500 | 282,5 | 283,6 | 284,8 | 285,9 | 287,0 | 288,2 | 289,3 | 290,4 | 291,5 | 292,7 |
| 2600 | 293,8 | 294,9 | 296,1 | 297,2 | 298,3 | 299,5 | 300,6 | 301,7 | 302,8 | 304,0 |
| 2700 | 305,1 | 306,2 | 307,4 | 308,5 | 309,6 | 310,8 | 311,9 | 313,0 | 314,1 | 315,3 |
| 2800 | 316,4 | 317,5 | 318,7 | 319,8 | 320,9 | 322,1 | 323,2 | 324,3 | 325,4 | 326,6 |
| 2900 | 327,7 | 328,8 | 330,0 | 331,1 | 332,2 | 333,4 | 334,5 | 335,6 | 336,7 | 337,9 |
| 3000 | 339,0 | 340,1 | 341,3 | 342,4 | 343,5 | 344,7 | 345,8 | 346,9 | 348,0 | 349,2 |
| 3100 | 350,3 | 351,4 | 352,6 | 353,7 | 354,8 | 356,0 | 357,1 | 358,1 | 359,3 | 360,5 |
| 3200 | 361,6 | 362,7 | 363,9 | 365,0 | 366,1 | 367,3 | 368,4 | 369,5 | 370,6 | 371,8 |
| 3300 | 372,9 | 374,0 | 375,2 | 376,3 | 377,4 | 378,6 | 379,7 | 380,8 | 381,9 | 383,1 |
| 3400 | 384,2 | 385,3 | 386,5 | 387,6 | 388,7 | 389,9 | 391,0 | 392,1 | 393,2 | 394,4 |
| 3500 | 395,5 | 396,6 | 397,8 | 398,9 | 400,0 | 401,2 | 402,3 | 403,4 | 404,5 | 405,7 |
| 3600 | 406,8 | 407,9 | 409,1 | 410,2 | 411,3 | 412,5 | 413,6 | 414,7 | 415,8 | 417,0 |

**Foot Pound (ft·lb) – Newtonmeter (N·m)**

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| **ft·lb** | | | | | **N·m** | | | | | |
| 0 | 0,0 | 1,4 | 2,7 | 4,1 | 5,4 | 6,8 | 8,1 | 9,5 | 10,9 | 12,2 |
| 10 | 13,6 | 14,9 | 16,3 | 17,6 | 19,0 | 20,3 | 21,7 | 23,1 | 24,4 | 25,8 |
| 20 | 27,1 | 28,5 | 29,8 | 31,2 | 32,5 | 33,9 | 35,3 | 36,6 | 38,0 | 39,3 |
| 30 | 40,7 | 42,0 | 43,4 | 44,7 | 46,1 | 47,5 | 48,8 | 50,2 | 51,5 | 52,9 |
| 40 | 54,2 | 55,6 | 56,9 | 58,3 | 59,7 | 61,0 | 62,4 | 63,7 | 65,1 | 66,4 |
| 50 | 67,8 | 69,2 | 70,5 | 71,9 | 73,2 | 74,6 | 75,9 | 77,3 | 78,6 | 80,0 |
| 60 | 81,4 | 82,7 | 84,1 | 85,4 | 86,8 | 88,1 | 89,5 | 90,8 | 92,2 | 93,6 |
| 70 | 94,9 | 96,3 | 97,6 | 99,0 | 100,3 | 101,7 | 103,0 | 104,4 | 105,8 | 107,1 |
| 80 | 108,5 | 109,8 | 111,2 | 112,5 | 113,9 | 115,3 | 116,6 | 118,0 | 119,3 | 120,7 |
| 90 | 122,0 | 123,4 | 124,7 | 126,1 | 127,5 | 128,8 | 130,2 | 131,5 | 132,9 | 134,2 |
| 100 | 135,6 | 136,9 | 138,3 | 139,7 | 141,0 | 142,4 | 143,7 | 145,1 | 146,4 | 147,8 |
| 110 | 149,1 | 150,5 | 151,9 | 153,2 | 154,6 | 155,9 | 157,3 | 158,6 | 160,0 | 161,3 |
| 120 | 162,7 | 164,1 | 165,4 | 166,8 | 168,1 | 169,5 | 170,8 | 172,2 | 173,6 | 174,9 |
| 130 | 176,3 | 177,6 | 179,0 | 180,3 | 181,7 | 183,0 | 184,4 | 185,8 | 187,1 | 188,5 |
| 140 | 189,8 | 191,2 | 192,5 | 193,9 | 195,2 | 196,6 | 198,0 | 199,3 | 200,7 | 202,0 |
| 150 | 203,4 | 204,7 | 206,1 | 207,4 | 208,8 | 210,2 | 211,5 | 212,9 | 214,2 | 215,6 |
| 160 | 216,9 | 218,3 | 219,6 | 221,0 | 222,4 | 223,7 | 225,1 | 226,4 | 227,8 | 229,1 |
| 170 | 230,5 | 231,9 | 233,2 | 234,6 | 235,9 | 237,3 | 238,6 | 240,0 | 241,3 | 242,7 |
| 180 | 244,1 | 245,4 | 246,8 | 248,1 | 249,5 | 250,8 | 252,2 | 253,5 | 254,9 | 256,3 |
| 190 | 257,6 | 259,0 | 260,3 | 261,7 | 263,0 | 264,4 | 265,7 | 267,1 | 268,5 | 269,8 |
| 200 | 271,2 | 272,5 | 273,9 | 275,2 | 276,6 | 277,9 | 279,3 | 280,7 | 282,0 | 283,4 |
| 210 | 284,7 | 286,1 | 287,4 | 288,8 | 290,2 | 291,5 | 292,9 | 294,2 | 295,6 | 296,9 |
| 220 | 298,3 | 299,6 | 301,0 | 302,4 | 303,7 | 305,1 | 306,4 | 307,8 | 309,1 | 310,5 |
| 230 | 311,8 | 313,2 | 314,6 | 315,9 | 317,3 | 318,6 | 320,0 | 321,3 | 322,7 | 324,0 |
| 240 | 325,4 | 326,8 | 328,1 | 329,5 | 330,8 | 332,2 | 333,5 | 334,9 | 336,2 | 337,6 |
| 250 | 339,0 | 340,3 | 341,7 | 343,0 | 344,4 | 345,7 | 347,1 | 348,5 | 349,8 | 351,2 |
| 260 | 352,5 | 353,9 | 355,2 | 356,6 | 357,9 | 359,3 | 360,7 | 362,0 | 363,4 | 364,7 |
| 270 | 366,1 | 367,4 | 368,8 | 370,1 | 371,5 | 372,9 | 374,2 | 375,6 | 376,9 | 378,3 |
| 280 | 379,6 | 381,0 | 382,3 | 383,7 | 385,1 | 386,4 | 387,8 | 389,1 | 390,5 | 391,8 |
| 290 | 393,2 | 394,5 | 395,9 | 397,3 | 398,6 | 400,0 | 401,3 | 402,7 | 404,0 | 405,4 |
| 300 | 406,8 | | | | | | | | | |



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# Assignment of spanner sizes to screws

| Spanner opening SW | | Metric sizes | | | | | | | | | | | | | | | | American sizes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Thread diameters | | | | | | | | | | | | | | | | Thread diameters · American standard ANSI | | | | | | | | |
| | | | DIN ISO 272 | | | | ISO R 272 1968 | | German standard DIN | | | | | French standard | Swedisch standard | | | | Nuts | | | | Bolts and screws | | | | |
| Minimum dimension mm[1] | Maximum dimension mm[1] | Nominal size of wrench, mm | Standard hexagon | Large hexagon | Screw with flange | Nut with flange | Normal hexagon | Small hexagon | Normal hexagon[2] | Large hexagon[3] | Small hexagon[4] | Screw with flange[2] | Nut with flange[4] | NFE 27-111-1930[6] | Metric, large[6] SMS 1412 | Metric, small[6] SMS 1414 | Whitworth, large[6] SMS 1413 | Whitworth, small[6] SMS 1415 | Nominal Size of Wrench | **a** Normal (No) | **b** Square (No) | **c** Heavy (No) | **d** Machine Screw Nuts (No) | **e** Normal (No) | **f** Heavy (No) | **g** Machine Screws (No) | **h** Square Head Set Screws (No) |
| 3.22 | 3.28 | **3.2** | 1.6 | | | | 1.6 | | 1.6 | | | | | | | | | | | | | | | | | | |
| 3.23 | 3.35 | | | | | | | | | | | | | | | | | | **1/8** | | | | | | | 1·2·3 | |
| 3.52 | 3.60 | **3.5** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.01 | 4.14 | | | | | | | | | | | | | 2.5 | | | | | **5/32** | | | | 0·1 | | | | |
| 4.02 | 4.12 | **4** | 2 | | | | 2 | | 2 | | | | | | | 2.3 | | | | | | | | | | | |
| 4.52 | 4.62 | **4.5** | | | | | | | | | | | | | | 2.6 | | | | | | | | | | | |
| 4.83 | 4.95 | | | | | | | | | | | | | | | | | | **3/16** | | | | 2·3 | | | 3·4·5 | 10 |
| 5.02 | 5.12 | **5** | 2.5 | | | | 2.5 | | 2.5 | | | | | 3 | | 3 | | | | | | | | | | | |
| 5.21 | 5.33 | | | | | | | | | | | | | | | | | | **13/64** | | | | | | | | |
| 5.52 | 5.62 | **5.5** | 3 | | | | 3 | | 3 | | | | | | | | | | | | | | | | | | |
| 5.59 | 5.72 | | | | | | | | | | | | | | | | | | **7/32** | | | | | | | | |
| 6.00 | 6.13 | | | | | | | | | | | | | | | | | | **15/64** | | | | | | | | |
| 6.03 | 6.15 | **6** | | | | | | | 3.5 | | | | | 3.5 | 3 | 3.5 | | | | | | | | | | | |
| 6.40 | 6.53 | | | | | | | | | | | | | | | | | | **1/4** | | | | 4 | | | 6·8 | 1/4 |
| 6.82 | 6.97 | | | | | | | | | | | | | | | | | | **17/64** | | | | | | | | |
| 7.03 | 7.15 | **7** | 4 | | 5 | | 4 | | 4 | | | | | 4·4.5 | 3.5 | 4 | | | | | | | | | | | |
| 7.19 | 7.32 | | | | | | | | | | | | | | | | | | **9/32** | | | | | 10* | | | |
| 7.62 | 7.77 | | | | | | | | | | | | | | | | | | **19/64** | | | | | | | | |
| 8.03 | 8.18 | | | | | | | | | | | | | | | | | | **5/16** | | | | 5·6 | | | 10·12 | 5/16 |
| 8.03 | 8.15 | **8** | 5 | | 6 | 5 | 5 | | 5 | | 6 | 5 | 5 | 5 | 4 | 5 | | | | | | | | | | | |
| 8.41 | 8.56 | | | | | | | | | | | | | | | | | | **21/64** | | | | | | | | |
| 8.81 | 8.97 | | | | | | | | | | | | | | | | | | **11/32** | | | | 8 | | | | |
| 9.03 | 9.15 | **9** | | | | | | | (5)[7] | | | | | 5.5 | 5 | | | | | | | | | | | | |
| 9.60 | 9.75 | | | | | | | | | | | | | | | | | | **3/8** | | | | 10 | 1/4* | | 1/4 | 3/8 |
| 10.04 | 10.19 | **10** | 6 | | 8 | 6 | 6 | | 6 | | 8 | 6 | 6 | 6 | | 6 | | | | | | | | | | | |
| 10.39 | 10.55 | | | | | | | | | | | | | | | | | | **13/32** | | | | | | | | |
| 11.04 | 11.19 | **11** | 7 | | | | 7 | | 7 | | | | | | 6 | 7 | | 1/4 | | | | | | | | | |
| 11.18 | 11.33 | | | | | | | | | | | | | | | | | | **7/16** | 1/4 | 1/4 | | 12·1/4 | 1/4 | | | 7/16 |
| 11.99 | 12.14 | | | | | | | | | | | | | | | | | | **15/32** | | | | | | | | |
| 12.04 | 12.24 | **12** | | | | | | 8 | | | | | | 7 | | 8 | | | | | | | | | | | |
| 12.80 | 12.95 | | | | | | | | | | | | | | | | | | **1/2** | 5/16 | | 1/4 | | 5/16 | | 5/16 | 1/2 |
| 13.04 | 13.24 | **13** | 8 | | 10 | 8 | 8 | | 8 | | 10 | 8 | 8 | | | | 1/4 | 5/16 | | | | | | | | | |
| 13.60 | 13.77 | | | | | | | | | | | | | | | | | | **17/32** | | | | | | | | |
| 14.05 | 14.27 | **14** | | | | | | 10 | (8)[7] | | | | | 8 | 8 | | | | | | | | | | | | |
| 14.38 | 14.55 | | | | | | | | | | | | | | | | | | **9/16** | 3/8 | 5/16 | 5/16 | 5/16 | 3/8 | | 3/8 | 9/16 |
| 15.05 | 15.27 | **15** | | | 12 | 10 | | | | | | 10 | 10 | | | 10 | 5/16 | 3/8 | | | | | | | | | |
| 15.18 | 15.36 | | | | | | | | | | | | | | | | | | **19/32** | | | | | | | | |
| 15.98 | 16.15 | | | | | | | | | | | | | | | | | | **5/8** | | 3/18 | | 3/8 | 7/16 | | | 5/8 |
| 16.05 | 16.27 | **16** | 10 | SP·M10 M14 | | | | | 10 | | 12 | 12 | | 9 | | | | | | | | | | | | | |
| 16.77 | 16.95 | | | | | | | | | | | | | | | | | | **21/32** | | | | | | | | |
| 17.05 | 17.30 | **17** | | | | | 10 | 12 | (10) | | (12) | | | 10 | 10 | | | | | | | | | | | | |
| 17.58 | 17.75 | | | | | | | | | | | | | | | | | | **11/16** | 7/16 | | 3/8 | | | | | |
| 18.05 | 18.30 | **18** | 12 | SP·M12 | 14 | 12 | | | 12 | | 16 | 14 | 12 | | | 12 | 3/8 | 7/16 | | | | | | | | | |
| 19.06 | 19.36 | **19** | | | | | 12 | 14 | (12) | | (16) | | | 11 | | | | | | | | | | | | | |
| 19.18 | 19.38 | | | | | | | | | | | | | | | | | | **3/4** | 1/2 | 7/16 | 7/16 | | 1/2 | | | 3/4 |
| 19.97 | 20.17 | | | | | | | | | | | | | | | | | | **25/32** | | | | | | | | |
| 20.06 | 20.36 | **20** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20.78 | 20.98 | | | | | | | | | | | | | | | | | | **13/16** | | 1/2 | | | 9/16 | | | |
| 20.86 | 21.16 | **20.8** | | SP·M14 M18 | | | | | | | | | | | | | | | | | | | | | | | |
| 21.06 | 21.36 | **21** | 14 | 12 | 16 | 14 | | | 14 | 12 | | 16 | 14 | 12 | | 14 | 7/16 | 1/2 | | | | | | | | | |
| 22.06 | 22.36 | **22** | | | | | 14 | 16 | (14) | 12 | | | | | 12·14 | | | | | | | | | | | | |
| 22.35 | 22.56 | | | | | | | | | | | | | | | | | | **7/8** | 9/16 | | 1/2 | | | 1/2 | | 7/8 |
| 23.06 | 23.36 | **23** | | | | | | | | | | | | 14 | | | 1/2 | | | | | | | | | | |
| 23.98 | 24.21 | | | | | | | | | | | | | | | | | | **15/16** | 5/8 | | 9/16 | | 5/8 | | | |
| 24.06 | 24.36 | **24** | 16 | 14 | | 16 | 16 | 18 | 16 | | 20 | | 16 | | | 16 | | 5/8 | | | | | | | | | |
| 24.76 | 24.99 | | | | | | | | | | | | | | | | | | **31/32** | | | | | | | | |
| 25.06 | 25.36 | **25** | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25.55 | 25.78 | | | | | | | | | | | | | | | | | | **1** | | 5/8 | | | | | | 1 |
| 26.08 | 26.48 | **26** | | SP·M18 | | | | | | | | | | 16 | | | | | | | | | | | | | |
| 27.08 | 27.48 | **27** | 18 | 16 | 20 | | 18 | 20 | 18 | 16 | | 20 | | | 16 | 18 | | | | | | | | | | | |
| 27.13 | 27.36 | | | | | | | | | | | | | | | | | | **1 1/16** | | | 5/8 | | | 5/8 | | |
| 28.08 | 28.48 | **28** | | | | | | | | | | | | | | | 5/8 | 3/4 | | | | | | | | | |
| 28.75 | 29.01 | | | | | | | | | | | | | | | | | | **1 1/8** | 3/4 | 3/4 | | | 3/4 | | | 1 1/8 |
| 29.08 | 29.48 | **29** | | | | | | | | | | | | 18 | | | | | | | | | | | | | |
| 30.08 | 30.48 | **30** | 20 | 18 | | 20 | 20 | 22 | 20 | | 24 | | 20 | | | 20 | | | | | | | | | | | |
| 30.34 | 30.59 | | | | | | | | | | | | | | | | | | **1 3/16** | | | | | | | | |
| 31.93 | 32.18 | | | | | | | | | | | | | | | | | | **1 1/4** | | | 3/4 | | | 3/4 | | 1 1/4 |
| 32.08 | 32.48 | **32** | | | | | 22 | 24 | (22) | 20 | | | | 20 | 18·20 | 22 | | | | | | | | | | | |
| 33.08 | 33.48 | **33** | | | | | | | | | | | | | | | 3/4 | 7/8 | | | | | | | | | |
| 33.53 | 33.81 | | | | | | | | | | | | | | | | | | **1 5/16** | 7/8 | 7/8 | | | 7/8 | | | |
| 34.08 | 34.48 | **34** | 22 | 20 | | | | | 22 | 20 | | | | | | 24 | | | | | | | | | | | |
| 35.10 | 35.60 | **35** | | | | | | | | | | | | 22 | | | | | | | | | | | | | |
| 35.13 | 35.41 | | | | | | | | | | | | | | | | | | **1 3/8** | | | | | | | | 1 3/8 |
| 36.10 | 36.60 | **36** | 24 | 22 | | | 24 | 27 | 24 | 22 | 30 | | | | 22·24 | | | | | | | | | | | | |



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| Spanner opening SW | | Metric sizes | | | | | | | | | | | | | | | | | American sizes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Thread diameters | | | | | | | | | | | | | | | | Thread diameters · American standard ANSI | | | | | | | | | |
| | | | DIN ISO 272 | | | | ISO R 272 1968 | | German standard DIN | | | | | French standard | Swedisch standard | | | | Nuts | | | | Bolts and screws | | | | |
| Minimum dimension mm[1]) | Maximum dimension mm[1]) | Nominal size of wrench, mm | Standard hexagon | Large hexagon | Screw with flange | Nut with flange | Normal hexagon | Small hexagon | Normal hexagon[2]) | Large hexagon[3]) | Small hexagon[4]) | Screw with flange[5]) | Nut with flange[6]) | NFE 27-111-1930[8]) | Metric, large[8]) SMS 1412 | Metric, small[8]) SMS 1414 | Whitworth, large[8]) SMS 1413 | Whitworth, small[8]) SMS 1415 | Nominal Size of Wrench | **a** Normal (No) | **b** Square (No) | **c** Heavy (No) | **d** Machine Screw Nuts (No) | **e** Normal (No) | **f** Heavy (No) | **g** Machine Screws (No) | **h** Square Head Set Screws (No) |
| 36.73 | 37.01 | | | | | | | | | | | | | | | | | | **1 7/16** | | | 7/8 | | | 7/8 | | | |
| 37.10 | 37.60 | **37** | | | | | | | | | | | | | | | 7/8 | 1" | | | | | | | | | | |
| 38.10 | 38.60 | **38** | | | | | | | | | | | | 24 | | | | | | | | | | | | | | |
| 38.30 | 38.61 | | | | | | | | | | | | | | | | | | **1 1/2** | 1" | 1" | | | 1" | | | | 1 1/2 |
| 39.89 | 40.20 | | | | | | | | | | | | | | | | | | **1 9/16** | | | | | | | | | |
| 41.10 | 41.60 | **41** | 27 | 24 | | | 27 | 30 | 27 | 24 | | | | | 27 | | | | | | | | | | | | | |
| 41.50 | 41.81 | | | | | | | | | | | | | | | | | | **1 5/8** | | | 1" | | | 1" | | | |
| 42.10 | 42.60 | **42** | | | | | | | | | | | | 27 | | | 1" | 1 1/8 | | | | | | | | | | |
| 42.67 | 42.93 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 43.08 | 43.38 | | | | | | | | | | | | | | | | | | **1 11/16** | 1 1/8 | 1 1/8 | | | 1 1/8 | | | | |
| 44.70 | 45.03 | | | | | | | | | | | | | | | | | | **1 3/4** | | | | | | | | | |
| 46.10 | 46.60 | **46** | 30 | 27 | | | 30 | 33 | 30 | 27 | 36 | | | 30 | | 30 | | | | | | | | | | | | |
| 46.28 | 46.61 | | | | | | | | | | | | | | | | | | **1 13/16** | | | 1 1/8 | | | 1 1/8 | | | |
| 47.10 | 47.60 | **47** | | | | | | | | | | | | | | | 1 1/8 | 1 1/4 | | | | | | | | | | |
| 47.88 | 48.21 | | | | | | | | | | | | | | | | | | **1 7/8** | 1 1/4 | 1 1/4 | | | 1 1/4 | | | | |
| 50.10 | 50.60 | **50** | 33 | 30 | | | 33 | 36 | 33 | 30 | | | | 33 | | 33 | | | | | | | | | | | | |
| 51.08 | 51.44 | | | | | | | | | | | | | | | | | | **2"** | | | 1 1/4 | | | 1 1/4 | | | |
| 52.10 | 52.60 | **52** | | | | | | | | | | | | | | | 1 1/4 | 1 3/8 | | | | | | | | | | |
| 52.68 | 53.04 | | | | | | | | | | | | | | | | | | **2 1/16** | 1 3/8 | 1 3/8 | | | 1 3/8 | | | | |
| 54.12 | 54.72 | **54** | | | | | | | | | | | | 36 | | | | | | | | | | | | | | |
| 54.25 | 54.61 | | | | | | | | | | | | | | | | | | **2 1/8** | | | | | | | | | |
| 55.12 | 55.72 | **55** | 36 | 33 | | | 36 | 39 | 36 | | 42 | | | | 36 | | | | | | | | | | | | | |
| 55.88 | 56.26 | | | | | | | | | | | | | | | | | | **2 3/16** | | | 1 3/8 | | | 1 3/8 | | | |
| 56.12 | 56.72 | **56** | | | | | | | | | | | | | | | 1 3/8 | 1 1/2 | | | | | | | | | | |
| 57.45 | 57.84 | | | | | | | | | | | | | | | | | | **2 1/4** | 1 1/2 | 1 1/2 | | | 1 1/2 | | | | |
| 58.12 | 58.72 | **58** | | | | | | | | | | | | 39 | | | | | | | | | | | | | | |
| 60.12 | 60.72 | **60** | 39 | 36 | | | 39 | | 39 | 36 | | | | | 39 | | 1 1/2 | 1 5/8 | | | | | | | | | | |
| 60.66 | 61.06 | | | | | | | | | | | | | | | | | | **2 3/8** | | | 1 1/2 | | | 1 1/2 | | | |
| 62.23 | 62.64 | | | | | | | | | | | | | | | | | | **2 7/16** | | | | | | | | | |
| 63.12 | 63.72 | **63** | | | | | | | | | | | | 42 | | | | | | | | | | | | | | |
| 63.83 | 64.24 | | | | | | | | | | | | | | | | | | **2 1/2** | | | | | | | | | |
| 65.12 | 65.72 | **65** | 42 | 39 | | | 42 | | 42 | | 48 | | | | 42 | | 1 5/8 | 1 3/4 | | | | | | | | | | |
| 65.43 | 65.86 | | | | | | | | | | | | | | | | | | **2 9/16** | | | 1 5/8 | | | | | | |
| 67.03 | 67.46 | | | | | | | | | | | | | | | | | | **2 5/8** | | | | | 1 3/4 | | | | |
| 67.12 | 67.72 | **67** | | | | | | | | | | | | 45 | | | | | | | | | | | | | | |
| 70.12 | 70.72 | **70** | 45 | | | | 45 | | 45 | | | | | | 45 | | 1 3/4 | 1 7/8 | | | | | | | | | | |
| 70.26 | 70.69 | | | | | | | | | | | | | | | | | | **2 3/4** | | | 1 3/4 | | | 1 3/4 | | | |
| 71.12 | 71.72 | **71** | | | | | | | | | | | | 48 | | | | | | | | | | | | | | |
| 71.81 | 72.26 | | | | | | | | | | | | | | | | | | **2 13/16** | | | | | | | | | |
| 75.03 | 75.51 | | | | | | | | | | | | | | | | | | **2 15/16** | | | 1 7/8 | | | | | | |
| 75.15 | 75.85 | **75** | 48 | | | | 48 | | 48 | | 56 | | | | 48 | | 1 7/8 | 2" | | | | | | | | | | |
| 76.61 | 77.09 | | | | | | | | | | | | | | | | | | **3"** | | | | | 2" | | | | |
| 77.15 | 77.85 | **77** | | | | | | | | | | | | 52 | | | | | | | | | | | | | | |
| 79.81 | 80.31 | | | | | | | | | | | | | | | | | | **3 1/8** | | | 2" | | | 2" | | | |
| 80.15 | 80.85 | **80** | 52 | | | | 52 | | 52 | | | | | | 52 | | 2" | | | | | | | | | | | |
| 82.15 | 82.85 | **82** | | | | | | | | | | | | 56 | | | | | | | | | | | | | | |
| 85.15 | 85.85 | **85** | 56 | | | | 56 | | 56 | | | | | | | | | | | | | | | | | | | |
| 86.18 | 86.72 | | | | | | | | | | | | | | | | | | **3 3/8** | | | | | 2 1/4 | | | | |
| 88.15 | 88.85 | **88** | | | | | | | | | | | | 60 | | | | | | | | | | | | | | |
| 89.36 | 89.92 | | | | | | | | | | | | | | | | | | **3 1/2** | | | 2 1/4 | | | 2 1/4 | | | |
| 90.15 | 90.85 | **90** | 60 | | | | 60 | | 60 | | | | | | | | | | | | | | | | | | | |
| 94.15 | 94.85 | **94** | | | | | | | | | | | | 64 | | | | | | | | | | | | | | |
| 95.15 | 95.85 | **95** | 64 | | | | 64 | | 64 | | | | | | | | | | | | | | | | | | | |
| 95.76 | 96.34 | | | | | | | | | | | | | | | | | | **3 3/4** | | | | | 2 1/2 | | | | |
| 98.93 | 99.52 | | | | | | | | | | | | | | | | | | **3 7/8** | | | 2 1/2 | | | 2 1/2 | | | |
| 100.15 | 100.85 | **100** | 68 | | | | 68 | | 68 | | | | | 68 | | | | | | | | | | | | | | |
| 105.20 | 106.00 | **105** | 72 | | | | 72 | | 72 | | | | | 72 | | | | | | | | | | | | | | |
| 105.33 | 105.97 | | | | | | | | | | | | | | | | | | **4 1/8** | | | | | 2 3/4 | | | | |
| 108.51 | 109.14 | | | | | | | | | | | | | | | | | | **4 1/4** | | | 2 3/4 | | | 2 3/4 | | | |
| 110.20 | 111.00 | **110** | 76 | | | | 76 | | 76 | | | | | 76 | | | | | | | | | | | | | | |
| 114.91 | 115.57 | | | | | | | | | | | | | | | | | | **4 1/2** | | | | | 3" | | | | |
| 115.20 | 116.00 | **115** | 80 | | | | 80 | | 80 | | | | | | | | | | | | | | | | | | | |
| 116.20 | 117.00 | **116** | | | | | | | | | | | | 80 | | | | | | | | | | | | | | |
| 118.08 | 118.77 | | | | | | | | | | | | | | | | | | **4 5/8** | | | 3" | | | 3" | | | |
| 120.20 | 121.00 | **120** | 85 | | | | 85 | | 85 | | | | | | | | | | | | | | | | | | | |

**ASME/ANSI B 18.2.2-1987**

1) maximum and minimum dimensions for metric sizes according to DIN 475/2 series 1 and ISO 691 (machined tolerances), American sizes according to ANSI B 18.2.1 + ASME/ANSI B 18.2.2
2) DIN ISO 4014, 4016, 4017, 4018, 4032, 4034, 4035, 4036, 8673, 8674, 8675, 8676, 8765, sizes in brackets only DIN 439, 555, 558, 601, 609, 610, 917, 931, 933, 934, 935, 936, 937, 960, 961, 979, 980, 985, 986, 1587, 2510/5, 6330, 6331, 7967, 7968, 79900
3) DIN 6914, 6915, 7999 (SW 21 + 34)
4) DIN 561, 564
5) DIN 6921, 6922
6) DIN 6923, 6926, 6927
7) Standards prior to 1963
8) old standards

a) Hex Flat and Hex Flat Jam Nuts
Hex Nuts and Hex Jam Nuts
Hex Slotted Nuts
Hex Thick Nuts
Hex Thick Slotted Nuts
Hex Castle Nuts

b) Square Nuts

c) Heavy Square Nuts
Heavy Hex Flat Nuts
Heavy Hex Flat Jam Nuts
Heavy Hex Nuts
Heavy Hex Jam Nuts
Heavy Hex Slotted Nuts

**ANSI B 18.2.1-1981**

d) ANSI B 18.6.3 - 1972
e) Square Bolts
Hex Bolts
Hex Cap Screws
Lag Screws
f) Heavy Hex Bolts
Heavy Hex Structural Bolts
Heavy Hex Screws

g) ANSI B 18.6.3 - 1972 (R 1983)
h) ANSI B 18.6.2 - 1972 (R 1983)
* Square Bolt and Lag Screws only

SP = Spark Plug



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# Symbols used throughout this catalogue

## Symbols

- **Spanner Opening**
- **Spanner Opening for Hexagon Socket Head Screws**
- **TORX® size in mm**
- **Outside Square**
- **Inside Square**
- **Inside Hexagon**
- **Outside Hexagon**
- **Pipe Diameter, inside**
- **Pipe Diameter, outside**
- **Size of Insert Tool Carrier in mm (MANOSKOP®) (Inside Square)**
- **Size of Shell Tool Carrier in mm (MANOSKOP®) (Outside Square)**
- **Open Ring Spanner, hexagon**
- **Open Ring Spanner, bi-hexagon**
- **Socket, hexagon**
- **Socket, bi-hexagon**
- **Socket, hexagon, AS-drive**
- **Socket, bi-hexagon, AS-drive**
- **Socket, bi-square**
- **Socket, spline-drive**
- **for Socket Head Screw, hexagon**
- **for Socket Head Screw, hexagon with guide pin**
- **for Phillips-Recessed head Screws** Phillips-Recess®, registered trademark of Phillips Screw Company
- **for POZIDRIV/SUPADRIV Screws** POZIDRIV/SUPADRIV®, registered trademark of European Industrial Services Ltd.
- **for Trisquare Socket Head Screws**
- **for Inside TORX® Screws**
- **for Inside TORX® Screws with hollow drive tip**
- **for Inside TORX PLUS® Screws**
- **for 5-star screws**
- **for Outside TORX® Screws**
- TORX® registered trademark of Fa. Acument Intellectual Properties, LLC, Rockford, USA STAHLWILLE holds the Manufacturing Licence for TORX® Tools
- **for Spline Socket Head Screws** Ribe-CV®, registered trademark of Richard Bergner GmbH & Co.
- **for Slotted Head Screws**
- **for TRI-WING® Screws,** registered trademark of Phillips Screw Company
- **for TORQ-SET® Screws,** registered trademark of Phillips Screw Company
- **Diameter in mm**
- **Anti-Slip-drive**
- **High-Performance-Quality**
- **Scale Range**
- **Scale Division**
- **Weight**
- **Standard Pack (pieces)**
- **full flush cutting**
- **semi flush cutting**
- **standard bevel**
- **Safety insulated as per IEC 900 – AC 1000 V**
- **new items**

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WEEE-Reg.-Nr. DE 70431151

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