



## CATALOGUE 2020/2021

Professional tool solutions














## 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.



 **WORK**

### 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.



# 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](http://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](http://www.stahlwille.de/videos/em-click-trigger)



### Fine tooth ratchet mechanisms

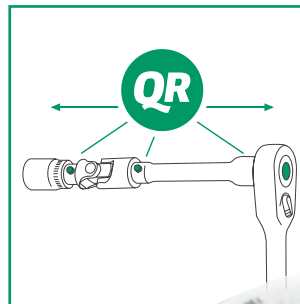
STAHLWILLE fine tooth ratchets have a specially developed, perfectly balanced mechanism with 80 teeth, ensuring maximum load capacity and, at the same time, excellent durability. With STAHLWILLE fine-tooth ratchets, no less than eight teeth engage at once, which provides smooth working action. The tight 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](http://www.stahlwille.de/videos/fine-tooth-ratchets)

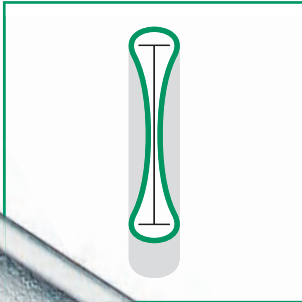
### QuickRelease

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.





# 1 FACTORY AND WORKSHOP EQUIPMENT, SETS OF TOOLS

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# The right solution for every professional. **STAHLWILLE tool trolleys.**

1



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.



## **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).





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



## GENTLE.

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

## MOBILE.

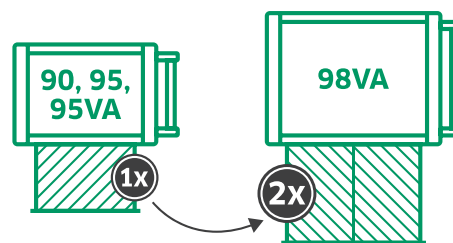
The special carpet protection features protect the bearings of the oil and acid resistant wheels (95, 95VA and 98VA).

## PRACTICAL.

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

## ROBUST.

Sturdy construction using high-grade materials to ensure durability.



## LOTS MORE.

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



Detailed information in our video:  
[www.stahlwille.de/videos/werkstattwagen](http://www.stahlwille.de/videos/werkstattwagen)

# Ready for anything. WB620 Mobile Workbench.

1



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.



## RESILIENT.

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

## 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
<b>81 200000</b>		charcoal grey, RAL 7016 56.5

### SCH 90 Drawers



Code	size	dimensions mm	for No	∆∆ kg
<b>81 49 0080</b>	<b>80SI</b>	530 x 350 x 80	90/6A	3.1
<b>81 49 0120</b>	<b>120SI</b>	530 x 350 x 120	90/6A	3.6
<b>81 49 0165</b>	<b>165SI</b>	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
<b>81 49 0000</b>	90/6A	2.8

### 910 Non-slip mat GRIPMAT

- protects the tools
- prevents them sliding and rattling



Code	Length mm	Width mm	∆∆ g
<b>8901 0003</b>	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.

## 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 ( $\varnothing$  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)

1

### 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		$\Delta$ kg
81 2000 10	95/6G		STAHLWILLE green	69
81 2000 11	95/6R		red, RAL 3020	69
81 2000 12	95/6B		blue, RAL 2703035	69
81 2000 13	95/6A		charcoal grey, RAL 7016	69
81 2000 14	95/6W		white, RAL 9010	69

### 913/4 ABS Cover

- oil and skydrol resistant



Code	for No	dimensions mm	$\Delta$ g
81 49 0004	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		$\Delta$ kg
81 2000 15	95/7G		STAHLWILLE green	72
81 2000 16	95/7R		red, RAL 3020	72
81 2000 17	95/7B		blue, RAL 2703035	72
81 2000 18	95/7A		charcoal grey, RAL 7016	72
81 2000 19	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		$\Delta$ kg
81 2000 20	95/8G		STAHLWILLE green	75
81 2000 21	95/8R		red, RAL 3020	75
81 2000 22	95/8B		blue, RAL 2703035	75
81 2000 23	95/8A		charcoal grey, RAL 7016	75
81 2000 24	95/8W		white, RAL 9010	75

### R 95 Set of wheels

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



Code	for No	$\Delta$ kg
81 49 0001	WB620; 95; 95VA	3.9



## 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 (Ø 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
81 20 0055	95VA/6G	STAHLWILLE green	73.5
81 20 0056	95VA/6R	red, RAL 3020	73.5
81 20 0057	95VA/6B	blue, RAL 2703035	73.5
81 20 0058	95VA/6A	charcoal grey, RAL 7016	73.5
81 20 0059	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
81 20 0060	95VA/7G	STAHLWILLE green	75.5
81 20 0061	95VA/7R	red, RAL 3020	75.5
81 20 0062	95VA/7B	blue, RAL 2703035	75.5
81 20 0063	95VA/7A	charcoal grey, RAL 7016	75.5
81 20 0064	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
81 20 0065	95VA/8G	STAHLWILLE green	78
81 20 0066	95VA/8R	red, RAL 3020	78
81 20 0067	95VA/8B	blue, RAL 2703035	78
81 20 0068	95VA/8A	charcoal grey, RAL 7016	78
81 20 0069	95VA/8W	white, RAL 9010	78

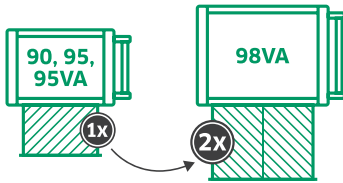
### SCH 95VA Drawers



Code	size	dimensions mm	for No	kg
81 49 3080	80SI	530 x 350 x 80	95VA/6; 95VA/7; 95VA/8	2.8
81 49 3120	120SI	530 x 350 x 120	95VA/6; 95VA/7	3.3
81 49 3160	160SI	530 x 350 x 160	95VA/6; 95VA/7; 95VA/8	3.9

## Tool trolley 98VA

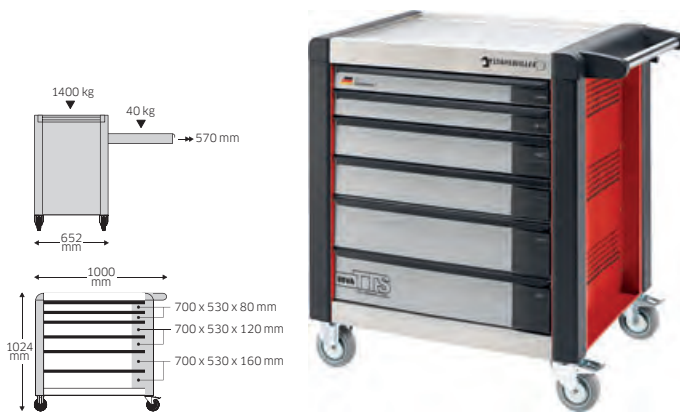
- in comparison with the 90, 95 and 95VA models, this model offers 100% more drawer volume



- 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

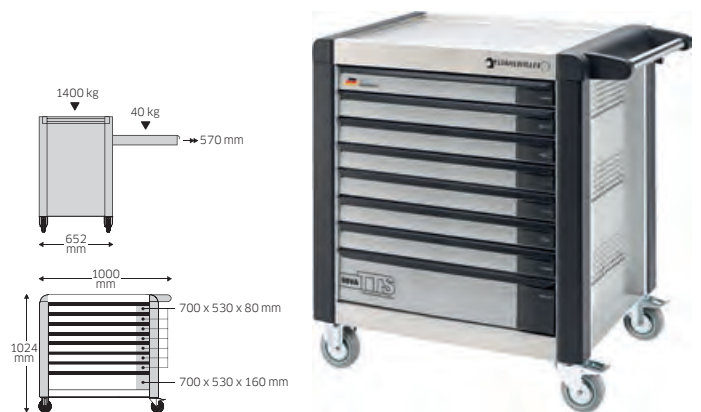
- 7 easily removable drawers mounted in full extension rails with bearing cage guidance



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

## R 98 Set of wheels

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



Code	for No	$\Delta$ kg
<b>81490005</b>	WB620, 95, 95VA, 98VA	4.5

## SCH 98VA Drawers



Code	size	dimensions mm	for No	$\Delta$ kg
<b>81492080</b>	<b>80SI</b>	700 x 530 x 80	98VA/6; 98VA/7; 98VA/8	4.4
<b>81492120</b>	<b>120SI</b>	700 x 530 x 120	98VA/6; 98VA/7	5
<b>81492160</b>	<b>160SI</b>	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	$\Delta$ kg
<b>89010053</b>	456 x 150 x 370	98VA	3.5

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



Code	No	for No	dimensions mm	$\Delta$ kg
<b>89010031</b>	<b>913/95</b>	95VA	563 x 415 x 15	2.8
<b>89010032</b>	<b>913/98</b>	98VA	741 x 570 x 15	4.8

## KH 91 Cable holder

- for storing cable and hoses



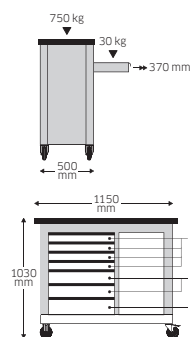
Code	for No	dimensions mm	$\Delta$ kg
<b>89010040</b>	WB620; 95; 95VA; 98VA	200 x 153 x 170	0.9

## 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 ( $\varnothing$  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	$\Delta$ kg
<b>85010620</b>	charcoal grey, RAL 7016	87

## WB620 FB Compartment shelf

- additional shelf for mobile workbench WB620



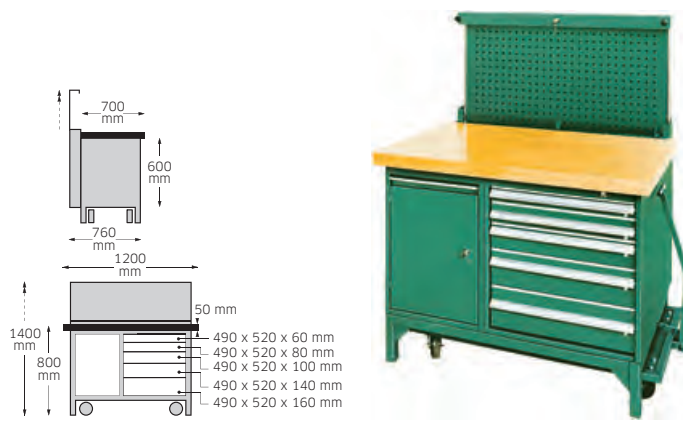
Code	colour	dimensions mm	$\Delta$ kg
<b>85110620</b>	silver, RAL 9006	452 x 394 x 8	1.3

## 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	for No	Δ	kg
<b>85030003</b>			166.5

### SDH 95 Spray-can holder

- for 4 spray-cans (max.  $\varnothing$  67 mm) and 5 screwdrivers



Code	for No	Δ	kg
<b>81490003</b>	WB620; 95; 95VA		1.4

### AB 95 Rubbish bin

- capacity approx. 9 l



Code	for No	dimensions mm	Δ	kg
<b>89010052</b>	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 ( $\varnothing$  125 mm)
- 2 with parking brakes, 2 with directional locks



Code	for No	Δ	kg
<b>89480003</b>	WB620; 95; 95VA; 98VA		5.4

### SCH 95 Drawers



Code	size	dimensions mm	for No	Δ	kg
<b>81491080</b>	<b>80SI</b>	530 x 350 x 80	WB620; 95/6; 95/7; 95/8		2.7
<b>81491120</b>	<b>120SI</b>	530 x 350 x 120	WB620; 95/6; 95/7		3.3
<b>81491160</b>	<b>160SI</b>	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	Δ	g
<b>83812070</b>	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	Δ	kg
<b>81484001</b>	WB620; 90; 95; 95VA; 98VA; 920; 922N	530 x 350 x 40		0.8

## 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
<b>81480000</b>	red, RAL 3020	920; 922N; R 920	53.6

## R 920 Set of wheels

- set consists of 2 fixed wheels and 2 pivoting,  $\varnothing$  125 mm
- 2 wheels with locking brake



Code	for No	⚖️ kg
<b>89480001</b>	920; 922N	4.3

## 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
<b>81481060</b>	<b>920 C 60</b>	530 x 350 x 48	920; 922N	3.7
<b>81481080</b>	<b>920 C 80</b>	530 x 350 x 68	920; 922N	3.3

## 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
<b>81481000</b>	350 x 530	920 C	2.6

## 922N Wheely box with drawers CONVERTA

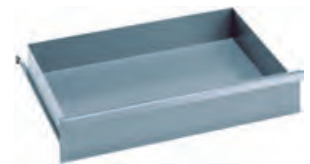
- with 4 wheels  $\varnothing$  125 mm (2 pivoting castors, one wheel with parking brake)
- with 5 silver-coloured drawers
- drawers are removable and lockable in fully extended position
- the worktop of the case is fitted with an oil and skydrol resistant plastic mat with compartments for small components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



Code	Colour	Can be combined with No	⚖️ kg
<b>96480002</b>	red, RAL 3020	920	39.5

## SCH 60-80 Drawers

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



Code	No	dimensions mm	Can be combined with No	⚖️ kg
<b>81482060</b>	<b>SCH 60</b>	530 x 350 x 60	922N	2.4
<b>81482080</b>	<b>SCH 80</b>	530 x 350 x 80	920; 922N	2.8

## 913 Cover

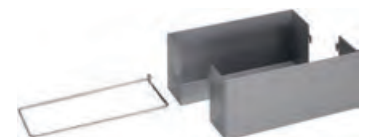
- oil and skydrol resistant



Code	for No	dimensions mm	⚖️ g
<b>89010011</b>	920; 922N	680 x 450 x 20	936

## SDH 921 Spray can and paper roll holder

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



Code	for No	⚖️ kg
<b>81483001</b>	920; 922N	1.4

## Accessories Tool Trolley, Tool Box and Mobile Workbench

1

		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
	<b>Drawers</b>													
	SCH 90-80SI	•												
	SCH 90-120SI	•												
	SCH 90-165SI	•												
	SCH 95-80SI		•	•	•									•
	SCH 95-120SI		•	•										•
	SCH 95-160SI		•	•	•									•
	SCH 95VA-80SI					•	•	•						
	SCH 95VA-120SI					•	•							
	SCH 95VA-160SI					•	•	•						
	SCH 98VA-80SI								•	•	•			
	SCH 98VA-120SI								•	•				
	SCH 98VA-160SI								•	•	•			
	SCH 60											•	•	
	SCH 80											•	•	
	<b>Drawers separators</b>													
	VE 50-150	•	•	•	•	•	•	•	•	•	•	•	•	•
	<b>Magazine drawer</b>													
	920C-SCH											•	•	
	<b>Tool magazines</b>													
	920 C 60											•	•	
	920 C 80											•	•	
	920 C 120													
	<b>Empty tray for small components</b>													
	912		•	•	•	•	•	•	•	•	•	•	•	•
	<b>Worktops</b>													
	913											•	•	
	913/4		•	•	•									
	<b>Wooden worktops</b>													
	913/95					•	•	•						
	913/98								•	•	•			
	<b>Cable holder</b>													
	KH 91		•	•	•	•	•	•	•	•	•			•
	<b>Spray can holders</b>													
	SDH 95		•	•	•	•	•	•						•
	SDH 98								•	•	•			
	SDH 921											•	•	
	<b>Rubbish bins</b>													
	AB 95		•	•	•	•	•	•						•
	AB 98								•	•	•			
	<b>Sets of wheels</b>													
	R90	•												
	R95		•	•	•	•	•	•						•
	R98		•	•	•	•	•	•	•	•	•			•
	R95/98S		•	•	•	•	•	•	•	•	•			•
	R920											•	•	

# 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**



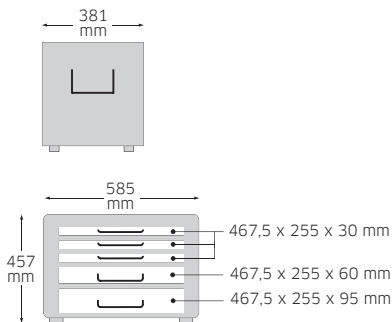
13217 TS IP67



13217 TS RF



Delivery without tools



Code	No	colour	Δ	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

# Factory and workshop equipment, sets of tools

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



- 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" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
	400	1/4" ■ 150 mm
	405/2	1/4" ■ ○ 54 mm
	405/6	1/4" ■ ○ 150 mm
	407	1/4" ■ ○ 38 mm
	412	1/4" ○ ○
	415	1/4" ■
	52	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm
	509/3	1/2" ■ ○ 75 mm
	509/5	1/2" ■ ○ 130 mm
	509/10	1/2" ■ ○ 255 mm
	510	1/2" ■ ○ 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) 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)
	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



## 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



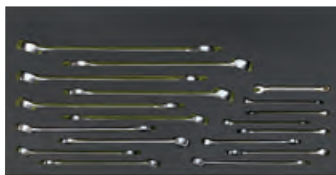
96830095



96830096



96830097



96830098



96830099

96830094	No	Content
	40	1/4" ○ 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" ■
	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
	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) 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
	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"

# Factory and workshop equipment, sets of tools

1

## TCS WT 13/18 6-24 mm



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



Code	Δ	g
<b>96830121</b>	1940	

No	Content
<b>13</b>	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	Δ	g
<b>96830125</b>	2440	

No	Content
<b>13a</b>	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	Δ	g
<b>96830128</b>	1485	

No	Content
<b>17</b>	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	Δ	g
<b>96830130</b>	2005	

No	Content
<b>240</b>	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	Δ	g
<b>96830132</b>	985	

No	Content
<b>40</b>	1/4" ○ 4; 4.5; 5; 6; 7; 8; 10; 11; 12; 13 mm
<b>405QR/2</b>	1/4" ■ ○ 54 mm
<b>405QR/6</b>	1/4" ■ ○ 150 mm
<b>407QR</b>	1/4" ■ ○ 38 mm
<b>412</b>	1/4" ○ ○
<b>415QR N</b>	1/4" ■
<b>1204/21-1</b>	4 x ⊕ 4 x ⊕ 9 x ⊕ 3 x ○
<b>3115/1</b>	1/4" ■ ●
<b>4008</b>	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	Δ	g
<b>96830117</b>	4000	

No	Content
<b>40</b>	1/4" ○ 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
<b>400</b>	1/4" ■ 150 mm
<b>404</b>	1/4" ■ 116 mm
<b>405/2</b>	1/4" ■ ○ 54 mm
<b>405/6</b>	1/4" ■ ○ 150 mm
<b>407</b>	1/4" ■ ○ 38 mm
<b>412</b>	1/4" ○ ○
<b>415QR N</b>	1/4" ■
<b>52</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm
<b>506</b>	1/2" ■ 300 mm
<b>509/2</b>	1/2" ■ 130 mm
<b>509/5</b>	1/2" ■ ○ 103 mm
<b>509/10</b>	1/2" ■ ○ 255 mm
<b>510</b>	1/2" ■ ○ 71 mm
<b>512QR N</b>	1/2" ■

### 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
<b>96830123</b>	2500

No	Content
<b>40aD</b>	1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
<b>40aDL</b>	1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
<b>402a</b>	1/4" ○ 1/4; 5/16; 3/8; 7/16; 1/2"
<b>405QR/2</b>	1/4" ■ ○ 54 mm
<b>405QR/6</b>	1/4" ■ ○ 150 mm
<b>407QR</b>	1/4" ■ ○ 38 mm
<b>409M</b>	3/8" ■ 1/4" ○
<b>415QR N</b>	1/4" ■
<b>4155GB N</b>	1/4" ○
<b>45a</b>	3/8" ○ 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 15/16; 1"
<b>46a</b>	3/8" ○ 5/8; 11/16; 3/4; 7/8"
<b>412</b>	1/4" ○ ○
<b>427QR/3</b>	3/8" ■ ○ 76 mm
<b>427QR/10</b>	3/8" ■ ○ 240 mm
<b>428QR</b>	3/8" ■ ○ 46 mm
<b>431</b>	1/4" ■ 3/8" ○
<b>432M</b>	1/2" ■ 3/8" ○
<b>435QR N</b>	3/8" ■
<b>443</b>	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
<b>96830122</b>	1500

No	Content
<b>4622SK</b>	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)
<b>4632SK</b>	PH1; PH2; PH3
<b>4650</b>	sizes T10; T15; T20; T25; T30
<b>10767H/9</b>	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
<b>96830126</b>	1610

No	Content
<b>4622SK</b>	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)
<b>4632SK</b>	PH1; PH2; PH3
<b>4650</b>	sizes T10; T15; T20; T25; T30
<b>10767a/13</b>	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
<b>96830129</b>	1320

No	Content
<b>4650</b>	sizes T10; T15; T20; T25; T30
<b>4660 VDE</b>	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)
<b>4665 VDE</b>	PH1; PH2; PH3
<b>10767H/9</b>	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
<b>96830127</b>	1400

No	Content
<b>4650</b>	sizes T10; T15; T20; T25; T30
<b>4660 VDE</b>	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)
<b>4665 VDE</b>	PH1; PH2; PH3
<b>10767a/13</b>	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"

# Factory and workshop equipment, sets of tools

1

## TCS WT 6501-6602/7



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



Code	g
<b>96830118</b>	1880

No		
	<b>65015180</b>	180 mm
	<b>65295200</b>	200 mm
	<b>65434002</b>	J2 180 mm
	<b>65454002</b>	A2 180 mm
	<b>65516240</b>	240 mm
	<b>65642250</b>	250 mm
	<b>66025160</b>	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
<b>96830131</b>	1655

No		
	<b>65015180</b>	180 mm
	<b>65295200</b>	200 mm
	<b>65434002</b>	J2 180 mm
	<b>65454002</b>	A2 180 mm
	<b>65516240</b>	240 mm
	<b>65751220</b>	230 mm
	<b>66025160</b>	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
<b>96830119</b>	1790

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

## 13219 Tool bag



- 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	g
<b>81620004</b>	500	340	220	2.3

## 13215 Backpack trolley



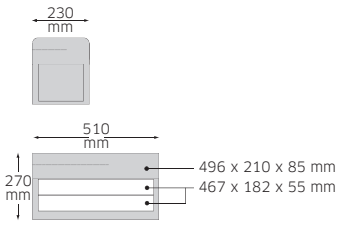
- robust tool backpack with reinforced base
- flexible use as trolley and backpack
- large, smooth-running castors and the telescopic handle ensure easy transport
- extendable, padded straps turn the trolley into a backpack
- two easily removable tool trays for the most important tools in everyday work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



Code	Width mm	Height mm	Depth mm	g
<b>81620007</b>	360	440	200	4.3

### 13216/2 Tool box

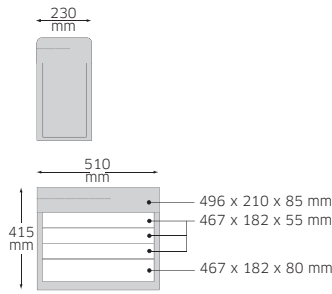
- with 2 drawers and one compartment under the lid, safety lock and dip-coated carrying handle on the lid
- wide, spring-mounted dip-coated carrying handles on the sides
- high-grade, fully extendible sturdy rails
- easily removable drawers
- the perforated panel can be arranged as required using spring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



Code	⚖️ kg
<b>81091002</b>	10.3

### 13216/4 Tool box

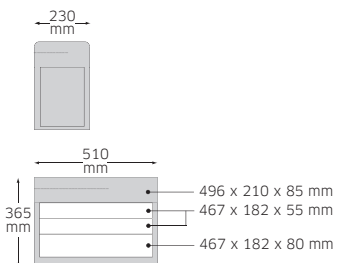
- with 4 drawers and one compartment under the lid, safety lock and sturdy textured aluminium sheeting on the lid
- wide, spring-mounted dip-coated carrying handles on the sides
- high-grade, fully extendible sturdy rails
- easily removable drawers
- the perforated panel can be arranged as required using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



Code	⚖️ kg
<b>81091004</b>	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
<b>81091003</b>	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 (ø 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
<b>81091009</b>	570	216	914	328	7.5

### 83/010 Tool box, 3 trays

- lockable by padlock



Code	Width mm	Height mm	Depth mm	⚖️ kg
<b>81060000</b>	420	150	200	3.6

### 83/09 Tool box, 5 trays

- lockable by padlock



Code	Width mm	Height mm	Depth mm	⚖️ kg
<b>81050000</b>	420	200	200	4.7

## Factory and workshop equipment, sets of tools

1

### 446/08 Tool box, 5 trays

- lockable by padlock



Code	Width mm	Height mm	Depth mm	⊘ g
<b>81070000</b>	530	200	200	5.6

### 82/013 Tool box

- with lift out tray
- lockable by padlock

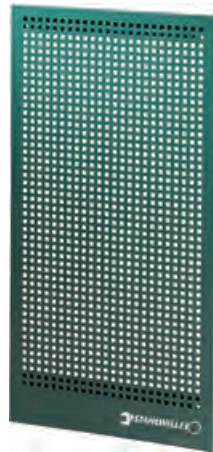


Code	Width mm	Height mm	Depth mm	⊘ g
<b>81080000</b>	545	225	180	6.9

## 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

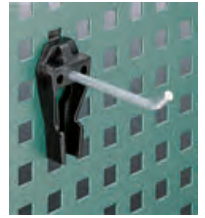


Code	Width mm	Height mm	Depth mm	⊘ g
<b>80020001</b>	500	1000	15	3.8

### 8031 Single hook

for

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



Code	size	dimensions mm	⊘ g
<b>80310030</b>	<b>1</b>	30	13
<b>80310060</b>	<b>2</b>	60	17
<b>80310090</b>	<b>3</b>	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
<b>80320030</b>	<b>1</b>	30	19
<b>80320060</b>	<b>2</b>	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
<b>80340040</b>	<b>1</b>	40 x 35	30
<b>80340050</b>	<b>2</b>	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
<b>80350017</b>	<b>1</b>	17 x 35	23
<b>80350020</b>	<b>2</b>	20 x 55	26

### 8036 Spring clip

for

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



Code	size	dimensions mm	ΔΔ g
<b>80360012</b>	<b>1</b>	12	9
<b>80360018</b>	<b>2</b>	18	10
<b>80360024</b>	<b>3</b>	24	14

### 8038 Container

for

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



Code	dimensions mm	ΔΔ g
<b>80380030</b>	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	ΔΔ g
<b>80410235</b>	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	ΔΔ g
<b>81485006</b>	<b>6</b>	6	28
<b>81485012</b>	<b>12</b>	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	ΔΔ kg
<b>81620002</b>	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	ΔΔ kg
<b>81620003</b>	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









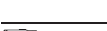







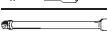



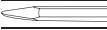
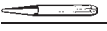


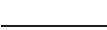
















Code	Width mm	Height mm	Depth mm	ΔΔ kg
<b>81620001</b>	460	310	180	5.9






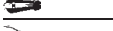



# Factory and workshop equipment, sets of tools

## Workshop sets

### 801N Large tool set





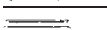
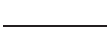







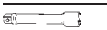
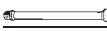



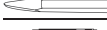




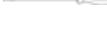









127 tools

Code	kg
<b>97841210</b>	28.6
 <b>10/12</b>	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
 <b>12/10</b>	4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11 mm
 <b>20/12</b>	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
 <b>29</b>	10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19; 21 x 23 mm
 <b>35c Pkw</b>	17; 19; 22 mm; 1/2" ■
 <b>39</b>	400 mm (2x)
 <b>39/1</b>	600 mm (2x)
 <b>50</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 30; 32 mm
 <b>51</b>	1/2" ○ 13; 16 mm-5/8"; 17; 18; 19 mm; 20.8 mm-13/16"; 22; 24; 27; 30; 32 mm
 <b>54</b>	1/2" ○ 4; 5; 6; 8; 10; 12; 14 mm
 <b>501</b>	1/2" ■ 433 mm
 <b>504/15</b>	1/2" ■ 397 mm
 <b>506</b>	1/2" ■ 300 mm
 <b>509/2</b>	1/2" ■ ○ 52 mm
 <b>509/5</b>	1/2" ■ ○ 130 mm
 <b>509/10</b>	1/2" ■ ○ 255 mm
 <b>510</b>	1/2" ■ ○ 71 mm
 <b>512</b>	1/2" ■
 <b>100/8</b>	200 mm
 <b>103</b>	150 mm
 <b>104</b>	120 x 4 mm
 <b>105</b>	100 x 10 mm
 <b>4622</b>	size 2 (1.2 x 6.5 x 125 mm) size 3 (1.2 x 8.0 x 150 mm) size 5 (2.0 x 12.0 x 200 mm)
 <b>4628</b>	size 2 (0.6 x 3.5 x 75 mm) size 4 (0.8 x 4.0 x 125 mm)
 <b>4630</b>	PH1; PH2; PH3
 <b>4724</b>	size 2 (1.0 x 5.5 x 25 mm)
 <b>65 01 6 180</b>	180 mm
 <b>65 29 6200</b>	200 mm
 <b>65 30 6200</b>	200 mm
 <b>65 43 4002</b>	J2 180 mm
 <b>65 45 4002</b>	A2 180 mm
 <b>65 54 4250</b>	255 mm
 <b>65 64 2250</b>	250 mm
 <b>66 02 6160</b>	160 mm
 <b>10670</b>	310 mm
 <b>10676</b>	85 x 12 x 315 mm
 <b>10961</b>	500 g
 <b>11095/13</b>	0.05-1 mm
 <b>12025</b>	210 mm

 <b>12030</b>	260 mm
 <b>12035</b>	210 mm
 <b>12050</b>	300 mm
 <b>12150</b>	200 mm
 <b>12200</b>	145 mm
 <b>12250</b>	
 <b>12320</b>	
 <b>12375</b>	
 <b>12935/3</b>	3 m

### 802N Large tool set

129 tools

Code	kg
<b>97840312</b>	28.1
 <b>12/10</b>	4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11 mm
 <b>13/26</b>	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
 <b>29</b>	10 x 11; 12 x 13; 14 x 15; 16 x 18; 17 x 19; 21 x 23 mm
 <b>35c Pkw</b>	17; 19; 22 mm; 1/2" ■
 <b>39</b>	400 mm (2x)
 <b>39/1</b>	600 mm (2x)
 <b>50</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 30; 32 mm
 <b>51</b>	1/2" ○ 13; 16 mm-5/8"; 17; 18; 19 mm; 20.8 mm-13/16"; 22; 24; 27; 30; 32 mm
 <b>54</b>	1/2" ○ 4; 5; 6; 8; 10; 12; 14 mm
 <b>501</b>	1/2" ■ 433 mm
 <b>504/15</b>	1/2" ■ 397 mm
 <b>506</b>	1/2" ■ 300 mm
 <b>509/2</b>	1/2" ■ ○ 52 mm
 <b>509/5</b>	1/2" ■ ○ 130 mm
 <b>509/10</b>	1/2" ■ ○ 255 mm
 <b>510</b>	1/2" ■ ○ 71 mm
 <b>512</b>	1/2" ■
 <b>100/8</b>	200 mm
 <b>103</b>	150 mm
 <b>104</b>	120 x 4 mm
 <b>105</b>	100 x 10 mm
 <b>4622</b>	size 2 (1.2 x 6.5 x 125 mm) size 3 (1.2 x 8.0 x 150 mm) size 5 (2.0 x 12.0 x 200 mm)
 <b>4628</b>	size 2 (0.6 x 3.5 x 75 mm) size 4 (0.8 x 4.0 x 125 mm)
 <b>4630</b>	PH1; PH2; PH3
 <b>4724</b>	size 2 (1.0 x 5.5 x 25 mm)
 <b>65016180</b>	180 mm
 <b>65 29 6200</b>	200 mm
 <b>65 30 6200</b>	200 mm
 <b>65 43 4002</b>	J2 180 mm
 <b>65 45 4002</b>	A2 180 mm
 <b>65 54 4250</b>	255 mm
 <b>65 64 2250</b>	250 mm
 <b>66 02 6160</b>	160 mm



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

### 803N Large tool set

164 tools

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

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

### 804N Large tool set











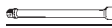




















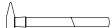

106 tools

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

# Factory and workshop equipment, sets of tools




























## 811N Car tool set

84 tools

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

## 3027 Electrician tool set

85 tools

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

## 841N Construction machinery set

129 tools

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

## Tool sets for aerospace industry









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

178 tools

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






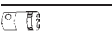























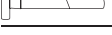

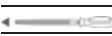

Continuation see next page

# Factory and workshop equipment, sets of tools

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



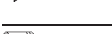
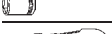








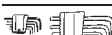















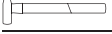



## 13205a Standard aircraft maintenance tool set

131 tools

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

## 13207a Electricians set in tool case No 13209

110 tools

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

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

57 tools

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

## 13210 Electronics set in tool case No 13209

101 tools















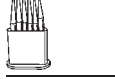





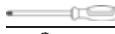






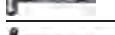









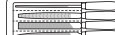
Code		kg
<b>98810301</b>		10.5
<b>13</b>	5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm	
<b>13a</b>	3/16; 7/32; 1/4; 3/8; 1/2"	
<b>16</b>	3.2; 3.5; 4; 4.5; 5 mm	
<b>4025</b>	size 4	
<b>4621</b>	size 5 (1.2 x 8.0 x 160 mm)	
<b>4630</b>	PH0; PH1; PH2	
<b>4660 VDE</b>	size 1 (0.4 x 2.5 x 75 mm) size 4 (0.8 x 4.0 x 100 mm) size 6 (1.2 x 6.5 x 150 mm)	
<b>4724</b>	size 1 (0.6 x 3.5 x 25 mm) size 2 (1.0 x 5.5 x 25 mm)	
<b>4753</b>	$\bullet$ sizes 0.7; 0.9; 1.3 mm	
<b>4797</b>	$\ominus$ 4751: 0.3 x 1.5; 0.4 x 2; 0.4 x 2.5; 0.5 x 3 mm $\oplus$ 4752: PH00; PH0; PH1	
<b>10546</b>	size 2 (0.8 x 4.0 x 100 mm) size 3 (1.0 x 5.5 x 125 mm)	
<b>10554</b>	125-250 volt	
<b>10760aCV/13</b>	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"	
<b>10765</b>	2; 2.5; 3; 4 mm	
<b>12500N</b>	6; 7 mm	
<b>018/3</b>		

<b>109</b>	sizes 1; 2; 3; 4; 5; 6; 7; 8
<b>65015160</b>	160 mm
<b>65115135</b>	140 mm
<b>65325170</b>	170 mm
<b>65365160</b>	160 mm
<b>66046110</b>	112 mm
<b>66066130</b>	125 mm
<b>66235160</b>	160 mm
<b>12900N</b>	
<b>10971</b>	
<b>12921N</b>	$\varnothing$ 50 mm
<b>13100</b>	
<b>13148</b>	
	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, $\varnothing$ 40 mm
<b>13209</b>	






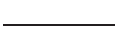
























# Factory and workshop equipment, sets of tools

1

## 13211a Sheetmetal set

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

## 13213a Engine mechanics set

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

**13214**
**Line maintenance set in tool box  
No 13216/4**
**TCS QR**

- for maintenance on aeroplanes and helicopters
- 122 tools



Code	kg
<b>98814803</b>	27.5


**96830804**

**96830795**

**96830805**

**96830806**

**96831794**

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

96830804	No	Content
	<b>432M</b>	1/2" $\blacksquare$ 3/8" $\bigcirc$
	<b>443</b>	5/16" $\bigcirc$ 3/8" $\bigcirc$
	<b>435QR N</b>	3/8" $\blacksquare$
	<b>25</b>	7 x 8; 9 x 10; 12 x 13; 17 x 19 mm
	<b>12921N</b>	$\varnothing$ 50 mm

96830795	No	Content
	<b>65 165200</b>	200 mm
	<b>65 325170</b>	170 mm
	<b>65 516240</b>	240 mm
	<b>65 642175</b>	175 mm
	<b>65 75 1220</b>	230 mm
	<b>66005160</b>	160 mm

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

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

96831794	No	Content
	<b>4632</b>	PH1; PH2; PH3
	<b>415SGB N</b>	1/4" $\bigcirc$
	<b>104</b>	120 x 2; 120 x 3; 120 x 4; 120 x 5 mm
	<b>109</b>	sizes 2; 5
	<b>10961</b>	500 g
	<b>10956</b>	$\varnothing$ 35 mm

	No	Content
	<b>453QR</b>	3/8" $\blacksquare$
	<b>1163</b>	0.6 x 4.5 mm
	<b>12600</b>	270 g
	<b>12922E</b>	$\varnothing$ 6 mm
	<b>8050</b>	size 6 (4x); size 12 (6x)
	<b>4000</b>	
	<b>12053</b>	
	<b>13216/4</b>	

**1**

# Factory and workshop equipment, sets of tools

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



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



Code	δ	kg
9881 4900		26.5



96830100



96830101



96830102



96830103



96830104



96830105

No	Content
40	1/4" ○ 4; 4.5 mm
40L	1/4" ○ 4.5 mm
40D	1/4" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
40DL	1/4" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
402	1/4" ○ 6; 7; 8; 9; 10 mm
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" ○
45	3/8" ○ 15; 17; 19; 21; 22; 24 mm
46	3/8" ○ 15; 17; 19; 21 mm

No	Content
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" ○

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	

No	Content
65 16 5200	200 mm
65 32 5170	170 mm
65 51 6240	240 mm
65 64 2175	175 mm
65 75 1220	230 mm
66 00 5160	160 mm

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

No	Content
13	30 mm
4008	1/4" ○ 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	

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	Content
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) 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" ∅ 4; 4.5 mm
	40D	1/4" ∅ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
	40L 40DL	1/4" ∅ 4.5 mm 1/4" ∅ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
	402	1/4" ∅ 6; 7; 8; 9; 10 mm
	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" ∅
	45	3/8" ∅ 15; 17; 19; 21; 22; 24 mm
	46	3/8" ∅ 15; 17; 19; 21 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" ∅
	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.

# Factory and workshop equipment, sets of tools

13214a

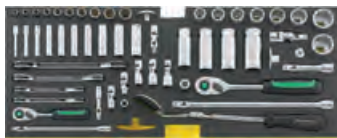
## Line maintenance set in tool box No 13216/4

TCS QR

- for maintenance on aeroplanes and helicopters
- 123 tools



Code	57
	kg
<b>98814801</b>	27.2



96835692



96830795



96830796



96831793



96831794

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

96835692	No	Content
	<b>443</b>	5/16" ○ 3/8" ○
	<b>12921N</b>	∅ 50 mm

96830795	No	Content
	<b>65165200</b>	200 mm
	<b>65325170</b>	170 mm
	<b>65516240</b>	240 mm
	<b>65642175</b>	175 mm
	<b>65751220</b>	230 mm
	<b>66005160</b>	160 mm

96830796	No	Content
	<b>13a</b>	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
	<b>4622</b>	size 1 (1.0 x 5.5 x 100 mm) size 3 (1.2 x 8.0 x 150 mm)
	<b>11095/20</b>	0.05-1 mm
	<b>12935/3</b>	3 m
	<b>12900N</b>	150 mm/6"
	<b>10767a/13</b>	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"
	<b>12320</b>	
	<b>12321</b>	
	<b>13126-1</b>	

96831794	No	Content
	<b>104</b>	120 x 2; 120 x 3; 120 x 4; 120 x 5 mm
	<b>109</b>	sizes 2; 5
	<b>415SGB N</b>	1/4" ○
	<b>4632</b>	PH1; PH2; PH3
	<b>10961</b>	500 g
	<b>10956</b>	∅ 35 mm

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

## 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" ■
	415GB 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
	65 16 5200	200 mm
	65 32 5170	170 mm
	65 51 6240	240 mm
	65 64 2175	175 mm
	65 75 1220	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

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	Content
13217-1 LR	

# Factory and workshop equipment, sets of tools

## 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

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) 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"
	65 16 5200	200 mm
	65 32 5170	170 mm
	65 51 62 40	240 mm
	65 64 21 75	175 mm
	65 75 12 20	230 mm
	6600 51 60	160 mm

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	



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

TCS QR

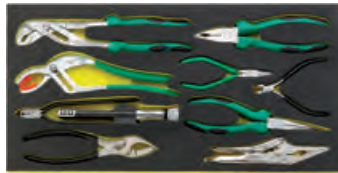
- 163 tools, in TCS inlays (Tool Control System see page 57)
- tool trolley No 13217 and accessories see pages 21, 22



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	1/4" ○ 5; 6; 7; 8; 10; 11; 12; 13 mm
	40aDL	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
	6535200	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

# Factory and workshop equipment, sets of tools

1

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

96830139	No	Content
	<b>10</b>	4 x 5; 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
	<b>13a</b>	3/8; 7/16; 1/2; 9/16; 5/8; 11/16"

96830140	No	Content
	<b>23</b>	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
	<b>4622SK</b>	size 1 (0.8 x 4.0 x 90 mm) size 3 (1.2 x 6.5 x 125 mm)
	<b>4632SK</b>	PH1; PH2; PH3
	<b>4636</b>	No 4; 8

No	Content
	<b>13217-3 TS</b>



## 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	Weight (kg)
<b>98814910</b>	28.4



96830110



96830111



96830112



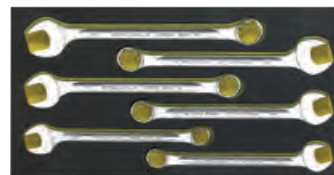
96830113










96830114



96830115



96830116

96830110	No	Content
	<b>40aD</b>	1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
	<b>40aDL</b>	1/4" ○ 3/16; 7/32; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16"
	<b>402a</b> <b>402aK</b>	1/4" ○ 1/4; 5/16; 3/8; 7/16; 1/2" 1/4" ○ 9/16"
	<b>405W/2</b>	1/4" ■ ○ 54 mm
	<b>405QR/2</b>	1/4" ■ ○ 54 mm
	<b>405QR/6</b>	1/4" ■ ○ 150 mm
	<b>407QR</b>	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
	65 16 5200	200 mm
	65 32 5170	170 mm
	65 64 2175	175 mm
	65 72 6240	240 mm
	65 75 1220	230 mm
	65 76 5231	230 mm
	66 00 5160	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) 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



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" ○ 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

96838112	No	Content
	52	1/2" ○ 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" ■ ○ 52 mm
	509/5	1/2" ■ ○ 130 mm
	509/10	1/2" ■ ○ 255 mm
	510	1/2" ■ ○ 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) 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

# Factory and workshop equipment, sets of tools

1

## 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



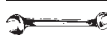
96838132




96838124





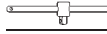

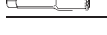



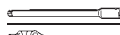








96838131









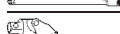



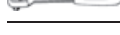

96838130	No	Content
	10	5.5 x 7; 8 x 10; 10 x 12; 11 x 13; 12 x 14; 14 x 17; 17 x 19; 18 x 21; 19 x 22; 22 x 24 mm




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

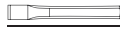


96838110	No	Content
	40	1/4"  5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
	400	1/4"  150 mm
	404	1/4"  116 mm
	405/2	1/4"  54 mm



96838110	No	Content
	405/6	1/4"  150 mm
	407	1/4"  38 mm
	412	1/4"  0 0
	415	1/4"  150 mm
	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"  150 mm

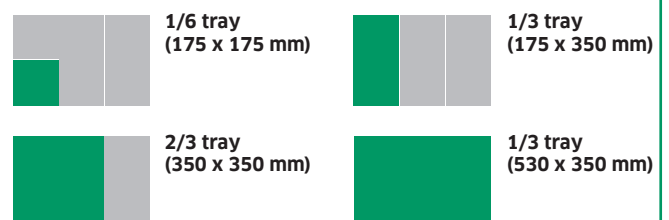
96838238	No	Content
	4620	size 1 (0.6 x 3.5 x 75 mm) size 2 (0.8 x 4.0 x 100 mm)
	4622	size 1 (1.0 x 5.5 x 100 mm) size 2 (1.2 x 6.5 x 125 mm) size 3 (1.2 x 8.0 x 150 mm)
	4632	PH1; PH2; PH3

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



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



- 175 x 350 x 60 mm
- 10 pieces

Code	⚖
<b>96838130</b>	1100 g

No	Content
<b>10</b>	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 13/5, 27-32 mm



- 530 x 350 x 30 mm
- 5 pieces

Code	⚖
<b>96838104</b>	2280 g

No	Content
<b>13</b>	27; 28; 29; 30; 32 mm

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



- 175 x 350 x 70 mm
- 10 pieces

Code	⚖
<b>96838126</b>	1515 g

No	Content
<b>10</b>	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 14/10, 6-15 mm



- 175 x 350 x 39 mm
- 10 pieces

Code	⚖
<b>96838105</b>	700 g

No	Content
<b>14</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm

### ES 13/10, 6-15 mm



- 175 x 350 x 40 mm
- 10 pieces

Code	⚖
<b>96838127</b>	525 g

No	Content
<b>13</b>	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	⚖
<b>96838106</b>	1820 g

No	Content
<b>14</b>	16; 17; 18; 19; 20; 21; 22; 24 mm

### ES 13/8, 16-24 mm



- 175 x 350 x 54 mm
- 8 pieces

Code	⚖
<b>96838128</b>	1440 g

No	Content
<b>13</b>	16; 17; 18; 19; 20; 21; 22; 24 mm

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



- 175 x 350 x 30 mm
- 8 pieces

Code	⚖
<b>96838167</b>	1266 g

No	Content
<b>20</b>	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

# Factory and workshop equipment, sets of tools

1

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



- 530 x 350 x 44 mm
- 10 pieces

Code	⚖
	g
<b>96838107</b>	2620

No	Content
<b>20</b>	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 10750/10, 6x7-20x22 mm



- 175 x 350 x 30 mm
- 10 pieces

Code	⚖
	g
<b>96838168</b>	1132

No	Content
<b>10750</b>	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
<b>10750 1/2</b>	sizes 6; 7

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



- 175 x 350 x 30 mm
- 7 pieces

Code	⚖
	g
<b>96838171</b>	860

No	Content
<b>24</b>	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
<b>96838108</b>	1020

No	Content
<b>25</b>	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
<b>96838109</b>	1185

No	Content
<b>29</b>	8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19 mm

## ES TX/32



- 175 x 350 x 40 mm
- 32 pieces

Code	⚖
	g
<b>96838166</b>	931

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

### ES 1/4" + 10760CV



- 175 x 350 x 41 mm
- 27 pieces



Code	△▽ g
<b>96838110</b>	1035

No	Content
<b>40</b>	1/4" ○ 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
<b>400</b>	1/4" ■ 150 mm
<b>404</b>	1/4" ■ 116 mm
<b>405/2</b>	1/4" ■ ○ 54 mm
<b>405/6</b>	1/4" ■ ○ 150 mm
<b>407</b>	1/4" ■ ○ 38 mm
<b>412</b>	1/4" ○ ○
<b>415</b>	1/4" ■
<b>10760CV</b>	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
<b>96838111</b>	1555

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

### ES 52/17



- 175 x 350 x 47 mm
- 17 pieces



Code	△▽ g
<b>96838112</b>	1760

No	Content
<b>52</b>	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
<b>96838113</b>	1915

No	Content
<b>506</b>	1/2" ■ 300 mm
<b>509/2</b>	1/2" ■ ○ 52 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■

### ES 54/54KK



- 175 x 350 x 38 mm
- 14 pieces



Code	△▽ g
<b>96838114</b>	1630

No	Content
<b>54</b>	1/2" ○ 4; 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
<b>54KK</b>	1/2" ○ 5; 6; 8; 10 mm

### ES 54KK/5



- 175 x 175 x 30 mm
- 5 pieces



Code	△▽ g
<b>96838165</b>	505

No	Content
<b>54KK</b>	1/2" ○ 5; 6; 7; 8; 10 mm

# Factory and workshop equipment, sets of tools

1

## ES 1054/2054



- 175 x 175 x 30 mm
- 6 pieces



Code	g
<b>96838164</b>	900

No	Content
<b>1054</b>	1/2" $\varnothing$ 8; 10; 12 mm
<b>2054</b>	1/2" $\varnothing$ 5; 6; 14 mm

## ES 54X/54TX



- 175 x 350 x 38 mm
- 16 pieces



Code	g
<b>96838115</b>	1600

No	Content
<b>54X</b>	1/2" $\varnothing$ M5; M6; M8; M10; M12; M14; M16
<b>54TX</b>	1/2" $\varnothing$ sizes T20; T25; T27; T30; T40; T45; T50; T55; T60

## ES 1054/2054TX/6



- 175 x 175 x 30 mm
- 6 pieces



Code	g
<b>96838163</b>	900

No	Content
<b>1054TX</b>	1/2" $\varnothing$ sizes T30; T50; T55; T60
<b>2054TX</b>	1/2" $\varnothing$ sizes T40; T45

## ES 2309/4



- 175 x 175 x 40 mm
- 4 pieces



Code	g
<b>96838162</b>	1145

No	Content
<b>2309</b>	1/2" $\varnothing$ 17; 19; 21; 22 mm

## ES 2309K/3



- 175 x 175 x 40 mm
- 3 pieces



Code	g
<b>96838260</b>	800

No	Content
<b>2309K</b>	1/2" $\varnothing$ 17; 19; 21 mm

## ES 55/6/4



- 530 x 350 x 83 mm
- 10 pieces



Code	g
<b>96838174</b>	7875

No	Content
<b>55</b>	3/4" $\varnothing$ 34; 36; 41; 46; 50; 55 mm
<b>552</b>	3/4" ■
<b>556</b>	3/4" ■
<b>558</b>	510 mm
<b>559/8</b>	3/4" ■ $\varnothing$ 200 mm

## ES 721/15/3/2



- 530 x 350 x 40 mm
- 6 pieces



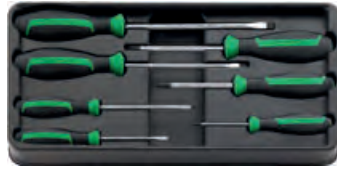
Code	g
<b>96838172</b>	5060

No	Content
<b>2309K</b>	1/2" $\varnothing$ 17; 19; 21 mm
<b>721/15 Quick</b>	30-150 N·m
<b>35c Pkw</b>	17; 19; 22 mm; ■ 1/2"
<b>10599/2</b>	245 mm

### ES 4620/4628/4630/7



- 175 x 350 x 39 mm
- 7 pieces



Code	ΔΔ g
<b>96 83 82 36</b>	530

No	Content
<b>4620</b>	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)
<b>4628</b>	size 1 (0.4 x 2.5 x 60 mm)
<b>4630</b>	PH1; PH2

### ES 4622-4734/9



- 175 x 350 x 39 mm
- 9 pieces



Code	ΔΔ g
<b>96 83 82 34</b>	865

No	Content
<b>4622</b>	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)
<b>4628</b>	size 1 (0.4 x 2.5 x 60 mm)
<b>4632</b>	PH1; PH2
<b>4724</b>	size 2 (1.0 x 5.5 x 25 mm)
<b>4734</b>	PH2

### ES 4620/4630/8



- 175 x 350 x 39 mm
- 8 pieces



Code	ΔΔ g
<b>96 83 82 37</b>	770

No	Content
<b>4620</b>	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)
<b>4630</b>	PH1; PH2; PH3

### ES 4622SK/4632SK/6



- 175 x 350 x 39 mm
- 6 pieces



Code	ΔΔ g
<b>96 83 82 19</b>	770

No	Content
<b>4622SK</b>	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)
<b>4632SK</b>	PH1; PH2

### ES 4620/4622/4632/8



- 175 x 350 x 39 mm
- 8 pieces



Code	ΔΔ g
<b>96 83 82 38</b>	770

No	Content
<b>4620</b>	size 1 (0.6 x 3.5 x 75 mm) size 2 (0.8 x 4.0 x 100 mm)
<b>4622</b>	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)
<b>4632</b>	PH1; PH2; PH3

### ES 4650/9



- 175 x 350 x 39 mm
- 9 pieces



Code	ΔΔ g
<b>96 83 82 17</b>	645

No	Content
<b>4650</b>	sizes T8; T9; T10; T15; T20; T25; T27; T30; T40

# Factory and workshop equipment, sets of tools


1

## ES 4656/9



- 175 x 350 x 39 mm
- 9 pieces

Code	g
<b>96838218</b>	645



No	Content
 <b>4656</b>	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
<b>96838235</b>	525


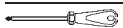
No	Content
 <b>4660 VDE</b>	size 1 (0.4 x 2.5 x 75 mm) size 3 (0.6 x 3.5 x 100 mm) size 5 (1.0 x 5.5 x 125 mm)
 <b>4665 VDE</b>	size 6 (1.2 x 6.5 x 150 mm) PH1; PH2

## ES 4820/4830/6



- 175 x 350 x 33 mm
- 6 pieces

Code	g
<b>96838134</b>	480


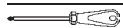
No	Content
 <b>4820</b>	size 0.6 x 3.5 x 75 mm size 0.8 x 4.0 x 100 mm size 1.0 x 5.5 x 125 mm size 1.2 x 6.5 x 150 mm
 <b>4830</b>	PH1; PH2

## ES 4820/4830/8



- 175 x 350 x 30 mm
- 8 pieces

Code	g
<b>96838135</b>	735


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

## ES 4856/9



- 175 x 350 x 30 mm
- 9 pieces

Code	g
<b>96838136</b>	705

No	Content
 <b>4856</b>	sizes T8; T9; T10; T15; T20; T25; T27; T30; T40

## ES 12500N/7



- 175 x 350 x 39 mm
- 7 pieces

Code	g
<b>96838300</b>	1060


No	Content
 <b>12500N</b>	7; 8; 9; 10; 11; 12; 13 mm

## ES 10769/7



- 175 x 350 x 35 mm
- 7 pieces

Code	g
<b>96838120</b>	450

No	Content
 <b>10769</b>	sizes T10; T15; T20; T25; T27; T30; T40



### ES 10769B/7



- 175 x 350 x 35 mm
- 7 pieces

Code	Δ
	g
<b>96838129</b>	420

No	Content
<b>10769B</b>	sizes T10; T15; T20; T25; T27; T30; T40

### ES 10768/6



- 350 x 350 x 37 mm
- 6 pieces

Code	Δ
	g
<b>96838119</b>	780

No	Content
<b>10768</b>	3; 4; 5; 6; 8; 10 mm

### ES 6501-6602/7A



- 530 x 350 x 40 mm
- 7 pieces

Code	Δ
	g
<b>96838121</b>	2085

No	Content
<b>65015180</b>	180 mm
<b>65295200</b>	200 mm
<b>65434002</b>	J2 180 mm
<b>65454002</b>	A2 180 mm
<b>65516240</b>	240 mm
<b>65642250</b>	250 mm
<b>66025160</b>	160 mm

### ES 6501-6602/7B



- 530 x 350 x 40 mm
- 7 pieces

Code	Δ
	g
<b>96838132</b>	2055

No	Content
<b>65015200</b>	200 mm
<b>65295160</b>	160 mm
<b>65434002</b>	J2 180 mm
<b>65454002</b>	A2 180 mm
<b>65516240</b>	240 mm
<b>65642250</b>	250 mm
<b>66025160</b>	160 mm

### ES 6543-6546/4



- 175 x 350 x 30 mm
- 4 pieces

Code	Δ
	g
<b>96838122</b>	700

No	Content
<b>65434002</b>	J2 180 mm
<b>65444021</b>	J21 170 mm
<b>65454002</b>	A2 180 mm
<b>65464021</b>	A21 170 mm

### ES 102/108/109/4



- 175 x 350 x 30 mm
- 4 pieces

Code	Δ
	g
<b>96838123</b>	555

No	Content
<b>102</b>	175 mm
<b>108</b>	150 x 6; 175 x 6 mm
<b>109</b>	size 6; 100 x 3.4 mm

# Factory and workshop equipment, sets of tools

1

## ES 102/105/108/8



- 175 x 350 x 33 mm
- 8 pieces



Code	ΔΔ g
<b>96838124</b>	900

No	Content
<b>102</b>	175 mm
<b>105</b>	120 x 12 mm
<b>108</b>	150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm

## ES 10670-13110/11



- 530 x 350 x 35 mm
- 11 pieces



Code	ΔΔ g
<b>96838173</b>	2120

No	Content
<b>10670</b>	265 mm
<b>12025</b>	210 mm
<b>12030</b>	260 mm
<b>12035</b>	210 mm
<b>12036</b>	260 mm
<b>12050</b>	465 mm
<b>12320</b>	
<b>12321</b>	
<b>12377</b>	
<b>12935/3</b>	3 m
<b>13110</b>	300 mm

## ES 10956/10961/2



- 175 x 350 x 45 mm
- 2 pieces



Code	ΔΔ g
<b>96838125</b>	1130

No	Content
<b>10956</b>	∅ 35 mm
<b>10961</b>	500 g

## ES 10956/10970/2



- 175 x 350 x 45 mm
- 2 pieces



Code	ΔΔ g
<b>96838131</b>	1075

No	Content
<b>10956</b>	∅ 35 mm
<b>10970</b>	1 lb.

## Empty inlay



- 175 x 350 x 30 mm



Code	ΔΔ g
<b>83812047</b>	110

## Empty inlay



- 175 x 175 x 28 mm



Code	ΔΔ g
<b>83812080</b>	55

## 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)

# The modular tool inlay system.

## Tool Control System - built-in safety.



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



### 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



- 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
96830004	13.2



96838175



96838176



96838177



96838278



96838179



96838180



96838181



96838182



96838183

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" ■

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

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

No	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)
4630	PH1; PH2; PH3

No	Content
65015180	180 mm
65295200	200 mm
65516240	240 mm
66025160	160 mm

No	Content
65434002	J2 180 mm
65454002	A2 180 mm
65642250	250 mm

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

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

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

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



TCS



- 175 x 350 x 82 mm
- 11 pieces

Code	g
<b>96830167</b>	2056

No	Content
<b>10</b>	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



TCS



- 350 x 350 x 30 mm
- 10 pieces

Code	g
<b>96838182</b>	1550

No	Content
<b>10</b>	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



TCS



- 175 x 350 x 75 mm
- 10 pieces

Code	g
<b>96830353</b>	1437

No	Content
<b>10</b>	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



TCS



- 530 x 350 x 75 mm
- 30 pieces

Code	g
<b>96830605</b>	3724

No	Content
<b>10</b>	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
<b>13</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
<b>24</b>	10 x 11 mm

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



TCS



- 175 x 350 x 66 mm
- 10 pieces

Code	g
<b>96838187</b>	1287

No	Content
<b>10</b>	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



TCS



- 175 x 350 x 70 mm
- 10 pieces

Code	g
<b>96830358</b>	1320

No	Content
<b>10</b>	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

# Factory and workshop equipment, sets of tools

1

## TCS 10a/9



TCS



- 175 x 350 x 70 mm
- 9 pieces

Code	ΔΔ g
<b>96838779</b>	1555

No	Content
<b>10a</b>	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 13/18, 6-24 mm



TCS



- 530 x 350 x 35 mm
- 18 pieces

Code	ΔΔ g
<b>96838183</b>	2040

No	Content
<b>13</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm

## TCS 13/17, 6-24 mm



TCS



- 350 x 350 x 60 mm
- 17 pieces

Code	ΔΔ g
<b>96830164</b>	1615

No	Content
<b>13</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm

## TCS 13/21, 6-34 mm



TCS



- 530 x 350 x 75 mm
- 21 pieces

Code	ΔΔ g
<b>96830174</b>	3710

No	Content
<b>13</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm

## TCS 13/17, 6-24 mm MF



TCS



- 350 x 350 x 60 mm
- 17 pieces

Code	ΔΔ g
<b>96830351</b>	1700

No	Content
<b>13</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24 mm

## TCS 13/25, 5.5-34 mm



TCS



- 530 x 350 x 80 mm
- 25 pieces

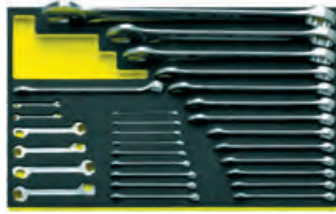
Code	ΔΔ g
<b>96832096</b>	4500

No	Content
<b>13</b>	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



TCS



- 530 x 350 x 80 mm
- 29 pieces

Code	ΔΔ g
<b>96830193</b>	3752

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

### TCS 13a/19



TCS



- 350 x 350 x 55 mm
- 19 pieces

Code	ΔΔ g
<b>96838778</b>	2000

No	Content
<b>13a</b>	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



TCS



- 530 x 350 x 35 mm
- 23 pieces

Code	ΔΔ g
<b>96830885</b>	2800

No	Content
<b>13a</b>	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



TCS



- 175 x 350 x 30 mm
- 5 pieces

Code	ΔΔ g
<b>96838188</b>	1065

No	Content
<b>14</b>	17; 18; 19; 20; 21 mm

### TCS 14/8, 8-16 mm



TCS



- 175 x 350 x 30 mm
- 8 pieces

Code	ΔΔ g
<b>96838189</b>	660

No	Content
<b>14</b>	8; 10; 11; 12; 13; 14; 15; 16 mm

### TCS 14/18, 6-24 mm



TCS



- 350 x 350 x 60 mm
- 18 pieces

Code	ΔΔ g
<b>96838750</b>	2348

No	Content
<b>14</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24 mm

# Factory and workshop equipment, sets of tools

1

## TCS 14/21, 6-36 mm



TCS



- 530 x 350 x 75 mm
- 21 pieces

Code Δ  
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



TCS



- 175 x 350 x 45 mm
- 12 pieces

Code Δ  
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



TCS



- 175 x 350 x 45 mm
- 8 pieces

Code Δ  
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



TCS



- 175 x 350 x 45 mm
- 8 pieces

Code Δ  
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



TCS



- 350 x 350 x 45 mm
- 10 pieces

Code Δ  
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



TCS



- 175 x 350 x 35 mm
- 7 pieces

Code Δ  
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



TCS



- 175 x 350 x 30 mm
- 7 pieces

Code Δ  
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



TCS



- 175 x 350 x 35 mm
- 6 pieces

Code Δ  
g

**96838774** 1163

No	Content
240	10; 11; 13; 14; 17; 19 mm



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



TCS



- 175 x 350 x 35 mm
- 6 pieces

Code	△△ g
<b>96838764</b>	1079

No	Content
<b>29</b>	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

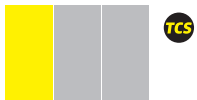


- 175 x 350 x 40 mm
- 7 pieces

Code	△△ g
<b>96830195</b>	1520

No	Content
<b>29</b>	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



TCS



- 175 x 350 x 30 mm
- 3 pieces

Code	△△ g
<b>96838797</b>	920

No	Content
<b>4025</b>	sizes 6; 8; 10

### TCS 1/4" + 10760CV



TCS



- 175 x 350 x 43 mm
- 27 pieces

Code	△△ g
<b>96838176</b>	987

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

### TCS 4026/3



TCS



- 175 x 350 x 30 mm
- 3 pieces

Code	△△ g
<b>96838796</b>	908

No	Content
<b>4026</b>	sizes 6; 8; 10

### TCS 1/4" + 10760CV QR



TCS

QR

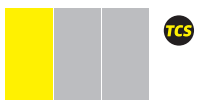


- 175 x 350 x 43 mm
- 27 pieces

Code	△△ g
<b>96830364</b>	987

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

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



TCS



- 175 x 350 x 40 mm
- 10 pieces

Code	△△ g
<b>96838756</b>	1130

No	Content
<b>10750</b>	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
<b>10750 1/2</b>	sizes 6; 7

# Factory and workshop equipment, sets of tools

1

## TCS 40/41/44/8



- 175 x 350 x 45 mm
- 33 pieces

Code	△▽ g
<b>96830217</b>	715

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

## TCS 40/35/9



- 175 x 350 x 40 mm
- 44 pieces

Code	△▽ g
<b>96830601</b>	1045

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

## TCS 40/41/44/8QR

NEW



- 175 x 350 x 45 mm
- 33 pieces

Code	△▽ g
<b>96830365</b>	715

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

## TCS 40/35/9QR

NEW



- 175 x 350 x 40 mm
- 44 pieces

Code	△▽ g
<b>96830366</b>	1045

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

### TCS 4008/8/52



TCS



- 175 x 350 x 50 mm
- 60 pieces

Code	△△ g
<b>96838773</b>	665

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



TCS



- 175 x 350 x 45 mm
- 22 pieces

Code	△△ g
<b>96838752</b>	1465

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

### TCS 456/16/6QR

NEW



TCS QR



- 175 x 350 x 45 mm
- 22 pieces

Code	△△ g
<b>96830367</b>	1465

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

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



TCS



- 175 x 350 x 40 mm
- 24 pieces

Code	△△ g
<b>96838772</b>	1188

No	Content
<b>49</b>	3/8" ○ 4; 5; 6; 7; 8; 10 mm
<b>1049</b>	3/8" ○ 7 mm
<b>2049</b>	3/8" ○ 4; 5; 6; 8; 10 mm
<b>45TX</b>	3/8" ○ sizes E5; E6; E7; E8; E10; E12
<b>49TX</b>	3/8" ○ sizes T10; T15; T20; T25; T30; T40

# Factory and workshop equipment, sets of tools

1

## TCS 456/16/7



- 175 x 350 x 40 mm
- 23 pieces

Code	ΔΔ g
<b>96830218</b>	1400

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

## TCS 456/16/4 MF QR



- 175 x 350 x 45 mm
- 20 pieces

Code	ΔΔ g
<b>96830371</b>	1123

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

## TCS 456/16/7QR



- 175 x 350 x 40 mm
- 23 pieces

Code	ΔΔ g
<b>96830370</b>	1400

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

## TCS 456/31/8



- 350 x 350 x 32 mm
- 39 pieces

Code	ΔΔ g
<b>96830602</b>	2701

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

## TCS 456/16/4 MF



- 175 x 350 x 45 mm
- 20 pieces

Code	ΔΔ g
<b>96830357</b>	1123

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

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



- 175 x 350 x 35 mm
- 6 pieces



Code	g
<b>96838175</b>	1845

No	Content
<b>506</b>	1/2" ■ 300 mm
<b>509/2</b>	1/2" ■ ○ 52 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■

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

NEW



- 175 x 350 x 40 mm
- 9 pieces



Code	g
<b>96830363</b>	2364

No	Content
<b>506QR</b>	1/2" ■ 300 mm
<b>509QR/2</b>	1/2" ■ ○ 52 mm
<b>509QR/5</b>	1/2" ■ ○ 130 mm
<b>509QR/10</b>	1/2" ■ ○ 255 mm (2x)
<b>510QR</b>	1/2" ■ ○ 80 mm
<b>512QR N</b>	1/2" ■
<b>513</b>	3/8" ■ 1/2" ○
<b>514</b>	3/4" ■ 1/2" ○

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

NEW



- 175 x 350 x 35 mm
- 6 pieces



Code	g
<b>96830362</b>	1845

No	Content
<b>506QR</b>	1/2" ■ 300 mm
<b>509QR/2</b>	1/2" ■ ○ 52 mm
<b>509QR/5</b>	1/2" ■ ○ 130 mm
<b>509QR/10</b>	1/2" ■ ○ 255 mm
<b>510QR</b>	1/2" ■ ○ 80 mm
<b>512QR N</b>	1/2" ■

### TCS 52/14/4



- 175 x 350 x 50 mm
- 18 pieces



Code	g
<b>96838781</b>	2510

No	Content
<b>52</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24; 27; 30 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■

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



- 175 x 350 x 40 mm
- 9 pieces



Code	g
<b>96830603</b>	2364

No	Content
<b>506</b>	1/2" ■ 300 mm
<b>509/2</b>	1/2" ■ ○ 52 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm (2x)
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■
<b>513</b>	3/8" ■ 1/2" ○
<b>514</b>	3/4" ■ 1/2" ○

### TCS 52/14/4QR

NEW



- 175 x 350 x 50 mm
- 18 pieces



Code	g
<b>96830352</b>	2510

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

# Factory and workshop equipment, sets of tools

1

## TCS 50/52/30/6 MF



TCS



- 350 x 350 x 70 mm
- 36 pieces

Code	ΔΔ g
<b>96830354</b>	4604

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

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



TCS

QR

NEW



- 350 x 350 x 70 mm
- 36 pieces

Code	ΔΔ g
<b>96830360</b>	4604

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

## TCS 50/51/52/32



TCS



- 175 x 350 x 50 mm
- 32 pieces

Code	ΔΔ g
<b>96838191</b>	2950

No	Content
<b>50</b>	1/2" ○ 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm
<b>51</b>	1/2" ○ 22; 27 mm
<b>52</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm

## TCS 51/11



TCS



- 175 x 350 x 50 mm
- 11 pieces

Code	ΔΔ g
<b>96838776</b>	2345

No	Content
<b>51</b>	1/2" ○ 10; 13; 15; 17; 18; 19; 22; 24; 27; 30; 32 mm

## TCS 52/17



TCS



- 175 x 350 x 40 mm
- 17 pieces

Code	ΔΔ g
<b>96838177</b>	1605

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

## TCS 52/18 MF



TCS



- 175 x 350 x 55 mm
- 18 pieces

Code	ΔΔ g
<b>96830359</b>	1850

No	Content
<b>52</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32; 34 mm

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



TCS



- 530 x 350 x 60 mm
- 97 pieces

Code	g
<b>96832095</b>	7000

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

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



TCS



- 530 x 350 x 70 mm
- 108 pieces

Code	g
<b>96830192</b>	7770

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

# Factory and workshop equipment, sets of tools

1

## TCS 50a/17



- 175 x 350 x 40 mm
- 17 pieces

Code	Δ
	g
<b>96838780</b>	1685

No	Content
<b>50a</b>	1/2" ⌀ 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	Δ
	g
<b>96830163</b>	1830

No	Content
<b>54</b>	1/2" ⌀ 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
<b>2309K</b>	1/2" ⌀ 17; 19 mm
<b>12506</b>	6; 7 mm

## TCS 50TX/54TX/17



- 175 x 350 x 40 mm
- 17 pieces

Code	Δ
	g
<b>96838763</b>	1415

No	Content
<b>50TX</b>	1/2" ⌀ sizes E10; E11; E12; E14; E16; E18; E20; E24
<b>54TX</b>	1/2" ⌀ sizes T20; T25; T27; T30; T40; T45; T50; T55; T60

## TCS 54/54X/16



- 175 x 350 x 35 mm
- 16 pieces

Code	Δ
	g
<b>96838762</b>	1745

No	Content
<b>54</b>	1/2" ⌀ 4; 5; 6; 7; 8; 10; 12; 14; 17 mm
<b>54X</b>	1/2" ⌀ sizes M5; M6; M8; M10; M12; M14; M16

## TCS 54/54TX/18



- 175 x 350 x 40 mm
- 18 pieces

Code	Δ
	g
<b>96838782</b>	1665

No	Content
<b>54</b>	1/2" ⌀ 4; 5; 6; 7; 8; 10; 12; 14; 17 mm
<b>54TX</b>	1/2" ⌀ sizes T20; T25; T27; T30; T40; T45; T50; T55; T60

## TCS 1054/2054/10



- 175 x 350 x 40 mm
- 10 pieces

Code	Δ
	g
<b>96838760</b>	1272

No	Content
<b>1054</b>	1/2" ⌀ 8; 10; 12 mm
<b>2054</b>	1/2" ⌀ 5; 6 mm
<b>1054TX</b>	1/2" ⌀ sizes T30; T50; T55
<b>2054TX</b>	1/2" ⌀ sizes T40; T45



### TCS 55/11/6



- 530 x 350 x 90 mm
- 17 pieces

Code	△ g
<b>96830221</b>	10100

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

### TCS TX/57 MF N



- 350 x 350 x 75 mm
- 55 pieces

Code	△ g
<b>96830450</b>	2060

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

### TCS 50IMP/19/2



- 175 x 350 x 50 mm
- 21 pieces

Code	△ g
<b>96838791</b>	3055

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

### TCS 50IMP/51IMP/19



- 170 x 350 x 50 mm
- 19 pieces

Code	△ g
<b>96838777</b>	3960

No	Content
<b>50IMP</b>	1/2" ○ 10; 13; 15; 16; 17; 18; 19; 21; 22; 24; 27 mm
<b>51IMP</b>	1/2" ○ 13; 15; 17; 18; 19; 21; 22; 24 mm

### TCS 54IMP/2307TX/15



- 175 x 350 x 40 mm
- 15 pieces

Code	△ g
<b>96838792</b>	1285

No	Content
<b>54IMP</b>	1/2" ○ 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
<b>2307TX</b>	1/2" ○ sizes T30; T40; T45; T50; T55; T60

# Factory and workshop equipment, sets of tools

1

## TCS 4620/4630



- 175 x 350 x 35 mm
- 7 pieces



Code	Δ	g
<b>96838278</b>	590	

No	Content
<b>4620</b>	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)
<b>4630</b>	PH1; PH2; PH3

## TCS 4620/4640



- 175 x 350 x 40 mm
- 7 pieces



Code	Δ	g
<b>96838784</b>	410	

No	Content
<b>4620</b>	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)
<b>4640</b>	PZ1; PZ2; PZ3

## TCS 4620/4660VDE+10767



- 530 x 350 x 35 mm
- 27 pieces



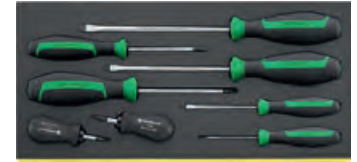
Code	Δ	g
<b>96831168</b>	2200	

No	Content
<b>4620</b>	size 1 (0.6 x 3.5 x 75 mm) size 2 (0.8 x 4.0 x 100 mm) size 4 (1.2 x 6.5 x 150 mm) size 5 (1.6 x 8.0 x 175 mm) size 6 (1.6 x 10.0 x 200 mm) size 7 (2.0 x 12.0 x 200 mm)
<b>4628</b>	size 1 (0.4 x 2.5 x 60 mm)
<b>4630</b>	PH1; PH2; PH3
<b>4632</b>	PH4
<b>4640</b>	PZ0; PZ1; PZ2
<b>4660 VDE</b>	size 1 (0.4 x 2.5 x 75 mm)
<b>4724</b>	size 2 (1.0 x 5.5 x 25 mm)
<b>4734</b>	PH2
<b>4744</b>	PZ1
<b>10767/9</b>	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	Δ	g
<b>96838769</b>	503	

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

## TCS 4620/4660VDE



- 530 x 350 x 40 mm
- 18 pieces



Code	Δ	g
<b>96831179</b>	1689	

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

### TCS 4621/4734/16



TCS



- 530 x 350 x 40 mm
- 16 pieces

Code	ΔΔ g
<b>96 83 20 98</b>	1490

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

### TCS 4622/4650+10760+10766



TCS



- 530 x 350 x 40 mm
- 36 pieces

Code	ΔΔ g
<b>96 83 11 96</b>	1895

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

### TCS 4622/4632



TCS



- 175 x 350 x 35 mm
- 6 pieces

Code	ΔΔ g
<b>96 83 87 83</b>	845

No	Content
<b>4622</b>	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)
<b>4632</b>	PH2; PH3

### TCS 4650



TCS



- 175 x 350 x 35 mm
- 8 pieces

Code	ΔΔ g
<b>96 83 87 67</b>	340

No	Content
<b>4650</b>	sizes T8; T9; T10; T15; T20; T25; T27; T30

### TCS 4660/4665 VDE



TCS



- 175 x 350 x 40 mm
- 6 pieces

Code	ΔΔ g
<b>96 83 87 66</b>	391

No	Content
<b>4660 VDE</b>	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)
<b>4665 VDE</b>	PH1; PH2

### TCS 4665/4670 VDE



TCS



- 175 x 350 x 40 mm
- 7 pieces

Code	ΔΔ g
<b>96 83 87 85</b>	622

No	Content
<b>4665 VDE</b> <b>4670 VDE</b>	PH0; PH1; PH2; PH3 PZ0; PZ1; PZ2

# Factory and workshop equipment, sets of tools

1

## TCS 4724/4840+10767



TCS



- 530 x 350 x 45 mm
- 24 pieces

Code Δ  
g

**96830706** 1755

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

## TCS 4820/4830



TCS



- 175 x 350 x 35 mm
- 7 pieces

Code Δ  
g

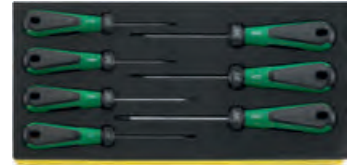
**96838184** 555

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

## TCS 4856



TCS



- 175 x 350 x 40 mm
- 7 pieces

Code Δ  
g

**96838755** 447

No	Content
<b>4856</b>	sizes T8; T9; T10; T15; T20; T25; T30

## TCS 12500N/5



TCS



- 175 x 350 x 45 mm
- 5 pieces

Code Δ  
g

**96838757** 730

No	Content
<b>12500N</b>	7; 8; 10; 12; 13 mm

## TCS 12507-2K/5



TCS



- 175 x 350 x 40 mm
- 5 pieces

Code Δ  
g

**96838761** 792

No	Content
<b>12507-2K</b>	7; 8; 10; 12; 13 mm

### TCS 10760-10771/26



TCS



- 175 x 350 x 35 mm
- 26 pieces

Code ΔΔ  
g  
**96 83 87 88** 1000

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

### TCS 10768-2K/6



TCS



- 350 x 350 x 40 mm
- 6 pieces

Code ΔΔ  
g  
**96 83 87 53** 792

No	Content
<b>10768-2K</b>	3; 4; 5; 6; 8; 10 mm

### TCS 10765/10768/12507/19



TCS



- 530 x 350 x 30 mm
- 19 pieces

Code ΔΔ  
g  
**96 83 06 21** 1610

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

### TCS 10769+10771/17



TCS



- 350 x 350 x 30 mm
- 17 pieces

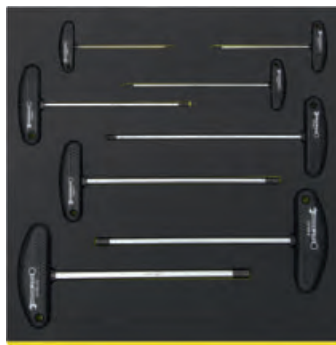
Code ΔΔ  
g  
**96 83 20 99** 940

No	Content
<b>10769</b>	sizes T9; T10; T15; T20; T25; T30; T40; T45; T50
<b>10771/8</b>	sizes T9; T10; T15; T20; T25; T27; T30; T40

### TCS 10768/8



TCS



- 350 x 350 x 40 mm
- 8 pieces

Code ΔΔ  
g  
**96 83 87 86** 800

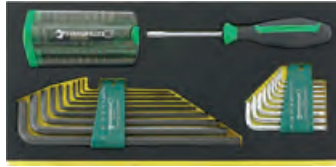
No	Content
<b>10768</b>	2; 2.5; 3; 4; 5; 6; 8; 10 mm



# Factory and workshop equipment, sets of tools

1

## TCS 1202/4000/10766/38



- 175 x 350 x 45 mm
- 38 pieces

Code	Δ∇ g
<b>96838768</b>	863

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

## TCS 4751/4752



- 175 x 350 x 35 mm
- 9 pieces

Code	Δ∇ g
<b>96838787</b>	275

No	Content
<b>4751</b>	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)
<b>4752</b>	PH00; PH0; PH1
<b>65406120</b>	
<b>66046110</b>	

## TCS 6501-6602/3

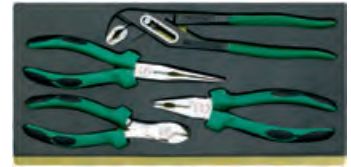


- 175 x 350 x 40 mm
- 3 pieces

Code	Δ∇ g
<b>96838775</b>	1125

No	Content
<b>65015200</b>	200 mm
<b>65516300</b>	302 mm
<b>66025180</b>	180 mm

## TCS 6501-6602/4



- 175 x 350 x 35 mm
- 4 pieces

Code	Δ∇ g
<b>96838179</b>	1070

No	Content
<b>65015180</b>	180 mm
<b>65295200</b>	200 mm
<b>65516240</b>	240 mm
<b>66025160</b>	160 mm

## TCS 6501-6602/4N



- 175 x 350 x 35 mm
- 4 pieces

Code	Δ∇ g
<b>96830622</b>	1145

No	Content
<b>65015180</b>	180 mm
<b>65295200</b>	200 mm
<b>65726240</b>	240 mm
<b>66025160</b>	160 mm

## TCS 6534-6545/6



- 350 x 350 x 30 mm
- 6 pieces

Code	Δ∇ g
<b>96832100</b>	1070

No	Content
<b>65345280</b>	280 mm
<b>65355200</b>	200 mm
<b>65434001</b>	J1 140 mm
<b>65434002</b>	J2 180 mm
<b>65454001</b>	A1 140 mm
<b>65454002</b>	A2 180 mm

### TCS 6543-6564/3



TCS



- 175 x 350 x 30 mm
- 3 pieces

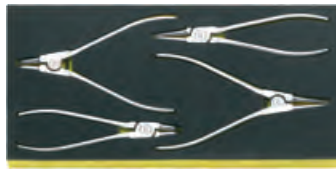
Code	△▽ g
<b>96838180</b>	975

No		
<b>65434002</b>	J2	180 mm
<b>65454002</b>	A2	180 mm
<b>65642250</b>		250 mm

### TCS 6543-6546/4



TCS

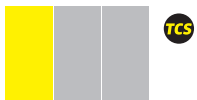


- 175 x 350 x 30 mm
- 4 pieces

Code	△▽ g
<b>96830608</b>	626

No		
<b>65434002</b>	J2	180 mm
<b>65444021</b>	J21	170 mm
<b>65454002</b>	A2	180 mm
<b>65464021</b>	A21	170 mm

### TCS 6501-6600/3 VDE



TCS



- 175 x 350 x 40 mm
- 3 pieces

Code	△▽ g
<b>96838770</b>	725

No		
<b>65017180</b>		180 mm
<b>65297200</b>		200 mm
<b>66007160</b>		160 mm

### TCS 102-108/11



TCS



- 175 x 350 x 33 mm
- 11 pieces

Code	△▽ g
<b>96838754</b>	1665

No	Content
<b>102</b>	150; 200; 250 mm
<b>105</b>	120 x 10; 120 x 12 mm
<b>108</b>	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



TCS



- 530 x 350 x 45 mm
- 16 pieces

Code	△▽ g
<b>96830609</b>	3715

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

### TCS 102-108/10961/10



TCS



- 175 x 350 x 40 mm
- 10 pieces

Code	△▽ g
<b>96830361</b>	1569

No	Content
<b>102</b>	200 mm
<b>105</b>	120 x 12 mm
<b>108</b>	115 x 2; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 175 x 4; 200 x 8 mm
<b>10961</b>	500 g

# Factory and workshop equipment, sets of tools

1

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



TCS



- 530 x 350 x 60 mm
- 13 pieces

Code	⚖
	g
<b>96830177</b>	5800

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

## TCS 102-108/10959/10961 MF



TCS



- 530 x 350 x 40 mm
- 12 pieces

Code	⚖
	g
<b>96830355</b>	3343

	No	Content
	<b>102</b>	200 mm
	<b>103</b>	150 mm
	<b>105</b>	120 x 10 mm
	<b>108</b>	150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm
	<b>10959</b>	∅ 40 mm
	<b>10961</b>	500; 800 g
	<b>12718</b>	

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



TCS



- 530 x 350 x 40 mm
- 13 pieces

Code	⚖
	g
<b>96830226</b>	3730

	No	Content
	<b>102</b>	200 mm
	<b>103</b>	150 mm
	<b>105</b>	120 x 10 mm
	<b>108</b>	150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8; 200 x 8 mm
	<b>10959</b>	∅ 40 mm
	<b>10961</b>	500; 800 g
	<b>12718</b>	

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



TCS



- 530 x 350 x 55 mm
- 18 pieces

Code	⚖
	g
<b>96830620</b>	3653

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



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

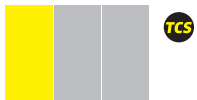


- 175 x 350 x 40 mm
- 6 pieces

Code	△▽ g
<b>96838181</b>	1605

No	Content
<b>102</b>	175 mm
<b>108</b>	150 x 6; 175 x 6 mm
<b>109</b>	size 6; 100 x 3.4 mm
<b>10956</b>	∅ 35 mm
<b>10961</b>	500 g

### TCS 11095-13110/8



- 175 x 350 x 40 mm
- 8 pieces

Code	△▽ g
<b>96838789</b>	700

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

### TCS 12025-13110/11



- 530 x 350 x 35 mm
- 11 pieces

Code	△▽ g
<b>96838759</b>	2410

No	Content
<b>12025</b>	210 mm
<b>12030</b>	260 mm
<b>12035</b>	210 mm
<b>12036</b>	260 mm
<b>12050</b>	300 mm
<b>12320</b>	
<b>12321</b>	
<b>12718</b>	
<b>12935/3</b>	3 m
<b>12965N</b>	
<b>13110</b>	300 mm

### TCS 10356-12965/5



- 175 x 350 x 40 mm
- 5 pieces

Code	△▽ g
<b>96838790</b>	595

No	Content
<b>10356</b>	40 mm
<b>10356R</b>	10 pieces
<b>12053</b>	158 mm
<b>12320</b>	
<b>12965</b>	

### TCS 1/3 MF



- 175 x 350 x 30 mm
- empty inlay

Code	△▽ g
<b>83820360</b>	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.



## 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.



## 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.



## INFORMATIVE.

You can find more details on the POS system in our special POS brochure - visit [www.stahlwille.de/broschuere-und-flyer/de/stahlwille-pos.pdf](http://www.stahlwille.de/broschuere-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.

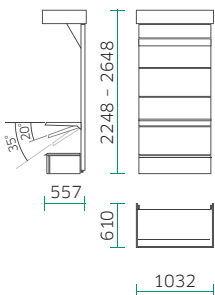


## EXTENSIVE.

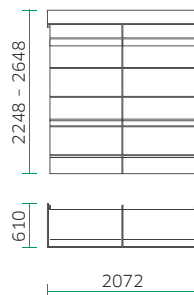
The broad range of accessories available for the system makes it easy to fine-tune it on-site if needed. There are also specially designed holders for ratchets, extensions and many more items.

## SIMPLE.

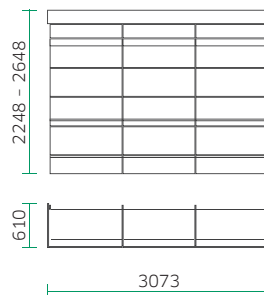
Step-by-step video guidance - to ensure uncomplicated, smooth assembly - visit [www.stahlwille.de/videos/pos-montage](http://www.stahlwille.de/videos/pos-montage)



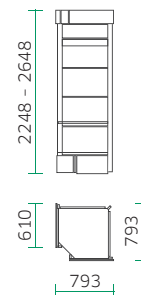
1 m system



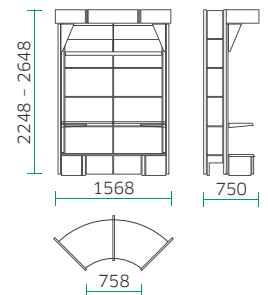
2 m system



3 m system



Corner display unit



Curved back wall



# 2 SPANNERS

Double open ended spanners  
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Combination spanners  
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Double ended ring spanners  
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Double ended open ring spanners  
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Ratchet wrenches  
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Double ended flexi-joint spanners  
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Heavy-duty ring spanners  
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Striking face ring spanners  
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Striking face open ended spanners  
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Single-end spanners  
» Page 104



Box spanners  
» Page 105



# 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.



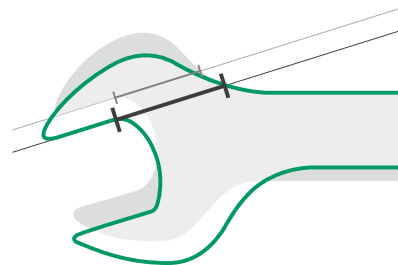


## STRONGER.

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.



— STAHLWILLE spanners  
— Conventional spanners

## 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.

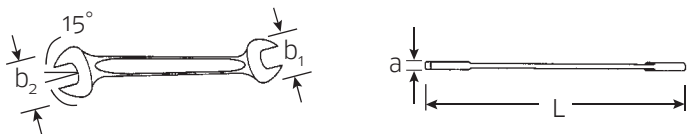
Our very tight manufacturing tolerances and reproducible dimensional accuracy ensure that one STAHLWILLE spanner is as close-fitting as the next. In this way, both open-jaw and ring spanners will always firmly hug the fastener head - for excellent power-lock.



# Spanners

## 10 Double open ended spanners

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



Code	Ø mm	L mm	b <sub>1</sub> mm	b <sub>2</sub> 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	Ø"	L mm	b <sub>1</sub> mm	b <sub>2</sub> 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 <sup>1)</sup>	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

<sup>1)</sup> packed in carton



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



- 175 x 350 x 60 mm
- 10 pieces

Code	ΔΔ g
<b>96838130</b>	1100

No	Content
<b>10</b>	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

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



TCS



- 175 x 350 x 75 mm
- 10 pieces

Code	ΔΔ g
<b>96830353</b>	1437

No	Content
<b>10</b>	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

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



- 175 x 350 x 70 mm
- 10 pieces

Code	ΔΔ g
<b>96838126</b>	1515

No	Content
<b>10</b>	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, 6x7-24x27 mm



TCS



- 175 x 350 x 66 mm
- 10 pieces

Code	ΔΔ g
<b>96838187</b>	1287

No	Content
<b>10</b>	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, 6x7-30x32 mm



TCS



- 350 x 350 x 30 mm
- 10 pieces

Code	ΔΔ g
<b>96838182</b>	1550

No	Content
<b>10</b>	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, 6x7-24x27 mm MF



TCS



- 175 x 350 x 70 mm
- 10 pieces

Code	ΔΔ g
<b>96830358</b>	1320

No	Content
<b>10</b>	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



TCS



- 175 x 350 x 82 mm
- 11 pieces

Code	ΔΔ g
<b>96830167</b>	2056

No	Content
<b>10</b>	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

# Spanners

## TCS 10+13+24/30



TCS



- 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



TCS



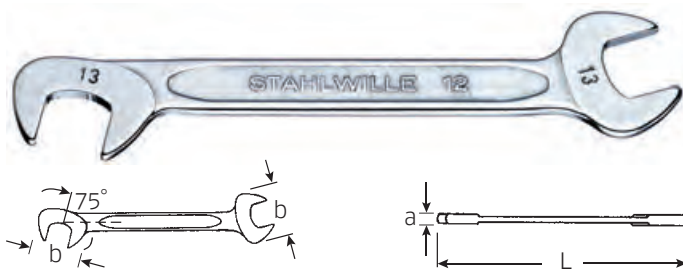
- 175 x 350 x 70 mm
- 9 pieces

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.

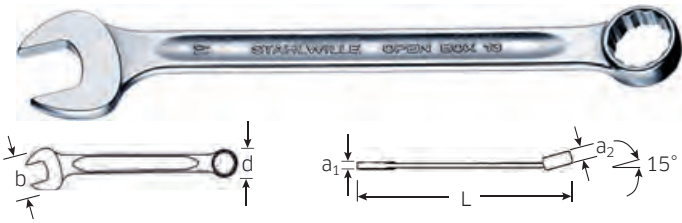


The spanners are supplied in convenient roll-up wallets and this ensures the tools are well protected but only take up the minimum possible space.

### 13 Combination spanners OPEN-BOX

AS  
cert

- DIN 3113 Form A/ISO 7738 Form A
- Chrome Alloy Steel, chrome plated



Code	mm	L mm	b mm	d mm	a <sub>1</sub> mm	a <sub>2</sub> 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

### 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

### 13a Combination spanners OPEN-BOX

AS  
cert

- Chrome Alloy Steel, chrome plated

Code	mm	L mm	b mm	d mm	a <sub>1</sub> mm	a <sub>2</sub> 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 13/5, 27-32 mm



- 530 x 350 x 30 mm
- 5 pieces

Code	g
96838104	2280
No	Content
13	27; 28; 29; 30; 32 mm

# Spanners

## 13, 13a Sets combination spanners OPEN-BOX

AS  
COVER



Code	No	Content mm/"	ΔΔ g
96 40 08 13	13/6	7; 8; 10; 13; 17; 19	650
96 40 08 01	13/9	9; 10; 11; 12; 13; 14; 17; 19; 22	758
96 40 08 08	13/10KT <sup>1)</sup>	8; 9; 10; 11; 12; 13; 14; 15; 17; 19	746
96 40 08 02	13/11	8; 9; 10; 11; 12; 13; 14; 15; 17; 19; 22	915
96 40 08 03	13/15	6; 7; 8; 9; 10; 11; 12; 13; 17; 19; 22; 24; 27; 30; 32	2236
96 40 08 16	13/16 <sup>2)</sup>	7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24	1620
96 40 08 04	13/17	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22	1480
96 40 08 05	13/26 <sup>2)</sup>	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
96 40 48 03	13a/8 <sup>2)</sup>	7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8	900
96 40 48 12	13a/10KT <sup>1)</sup>	1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4	750
96 40 48 04	13a/20 <sup>2)</sup>	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.

<sup>1)</sup> carton with clear view cover

<sup>2)</sup> packed in carton

## TCS 13/18, 6-24 mm



TCS



- 530 x 350 x 35 mm
- 18 pieces

Code	ΔΔ 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 13/17, 6-24 mm



TCS



- 350 x 350 x 60 mm
- 17 pieces

Code	ΔΔ 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



TCS



- 350 x 350 x 60 mm
- 17 pieces

Code	ΔΔ 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 13/21, 6-34 mm



TCS



- 530 x 350 x 75 mm
- 21 pieces

Code	ΔΔ 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



TCS



- 530 x 350 x 80 mm
- 25 pieces

Code	△△ g
<b>96832096</b>	4500

No	Content
<b>13</b>	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



TCS



- 530 x 350 x 80 mm
- 29 pieces

Code	△△ g
<b>96830193</b>	3752

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

### TCS 13a/19



TCS



- 350 x 350 x 55 mm
- 19 pieces

Code	△△ g
<b>96838778</b>	2000

No	Content
<b>13a</b>	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



TCS



- 530 x 350 x 35 mm
- 23 pieces

Code	△△ g
<b>96830885</b>	2800

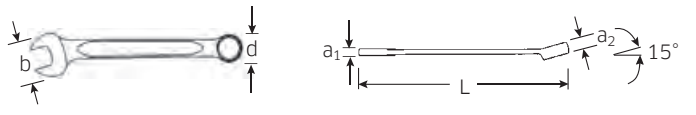
No	Content
<b>13a</b>	3/16; 13/64; 7/32; 15/64; 1/4; 9/32; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 25/32; 13/16; 7/8; 15/16; 1; 1 1/16; 1 1/8"

### 130a Combination spanners

AS  
DIN 9138

HPQ

- Fed. Spec. GGG-W-636 E
- HPQ® high performance steel, chrome plated

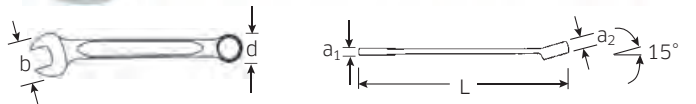


Code	"	L mm	b mm	d mm	a <sub>1</sub> mm	a <sub>2</sub> mm	△△ g	📦
<b>40571616</b>	1/4	105	14.2	9.8	3.6	6	15	10
<b>40571818</b>	9/32	110	15.5	10.9	4.1	6	16	10
<b>40572020</b>	5/16	115	17	12	4.5	7	20	10
<b>40572222</b>	11/32	120	19	13.1	4.9	7	25	10
<b>40572424</b>	3/8	125	20.5	14.1	5.2	7	32	10
<b>40572828</b>	7/16	135	23	16.2	6	8	42	10
<b>40573232</b>	1/2	150	27	18.2	6.5	8.5	61	10
<b>40573434</b>	9/16	165	30.5	20.6	7	8.5	78	10

### 130aSP Combination spanners

HPQ

- with spline-drive profile
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated



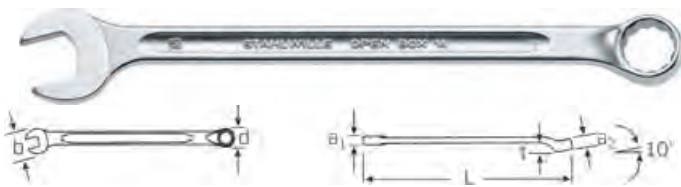
Code	Spline size	"	L mm	b mm	d mm	a <sub>1</sub> mm	a <sub>2</sub> mm	△△ g	📦
<b>40581616</b>	<b>8</b>	1/4	105	14.2	10	3.6	5.6	13	5
<b>40582020</b>	<b>10</b>	5/16	115	17	12.2	4.5	6.4	21	5
<b>40582424</b>	<b>12</b>	3/8	125	20.5	14.8	5.2	7	31	5
<b>40582828</b>	<b>14</b>	7/16	135	23	16.5	6	8	43	5
<b>40583232</b>	<b>16</b>	1/2	150	27	18.7	6.5	8.5	59	5
<b>40583434</b>	<b>18</b>	9/16	165	30.5	20.8	7	8.5	84	5

# Spanners

## 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 <sub>1</sub> mm	a <sub>2</sub> mm	t mm	ΔΔ g	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	ΔΔ g
96401008	14(6 <sup>2</sup> )	10; 13; 17; 19; 22; 24	1175
96401009	14(9 <sup>2</sup> )	10; 11; 13; 17; 19; 22; 24; 27; 30	2395
96401007	14(10 KT <sup>1</sup> )	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(15N <sup>2</sup> )	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.

<sup>1</sup>) packed in plastic with transparent cover

<sup>2</sup>) packed in carton

## ES 14/10, 6-15 mm



- 175 x 350 x 39 mm
- 10 pieces

Code	ΔΔ 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	ΔΔ 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	ΔΔ 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	ΔΔ g
96838189	660

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

### TCS 14/18, 6-24 mm



TCS



- 350 x 350 x 60 mm
- 18 pieces

Code	$\Delta\Delta$ g
<b>96 83 87 50</b>	2348

No	Content
<b>14</b>	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



TCS



- 530 x 350 x 75 mm
- 21 pieces

Code	$\Delta\Delta$ g
<b>96 83 87 71</b>	4988

No	Content
<b>14</b>	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

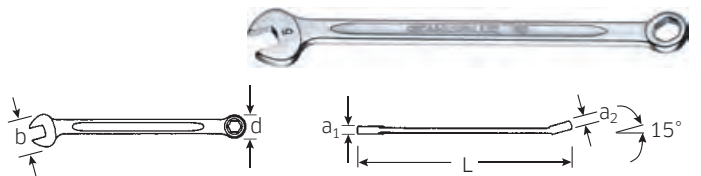
- Chrome-Vanadium, chrome plated



Code	$\Delta\Delta$ mm	L mm	b mm	d mm	a <sub>1</sub> mm	a <sub>2</sub> mm	t mm	$\Delta\Delta$ g	
<b>40 14 65 65</b>	<b>65</b>	710	133	98	22	33	49.5	4500	1
<b>40 14 70 70</b>	<b>70</b>	760	143	105	24	35	53.5	5500	1
<b>40 14 75 75</b>	<b>75</b>	810	153	110	26	38	57.5	6500	1
<b>40 14 80 80</b>	<b>80</b>	860	163	119	28	41	63.5	8000	1

### 16 Combination spanners OPEN-BOX

- ISO 3318
- Chrome Alloy Steel, chrome plated



Code	$\Delta\Delta$ mm	L mm	b mm	d mm	a <sub>1</sub> mm	a <sub>2</sub> mm	$\Delta\Delta$ g	
<b>40 09 32 32</b>	<b>3.2</b>	75	10	6.6	3	3.2	6	10
<b>40 09 35 35</b>	<b>3.5</b>	75	10	6.6	3	3.2	6	10
<b>40 09 40 40</b>	<b>4</b>	85	12.5	7.8	3	3.2	9	10
<b>40 09 45 45</b>	<b>4.5</b>	85	12.5	7.8	3	3.2	8	10
<b>40 09 50 50</b>	<b>5</b>	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	$\Delta\Delta$ g
<b>96 40 09 02</b>	3.2; 3.5; 4; 4.5; 5	46

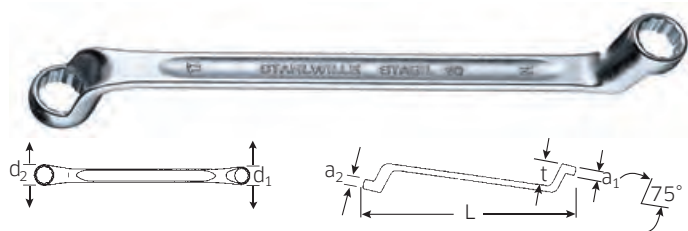
# Spanners

## 20 Double ended ring spanners



### StahlwilleSTABIL®

- offset
- DIN 838/ISO 10104
- Chrome Alloy Steel, chrome plated



Code	Ø mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	t mm	Δ g	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



### StahlwilleSTABIL®

- offset
- Chrome Alloy Steel, chrome plated

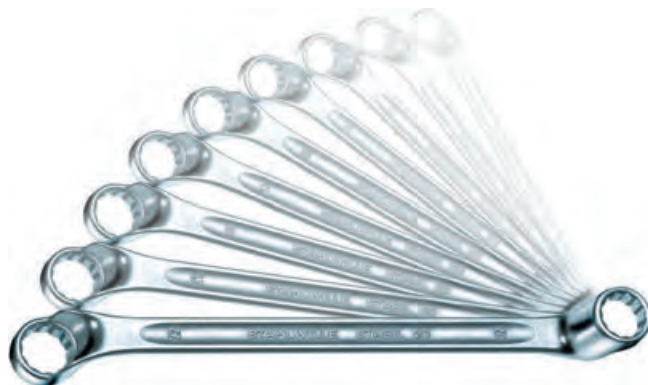
Code	Ø"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	t mm	Δ g	g
41441620	1/4 x 5/16	180	11.8	13.1	7	7	20	55	10
41442428	3/8 x 7/16	200	15.8	17.2	9	9	23	88	10
41443234	1/2 x 9/16	220	20	21.3	9	10	25	120	10
41443436	9/16 x 5/8	245	21.3	25.3	10	12	27	168	10
41443538	19/32 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



### StahlwilleSTABIL®

- offset
- packed in carton



Code	No	Content mm/"	Δ 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	Δ 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

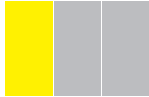


- 530 x 350 x 44 mm
- 10 pieces

Code	$\Delta$ g
<b>96838107</b>	2620

No	Content
<b>20</b>	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

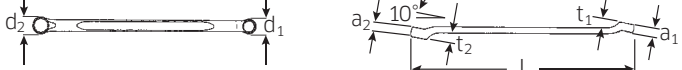
Code	$\Delta$ g
<b>96838192</b>	1338

No	Content
<b>20</b>	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

### 23 Double ended ring spanners CORONA



- shallow offset
- DIN 897/ISO 10104
- Chrome Alloy Steel, chrome plated



Code	mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	t <sub>1</sub> mm	t <sub>2</sub> mm	$\Delta$ g	
<b>41070607</b>	<b>6 x 7</b>	170	9.5	10.8	6	7	7	8	41	10
<b>41070809</b>	<b>8 x 9</b>	179	12.1	13.3	7	8	8	9	49	10
<b>41071011</b>	<b>10 x 11</b>	188	14.6	15.9	8.5	9.5	9	10	66	10
<b>41071213</b>	<b>12 x 13</b>	203	17.3	18.6	9.5	10.5	10	11	78	10
<b>41071415</b>	<b>14 x 15</b>	219	20.1	21.4	10.5	11.5	11	13	109	10
<b>41071617</b>	<b>16 x 17</b>	248	22.7	24.1	11.5	12.5	14	15	144	10
<b>41071719</b>	<b>17 x 19</b>	250	24.1	27	12.5	13.5	15	18	162	10
<b>41071819</b>	<b>18 x 19</b>	251	25.5	27	12.5	13.5	16	18	157	10
<b>41072022</b>	<b>20 x 22</b>	280	28.5	31.3	13.5	14.5	19	20	223	5
<b>41072123</b>	<b>21 x 23</b>	328	29.8	32.9	13.5	14.5	19	22	281	5
<b>41072427</b>	<b>24 x 27</b>	376	34.3	38.6	14.5	16	22	24	426	5
<b>41073032</b>	<b>30 x 32</b>	429	42.6	45.2	18	18	26	27	608	5

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



- 175 x 350 x 45 mm
- 8 pieces

Code	$\Delta$ g
<b>96830356</b>	1323

No	Content
<b>20</b>	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	$\Delta$ g
<b>96830166</b>	2500

No	Content
<b>20</b>	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

### 23/8 Set double ended ring spanners CORONA; 6x7-20x22 mm



- shallow offset
- packed in carton



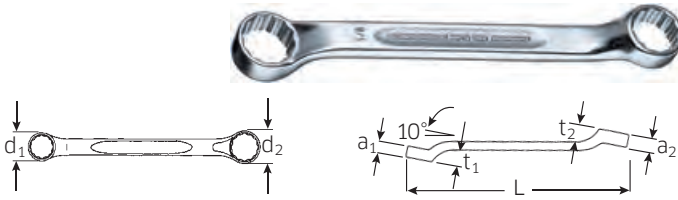
Code	Content mm	$\Delta$ g
<b>96410704</b>	6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 19; 20 x 22	870

# Spanners

## 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

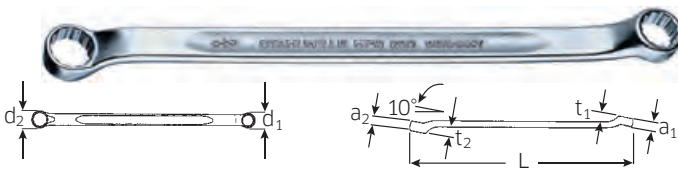


Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg	g	
41601620	1/4 x 5/16	107	10.2	11.8	7	8	7.2	7.4	26	10	
41602428	3/8 x 7/16	122	14.6	16.7	6.7	7.8	9	10	42	10	
41603234	1/2 x 9/16	141	18.5	20.7	8.7	9.5	11	12	62	10	
41603436	9/16 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

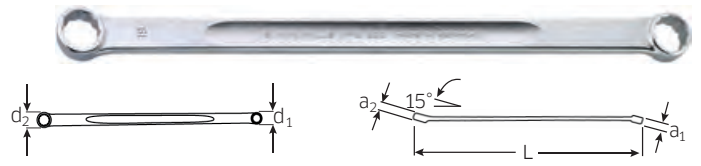


Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg	g	
41611620	1/4 x 5/16	180	10.2	11.9	5.2	6	7.9	8.8	45	10	
41612022	5/16 x 11/32	195	11.9	13.5	7	8	8	9	45	10	
41612024	5/16 x 3/8	195	11.9	14.6	6	7.9	10.8	12.4	54	10	
41612428	3/8 x 7/16	215	14.6	16.7	7.9	8.7	11.4	11.7	74	10	
41612832	7/16 x 1/2	225	16.7	19.5	8.7	9.1	11.9	12.6	105	10	
41613234	1/2 x 9/16	235	19.5	20.7	9.1	9.5	12.2	12.9	110	10	
41613436	9/16 x 5/8	245	20.7	22.6	9.5	11.5	13.8	13.9	122	10	
41613640	5/8 x 3/4	274	22.6	27.5	11.1	12	14.8	15.8	160	10	
41613840	11/16 x 3/4	275	25.4	27.5	11.1	12	15.2	15.8	190	10	
41614244	13/16 x 7/8	301	29.5	31.7	13.5	14.5	19	20	260	5	
41614648	15/16 x 1	340	34.1	36.5	14.5	15	22	23	375	5	
41614850	1 x 1 1/16	368	36.5	38.6	15	16	23	24	460	5	
41615256	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	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	Δg	g	
41035507	5.5 x 7	185	8.8	11	5.3	5.8	28	5	
41030608	6 x 8	205	9.8	12.1	5.6	6	34	5	
41030911	9 x 11	250	14.2	16.7	8	8.7	80	5	
41031011	10 x 11	250	15.5	16.7	8	8.7	80	5	
41031214	12 x 14	290	18.3	20.7	9.5	9.5	162	5	
41031314	13 x 14	290	18.7	20.7	9.5	9.5	160	5	
41031719	17 x 19	365	25	27.5	11	12	296	5	
41031819	18 x 19	365	25.5	27.5	11	12	295	5	
41031922	19 x 22	408	27.5	31.5	13	14.3	520	5	
41032022	20 x 22	409	28.5	31.5	13	14.3	515	5	

## 220a Double ended ring spanners



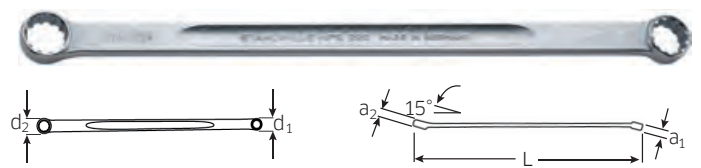
- extra long
- 15° angled
- SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	Δg	g	
41431416	7/32 x 1/4	184	9	9.9	5.3	5.8	29	5	
41431620	1/4 x 5/16	205	9.9	12.2	5.6	6	33	5	
41432428	3/8 x 7/16	250	14	16	8	8.7	79	5	
41433234	1/2 x 9/16	290	18.5	21	9.5	9.5	160	5	
41433640	5/8 x 3/4	363	22.6	27	11	12	298	5	
41433840	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



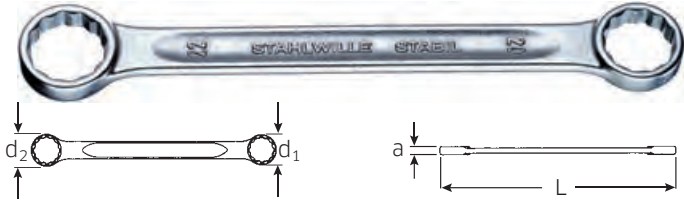
Code	Spline size	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	Δg	g	
41160709	7 x 9	7/32 x 9/32	185	9.4	11.5	5.3	5.8	28	5	
41160810	8 x 10	1/4 x 5/16	205	10.4	12.4	5.6	6	33	5	
41161214	12 x 14	3/8 x 7/16	250	14.9	17	8	8.7	79	5	
41161618	16 x 18	1/2 x 9/16	290	19	21	9.5	9.5	161	5	
41161820	18 x 20	9/16 x 5/8	315	21	23	10	11	205	5	
41162224	22 x 24	11/16 x 3/4	365	25	27.5	11	12	310	5	
41162630	26 x 30	13/16 x 15/16	410	29.5	34	13	14.3	496	5	
41162832	28 x 32	7/8 x 1	430	32	36.5	13.5	15	582	5	

## 21 Double ended ring spanners

AS  
cert.

**StahlwilleSTABIL®**

- straight
- DIN 837/ISO 10103
- Chrome Alloy Steel, chrome plated



Code	size mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> 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  
cert.

**StahlwilleSTABIL®**

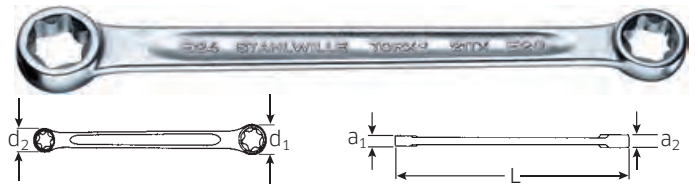
- packed in carton



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

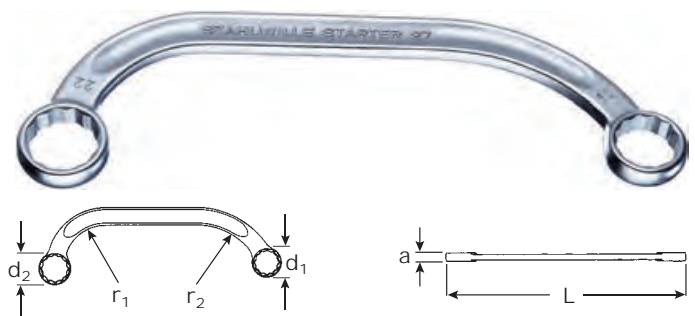


Code	size	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	⚖ g	📦
41250608	E6 x E8	115.5	9.6	11.6	4.5	5.5	17	10
41251012	E10 x E12	149.5	13.7	15.7	6.5	7.5	33	10
41251418	E14 x E18	185	17.8	22.5	8	9.5	71	10
41252024	E20 x E24	227	24.7	29.2	10.5	12.5	129	10

## 27 Double ended ring spanners STARTER

AS  
cert.

- ISO 3318
- Chrome Alloy Steel, chrome plated



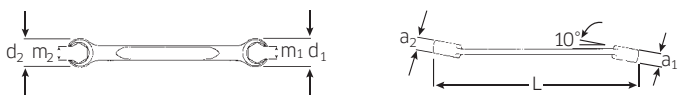
Code	size mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a mm	r <sub>1</sub> mm	r <sub>2</sub> mm	⚖ g	📦
41091012	10 x 12	150	16.5	19.5	6.5	35	60	53	10
41091113	11 x 13	150	16.5	19.5	6.5	35	60	50	10
41091416	14 x 16	179	21	24.5	7.5	36	64	91	10
41091417	14 x 17	179	21	24.5	7.5	36	64	89	10
41091517	15 x 17	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

# Spanners

## 24 Double ended open ring spanners, angled



- hexagon
- DIN 3118/ISO 3318
- Chrome Alloy Steel, chrome plated



Code	mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	m <sub>1</sub> mm	m <sub>2</sub> mm	g	
41080810	8 x 10	145	17.5	19.5	7	8.5	6.3	7.1	39	10
41080911	9 x 11	155	18.5	21.5	8.5	9	6.7	8.6	54	10
41081011	10 x 11	155	19.5	21.5	8.5	9	7.1	8.6	55	10
41081012	10 x 12	160	19.5	22.5	8.5	9.5	7.1	9	59	10
41081113	11 x 13	170	21.5	24	9	10	8.6	10	80	10
41081214	12 x 14	180	24	26	9.5	10.5	9	11	89	10

## 24a Double ended open ring spanners, angled



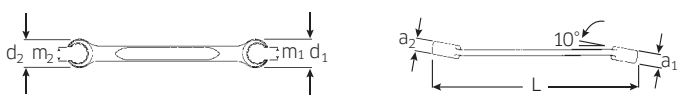
- hexagon
- Chrome Alloy Steel, chrome plated

Code	mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	m <sub>1</sub> mm	m <sub>2</sub> mm	g	
41481620	1/4 x 5/16	105	16.5	18	5.5	7	3.7	5	32	10
41482024	5/16 x 3/8	145	17.5	19.5	7	8.5	6.3	7.1	39	10
41482428	3/8 x 7/16	155	19.5	21.5	8.5	9	7.1	8.6	57	10
41483234	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 <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	m <sub>1</sub> mm	m <sub>2</sub> mm	g	
41081417	14 x 17	200	26	30	10.5	12	11	14	115	10
41081619	16 x 19*	220	29	33	12	13	13	15.8	155	5
41081719	17 x 19	220	30	33	12	13	14	15.8	150	10
41081922	19 x 22	230	33	37	13	15	15.8	17	192	5
41082224	22 x 24	245	37	40.5	15	16	17	18	251	5
41082427	24 x 27	270	40.5	44.5	16	17.5	18	20	310	5
41082736	27 x 36	300	42	54	16	19	20	27	414	5
41083032	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	mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	m <sub>1</sub> mm	m <sub>2</sub> mm	g	
41483640	5/8 x 3/4	218	29	33	12	13	12.7	15.8	148	5
41484048	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
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

## 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

STAHLWILLE  
»AS-Drive«

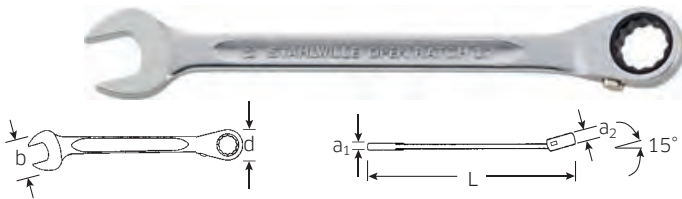


STAHLWILLE combination spanners and double-ended ring spanners are made with the AS Drive\*, which permits high transmission of forces to the flats of nuts and bolts without damaging them.

\* 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	Ø mm	L mm	b mm	d mm	a <sub>1</sub> mm	a <sub>2</sub> mm	ΔΔ 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	ΔΔ 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	ΔΔ 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	Ø mm/"	L mm	b mm	a mm	ΔΔ 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	ΔΔ 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	ΔΔ g
96 83 87 74	1163

No	Content
240	10; 11; 13; 14; 17; 19 mm

# Spanners

## 25 Ratchet ring spanners

AS DRIVE

- with bi-hexagon
- straight
- 22 teeth
- chrome plated

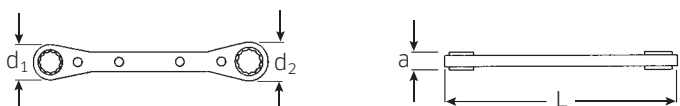


Code	mm	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a mm	Δ g	g
41 130708	7 x 8	109	15	17	9	55	1
41 130910	9 x 10	139	20	23	9	80	1
41 131011	10 x 11	170	26	30	12	144	1
41 131213	12 x 13	170	26	30	12	135	1
41 131415	14 x 15	170	26	30	12	126	1
41 131618	16 x 18	205	33	36	12	196	1
41 131719	17 x 19	205	33	36	12	188	1

## 25aN Ratchet ring spanners

AS DRIVE

- as No 25, but made of solid steel
- Fed. Spec. GGG-W-001405



Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a mm	Δ g	g
41 561620	1/4 x 5/16	109	15	17	9	60	1
41 562022	5/16 x 11/32	109	15	17	9	60	1
41 562428	3/8 x 7/16	139	20	23	9	90	1
41 563234	1/2 x 9/16	174	26	30	12	160	1
41 563638	5/8 x 11/16	205	33	36	12	257	1
41 564044	3/4 x 7/8	235	36	40	13	296	1
41 564246	13/16 x 15/16	235	36	40	12	281	1

## 25, 25a Sets ratchet ring spanners

AS DRIVE

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



Code	No	Content mm/"	Δ g
96 411302	25/4	9 x 10; 12 x 13; 14 x 15; 17 x 19	556
96 411301	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 415602	25a/4N	3/8 x 7/16; 1/2 x 9/16; 5/8 x 11/16; 3/4 x 7/8	1000
96 415601	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	Δ g
96 838108	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



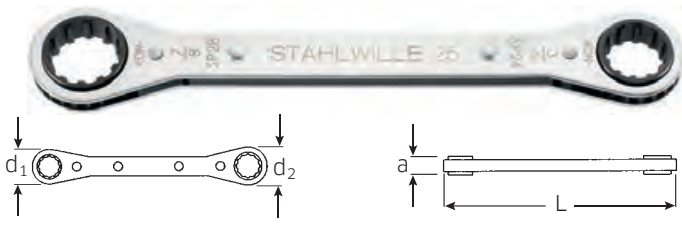
- 175 x 350 x 30 mm
- 7 pieces

Code	Δ g
96 838751	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

## 25aSP Ratchet ring spanners

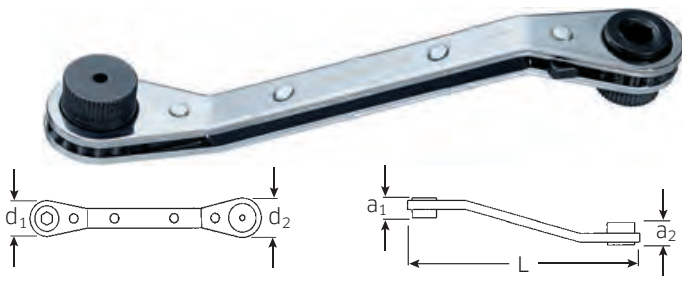
- straight
- with spline-drive profile
- 22 teeth
- chrome plated



Code	Spline size	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a mm	△g	g	
<b>41570810</b>	<b>8 x 10</b>	1/4 x 5/16	109	15	17	9	59	1	
<b>41571214</b>	<b>12 x 14</b>	3/8 x 7/16	139	20	23	9	84	1	
<b>41571618</b>	<b>16 x 18</b>	1/2 x 9/16	174	26	30	12	153	1	
<b>41572022</b>	<b>20 x 22</b>	5/8 x 11/16	205	33	36	12	250	1	
<b>41572428</b>	<b>24 x 28</b>	3/4 x 7/8	235	36	40	13	279	1	

## 25B Ratcheting bit holder

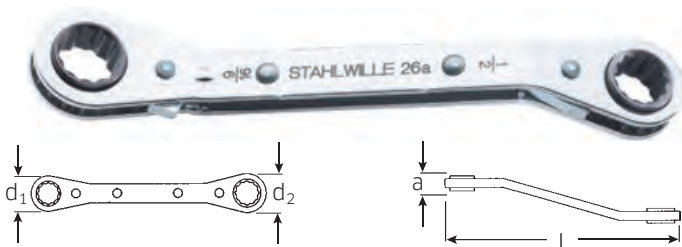
- reversible
- for hexagon bits
- magnetic location
- reversible heads angled
- chrome plated



Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	△g	g	
<b>41541620</b>	1/4 x 5/16	138	20	23	15	17	105	1	

## 26a Ratchet ring spanners

- reversible
- with bi-hexagon
- angled
- 22 teeth
- chrome plated

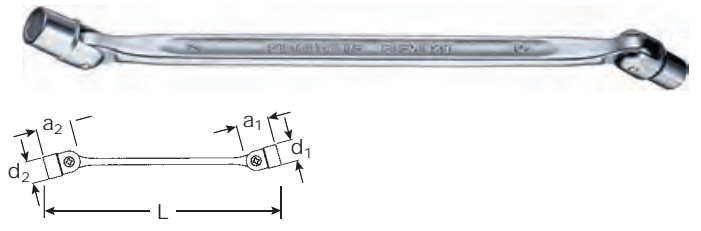


Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a mm	△g	g	
<b>41551620</b>	1/4 x 5/16	109	15	17	9	55	1	
<b>41552428</b>	3/8 x 7/16	139	20	23	9	80	1	
<b>41553234</b>	1/2 x 9/16	170	26	30	12	140	1	

## 29 Double ended flexi-joint spanner FLEXI

AS

- hexagon
- Chrome Alloy Steel, chrome plated

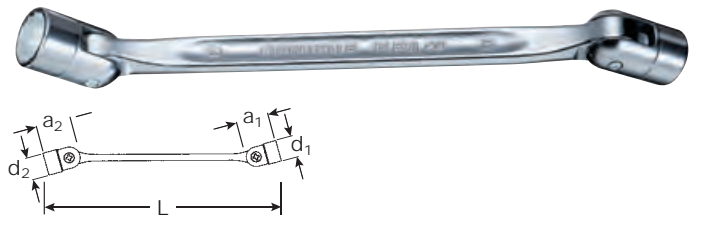


Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	△g	g	
<b>43010607</b>	6 x 7	180	9.5	11	23	23	51	10	

## 29 Double ended flexi-joint spanners FLEXI

AS

- bi-hexagon
- Chrome Alloy Steel, chrome plated



Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	△g	g	
<b>43010809</b>	8 x 9	201	26	27.5	11.9	13.4	81	10	
<b>43011011</b>	10 x 11	202	30.5	32	14.7	15.9	102	10	
<b>43011013</b>	10 x 13	230.5	30	33.5	14.7	18.4	137	10	
<b>43011213</b>	12 x 13	228	33	33.5	17.2	18.4	153	10	
<b>43011415</b>	14 x 15	227	35	37	19.7	20.9	197	10	
<b>43011617</b>	16 x 17	247	38.5	39	22.2	23.7	234	10	
<b>43011618</b>	16 x 18	249	38.5	40	22.2	24.7	267	5	
<b>43011719</b>	17 x 19	250	39	41	23.7	26.3	277	5	
<b>43011819</b>	18 x 19	246.5	40	41	24.7	26.3	294	5	
<b>43012022</b>	20 x 22	287.5	45.5	48	27.3	29.8	430	5	
<b>43012123</b>	21 x 23	286.5	46.5	50	28.6	31.1	447	5	
<b>43012427</b>	24 x 27	349.5	50.5	60.5	32.4	36.1	716	5	

## 29a Double ended flexi-joint spanners FLEXI

AS

- bi-hexagon
- Chrome Alloy Steel, chrome plated

Code	"	L mm	d <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	△g	g	
<b>43412428</b>	3/8 x 7/16	202	14	16	30.5	32	98	5	
<b>43413234</b>	1/2 x 9/16	227	18.1	20	35	37	195	5	
<b>43413638</b>	5/8 x 11/16	249.5	22.1	24	39	40	269	5	

# Spanners

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



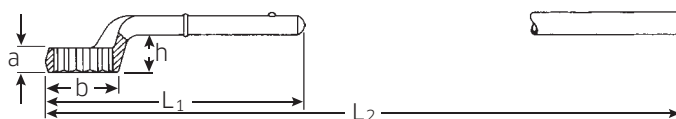
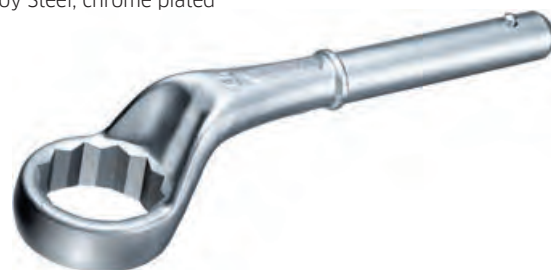
Code	g
96830195	1520

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 <sub>1</sub> mm	L <sub>2</sub> 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<sub>2</sub> = 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



## 8 Striking face ring spanners

### StahlwilleSTABIL®

• Chrome Alloy Steel, green painted



Code	Ø 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

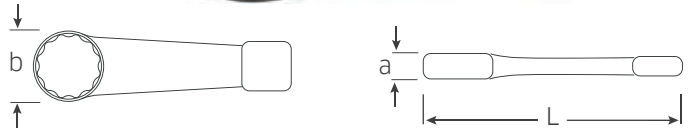
• special steel, grey

Code	Ø "	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

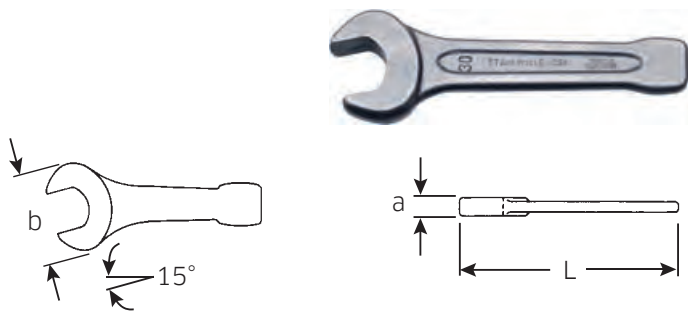


Code	Ø mm	L mm	b mm	a mm	△△ g	
42050024	24	160	42.5	15	200	1
42050026	26	160	42.5	15	200	1
42050027	27	180	46	16	260	1
42050028	28	180	47	15.5	240	1
42050030	30	190	51.5	16.5	365	1
42050032	32	195	53	16.5	353	1
42050033	33	195	53	16.5	350	1
42050036	36	205	60	19.5	505	1
42050037	37	205	60	19.5	500	1
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

# Spanners

## 4204 Striking face open ended spanners

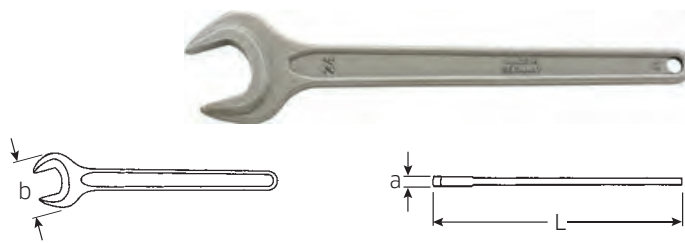
- DIN 133
- special tool steel, grey finish



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

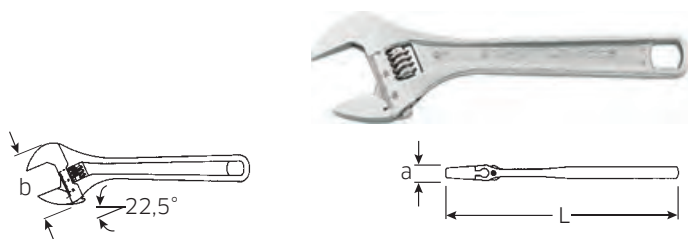


Code	mm	L mm	b mm	a mm	g	
40040240	24	215	50	8.9	147	10
40040270	27	238	56	9.8	193	10
40040300	30	261	62	10.8	275	5
40040320	32	273	66	11.8	315	5
40040360	36	300	74	12.8	421	1
40040410	41	335	83.5	12.8	555	1
40040460	46	369	93	14.8	770	1
40040500	50	412	102	17	1003	1
40040550	55	457	112	18	1235	1
40040600	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

- 175 x 350 x 30 mm
- 3 pieces

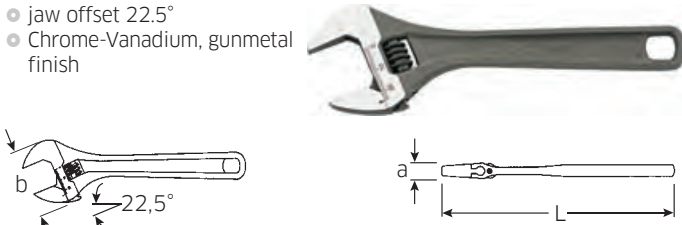


Code	g
96838797	920

No	Content
4025	sizes 6; 8; 10

## 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 NEW

- 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 <sub>1</sub> mm	d <sub>2</sub> 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

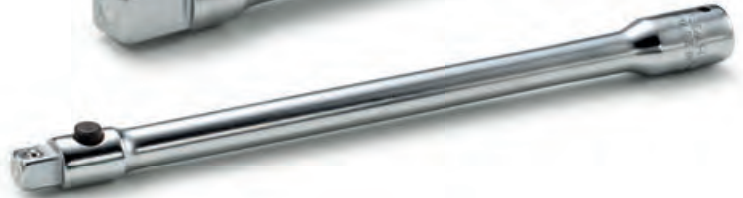
Code	g
96838756	1130

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.



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.

3



## UNMISTAKEABLE.

The laser-cut map on the inside of the lid provides an excellent overview of the tools contained in the case.



## RESILIENT.

High Performance Quality (HPQ®) High-performance steel – extremely resilient, yet thin-walled and ideal for working in confined spaces.

## 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.

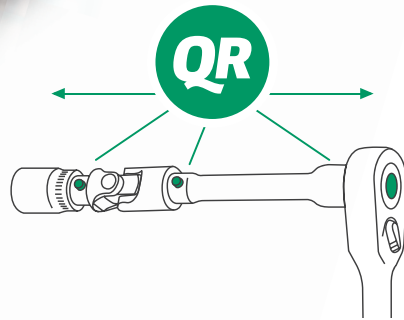


## GENTLE.

The special AS Drive\* permits high transmission of forces to the flats of nuts and bolts without damaging them.

\* Anti-Slip drive





## FAST.

QuickRelease enables rapid tool changes and secures them reliably during work operations.

**FOD**

## FOD\* COMPLIANT.

The preferred choice in safety-relevant fields such as aerospace, thanks to the screwless design.

\* Foreign Object Damage

**4,5°**

**80**

## 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.



# Socket sets and sockets

6,3  
1/4"

DIN  
3120

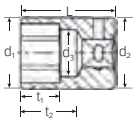
ISO  
1174-1

3

## 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	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	⚖	📦
	mm	mm	mm	mm	mm	mm	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	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	⚖	📦
	"	mm	mm	mm	mm	mm	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

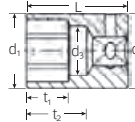


Code	⚖
	g
96015310	200

## 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	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	⚖	📦
	mm	mm	mm	mm	mm	mm	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	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	⚖	📦
	"	mm	mm	mm	mm	mm	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



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



- 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	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	Δ	g	
	mm	mm	mm	mm	mm	mm	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



- extra deep
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E
- HPQ® high performance steel, chrome plated

Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	Δ	g	
	"	mm	mm	mm	mm	mm	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



- extra deep
- content 7 pieces: 3/16; 1/4; 5/16; 3/8; 7/16; 1/2; 9/16"
- packed in carton



Code	Δ	g
96016401		241

## 40aDL/10CL Set sockets with clip strip



- 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	Δ	g
96016410		350

## 40aDV Sockets



- SAE AS 954, S.B.A.C. AS 40605/40606
- HPQ® high performance steel, chrome plated



Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	Δ	g	
	"	mm	mm	mm	mm	mm	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



- 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	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	Δ	g	
	mm	mm	mm	mm	mm	mm	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

# Socket sets and sockets

6,3  
1/4"

DIN  
3120

ISO  
1174-1

3

## 402 UNIFLEX sockets



- HPQ® high performance steel, chrome plated



Code	Size	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg g	Box
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



- SAE AS 954, ASME B 107.1
- HPQ® high performance steel, chrome plated

Code	Size	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg g	Box
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



Content 5 pieces:  
No 402a: 1/4; 5/16; 3/8; 7/16; 1/2"



Code	Weight g
96015401	101

## 402aK UNIFLEX sockets



- short version
- HPQ® high performance steel, chrome plated



Code	Size	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg g	Box
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



- for external TORX® screws
- HPQ® high performance steel, chrome plated



Code	Size	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg g	Box
01270004	E4	3.8	5.6	10.7	2	23	4.5	15	8
01270005	E5	4.7	6.7	10.7	2.8	23	5	15	7
01270006	E6	5.7	8	10.7	3.6	23	5.5	15	10
01270007	E7	6.2	9.6	10.7	3.8	23	6.5	15	10
01270008	E8	7.5	10.5	11.6	4.3	23	7	15	10
01270010	E10	9.4	12.7	12.7	5.6	23	9	15	17

## 40aSP Sockets



- for external spline-drive screws
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated

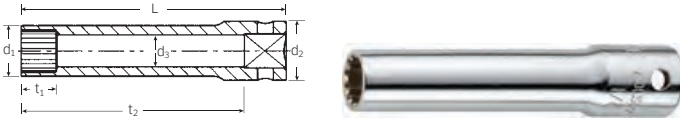


Code	Spline size	Size	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg g	Box
01011007	7	7/32	8.6	10.7	5	22.2	6	14.2	7	1
01011008	8	1/4	9.5	10.7	5.6	22.2	7	14.2	10	1
01011009	9	9/32	11.2	11.2	6.6	22.2	8	12.4	10	1
01011010	10	5/16	11.6	11.6	7.1	22.2	8	12.2	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

### 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 <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg	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 <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg	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

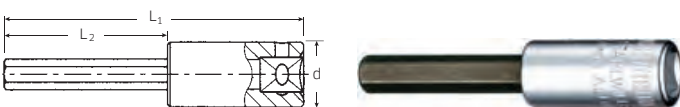
- for slotted screws
- blades to DIN 5264
- Chrome Alloy Steel, chrome plated



Code	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	a mm	b mm	Δg	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	Δg	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	Δg	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	Δg	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	Δg	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	

6,3  
1/4"

DIN  
3120

ISO  
1174-1

3

## Socket sets and sockets

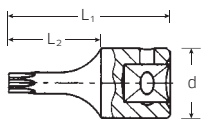
6,3  
1/4"



DIN  
3120

ISO  
1174-1

### 44KTXB Screwdriver sockets

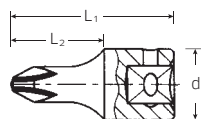
- with hollow point
- for inside TORX® screws (TORX® TAMPER RESISTANT)
- Chrome Alloy Steel, chrome plated





Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm		
<b>0135 1008</b>	<b>T8</b>	2.3	28	16	11.6	10	5
<b>0135 1009</b>	<b>T9</b>	2.5	28	16	11.6	10	5
<b>0135 1010</b>	<b>T10</b>	2.7	28	16	11.6	10	5
<b>0135 1015</b>	<b>T15</b>	3.3	28	16	11.6	10	5
<b>0135 1020</b>	<b>T20</b>	3.8	28	16	11.6	10	5
<b>0135 1025</b>	<b>T25</b>	4.4	28	16	11.6	11	5
<b>0135 1027</b>	<b>T27</b>	5.0	28	16	11.6	10	5
<b>0135 1030</b>	<b>T30</b>	5.5	28	16	11.6	11	5
<b>0135 1040</b>	<b>T40</b>	6.6	28	16	11.6	10	5

### 44P Screwdriver sockets

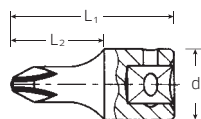
- for recessed head screws Phillips-Recess®
- tips to DIN 5260
- Chrome Alloy Steel, chrome plated





Code	PH size	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm		
<b>01290001</b>	<b>1</b>	28	16	11.6	12	5
<b>01290002</b>	<b>2</b>	28	16	11.6	11	5
<b>01290003</b>	<b>3</b>	28	16	11.6	12	5
<b>01290004</b>	<b>4</b>	28	16	11.6	14	5

### 44PZ Screwdriver sockets

- for POZIDRIV/SUPADRIV® screws
- Chrome Alloy Steel, chrome plated




Code	PZ size	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm		
<b>01300001</b>	<b>1</b>	28	16	11.6	10	5
<b>01300002</b>	<b>2</b>	28	16	11.6	11	5

### 40CL Clip strips

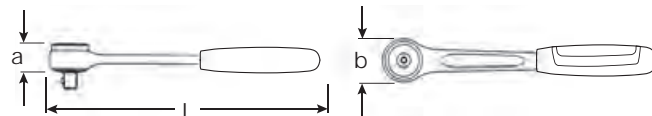
- for socket retention
- supplied without sockets



Code	size	L mm	
<b>80400001</b>	<b>1</b>	200	36
<b>80400002</b>	<b>2</b>	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		
<b>11231011</b>	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		
<b>11111010</b>	117	22	13	80	5

### 415QR QuickRelease ratchet

- reversible
- 22 teeth
- with QuickRelease safety lock
- with 2-component handle
- DIN 3122/ISO 3315
- registered design





Code	L mm	b mm	a mm		
<b>11110020</b>	117	22	13	79	1

### 415QR N QuickRelease ratchet, fine tooth

- 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		
<b>11111020</b>	117	22.6	10.7	79	1

### 415SG-QR N QuickRelease ratchet, fine tooth

QR F2D 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	📦
<b>11 11 1030</b>	117	22.6	10.7	86	1

### 418QR Mini QuickRelease ratchet, fine tooth

QR F2D 80 4.5°



- 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	📦
<b>11 11 1050</b>	90	22.5	12.2	74	1

### 415QRL N QuickRelease ratchet, fine tooth

QR F2D 80 4.5°



- 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	📦
<b>11 11 1040</b>	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	📦
<b>11 13 1011</b>	117	22	12	76	5

### 415SGB N Bit ratchet, fine tooth

F2D 80 4.5°



- 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	📦
<b>11 13 2020</b>	117	22.6	10.7	85	5

### 418B Mini bit ratchet, fine tooth

F2D 80 4.5°



- 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	📦
<b>11 13 3030</b>	90	22.5	11	70	1

### 416QR QuickRelease fine-tooth flexible-joint ratchet

QR F2D 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	📦
<b>11 26 1010</b>	170	22.5	12	170	1

## Socket sets and sockets

6,3  
1/4"

DIN  
3120

ISO  
1174-1

### 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	ΔΔ g
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96014010	758
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### 4110 Spare parts set for ratchet No 411

Content 7 pieces:

1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

Code	ΔΔ g
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19200001	47
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### 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	ΔΔ g
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19010000	26
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### 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	ΔΔ g
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19011020	24
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### 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	ΔΔ g
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19012020	21
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### 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	ΔΔ g
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19010011	20
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### 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	ΔΔ g
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19010012	22
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### 400 Drive handle

- DIN 3122/ISO 3315



Code	L mm	ΔΔ g	☐
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11050010	150	70	5
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### 400QR QuickRelease drive handle

QR

- DIN 3122/ISO 3315
- with QuickRelease safety lock
- patent



Code	L mm	ΔΔ g	☐
------	---------	---------	---

11051010	150	80	1
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### 400 Drill Drive handle

- with 1/4" square drive in end of handle
- DIN 3122/ISO 3315



Code	L mm	ΔΔ g	☐
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11050011	150	105	5
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### 401 Drive handle

- flexible shaft (right hand rotation only)
- maximum torque 5 N·m



Code	L mm	ΔΔ g	☐
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11053002	240	130	5
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3

### 403 Flexible handle

- DIN 3122/ISO 3315
- with 2-component handle



Code	L mm	g	
<b>11061010</b>	154,5	70	1

### 404 Sliding T-handle

- DIN 3122/ISO 3315



Code	L mm	g	
<b>11070000</b>	116	38	5

### 404QR QuickRelease sliding T-handle

QR

- with QuickRelease safety locks
- patent



Code	L mm	g	
<b>11071000</b>	116	50	1

### 413QR QuickRelease speeder brace

QR

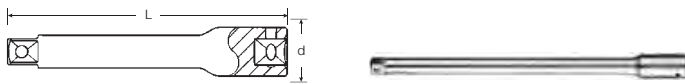
- with steel handle
- for greater axial power transmission, detachable palm head
- working radius 70 mm
- with QuickRelease safety lock
- patent



Code	L mm	g	
<b>11100005</b>	440	354	1

### 405 Extensions

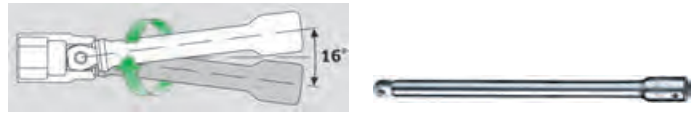
- DIN 3123/ISO 3316



Code	size	L mm	d mm	g	
<b>11010001</b>	<b>2</b>	54	11,6	29	5
<b>11010006</b>	<b>4</b>	100	11,6	46	5
<b>11010002</b>	<b>6</b>	150	11,6	65	5
<b>11010010</b>	<b>10</b>	254	11,6	115	1
<b>11010014</b>	<b>14</b>	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	
<b>11010011</b>	<b>2</b>	54	11,6	28	1
<b>11010016</b>	<b>4</b>	100	11,6	45	1
<b>11010012</b>	<b>6</b>	150	11,6	55	1
<b>11010020</b>	<b>10</b>	254	11,6	110	1
<b>11010024</b>	<b>14</b>	356	11,6	155	1

### 405QR QuickRelease extensions

QR

- patent
- DIN 3123/ISO 3316



Code	size	L mm	d mm	g	
<b>11011001</b>	<b>2</b>	54	11,6	28	1
<b>11011006</b>	<b>4</b>	102	11,6	49	1
<b>11011002</b>	<b>6</b>	150	11,6	65	1
<b>11011013</b>	<b>13</b>	330	11,6	145	1
<b>11011005</b>	<b>14</b>	356	11,6	150	1

### 406 Extension, flexible

- right hand rotation only
- maximum torque 5 N·m



Code	L mm	d mm	g	
<b>11040000</b>	152	11,6	61	5

### 407 Universal joint

- DIN 3123/ISO 3316



Code	L mm	d mm	g	
<b>11020000</b>	37	12,8	23	5

### 407QR QuickRelease universal joint

QR

- with QuickRelease safety lock
- patent



Code	L mm	g	
<b>11021000</b>	45	35	1

## Socket sets and sockets

6.3  
1/4"

DIN  
3120

ISO  
1174-1

### 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	Δ△ g
<b>96 12 1003</b>	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	Δ△ g	☐
<b>11030002</b>	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	Δ△ g
<b>96 12 1002</b>	120

### 409M Extending adaptor

- 1/4" socket x 3/8" plug (6.3 x 10)



Code	L mm	∅ mm	Δ△ g	☐
<b>11030010</b>	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	Δ△ g	☐
<b>11030003</b>	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	Δ△ g	☐
<b>11 1800 10</b>	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	Δ△ g	☐
<b>11 1800 20</b>	10	20	11.6	11	5

### 417/1 Locking adaptor

- with hexagon key wrench No 10760aCV 3/32"

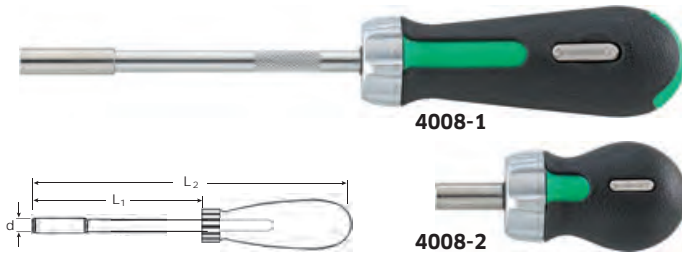


Code	L mm	d mm	Δ△ g	☐
<b>96 11 2701</b>	42	13	23	1



## 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	Ø	"	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	△△ g	📦
<b>18 120001</b>	<b>1</b>	D 6.3	1/4	127	250	10	220	1
<b>18 120002</b>	<b>2</b>	D 6.3	1/4	25	95	10	137	1

inside Ø 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
<b>96 182203</b>	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
<b>96016303</b>	556

## 415SGH N Hi-Lok-ratchet, fine tooth



- 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	📦
<b>11 11 00 10</b>	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
<b>1901 00 13</b>	21

## 414H Hi-Lok extensions

- with lock-on facility as on ratchet No 415SGH N
- patent



Code	size	L mm	d mm	△△ g	📦
<b>11 24 00 11</b>	<b>2</b>	54	13	34	1
<b>11 24 00 12</b>	<b>4</b>	102	13	49	1
<b>11 24 00 13</b>	<b>6</b>	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	📦
<b>43 06 20 02</b>	<b>1</b>	2	50	5	5
<b>43 06 40 02</b>	<b>2</b>	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	📦
<b>43 56 00 04</b>	<b>1</b>	1/16	50	5	5
<b>43 56 40 04</b>	<b>2</b>	1/16	100	8	5
<b>43 56 00 05</b>	<b>1</b>	5/64	50	5	5
<b>43 56 40 05</b>	<b>2</b>	5/64	100	8	5
<b>43 56 00 06</b>	<b>1</b>	3/32	50	5	5
<b>43 56 40 06</b>	<b>2</b>	3/32	100	8	5

6,3  
1/4"

DIN  
3120

ISO  
1174-1

3

## Socket sets and sockets

6,3  
1/4"

DIN  
3120

ISO  
1174-1

### 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
<b>96011119</b>	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
<b>96011304</b>	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
<b>96011124</b>	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
<b>96011180</b>	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
<b>96011134</b>	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
<b>96011305</b>	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
<b>96011136</b>	998

**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  $\ominus$  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  $\oplus$  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
<b>96011137</b>		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  $\ominus$  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  $\oplus$  No 44P: PH1; PH2
- 2 screwdriver sockets  $\oplus$  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
<b>96011182</b>		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  $\ominus$  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  $\oplus$  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
<b>96011306</b>		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
<b>96011162</b>		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  $\ominus$  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  $\oplus$  No 44P: PH1; PH2
- 2 screwdriver sockets  $\oplus$  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
<b>96011138</b>		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
<b>96010107</b>		1324

## Socket sets and sockets

6,3  
1/4"

DIN  
3120

ISO  
1174-1

### 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	ΔΔ g
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96011113	896
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### 40/44/17/5QR 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 415QR N
- 1 extension No 405QR/6 (150 mm)
- 1 universal joint No 407QR
- 1 drive handle 400QR
- 1 T-handle No 404QR



Code	ΔΔ g
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96011181	914
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### 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	ΔΔ g
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96012047	2712
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### 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	ΔΔ g
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96011160	4915
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### 40/20/4QR SCI Socket set 1/4"

- 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	ΔΔ g
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96010127	605
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### 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	ΔΔ g
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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
<b>96013702</b>	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
<b>98811908</b>	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
<b>96013701</b>	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
<b>96015107</b>	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
<b>96016302</b>	700

## Socket sets and sockets

6,3  
1/4"

DIN  
3120

ISO  
1174-1

### 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





















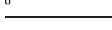


- 175 x 350 x 41 mm
- 27 pieces



Code  g

96838110 1035

No	Content
 40	1/4"  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

### TCS 1/4" + 10760CV
























TCS

- 175 x 350 x 43 mm
- 27 pieces



Code  g

96838176 987

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

### TCS 1/4" + 10760CV QR



QR





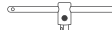













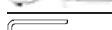


TCS

- 175 x 350 x 43 mm
- 27 pieces



Code  g

96830364 987

No	Content
 40	1/4"  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"   54 mm
 405QR/6	1/4"   150 mm
 407QR	1/4"   38 mm
 412	1/4"  
 415QR N	1/4" 
 10760 CV	1.5; 2; 2.5; 3; 4; 5; 6; 8; 10; 12 mm

### TCS 40/41/44/8



TCS



- 175 x 350 x 45 mm
- 33 pieces

Code	△△ g
<b>96830217</b>	715

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

### TCS 40/35/9



TCS



- 175 x 350 x 40 mm
- 44 pieces

Code	△△ g
<b>96830601</b>	1045

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

### TCS 40/41/44/8QR



QR

TCS



- 175 x 350 x 45 mm
- 33 pieces

Code	△△ g
<b>96830365</b>	715

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

### TCS 40/35/9QR



QR

TCS



- 175 x 350 x 40 mm
- 44 pieces

Code	△△ g
<b>96830366</b>	1045

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

# Socket sets and sockets

10  
3/8"

DIN  
3120

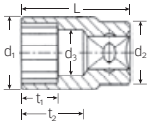
ISO  
1174-1

3

## 45 Sockets

AS HPQ

- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3709
- HPQ® high performance steel, chrome plated



Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	g	
	mm	mm	mm	mm	mm	mm	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

## 45a Sockets

AS HPQ

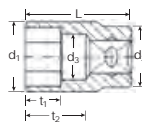
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	g	
	"	mm	mm	mm	mm	mm	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

## 456 Sockets

AS HPQ

- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3709 (test loads)
- HPQ® high performance steel, chrome plated

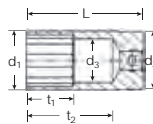


Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	g	
	mm	mm	mm	mm	mm	mm	mm	g	
02110007	7	10.5	16.5	6	24	6	12.5	19	10
02110008	8	11.7	16.5	7	25	7	13.5	19	10
02110009	9	13	16.5	8	25	7	13.5	20	10
02110010	10	14.3	16.5	9	27	8.5	15.5	20	10
02110011	11	15.6	16.5	10	27	8.5	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

## 460a Sockets

AS HPQ

- SAE AS 954-E, S.B.A.C. AS 40610/40611, ASME B 107.1
- HPQ® high performance steel, chrome plated



Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	g	
	"	mm	mm	mm	mm	mm	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.



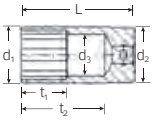
High Performance Quality (HPQ®) high-performance steel - extremely resilient, yet thin-walled and ideal for working in confined spaces.



## 46 Sockets



- 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	Ø mm/"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> 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 <sup>1)</sup>	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

<sup>1)</sup> with rubber insert for spark plugs

## 46a Sockets



- extra deep
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E
- HPQ® high performance steel, chrome plated

Code	Ø "	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> 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

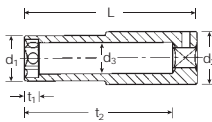
- for 20.8 mm (No 46; 51; 51S)

Code	△ g	
09010001	6	5

## 3466 Spark plug socket



- extra deep
- with magnet
- HPQ® high performance steel, chrome plated

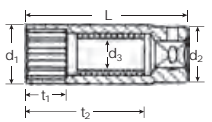


Code	Ø mm/"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	△ g	
02140036	16-5/8	21.8	25.5	15	85	7	72.9	180	5

## 4600 Spark plug socket



- extra deep
- with rubber insert
- HPQ® high performance steel, chrome plated

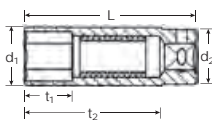


Code	Ø mm/"	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	△ g	
02120036	16-5/8	21.7	19.5	60	15	47.8	84	10

## 4606 Spark plug socket



- extra deep
- with rubber insert
- HPQ® high performance steel, chrome plated



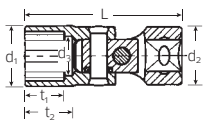
Code	Ø mm/"	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	△ g	
02130018	18-11/16	24.2	22	65	18	52.8	132	10

assembly of spark plugs on motorcycles, mopeds

## 47 UNIFLEX sockets



- HPQ® high performance steel, chrome plated



Code	Ø mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> 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

# Socket sets and sockets

10  
3/8"

DIN  
3120

ISO  
1174-1

## 47a UNIFLEX sockets

HPQ AS  
DRIVE

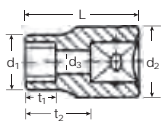
- SAE AS 954-E
- HPQ® high performance steel, chrome plated

Code	size	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ 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 <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ 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

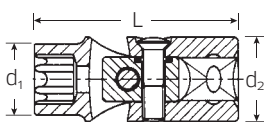
- for external TORX® screws
- packed in carton
- Content 7 pieces:  
E5; E6; E7; E8; E10; E12; E14



Code	ΔΔ g
96022702	219

## 47TX UNIFLEX sockets

- for external TORX® screws
- Chrome Alloy Steel, chrome plated

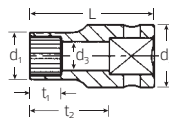


Code	size	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	ΔΔ g	
02070008	E8	7.5	11.5	19	43	56	1
02070010	E10	9.4	13.8	19	44	61	1
02070012	E12	11.1	16	19	46	66	1
02070014	E14	12.9	17.8	19	48	75	1

## 45aSP Sockets

HPQ

- for external Spline-Drive screws
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated

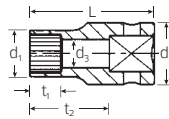


Code	Spline size	"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ g	
02011012	12	3/8	13.7	16.5	8.6	26.5	9	15	24	1
02011014	14	7/16	16	17.3	10.4	28	11	14.5	37	1
02011016	16	1/2	18	18.3	12.2	28	11.5	14	28	1

## 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

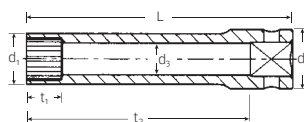


Code	Spline size	"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ g	
22410028	14	7/16	18.8	18.8	10.4	28	11	14.5	36	10

## 46aSP Sockets

HPQ

- for external Spline-Drive screws
- extra deep
- bolt clearance
- MS-33787, MIL-W-8982
- HPQ® high performance steel, chrome plated

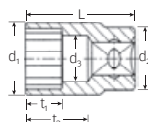


Code	Spline size	"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>2</sub> mm	ΔΔ g	
02021012	12	3/8	13.7	16.5	8.6	54	42.5	52	1
02021014	14	7/16	16	17.3	10.4	54	42.5	63	1

## 45aP Socket

AS  
DRIVE HPQ

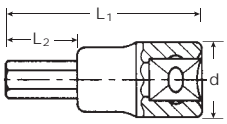
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- for disassembling jet engines, series CFM 56
- HPQ® high performance steel, gunmetal finish



Code	Spline size	"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ g	
02430020	5/16	11.9	16.5	8.1	25	7	13.5	19	10	

**49** ● **INHEX sockets**

- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated



Code	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>02050003</b>	<b>3</b>	52	20	17.8	38	5
<b>02050004</b>	<b>4</b>	52	20	17.8	40	5
<b>02050005</b>	<b>5</b>	52	20	17.8	44	5
<b>02050006</b>	<b>6</b>	52	20	17.8	46	5
<b>02050007</b>	<b>7</b>	52	20	17.8	51	5
<b>02050008</b>	<b>8</b>	52	20	17.8	55	5
<b>02050010</b>	<b>10</b>	52	20	17.8	62	5

**49a** ● **INHEX sockets**

- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated

Code	"	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>02450008</b>	<b>1/8</b>	52	20	17.8	39	5
<b>02450009</b>	<b>9/64</b>	52	20	17.8	40	5
<b>02450010</b>	<b>5/32</b>	52	20	17.8	40	5
<b>02450012</b>	<b>3/16</b>	52	20	17.8	44	5
<b>02450014</b>	<b>7/32</b>	52	20	17.8	46	5
<b>02450016</b>	<b>1/4</b>	52	20	17.8	48	5
<b>02450020</b>	<b>5/16</b>	52	20	17.8	55	5
<b>02450024</b>	<b>3/8</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>02151004</b>	<b>4</b>	100	68	17.8	45	5
<b>02151005</b>	<b>5</b>	100	68	17.8	50	5
<b>02151006</b>	<b>6</b>	100	68	17.8	50	5
<b>02151208</b>	<b>8</b>	120	88	17.8	85	5
<b>02151210</b>	<b>10</b>	120	88	17.8	106	5

**1049/3049** ● **INHEX sockets**

- for socket head screws
- DIN 7422
- special lengths
- Chrome Alloy Steel, chrome plated

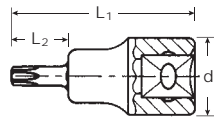


Code	No	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>02151007</b>	<b>1049/7</b>	7	100	68	17.8	66	5
<b>02152408</b>	<b>3049/8</b>	8	24	6.5	19	28	5
<b>02151009</b>	<b>1049/9<sup>1)</sup></b>	9	57	25	17.8	62	5

<sup>1)</sup> for brake calliper retainers on BMW and MINI

**49TX** ● **Screwdriver sockets**

- for inside TORX® screws
- Chrome Alloy Steel, chrome plated



Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>02100009</b>	<b>T9</b>	2.5	49	17	17.8	45	5
<b>02100010</b>	<b>T10</b>	2.7	49	17	17.8	45	5
<b>02100015</b>	<b>T15</b>	3.3	49	17	17.8	45	5
<b>02100020</b>	<b>T20</b>	3.8	49	17	17.8	46	5
<b>02100025</b>	<b>T25</b>	4.4	49	17	17.8	46	5
<b>02100027</b>	<b>T27</b>	5	49	17	17.8	46	5
<b>02100030</b>	<b>T30</b>	5.5	49	17	17.8	47	5
<b>02100040</b>	<b>T40</b>	6.6	49	17	17.8	48	5
<b>02100045</b>	<b>T45</b>	7.8	49	17	17.8	49	5

**49TX/8** ● **Set screwdriver sockets**

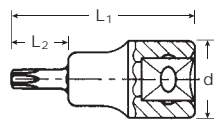
- for inside TORX® screws
- packed in carton
- Content 8 pieces:  
No 49TX: T9; T10; T15; T20; T25; T27; T30; T40



Code	g
<b>96021001</b>	456

**49X** ● **Screwdriver sockets**

- for tri-square socket head screws (XZN®)
- DIN 2324
- Chrome Alloy Steel, chrome plated



Code	size	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>02060005</b>	<b>M5</b>	52	20	17.8	45	5
<b>02060006</b>	<b>M6</b>	52	20	17.8	47	5
<b>02060008</b>	<b>M8</b>	52	20	17.8	56	5
<b>02060010</b>	<b>M10</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>02261206</b>	<b>M6</b>	120	88	17.8	72	1
<b>02261208</b>	<b>M8</b>	120	88	17.8	80	5
<b>02261210</b>	<b>M10</b>	120	88	17.8	106	5

## Socket sets and sockets

10  
3/8"

DIN  
3120

ISO  
1174-1

### 45CL Clip strips

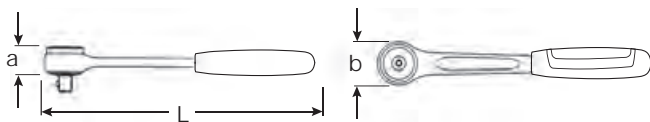
- for socket retention
- supplied without sockets



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	☐
1223 10 11	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	☐
1211 10 10	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	☐
1211 00 20	193	29	18	244	1

### 435QR N QuickRelease ratchet, fine tooth

- QR FCD 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	☐
1211 10 20	193	30	15	235	1

### 435SG-QR N QuickRelease ratchet, fine tooth

- QR FCD 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	☐
1211 10 30	193	30	15	272	1

### 452QR QuickRelease fine-tooth flexible-joint ratchet

- QR FCD 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	☐
1226 10 10	300	28.2	14.5	350	1

### 445 Ratchet adaptor

- reversible
- 20 teeth



Code	L mm	∅ mm	△△ g	☐
1214 00 00	43	30	135	1

### 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

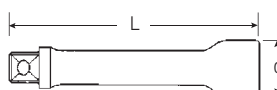
- with QuickRelease safety lock
- patent



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

## Socket sets and sockets

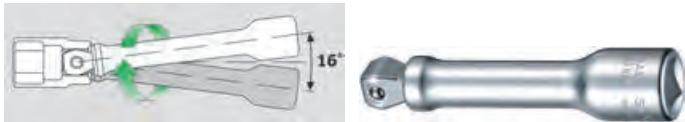
10  
3/8"

DIN  
3120

ISO  
1174-1

### 427W Wobble-Drive extensions

- swivel angle 15° each side
- max. torque 80 N·m



Code	size	L mm	d mm	g	g	g
12010007	3	76	17	67	5	
12010008	5	125	17	104	5	
12010009	6	160	17	127	5	

### 427QR QuickRelease extensions

- patent
- DIN 3123/ISO 3316



Code	size	L mm	d mm	g	g	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	g	g
96122701	52	18	57	1	

### 434 Extension, flexible

- right hand rotation only
- maximum torque 7 N·m



Code	L mm	d mm	g	g	g
12040000	194	14	109	5	

### 1225 Special extension

- offset



Code	L mm	d mm	g	g	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	g	g
12270020	355	330	1	

### 428 Universal joint

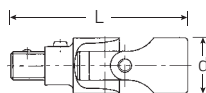
- DIN 3123/ISO 3316



Code	L mm	d mm	g	g	g
12020000	46	18.8	55	5	

### 428QR QuickRelease universal joint

- patent
- DIN 3123/ISO 3316
- with QuickRelease safety lock



Code	L mm	d mm	g	g	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	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	g	g
12030001	28	17.2	26	5	

### 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	
<b>12030003</b>	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
<b>96 12 1002</b>	120

### 432M Extending adaptor

- 3/8" socket x 1/2" plug (10 x 12.5)



Code	L mm	∅ mm	g	
<b>12030010</b>	16	32	22	1

### 442 Bit holder

- 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	
<b>12 180026</b>	32	16.5	30	5

### 443 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	
<b>12 180030</b>	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
<b>9602 1109</b>	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
<b>9602 2133</b>	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
<b>9602 4132</b>	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
<b>9602 3132</b>	1758

10  
3/8"

DIN  
3120

ISO  
1174-1

3

## Socket sets and sockets

10  
3/8"

DIN  
3120

ISO  
1174-1

### 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
9602 1180	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
9602 1223	2428

### 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
9602 1234	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
9602 1236	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
9602 1202	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
9601 2047	2712



**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
<b>96023128</b>	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
<b>96021122</b>	2660

**45ma/28/5QR 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 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
<b>96020107</b>	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



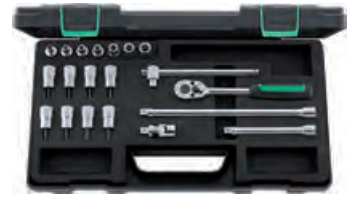
Code	g
<b>96020108</b>	6521

**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
<b>96023703</b>	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
<b>96022119</b>	2860

## Socket sets and sockets

10  
3/8"

DIN  
3120

ISO  
1174-1

3

### 89TX Socket set TORX® 1/4; 3/8; 1/2"

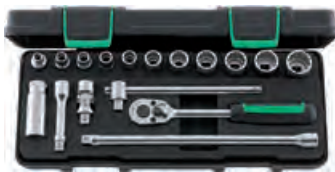
- in sturdy, stackable ABS plastic case
- Content 35 pieces:
- 3 sockets for external TORX® screws No 40TX: sizes E4; E5; E6
- 2 screwdriver sockets for internal TORX® screws No 44KTX: sizes T8; T9
- 4 sockets for external TORX® screws No 45TX: sizes E7; E8; E10; E12
- 5 screwdriver sockets for internal 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  $\oplus$  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	$\Delta$ $\nabla$ 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	$\Delta$ $\nabla$ g
96025204	1652

### 45a/14/8QR Socket set 3/8"

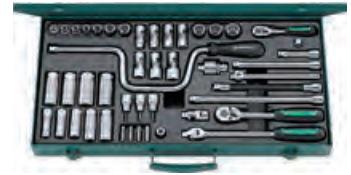
- in sturdy, stackable ABS plastic case
- Content 22 pieces:
- 14 sockets with bi-hexagon No 45a: 1/4; 5/16; 11/32; 3/8; 7/16; 1/2; 9/16; 5/8; 11/16; 3/4; 13/16; 7/8; 15/16; 1"
- 1 ratchet No 435SG-QR
- 3 extensions No 427/3QR (76 mm), No 427/6QR (160 mm), No 427/10QR (240 mm)
- 1 universal joint No 428QR
- 2 bit-holders No 442, No 443
- 1 speeder brace No 453



Code	$\Delta$ $\nabla$ 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  $\oplus$  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	$\Delta$ $\nabla$ g
96024113	6540

### 45a/22/8QR Socket set 3/8"

- 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	$\Delta$ $\nabla$ g
96025207	3685

### ES 456/16/6



- 175 x 350 x 40 mm
- 22 pieces



Code	△▽ g
<b>96838111</b>	1555

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

### TCS 456/16/6



- 175 x 350 x 45 mm
- 22 pieces



Code	△▽ g
<b>96838752</b>	1465

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

### TCS 456/16/6QR



- 175 x 350 x 45 mm
- 22 pieces



Code	△▽ g
<b>96830367</b>	1465

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

### TCS 456/16/7



- 175 x 350 x 40 mm
- 23 pieces



Code	△▽ g
<b>96830218</b>	1400

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

### TCS 456/16/7QR



- 175 x 350 x 40 mm
- 23 pieces



Code	△▽ g
<b>96830370</b>	1400

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

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



- 175 x 350 x 40 mm
- 24 pieces



Code	△▽ g
<b>96838772</b>	1188

No	Content
<b>49</b>	3/8" ○ 4; 5; 6; 7; 8; 10 mm
<b>1049</b>	3/8" ○ 7 mm
<b>2049</b>	3/8" ○ 4; 5; 6; 8; 10 mm
<b>45TX</b>	3/8" ○ sizes E5; E6; E7; E8; E10; E12
<b>49TX</b>	3/8" ○ sizes T10; T15; T20; T25; T30; T40

## Socket sets and sockets

10  
3/8"

DIN  
3120

ISO  
1174-1

### TCS 456/16/4MF



- 175 x 350 x 45 mm
- 20 pieces

Code	△ g
<b>96830357</b>	1123

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

### TCS 456/16/4MF QR



NEW



- 175 x 350 x 45 mm
- 20 pieces

Code	△ g
<b>96830371</b>	1123

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

### TCS 456/31/8



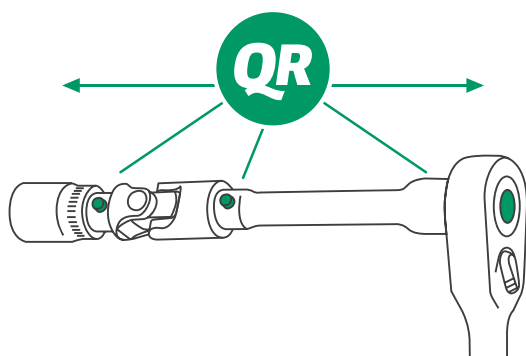
- 350 x 350 x 32 mm
- 39 pieces

Code	△ g
<b>96830602</b>	2701

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

### QuickRelease safety lock.

Fast and safe.



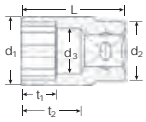
The QuickRelease technology ensures tools cannot be inadvertently lost - while enabling rapid, safe tool changes.



## 50 Sockets



- DIN 3124/ISO 2725-1, E DIN EN 3709, ASME B 107.5 M
- HPQ® high performance steel, chrome plated



Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	Δ	g	
	mm	mm	mm	mm	mm	mm	mm			
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	

## 50a Sockets



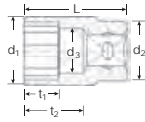
- ASME B 107.1, Fed. Spec. GGG-W-641, SAE AS 954-E (test loads)
- HPQ® high performance steel, chrome plated

Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	Δ	g	
	"	mm	mm	mm	mm	mm	mm			
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	

## 52 Sockets



- DIN 3124/ISO 2725-1, ASME B 107.5M, E DIN EN 3709 (test loads)
- HPQ® high performance steel, chrome plated



Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	Δ	g	
	mm	mm	mm	mm	mm	mm	mm			
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	

## ES 52/17



- 175 x 350 x 47 mm
- 17 pieces

Code	Δ	g
96838112		1760

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

## Socket sets and sockets

12,5  
1/2"

DIN  
3120

ISO  
1174-1

### TCS 52/17



- 175 x 350 x 40 mm
- 17 pieces

Code



g

**96838177**

1605

No	Content
<b>52</b>	1/2" $\varnothing$ 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
<b>52</b>	1/2" $\varnothing$ 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
<b>50</b>	1/2" $\varnothing$ 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 30 mm
<b>51</b>	1/2" $\varnothing$ 22; 27 mm
<b>52</b>	1/2" $\varnothing$ 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

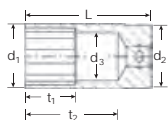
No	Content
<b>50a</b>	1/2" $\varnothing$ 3/8; 7/16; 1/2; 9/16; 19/32; 5/8; 11/16; 3/4; 25/32; 13/16; 7/8; 15/16; 1; 1 1/16; 1 1/8; 1 3/16; 1 1/4"

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	$\varnothing$ mm/"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	$\varnothing$ g	
<b>03020010</b>	<b>10</b>	14.5	22	9	83	19	67	90	10
<b>03020013</b>	<b>13</b>	18.3	22	12	83	35	67	122	10
<b>03020014</b>	<b>14</b>	19.9	22.7	13	83	35	65.2	129	10
<b>03020015</b>	<b>15</b>	21.2	22.7	14	83	35	64.9	125	10
<b>03020016</b>	<b>16</b>	22.4	23.7	15	83	35	64.6	145	10
<b>03020216</b>	<b>16-5/8<sup>1)</sup></b>	22.4	23.7	15.4	83	19	64.5	137	10
<b>03020017</b>	<b>17</b>	24	23.7	16	83	35	64.3	145	10
<b>03020018</b>	<b>18</b>	24.7	23.7	17	83	35	64.1	170	10
<b>03020019</b>	<b>19</b>	26.2	25	18	83	35	66.7	165	10
<b>03020208</b>	<b>20.8-13/16<sup>1)</sup></b>	27.7	26	20	83	22	66.2	194	10
<b>03020021</b>	<b>21</b>	28.7	26.5	20	83	35	66.2	231	10
<b>03020022</b>	<b>22</b>	29.7	27.5	21	83	35	65.5	200	10
<b>03020024</b>	<b>24</b>	32	30	21	83	35	66.1	251	5
<b>03020026</b>	<b>26</b>	34.4	32.5	23	83	35	65.3	334	5
<b>03020027</b>	<b>27<sup>2)</sup></b>	36.2	34	27	83	20	60	280	5
<b>03020030</b>	<b>30<sup>2)</sup></b>	39.7	37.5	30.2	83	35	65	341	5
<b>03020032</b>	<b>32</b>	42.4	40	29	83	35	63.9	435	5

<sup>1)</sup> with rubber insert for spark plugs

<sup>2)</sup> 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	$\varnothing$ "	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	$\varnothing$ g	
<b>03420024</b>	<b>3/8</b>	14.3	22	8.3	83	19	67	93	5
<b>03420028</b>	<b>7/16</b>	16.3	22	9.9	83	19	67	102	5
<b>03420032</b>	<b>1/2</b>	18.3	22	11.5	83	35	67	122	5
<b>03420034</b>	<b>9/16</b>	20.3	22.7	13.1	83	35	65.2	131	5
<b>03420036</b>	<b>5/8</b>	22.4	23.7	15	83	35	64.6	135	5
<b>03420038</b>	<b>11/16</b>	24.2	23.7	16.5	83	35	64.2	158	5
<b>03420040</b>	<b>3/4</b>	26.2	25	18	83	35	66.7	188	5
<b>03420042</b>	<b>13/16</b>	27.7	26	19.5	83	35	66.3	170	5
<b>03420044</b>	<b>7/8</b>	29.7	27.5	21	83	35	65.9	200	5
<b>03420046</b>	<b>15/16</b>	32	30	22.6	83	35	65.7	281	5
<b>03420048</b>	<b>1</b>	33.7	32	24.2	83	35	65	260	5
<b>03420050</b>	<b>1 1/16</b>	36.2	34	25.8	83	35	64.5	359	5
<b>03420052</b>	<b>1 1/8</b>	38.1	36	27.4	83	35	64	300	5
<b>03420054</b>	<b>1 3/16</b>	39	37	28	83	35	63.9	377	5
<b>03420056</b>	<b>1 1/4</b>	40	38	30.5	83	35	63.1	340	5
<b>03420058</b>	<b>1 5/16</b>	41.8	40	32.1	83	35	62.7	375	5
<b>03420060</b>	<b>1 3/8</b>	46	44	33.7	83	35	62.2	506	5
<b>03420062</b>	<b>1 7/16</b>	49.4	47	34	83	35	62.1	635	5
<b>03420064</b>	<b>1 1/2</b>	51	49	35	83	35	61.8	675	5

5100

### Rubber insert

- for 20.8 mm (No 46; 51; 51S)

Code	$\varnothing$ g	
<b>09010001</b>	6	5

## 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	$\Delta$ g
96030212	2378

## TCS 51/11



TCS

- 175 x 350 x 50 mm
- 11 pieces



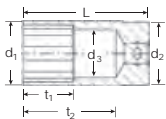
Code	$\Delta$ g
96838776	2345

No	Content
51	1/2" $\bullet$ 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



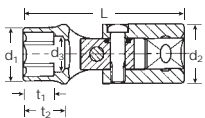
Code	$\bullet$ mm/"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	$\Delta$ g	
03240017	17	24	23.7	16	83	35	64.3	157	10
03240019	19	26.2	25	18	83	35	66.7	190	10
03240208	20.8-13/16 <sup>1)</sup>	27.7	26	20	83	22	66.2	196	10
03240022	22	29.7	27.5	21	83	35	65.9	210	10

<sup>1)</sup> 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

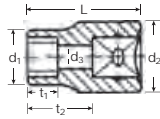


Code	$\bullet$ mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>2</sub> mm	$\Delta$ g	
03040010	10	14.7	25	9	70	20	136	1
03040013	13	18.4	25	12	70	20	140	1
03040016	16	22.4	25	15	69	17	141	1
03040017	17	23.5	25	16	70	18	141	1
03040018	18	25	25	17	70	18	145	1
03040019	19	26.3	25	18	70	17.5	148	1

## 50TX Sockets

HPQ

- for external TORX® screws
- HPQ® high performance steel, chrome plated



Code	size	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	$\Delta$ 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	$\Delta$ 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	$\Delta$ g
96033704	980

## TCS 50TX/54TX/17



TCS

- 175 x 350 x 40 mm
- 17 pieces



Code	$\Delta$ g
96838763	1415

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

# Socket sets and sockets

12,5  
1/2"

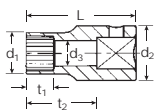
DIN  
3120

ISO  
1174-1

## 50aPSP Sockets

HPQ

- for external Spline-Drive screws
- MS-33787
- HPQ® high performance steel, gunmetal finish

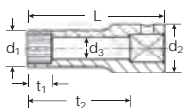


Code	Spline size	"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ g	
03012024	12	3/8	15.5	22	8.6	38	9.5	22	55	5
03012028	14	7/16	18	23.7	10.4	38	11	22	65	5
03012034	18	9/16	22	23.7	13.5	38	12	20	71	5

## 50aPLSP Socket

HPQ

- for external Spline-Drive screws
- extra deep
- bolt clearance
- MS-33787
- HPQ® high performance steel, gunmetal finish

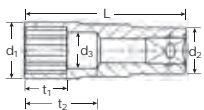


Code	Spline size	"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ g	
03013028	14	7/16	18	23.7	10.4	50	11	34	83	5

## 51aP Socket

HPQ

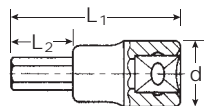
- extra deep
- bolt clearance
- for the brakes on A320/A321
- HPQ® high performance steel, gunmetal finish



Code	"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	ΔΔ 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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	ΔΔ 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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	ΔΔ 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	ΔΔ 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	ΔΔ g
96031503	1894

## ES 54/54KK

- 175 x 350 x 38 mm
- 14 pieces



Code	ΔΔ 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



### TCS 54/54X/16



TCS



- 175 x 350 x 35 mm
- 16 pieces

Code	△▽ g
<b>96838762</b>	1745

No	Content
<b>54</b>	1/2" ⌀ 4; 5; 6; 7; 8; 10; 12; 14; 17 mm
<b>54X</b>	1/2" ⌀ 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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	△▽ g	
<b>03151205</b>	<b>2054/5</b>	5	120	82	22.7	80	5
<b>03151206</b>	<b>2054/6</b>	6	120	82	22.7	84	5
<b>03151207</b>	<b>2054/7</b>	7	120	82	22.7	96	5
<b>03151208</b>	<b>1054/8K</b>	8	120	82	22.7	104	5
<b>03151410</b>	<b>1054/10</b>	10	140	102	22.7	150	5
<b>03151412</b>	<b>1054/12<sup>1)</sup></b>	12	140	100	23.7	200	5
<b>03151414</b>	<b>2054/14</b>	14	140	100	23.7	231	5

<sup>1)</sup> 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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	△▽ g	
<b>03151805</b>	<b>1054/5</b>	5	180	20	22	118	5
<b>03150706</b>	<b>1054/6</b>	6	70	32	22.7	72	5
<b>03151006</b>	<b>3054/6<sup>1)</sup></b>	6	100	62	22.7	80	5
<b>03152206</b>	<b>1054/6L</b>	6	220	182	22.7	108	5
<b>03151007</b>	<b>1054/7</b>	7	100	62	22.7	87	5
<b>03150808</b>	<b>3054/8</b>	8	80	42	22.7	88	5
<b>03151408</b>	<b>1054/8</b>	8	140	102	22.7	114	5
<b>03150713</b>	<b>1054/13</b>	13	70	25	24	130	5

<sup>1)</sup> 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
<b>96838164</b>	900

No	Content
<b>1054</b>	1/2" ⌀ 8; 10; 12 mm
<b>2054</b>	1/2" ⌀ 5; 6; 14 mm

### TCS 1054/2054/10



TCS



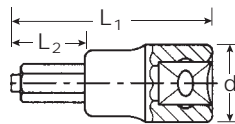
- 175 x 350 x 40 mm
- 10 pieces

Code	△▽ g
<b>96838760</b>	1272

No	Content
<b>1054</b>	1/2" ⌀ 8; 10; 12 mm
<b>2054</b>	1/2" ⌀ 5; 6 mm
<b>1054TX</b>	1/2" ⌀ sizes T30; T50; T55
<b>2054TX</b>	1/2" ⌀ sizes T40; T45

### 54IC INHEX sockets

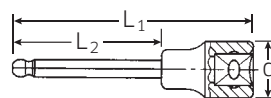
- for hexagon socket head screws with guide pin
- Chrome Alloy Steel, chrome plated



Code	⌀ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	△▽ g	
<b>03070005</b>	<b>5</b>	60	22	22.7	65	5
<b>03070006</b>	<b>6</b>	60	22	22.7	71	5
<b>03070008</b>	<b>8</b>	60	22	22.7	80	5
<b>03070010</b>	<b>10</b>	60	22	22.7	95	5
<b>03070012</b>	<b>12</b>	60	20	23.7	120	5
<b>03070014</b>	<b>14</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	△▽ g	
<b>03280005</b>	<b>5</b>	100	62	22.7	75	5
<b>03280006</b>	<b>6</b>	100	62	22.7	80	5
<b>03280007</b>	<b>7<sup>1)</sup></b>	100	62	22.7	85	5
<b>03280008</b>	<b>8</b>	100	62	22.7	95	5
<b>03280010</b>	<b>10</b>	100	62	22.7	120	5

<sup>1)</sup> Application: BMW brakes

## Socket sets and sockets

12,5  
1/2"

DIN  
3120

ISO  
1174-1

### 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 <sub>1</sub> mm	L <sub>2</sub> 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 <sub>1</sub> mm	L <sub>2</sub> 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

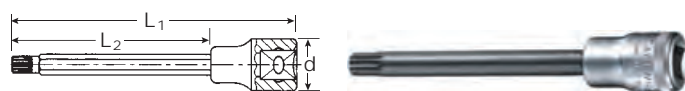
- for trisquare socket head screws (XZN®)
- DIN 2324
- Chrome Alloy Steel, chrome plated



Code	size	L <sub>1</sub> mm	L <sub>2</sub> 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 <sub>1</sub> mm	L <sub>2</sub> 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

### 1054x/2054x Screwdriver sockets

- for trisquare socket head screws (XZN®)
- special lengths
- DIN 2324
- Chrome Alloy Steel, chrome plated

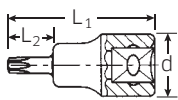


Code	No	size	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	$\Delta$ g	
03 16 08 08	1054X	M8	80	42	22.7	86	5
03 16 12 08	2054X	M8	120	82	22.7	104	5
03 16 11 10	2054X	M10	110	72	22.7	130	5
03 16 11 12	2054X	M12	110	70	23.7	168	5

Application: No 1054x, M8, for jointed shafts on VW/Audi

### 54TX Screwdriver sockets

- for inside TORX® screws
- Chrome Alloy Steel, chrome plated



Code	size	$\Delta$ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	$\Delta$ g	
03 10 00 20	T20	3.8	55	17	22.7	71	5
03 10 00 25	T25	4.4	55	17	22.7	71	5
03 10 00 27	T27	5	55	17	22.7	72	5
03 10 00 30	T30	5.5	55	17	22.7	72	5
03 10 00 40	T40	6.6	55	17	22.7	75	5
03 10 00 45	T45	7.8	55	17	22.7	74	5
03 10 00 50	T50	8.8	55	17	22.7	87	5
03 10 00 55	T55	11.2	58	18	23.7	110	5
03 10 00 60	T60	13.2	58	18	23.7	113	5
03 10 00 70	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	$\Delta$ g
96 03 10 04	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	$\Delta$ g
96 03 20 05	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	$\Delta$ g
96 03 20 06	2710

### ES 54X/54TX

- 175 x 350 x 38 mm
- 16 pieces



Code	$\Delta$ g
96 83 81 15	1600

No	Content
54X	1/2" $\Delta$ M5; M6; M8; M10; M12; M14; M16
54TX	1/2" $\Delta$ sizes T20; T25; T27; T30; T40; T45; T50; T55; T60

### TCS 54/54TX/18

- 175 x 350 x 40 mm
- 18 pieces



Code	$\Delta$ g
96 83 87 82	1665

No	Content
54	1/2" $\Delta$ 4; 5; 6; 7; 8; 10; 12; 14; 17 mm
54TX	1/2" $\Delta$ 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	$\Delta$ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	$\Delta$ g	
03 13 12 30	1054TX	T30	5.5	120	82	22.7	99	5
03 13 14 40	2054TX	T40	6.6	140	102	22.7	110	5
03 13 14 45	2054TX	T45	7.8	140	102	22.7	111	5
03 13 14 50	1054TX	T50	8.8	140	102	22.7	140	5
03 13 14 55	1054TX	T55	11.2	140	102	22.7	159	5
03 13 14 60	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

## Socket sets and sockets

12,5  
1/2"


DIN  
3120

ISO  
1174-1

### 1054TX Screwdriver sockets

- for inside TORX® screws
- extra long
- Chrome Alloy Steel, chrome plated





code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	ΔΔ g	
<b>03 13 12 40</b>	<b>T40</b>	6.6	120	82	22.7	100	5
<b>03 13 12 45</b>	<b>T45</b>	7.8	120	82	22.7	100	5
<b>03 13 10 70</b>	<b>T70</b>	15.5	107	67	23.7	201	5

### ES 1054/2054TX/6



- 175 x 175 x 30 mm
- 6 pieces

Code	ΔΔ g
<b>96838163</b>	900

No	Content
 <b>1054TX</b>	1/2"  sizes T30; T50; T55; T60
<b>2054TX</b>	1/2"  sizes T40; T45

### 1054TX/4T Set screwdriver sockets

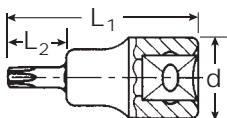
- for inside TORX® screws
  - in textile bag
- Content 4 pieces:  
No 1054TX: T40; T45; T50; T55




Code	ΔΔ g
<b>96031301</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	ΔΔ g	
<b>03 11 00 20</b>	<b>T20</b>	3.8	55	17	22.7	70	5
<b>03 11 00 25</b>	<b>T25</b>	4.4	55	17	22.7	65	5
<b>03 11 00 27</b>	<b>T27</b>	5	55	17	22.7	71	5
<b>03 11 00 30</b>	<b>T30</b>	5.5	55	17	22.7	71	5
<b>03 11 00 40</b>	<b>T40</b>	6.6	55	17	22.7	71	5
<b>03 11 00 45</b>	<b>T45</b>	7.8	55	17	22.7	72	5
<b>03 11 00 50</b>	<b>T50</b>	8.8	55	17	22.7	86	5
<b>03 11 00 55</b>	<b>T55</b>	11.2	58	18	23.7	111	5
<b>03 11 00 60</b>	<b>T60</b>	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	ΔΔ g
<b>96031007</b>	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	ΔΔ g
<b>96032008</b>	1178

### 50CL Clip strips

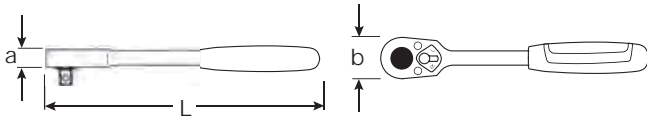
- for socket retention
- supplied without sockets



Code	size	L mm	ΔΔ g
<b>80500001</b>	<b>1</b>	200	54
<b>80500002</b>	<b>2</b>	300	73

## 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	1
<b>13 11 10 10</b>	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	1
<b>13 11 11 10</b>	265.5	41	22.5	613	1

### 512QR N QuickRelease ratchet, fine tooth



- 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	1
<b>13 11 11 20</b>	265.5	41	23	572	1

### 512SG-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	1
<b>13 11 10 30</b>	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	1
<b>13 23 10 11</b>	265	40	26.2	515	1

### 517QR 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/ISO 3315
- registered design



Code	L mm	b mm	a mm	g	1
<b>13 26 10 10</b>	416	41	22	920	1

### 522 Ratchet adaptor

- reversible
- 20 teeth



Code	L mm	∅ mm	g	1
<b>13 14 00 00</b>	67.5	40	316	1

### 532 Ratchet

- long handle
- reversible
- 36 teeth
- with 2-component handle



Code	L mm	b mm	a mm	g	1
<b>13 12 10 10</b>	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	1
<b>13 12 11 10</b>	380	41	22.5	815	1

## Socket sets and sockets

12,5  
1/2"

DIN  
3120

ISO  
1174-1

3

### 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
96034010	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
19040000	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
19040030	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
19042020	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
19040040	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
19040020	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
59251020	140

### 501 Speeder brace

- working radius 105 mm

- DIN 3122/ISO 3315



Code	L mm	g	boxes
13100010	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	boxes
13100005	456	872	1

### 504 Flexible handle

- DIN 3122/ISO 3315

- with 2-component handle



Code	size	L mm	g	boxes
13061015	15	397	735	1
13061018	18	469	831	1
13061024	24	610	1051	1

### 5040N Spare parts set for No 504

Content 3 pieces:

1 universal joint, 1 screw,

1 spring washer



Code	g
96190801	80

for version with black, manganese-phosphated TORX® screw

### 5040 Spare parts set for No 504

Content 3 pieces:  
1 universal joint, 1 screw,  
1 spring washer



Code		g
<b>96 19 08 00</b>		75

for version with chrome plated Philips-head screw

### 506 Sliding T-handle

• DIN 3122/ISO 3315



Code	L mm		g	
<b>13 07 00 00</b>	300		436	5

### 506QR QuickRelease sliding T-handle

**QR**  
• with QuickRelease safety lock  
• patent



Code	L mm		g	
<b>13 07 10 00</b>	300		470	1

### 509 Extensions

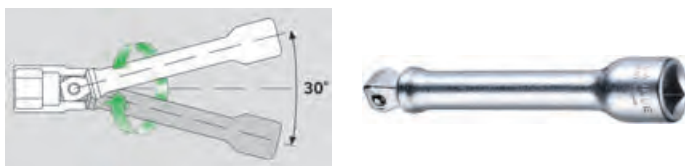
• DIN 3123/ISO 3316



Code	size	L mm	d mm		g	
<b>13 01 00 01</b>	<b>2</b>	52	23		88	5
<b>13 01 00 04</b>	<b>3</b>	75	23.2		120	5
<b>13 01 00 02</b>	<b>5</b>	130	23.2		191	5
<b>13 01 00 03</b>	<b>10</b>	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	
<b>13 01 00 05</b>	<b>2</b>	52	23		80	5
<b>13 01 00 06</b>	<b>3</b>	75	23.2		120	5
<b>13 01 00 07</b>	<b>5</b>	130	23.2		191	5
<b>13 01 00 08</b>	<b>10</b>	255	23.2		341	5

### 509QR QuickRelease extensions

**QR**  
• patent  
• DIN 3123/ISO 3316



Code	size	L mm	d mm		g	
<b>13 01 10 01</b>	<b>2</b>	52	23		90	1
<b>13 01 10 04</b>	<b>3</b>	75	23		123	1
<b>13 01 10 02</b>	<b>5</b>	130	23		187	1
<b>13 01 10 03</b>	<b>10</b>	255	23		341	1

### 3505 Special extension



Code	L mm	d mm		g	
<b>13 21 00 01</b>	120	23.2		186	1

### 510 Universal joint

• DIN 3123/ISO 3316



Code	L mm	d mm		g	
<b>13 02 00 00</b>	71	25		146	5

### 510QR QuickRelease universal joint

**QR**  
• DIN 3123/ISO 3316  
• with QuickRelease safety lock  
• patent



Code	L mm	d mm		g	
<b>13 02 10 00</b>	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
<b>96 12 10 03</b>		648

## Socket sets and sockets

12,5  
1/2"

DIN  
3120

ISO  
1174-1

### 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	ΔΔ g	
<b>13030002</b>	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	ΔΔ g	
<b>13030005</b>	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	ΔΔ g	
<b>58522089</b>	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	ΔΔ g
<b>96121002</b>	120

### 514M Extending adaptor

- 1/2" socket x 3/4" plug (12.5 x 20)



Code	L mm	∅ mm	ΔΔ g	
<b>13030010</b>	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	ΔΔ g	
<b>13180010</b>	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	ΔΔ g
<b>96031343</b>	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	ΔΔ g
<b>96031435</b>	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	ΔΔ g
<b>96031436</b>	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	ΔΔ g
<b>96031501</b>	3370



**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


**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
<b>9603 1406</b>	4478

Code	g
<b>9603 1448</b>	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


**52/16/6QR 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 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
<b>9603 1447</b>	4502

Code	g
<b>9603 1480</b>	4606

**50/16/6QR 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 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


**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
<b>9603 1446</b>	4502

Code	g
<b>9603 1407</b>	5076

## Socket sets and sockets

12,5  
1/2"

DIN  
3120

ISO  
1174-1

### 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

### 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

3

### 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

### 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

### 50ma/39/6QR 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 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

### 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

### 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	Δ△ g
9603 1440	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	Δ△ g
9603 1239	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	Δ△ g
9603 1240	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	Δ△ g
9603 1101	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	Δ△ g
9603 2301	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	Δ△ g
9603 3702	3655

## Socket sets and sockets

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	ΔΔ g
9881 1909	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	ΔΔ g
9601 3702	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	ΔΔ g
9881 1908	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	ΔΔ g
9603 5125	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	ΔΔ g
9603 5101	6700

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



- 175 x 350 x 35 mm
- 6 pieces



Code	△▽ g
<b>96838175</b>	1845

No	Content
<b>506</b>	1/2" ■ 300 mm
<b>509/2</b>	1/2" ■ ○ 52 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■

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



- 175 x 350 x 40 mm
- 9 pieces



Code	△▽ g
<b>96830603</b>	2364

No	Content
<b>506</b>	1/2" ■ 300 mm
<b>509/2</b>	1/2" ■ ○ 52 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm (2x)
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■
<b>513</b>	3/8" ■ 1/2" ○
<b>514</b>	3/4" ■ 1/2" ○

### ES 1/2" - 512/6



- 175 x 350 x 35 mm
- 6 pieces



Code	△▽ g
<b>96838113</b>	1915

No	Content
<b>506</b>	1/2" ■ 300 mm
<b>509/2</b>	1/2" ■ ○ 52 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■

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



- 175 x 350 x 35 mm
- 6 pieces



Code	△▽ g
<b>96830362</b>	1845

No	Content
<b>506QR</b>	1/2" ■ 300 mm
<b>509QR/2</b>	1/2" ■ ○ 52 mm
<b>509QR/5</b>	1/2" ■ ○ 130 mm
<b>509QR/10</b>	1/2" ■ ○ 255 mm
<b>510QR</b>	1/2" ■ ○ 80 mm
<b>512QR N</b>	1/2" ■

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



- 175 x 350 x 40 mm
- 9 pieces



Code	△▽ g
<b>96830363</b>	2364

No	Content
<b>506QR</b>	1/2" ■ 300 mm
<b>509QR/2</b>	1/2" ■ ○ 52 mm
<b>509QR/5</b>	1/2" ■ ○ 130 mm
<b>509QR/10</b>	1/2" ■ ○ 255 mm (2x)
<b>510QR</b>	1/2" ■ ○ 80 mm
<b>512QR N</b>	1/2" ■
<b>513</b>	3/8" ■ 1/2" ○
<b>514</b>	3/4" ■ 1/2" ○

## Socket sets and sockets

12,5  
1/2"

DIN  
3120

ISO  
1174-1

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



TCS



- 350 x 350 x 70 mm
- 36 pieces

Code	Δ	g
<b>96830354</b>		4604

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

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

NEW



TCS

QR



- 350 x 350 x 70 mm
- 36 pieces

Code	Δ	g
<b>96830360</b>		4604

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

### TCS 52/14/4



TCS



- 175 x 350 x 50 mm
- 18 pieces

Code	Δ	g
<b>96838781</b>		2510

No	Content
<b>52</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 22; 24; 27; 30 mm
<b>509/5</b>	1/2" ■ ○ 130 mm
<b>509/10</b>	1/2" ■ ○ 255 mm
<b>510</b>	1/2" ■ ○ 71 mm
<b>512</b>	1/2" ■

### TCS 52/14/4QR

NEW



TCS

QR



- 175 x 350 x 50 mm
- 18 pieces

Code	Δ	g
<b>96830352</b>		2510

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

### Tool Control System.

The safety inlay system.

**TCS**

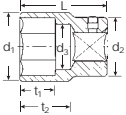


Designed to fit our Tool Trolleys and Tool boxes  
With yellow signal cut-outs to show whether all  
the tools are in their places.

## 55 Sockets

AS  
conv HPQ

- DIN 3124/ISO 2725-1, ASME B 107.5 M
- AS-drive and HPQ® high performance steel up to 38 mm, chrome plated



Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	△	g	
	mm	mm	mm	mm	mm	mm	mm			
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

AS  
conv HPQ

- SAE AS 954-E (test loads), ASME B 107.1
- AS-drive and HPQ® high performance steel up to 1 1/2", chrome plated

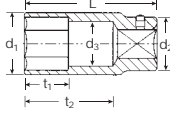


Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	△	g	
	"	mm	mm	mm	mm	mm	mm			
05410040	3/4	28.5	34.7	18.6	26	50	16	176	2	
05410042	13/16	31	34.7	19.4	25.1	51	16.5	190	2	
05410044	7/8	33	34.7	21	24.5	51	18	240	2	
05410046	15/16	34	34.7	22.5	24.2	51	18.5	248	2	
05410048	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

AS  
conv HPQ

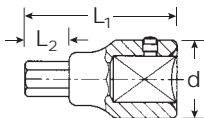
- DIN 3124/ISO 2725-1, ASME B 107.5 M
- extra deep
- AS-drive and HPQ® high performance steel up to 36 mm, chrome plated



Code	Ø	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	L	t <sub>1</sub>	t <sub>2</sub>	△	g	
	mm	mm	mm	mm	mm	mm	mm			
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

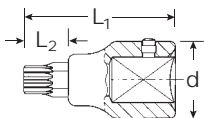
- for socket head screws
- DIN 7422
- Chrome Alloy Steel, chrome plated



Code	Ø	L <sub>1</sub>	L <sub>2</sub>	d	△	g	
	mm	mm	mm	mm			
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 <sub>1</sub>	L <sub>2</sub>	d	△	g	
		mm	mm	mm			
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

## Socket sets and sockets

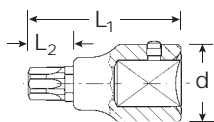
20  
3/4"

DIN  
3120

ISO  
1174-1

### 59TX Screwdriver sockets

- for inside TORX® screws
- Chrome Alloy Steel, chrome plated



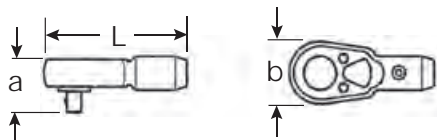
Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	g	g
05 10 00 60	T60	13.2	80	25	34.7	260	1	
05 10 00 70	T70	15.5	80	25	34.7	285	1	
05 10 00 80	T80	17.6	80	25	34.7	300	1	
05 10 00 90	T90	19.9	80	25	34.7	331	1	
05 10 01 00	T100	22.1	80	25	40	474	1	

Application: size T80 for MAN series M, size T100 for MAN series F

3

## Drive tools and accessories

- 3/4" □
- finish: Chrome Alloy Steel, chrome plated



### 552 Ratchet

- reversible
- 36 teeth
- with QuickRelease safety lock
- for use with bar handle No 558



Code	L mm	b mm	a mm	g	g	g
15 11 00 00	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	g
19 05 00 00	536	1

### 563 Ratchet adaptor

- reversible
- 44 teeth



Code	L mm	∅ mm	g	g
15 14 00 00	105.5	63	1257	1

### 554 Flexible head

- with QuickRelease safety lock
- for use with bar handle No 558



Code	L mm	d mm	g	g
15 06 00 00	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	g
15 07 00 00	61.5	40	318	5

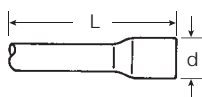
### 558 Bar handle



Code	L mm	d mm	g	g
15 17 00 00	510	20	1259	2

### 559 Extensions

- DIN 3123/ISO 3316



Code	size	L mm	d mm	g	g
15 01 00 03	4	95	35	369	5
15 01 00 01	8	200	35	705	5
15 01 00 02	16	400	35	1255	5

### 561 Universal joint

- DIN 3123/ISO 3316



Code	L mm	d mm	g	g
15 02 00 00	109	40	566	1

### 568 Reducing adaptor

- 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	g
15 03 00 03	55	34.7	203	5



### 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	
<b>15030006</b>	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
<b>96050104</b>	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
<b>96050103</b>	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
<b>96054101</b>	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
<b>96054103</b>	16750

### ES 55/6/4

- 530 x 350 x 83 mm
- 10 pieces



Code	g
<b>96838174</b>	7875

	No	Content
	<b>55</b>	3/4"  34; 36; 41; 46; 50; 55 mm
	<b>552</b>	3/4"
	<b>556</b>	3/4"
	<b>558</b>	510 mm
	<b>559/8</b>	3/4"   200 mm

### TCS 55/11/6

TCS

- 530 x 350 x 90 mm
- 17 pieces



Code	g
<b>96830221</b>	10100

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

20  
3/4"

DIN  
3120

ISO  
1174-1

3

## Socket sets and sockets

25  
1"

DIN  
3120

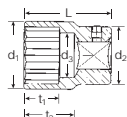
ISO  
1174-1

3

### 60 Sockets

AS  
DRIVE HPQ

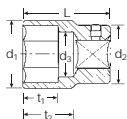
- DIN 3124/ISO 2725-1
- AS-drive and HPQ® high performance steel up to 36 mm, chrome plated



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg	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

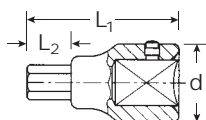
- DIN 3124/ISO 2725-1
- Chrome-Alloy-Steel, chrome plated



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg	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

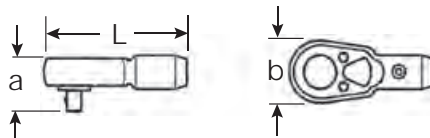
- DIN 7422
- Chrome Alloy Steel, chrome plated



Code	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	Δg	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	Δg	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	Δg	g	
19070000	609	1	

### 884 Flexible head

QR

- with QuickRelease safety lock
- for use with bar handle No 888



Code	L mm	d mm	Δg	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	Δg	g	
16070000	80	48	616	1	

### 888 Bar handle



Code	L mm	d mm	Δg	g	
16170000	700	28	3337	1	

## 859 Extensions

- DIN 3123/ISO 3316



Code	size	L mm	d mm	$\Delta$ g	
<b>16010001</b>	<b>8</b>	200	43	1004	2
<b>16010002</b>	<b>16</b>	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	$\Delta$ g	
<b>16030005</b>	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	$\Delta$ g
<b>96060101</b>	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

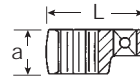
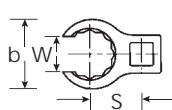


Code	$\Delta$ g
<b>96060103</b>	30000

## 440 CROW-RING spanners

AS

- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on page 201)



Code	$\Delta$ mm	$\Delta$ "	L mm	b mm	a mm	S mm	W mm	$\Delta$ g	
<b>01 19 0008</b>	<b>8</b>	1/4	23.8	12.7	8	12.3	6.3	11	1
<b>01 19 0009</b>	<b>9</b>	1/4	28.5	18.2	13.5	14	6.7	21	1
<b>01 19 0010</b>	<b>10</b> <sup>1)</sup>	1/4	28.4	18.2	13.5	14	7.1	16	1
<b>01 19 0011</b>	<b>11</b>	1/4	28	18.2	13.5	14	8.6	17	1
<b>01 19 0012</b>	<b>12</b> <sup>1)</sup>	1/4	30.8	20.6	14	15.7	9	20	1
<b>01 19 0013</b>	<b>13</b>	1/4	32	22.2	14	16.4	10	30	1
<b>01 19 0014</b>	<b>14</b> <sup>1)</sup>	1/4	31.7	22.2	14	16.4	11.1	20	1
<b>02 19 0015</b>	<b>15</b>	3/8	36.5	24.6	17.5	19.1	11.9	34	1
<b>02 19 0016</b>	<b>16</b>	3/8	36.1	24.6	17.5	19.1	13	27	1
<b>02 19 0017</b>	<b>17</b> <sup>2)</sup>	3/8	39.2	27.3	17.5	20.5	14	40	1
<b>02 19 0018</b>	<b>18</b>	3/8	40.8	29	18.5	21.3	14.8	45	1
<b>02 19 0019</b>	<b>19</b> <sup>2)</sup>	3/8	40.5	29	18.5	21.3	15.8	40	1
<b>02 19 0020</b>	<b>20</b>	3/8	42.9	31.3	18.5	22.5	15.8	54	1
<b>02 19 0021</b>	<b>21</b>	3/8	42.8	31.3	18.5	22.5	16.2	45	1
<b>02 19 0022</b>	<b>22</b> <sup>2)</sup>	3/8	45.3	33.5	19	23.6	17	57	1
<b>02 19 0023</b>	<b>23</b>	3/8	47.5	35.7	19.5	24.6	17.5	71	1
<b>02 19 0024</b>	<b>24</b> <sup>2)</sup>	3/8	47.3	35.7	19.5	24.6	18	57	1
<b>02 19 0025</b>	<b>25</b>	3/8	49.3	37.7	20	25.7	19	80	1
<b>02 19 0026</b>	<b>26</b>	3/8	49.3	37.7	20	25.7	19	63	1
<b>02 19 0027</b>	<b>27</b>	3/8	52.8	40	21.4	28.2	20	100	1
<b>02 19 1027</b>	<b>27MB</b> <sup>3)</sup>	3/8	57.1	42.1	15	29.3	20	92	1
<b>03 19 0028</b>	<b>28</b>	1/2	56.8	42.1	22.5	29.3	21	120	1
<b>03 19 0030</b>	<b>30</b>	1/2	63	48	22.5	32.5	22	155	1
<b>03 19 0032</b>	<b>32</b>	1/2	62.5	48	22.5	32.5	24	145	1
<b>03 19 0034</b>	<b>34</b>	1/2	64.2	50	24	33.5	27	146	1
<b>03 19 0036</b>	<b>36</b>	1/2	66.5	51.9	24	34.6	27	150	1
<b>03 19 0038</b>	<b>38</b>	1/2	68.1	53.9	24	35.6	28.6	147	1
<b>03 19 0040</b>	<b>40</b>	1/2	71.8	57.9	24.5	37.7	31	160	1
<b>03 19 0041</b>	<b>41</b>	1/2	71.8	57.9	24.5	37.7	31	169	1
<b>03 19 0042</b>	<b>42</b>	1/2	71	57.9	24.5	37.7	33.2	189	1
<b>03 19 0046</b>	<b>46</b>	1/2	77.7	64.2	26	40.9	34.1	215	1
<b>03 19 0050</b>	<b>50</b>	1/2	83.2	70.5	27.5	44.1	39.7	295	1

<sup>1)</sup> for union nuts on fuel injection leads on 4-cylinder Mercedes-Benz diesel engines

<sup>2)</sup> for use on suction or pressure lines within expansion valve of air conditioning unit (Mercedes-Benz)

<sup>3)</sup> slim-line version for setting of electronic injection on 440-HP-engines Mercedes-Benz series OM 442

6,3  
1/4"

10  
3/8"

12,5  
1/2"

25  
1"

DIN  
3120

ISO  
1174-1

3

# Socket sets and sockets

6,3  
1/4"

10  
3/8"

12,5  
1/2"

DIN  
3120

ISO  
1174-1

3

## 440a CROW-RING spanners



- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench (refer to note on page 201)

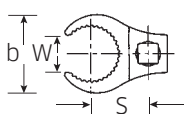
Code	⌀ "	⌀ "	L mm	b mm	a mm	S mm	W mm	△ g	📦
01490024	3/8 <sup>1)</sup>	1/4	28.4	18.2	13.5	14	7.1	16	1
01490028	7/16	1/4	28	18.2	13.5	14	8.6	14	1
01490032	1/2	1/4	30.5	20.6	14	15.7	10	19	1
01490034	9/16	1/4	31.7	22.2	14	16.4	11.1	23	1
02490036	5/8	3/8	36.5	24.6	17.5	19.1	11.9	33	1
02490038	11/16	3/8	39.2	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

<sup>1)</sup> for Volvo aero-engines, types "JAS"

## 440S MJ CROW-RING spanners



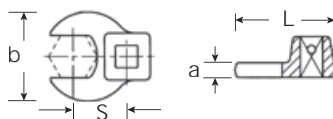
- HPQ® high performance steel, chrome plated
- supersedes No 440 MJ
- EN 4108
- for pipe unions with straight cylindrical involute toothing
- Caution! Modified settings on torque wrench (refer to note on page 201)



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

### 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

### 540a HD CROW-FOOT spanners heavy-duty

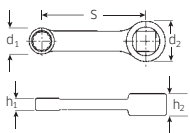
- for particularly high loadings, e.g. stainless steel screw fittings
- full use of jaws in conjunction with standard ratchets
- chrome plated
- supplied without ratchet
- Caution! Modified settings on torque wrench (refer to note on page 201)



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

### 447 Adaptor

- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on page 201)



Code	mm	"	d1 mm	d2 mm	h1 mm	h2 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

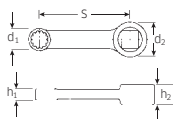
### 447a Adaptor

- SAE AS 954-E
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on page 201)

Code	"	"	d1 mm	d2 mm	h1 mm	h2 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

### 447aSP Adaptor

- 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	"	"	d1 mm	d2 mm	h1 mm	h2 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

## Empty boxes and trays

No	Box No	mm	Box Code	Tray Code	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	45a/22/8QR	50/4KN	454x253x64	81 27 10 34	83 02 21 12
40/13/6	40/9KN	227x131x57	81 25 10 19	83 01 20 80	45a/33/13	50/5	530x265x50	81 27 00 05	83 02 02 13
40/13/6QR	40/9KN	227x131x57	81 25 10 19	83 01 21 82	435QR N/6	45/1KN	322x134x57	81 26 10 11	83 23 30 12
40/44/17/5	40/9KN	227x131x57	81 25 10 19	83 01 20 81	52/9/3	50/3KN	413x226x64	81 27 10 13	83 03 14 25
40/44/17/5QR	40/9KN	227x131x57	81 25 10 19	83 02 20 84	50/12/3, 52/12/3	50/3KN	413x226x64	81 27 10 13	83 03 14 12
40/23/7, 40D/23/7	45/1KN	322x134x57	81 26 10 11	83 01 20 17	54/10	40/9KN	227x131x57	81 25 10 19	83 03 24 03
40/23/6N, 40D/23/6	40/9KN	227x131x57	81 25 10 19	83 01 20 14	54/12	45/1KN	322x134x57	81 26 10 11	83 03 44 09
40/23/6QR	40/9KN	227x131x57	81 25 10 19	83 01 10 15	54CV/9	40/9KN	227x131x57	81 25 10 19	83 03 34 09
40/24/6	40/9KN	227x131x57	81 25 10 19	83 01 20 82	3054X/54X/8	40/9KN	227x131x57	81 25 10 19	83 03 36 12
40/24/6QR	40/9KN	227x131x57	81 25 10 19	83 01 20 83	54/8/4	40/7KN	413x230x57	81 25 10 14	83 03 34 13
40ma/25/8	45/1KN	322x134x57	81 26 10 11	83 01 20 35	52/16/5	50/4KN	454x253x64	81 27 10 34	83 03 54 09
40ma/25/8QR	45/1KN	322x134x57	81 26 10 11	83 01 20 06	50/16/6, 52/16/6	50/4KN	454x253x64	81 27 10 34	83 03 24 80
40/45/36/12	40/7KN	413x230x57	81 25 10 14	83 01 20 10	50/16/6QR, 52/16/6QR	50/4KN	454x253x64	81 27 10 34	83 03 24 81
40/52/27/11	50/4KN	454x253x64	81 27 10 34	83 01 20 04 83 01 20 05	50/22/6, 52/22/6	50/4KN	454x253x64	81 27 10 34	83 03 14 07
40TX/44KTX/15/6	40/9KN	227x131x57	81 25 10 19	83 01 20 07	50ma/39/6N	50/5	530x265x50	81 27 00 05	83 03 14 26
88TX	45/1KN	322x134x57	81 26 10 11	83 02 20 17	50ma/39/6QR	50/5	530x265x50	81 27 00 05	83 03 14 05
89TX	40/7KN	413x230x57	81 25 10 14	83 09 20 13	50/54/25/6, 52/54/25/6	50/4KN	454x253x64	81 27 10 34	83 03 24 17
86TX	50/6KN	481x288x82	81 27 10 19	83 01 20 02 83 01 10 03	50/54/25/6QR, 52/54/25/6QR	50/4KN	454x253x64	81 27 10 34	83 03 24 00
40a/9/4, 40aD/9/4	40/9KN	227x131x57	81 25 10 19	83 01 20 13	50/43/7	50/5	530x265x50	81 27 00 05	83 03 05 11
40aD/12/7QR	40/9KN	227x131x57	81 25 10 19	83 01 21 16	87, 876	50/6KN	481x288x82	81 27 10 19	83 09 31 11 83 09 32 11
40aD/30/7QR	40/7KN	413x230x57	81 25 10 14	83 01 21 12	50TX/7			-	83 06 00 09
40aD/8/1H	40/9KN	227x131x57	81 25 10 19	83 01 21 07	50TX/8	40/9KN	227x131x57	81 25 10 19	83 03 34 11
4008/27/1R	45/1KN	322x134x57	81 26 10 11	83 18 10 01	54TX/9			-	83 06 00 10
415QR N/7	40/9KN	227x131x57	81 25 10 19	83 32 30 06	54TX/10	40/9KN	227x131x57	81 25 10 19	83 03 24 02
45/11/4, 456/11/4	45/1KN	322x134x57	81 26 10 11	83 02 20 13	54TX/59TX/12/1	40/7KN	413x230x57	81 25 10 14	83 06 10 12
45/14/5i, 456/14/5i	45/1KN	322x134x57	81 26 10 11	83 02 20 80	54TXB/9			-	83 06 00 10
45/14/5iQR	45/1KN	322x134x57	81 26 10 11	83 02 20 81	54TXB/10	40/9KN	227x131x57	81 25 10 19	83 03 24 02
45/13/5, 456/13/5	45/1KN	322x134x57	81 26 10 11	83 02 20 45	50TX/16/5	50/3KN	413x226x64	81 27 10 13	83 03 24 13
45ma/28/5	40/7KN	413x230x57	81 25 10 14	83 02 20 27	876TX	50/6KN	481x288x82	81 27 10 19	83 09 20 11
45ma/28/5QR	40/7KN	413x230x57	81 25 10 14	83 02 20 07	50a/17/6	50/4KN	454x253x64	81 27 10 34	83 03 14 41
45/49/19/5, 456/49/19/5	40/7KN	413x230x57	81 25 10 14	83 02 20 21	87a	50/6KN	481x288x82	81 27 10 19	83 09 11 12 83 09 12 12
89	50/6KN	481x288x82	81 27 10 19	83 02 11 18	512QR N/7	50/3KN	413x226x64	81 27 10 13	83 32 30 02
45/41/9	50/5	530x265x50	81 27 00 05	83 02 02 02	55/10/6	55/7	575x220x86	81 29 00 08	83 04 00 02
45TX/7			-	83 06 00 15	55/9/6N	55/7	575x220x86	81 29 00 08	83 04 00 01
49TX/8			-	83 06 00 14	55a/10/5	55/6	520x160x86	81 29 00 07	83 04 00 03
45TX/49TX/15/5	40/7KN	413x230x57	81 25 10 14	83 02 20 19	55a/16/6	55/7	575x220x86	81 29 00 08	83 04 00 04
45/49/32/5TX	40/7KN	413x230x57	81 25 10 14	83 02 20 09	60/6/6/882	60/1	785x173x90	81 30 00 01	-
45a/12/5	45/1KN	322x134x57	81 26 10 11	83 02 20 06	60/8/6/882	60/2	785x200x122	81 30 00 02	-
45a/14/8QR	50/4KN	454x253x64	81 27 10 34	83 02 20 12	12171/19/4 VDE, 12179/9/4 VDE	50/6KN VDE	481x288x82	81 27 20 19	-




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.





# 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.**



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.

4



## **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.



## 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.



## 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.



## GENTLE.

The special IMPACT sockets with the plastic sleeve enable quick wheel changes while protecting sensitive light alloy rims.



## 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.

# IMPACT tools

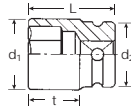
12,5  
1/2"

DIN  
3121

ISO  
1174-2

## IMPACT sockets

● 1/2" ○-drive



### 50IMP ○ IMPACT sockets

- 1/2" ○-drive
- DIN 3129/ISO 1711-2
- for power drivers
- Chrome Alloy Steel, gunmetal finish



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	Δg	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

### TCS 50IMP/51IMP/19



- 170 x 350 x 50 mm
- 19 pieces



Code	g
96838777	3960

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

### 50D IMP ○ IMPACT sockets

- 1/2" ○-drive
- DIN 3129/ISO 1711-2
- for power drivers
- Chrome Alloy Steel, gunmetal finish



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	Δg	g	
23011032	32	44	30	50	27	251	5	
23011036	36	49	35	50	28.5	313	1	

### 51IMP ○ IMPACT sockets

- 1/2" ○-drive
- ISO 1711-2
- for power drivers
- extra deep
- Chrome Alloy Steel, gunmetal finish



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	Δg	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/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" ■ ○ 125 mm
510IMP	1/2" ■ ○ 68 mm

### TCS 54IMP/2307TX/15



- 175 x 350 x 40 mm
- 15 pieces

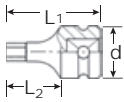


Code	g
96838792	1285

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

**54IMP** **IMPACT INHEX sockets**

- 1/2" O-drive
- for hexagon socket head screws
- for power drivers
- Chrome Alloy Steel, gunmetal finish



Code	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	d mm	g	
<b>23050005</b>	<b>5</b>	38	15	25	58	5
<b>23050006</b>	<b>6</b>	38	15	25	59	5
<b>23050007</b>	<b>7</b>	38	15	25	60	5
<b>23050008</b>	<b>8</b>	38	15	25	60	5
<b>23050010</b>	<b>10</b>	40	17	25	70	5
<b>23050012</b>	<b>12</b>	42	19	30	111	5
<b>23050014</b>	<b>14</b>	43	20	30	118	5
<b>23050017</b>	<b>17</b>	45	22	30	134	5
<b>23050019</b>	<b>19</b>	50	27	30	164	5

**54IMP/9** **IMPACT set INHEX sockets**

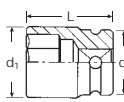
content 13 pieces:  
5; 6; 7; 8; 10; 12; 14; 17; 19 mm  
1 each rubber ring No 5091/1 IMP,  
5091/2 IMP  
1 each connecting pin  
No 5092/1 IMP, 5092/2 IMP



Code	g	
<b>96231501</b>	1208	1

**2309** **IMPACT sockets**

- 1/2" O-drive
- for power drivers
- extra deep
- with reduced outside diameter
- Chrome Alloy Steel, gunmetal finish



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	g	
<b>23090017</b>	<b>17</b>	25.7	30	85	68	242	5
<b>23090019</b>	<b>19</b>	28.2	30	85	67.5	257	5
<b>23090221</b>	<b>21</b>	30.7	30	85	66.5	272	5
<b>23090022</b>	<b>22</b>	32	30	85	66.5	311	5

for wheel nuts

**ES 2309/4**


- 175 x 175 x 40 mm
- 4 pieces



Code	g
<b>96838162</b>	1145

No	Content
<b>2309</b>	1/2" O 17; 19; 21; 22 mm

**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	
<b>23091017</b>	<b>17</b>	86	27	235	1
<b>23091019</b>	<b>19</b>	86	29	250	1
<b>23091221</b>	<b>21</b>	86	31	265	1

**ES 2309K/3**

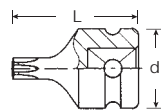

- 175 x 175 x 40 mm
- 3 pieces

Code	g
<b>96838260</b>	800

No	Content
<b>2309K</b>	1/2" O 17; 19; 21 mm

**2307TX** **IMPACT sockets**

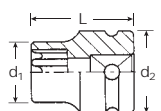
- 1/2" O-drive
- inside TORX®
- for power drivers
- Chrome Alloy Steel, gunmetal finish



Code	size	mm	d mm	L mm	g	
<b>23070030</b>	<b>T30</b>	5.5	25	40	57	5
<b>23070040</b>	<b>T40</b>	6.6	25	40	58	5
<b>23070045</b>	<b>T45</b>	7.8	25	40	59	5
<b>23070050</b>	<b>T50</b>	8.8	25	40	57	5
<b>23070055</b>	<b>T55</b>	11.2	25	40	61	5
<b>23070060</b>	<b>T60</b>	13.2	25	40	66	5

**2308TX** **IMPACT sockets**

- 1/2" O-drive
- external TORX®
- for power drivers
- Chrome Alloy Steel, gunmetal finish



Code	size	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	g	
<b>23080010</b>	<b>E10</b>	9.4	14	25	38	67	10
<b>23080012</b>	<b>E12</b>	11.1	15.9	25	38	73	10
<b>23080014</b>	<b>E14</b>	12.9	17.7	25	38	73	10
<b>23080016</b>	<b>E16</b>	14.7	20	25	38	77	10
<b>23080018</b>	<b>E18</b>	16.6	22	30	38	115	10
<b>23080020</b>	<b>E20</b>	18.4	24.5	30	38	120	10
<b>23080024</b>	<b>E24</b>	22.1	30	30	41.2	149	10

# IMPACT tools

12.5  
1/2"

20  
3/4"

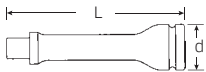
DIN  
3121

ISO  
1174-2

## 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	
<b>33010001</b>	<b>2</b>	52	30	155	5
<b>33010002</b>	<b>5</b>	130	30	271	5
<b>33010003</b>	<b>10</b>	255	30	452	5

### 510IMP Universal joint



Code	L mm	d mm	△△ g	
<b>33020000</b>	52	32	228	5

### 513IMP Reducing adaptor



Code			L mm	d mm	△△ g	
<b>33030002</b>	1/2	3/8	37	30	109	5

### 514IMP Extending adaptor



Code			L mm	d mm	△△ g	
<b>33030005</b>	1/2	3/4	49	30	174	5

### 5091 Rubber rings

Code	size	△△ g	
<b>39011940</b>	<b>1IMP<sup>1)</sup></b>	1	10
<b>39012440</b>	<b>2IMP<sup>2)</sup></b>	2	10

- <sup>1)</sup> for socket 8–14 mm, TORX® sizes E10–E16, sizes T30–T60  
<sup>2)</sup> for socket 15–32 mm, TORX® sizes E18–E24 and accessories

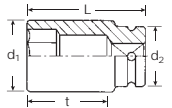
### 5092 Connecting pins

Code	size	△△ g	
<b>39022030</b>	<b>1IMP<sup>1)</sup></b>	1	10
<b>39022530</b>	<b>2IMP<sup>2)</sup></b>	2	10

- <sup>1)</sup> for socket 8–14 mm, TORX® size E10–E16, size T30–T60  
<sup>2)</sup> 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		d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	△△ g	
<b>25010017</b>	<b>17</b>	29	44	48	23	365	5
<b>25010018</b>	<b>18</b>	30.5	44	48	23	345	5
<b>25010019</b>	<b>19</b>	32	44	48	23	359	5
<b>25010021</b>	<b>21</b>	35	44	50	25	375	5
<b>25010022</b>	<b>22</b>	36.5	44	50	25	377	5
<b>25010024</b>	<b>24</b>	39.5	44	50	24.5	382	5
<b>25010027</b>	<b>27</b>	43.5	44	51	24.5	387	5
<b>25010028</b>	<b>28</b>	45	44	54	27	417	5
<b>25010029</b>	<b>29</b>	46	44	54	26.5	425	5
<b>25010030</b>	<b>30</b>	47.4	44	54	26.5	438	2
<b>25010032</b>	<b>32</b>	49.9	44	54	26	456	2
<b>25010033</b>	<b>33</b>	51.5	44	54	25.5	477	2
<b>25010034</b>	<b>34</b>	52.4	44	54	29	490	2
<b>25010036</b>	<b>36</b>	54.9	44	57	32	545	2
<b>25010038</b>	<b>38</b>	58	44	58	33	600	2
<b>25010041</b>	<b>41</b>	57	44	59	34.5	500	1
<b>25010046</b>	<b>46</b>	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		d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	△△ g	
<b>25020017</b>	<b>17</b>	32	44	90	75	783	2
<b>25020019</b>	<b>19</b>	32	44	90	75	780	2
<b>25020021</b>	<b>21</b>	35	44	100	75	895	2
<b>25020022</b>	<b>22</b>	36.5	44	100	75	854	2
<b>25020024</b>	<b>24</b>	39.5	44	100	74.5	838	2
<b>25020027</b>	<b>27</b>	43.5	44	100	72.5	800	2
<b>25020030</b>	<b>30</b>	47.4	44	100	72.5	860	2
<b>25020032</b>	<b>32</b>	49.9	44	100	72	922	2
<b>25020034</b>	<b>34</b>	52.4	44	100	71.5	983	2
<b>25020036</b>	<b>36</b>	54.9	44	100	71	1038	2
<b>25020041</b>	<b>41</b>	54.9	44	100	64	899	1
<b>25020046</b>	<b>46</b>	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		d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	△△ g	
<b>25090027</b>	<b>27</b>	40.5	44	100	72.5	672	2
<b>25090030</b>	<b>30</b>	44.3	44	100	72.5	728	2
<b>25090032</b>	<b>32</b>	46.8	44	100	72	778	2
<b>25090033</b>	<b>33</b>	48	44	100	72	803	2

for Trillex wheels

## Accessory tools for IMPACT sockets

- 3/4" -drive
- outside F 20, inside H 20
- Finish: Chrome Alloy Steel, gunmetal finish

### 560IMP Extensions



Code	size	L mm	d mm	g	
<b>35010001</b>	<b>7</b>	180	44	805	5
<b>35010002</b>	<b>10</b>	250	44	1050	5
<b>35010003</b>	<b>13</b>	330	44	1305	5

### 561IMP Universal joint



Code	L mm	d mm	g	
<b>35020000</b>	99	44	657	2

### 568IMP Reducing adaptor



Code	 "	 "	L mm	d mm	g	
<b>35030003</b>	3/4	1/2	56	44	335	5

### 569IMP Extending adaptor



Code	 "	 "	L mm	d mm	g	
<b>35030006</b>	3/4	1	65	44	477	5

### 5591IMP Rubber ring

Code	g	
<b>39013650</b>	3	10

for sockets and accessories

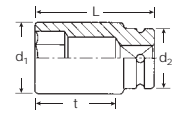
### 5592IMP Connecting pin

Code	g	
<b>39023540</b>	3	10

for sockets and accessories

## IMPACT sockets

- 1" -drive



20  
3/4"

25  
1"

DIN  
3121

ISO  
1174-2

### 60IMP IMPACT sockets

- 1" -drive
- DIN 3129/ISO 1711-2
- for power drivers
- Chrome Alloy Steel, gunmetal finish



Code	 mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	g	
<b>26010024</b>	<b>24</b>	41.5	54	58	28	638	2
<b>26010027</b>	<b>27</b>	45	54	60	30	654	2
<b>26010030</b>	<b>30</b>	49	54	62	32	688	2
<b>26010032</b>	<b>32</b>	51.5	54	63	32	694	2
<b>26010033</b>	<b>33</b>	52.5	54	63	31.5	695	2
<b>26010036</b>	<b>36</b>	56.5	54	67	34.5	754	2
<b>26010038</b>	<b>38</b>	59	54	70	37	836	2
<b>26010041</b>	<b>41</b>	63	54	70	36.5	892	2
<b>26010042</b>	<b>42</b>	64.5	54	73	39	970	1
<b>26010046</b>	<b>46</b>	69.5	54	76	41	1106	1
<b>26010050</b>	<b>50</b>	74.5	54	82	52	1362	1
<b>26010055</b>	<b>55</b>	81	54	87	57	1669	1
<b>26010060</b>	<b>60</b>	87	54	91	61	1960	1
<b>26010065</b>	<b>65</b>	92	54	85	55	1678	1
<b>26010070</b>	<b>70</b>	96	54	88	43	1803	1
<b>26010075</b>	<b>75</b>	100	86	92	50	2674	1
<b>26010080</b>	<b>80</b>	105	86	97	55	2949	1

### 66IMP IMPACT sockets

- 1" -drive
- ISO 1711-2
- for power drivers
- extra deep
- Chrome Alloy Steel, gunmetal finish



Code	 mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	g	
<b>26020024</b>	<b>24</b>	41.5	54	110	80	1431	2
<b>26020027</b>	<b>27</b>	45	54	110	80	1393	2
<b>26020030</b>	<b>30</b>	49	54	110	79.5	1338	2
<b>26020032</b>	<b>32</b>	51.5	54	110	79	1296	2
<b>26020033</b>	<b>33</b>	52.5	54	110	78.5	1274	2
<b>26020036</b>	<b>36</b>	56.5	54	110	78	1312	2
<b>26020038</b>	<b>38</b>	59	54	110	77	1355	2
<b>26020041</b>	<b>41</b>	63	54	110	76	1504	2
<b>26020046</b>	<b>46</b>	69.5	54	110	72	1711	2

### 2609 IMPACT sockets

- 1" -drive
- for power drivers
- extra deep
- with reduced outside diameter
- Chrome Alloy Steel, gunmetal finish



Code	 mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	g	
<b>26090027</b>	<b>27</b>	42.3	54	110	80	1001	2
<b>26090030</b>	<b>30</b>	46	54	110	79.5	1047	2
<b>26090032</b>	<b>32</b>	48.5	54	110	79	1015	2
<b>26090033</b>	<b>33</b>	49.8	54	110	78.5	1102	2

for wheel nuts

25  
1"

Accessory tools for IMPACT sockets

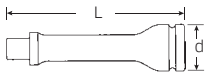
- 1"  $\odot$ -drive
- outside  $\blacksquare$  F 25, inside  $\odot$  H 25
- Finish: Chrome Alloy Steel, gunmetal finish

40  
1 1/2"

DIN  
3121

ISO  
1174-2

859IMP Extensions



Code	size	L mm	d mm	$\Delta$ g	
36010001	7	180	54	1361	2
36010002	13	330	54	2168	2

871IMP Universal joint



Code	L mm	d mm	$\Delta$ g	
36020000	125	54	1244	1

865IMP Extending adaptor



Code	$\odot$ "	$\blacksquare$ "	L mm	d mm	$\Delta$ g	
36030007	1	1 1/2	85	54	986	1

866IMP Reducing adaptor



Code	$\odot$ "	$\blacksquare$ "	L mm	d mm	$\Delta$ g	
36030005	1	3/4	70	54	565	2

6091IMP Rubber ring

Code	$\Delta$ g	
39014850	8	10

for sockets up to 70 mm and accessories

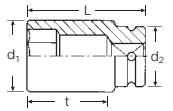
6092IMP Connecting pin

Code	$\Delta$ g	
39025050	7	10

for sockets up to 70 mm and accessories

IMPACT sockets

- 1 1/2"  $\odot$ -drive
- to be discontinued



70IMP  $\odot$  IMPACT sockets

- 1 1/2"  $\odot$ -drive
- DIN 3129
- for power drivers
- Chrome Alloy Steel, gunmetal finish

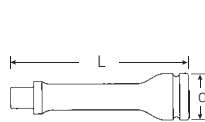


Code	$\odot$ mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	$\Delta$ g	
27010055	55	86	86	89	42	2482	1
27010060	60	92	86	92	50	2743	1
27010065	65	100	86	96	54	3249	1
27010070	70	105	86	101	59	3541	1
27010075	75	109	86	105	63	3746	1
27010080	80	115	86	110	68	4162	1
27010085	85	121	86	116	74	4661	1
27010090	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"  $\odot$ -drive
- outside  $\blacksquare$  F 40, inside  $\odot$  H 40
- Finish: Chrome Alloy Steel, gunmetal finish
- to be discontinued

759IMP Extensions



Code	size	L mm	d mm	$\Delta$ 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	$\Delta$ g	
37020000	164.2	86	4197	1



### 768IMP Extending adaptor



Code	○ "	■ "	L mm	d mm	△ g	☐
<b>37030006</b>	1 1/2	2 1/2	93	86	3142	1

### 867IMP Reducing adaptor



Code	○ "	■ "	L mm	d mm	△ g	☐
<b>36030006</b>	1 1/2	1	111.5	86	2180	1

also for MULTIPOWER No MP300-5000 (page 233)

### 7091 Rubber rings

Code	size	△ g	☐
<b>39013870</b>	<b>1IMP<sup>1)</sup></b>	15	1
<b>39013875</b>	<b>2IMP<sup>2)</sup></b>	20	1

<sup>1)</sup> for sockets 70IMP 55-90 mm, 60IMP 75 and 80 mm and accessories  
<sup>2)</sup> for sockets 95-120 mm

### 7092 Connecting pins

Code	size	△ g	☐
<b>39023870</b>	<b>1IMP<sup>1)</sup></b>	16	1
<b>39023875</b>	<b>2IMP<sup>2)</sup></b>	25	1

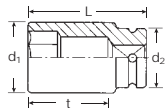
<sup>1)</sup> for sockets 70IMP 55-90 mm, 60IMP 75 and 80 mm and accessories  
<sup>2)</sup> for sockets 95-120 mm

## IMPACT sockets

● 2 1/2" ○-drive  
 to be discontinued

### 80IMP ○ IMPACT sockets

- 2 1/2" ○-drive
- DIN 3129
- for power drivers
- Chrome Alloy Steel, gunmetal finish

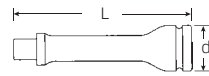


Code	○ mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	△ g	☐
<b>28010075</b>	<b>75</b>	115	127	125	67	7500	1
<b>28010080</b>	<b>80</b>	115	127	125	67	7000	1
<b>28010085</b>	<b>85</b>	127	127	130	67	7490	1
<b>28010090</b>	<b>90</b>	135	127	132	74	8000	1
<b>28010095</b>	<b>95</b>	140	127	132	74	8000	1
<b>28010100</b>	<b>100</b>	145	127	141	83	9000	1
<b>28010105</b>	<b>105</b>	150	127	141	83	9000	1
<b>28010110</b>	<b>110</b>	160	127	150	92	11000	1
<b>28010115</b>	<b>115</b>	165	127	150	92	11000	1
<b>28010120</b>	<b>120</b>	170	127	158	100	12000	1

## Accessory tools for IMPACT sockets

- 2 1/2" ○-drive
- outside ■ F 63, inside ○ H 63
- Finish: Chrome Alloy Steel, gunmetal finish  
 to be discontinued

### 860IMP Extensions



Code	size	L mm	d mm	△ g	☐
<b>38010001</b>	<b>12</b>	315	127	16000	1
<b>38010002</b>	<b>18</b>	457	127	22000	1
<b>38010003</b>	<b>24</b>	610	127	28500	1

### 868IMP Reducing adaptor



Code	○ "	■ "	L mm	d mm	△ g	☐
<b>38030005</b>	2 1/2	1 1/2	145	27	7000	1

### 8091/1IMP Rubber ring

Code	△ g	☐
<b>39016395</b>	37	1

for sockets and accessories

### 8092/1IMP Connecting pin

Code	△ g	☐
<b>39026397</b>	42	1

for sockets and accessories

40  
1 1/2"

63  
2 1/2"

DIN  
3121

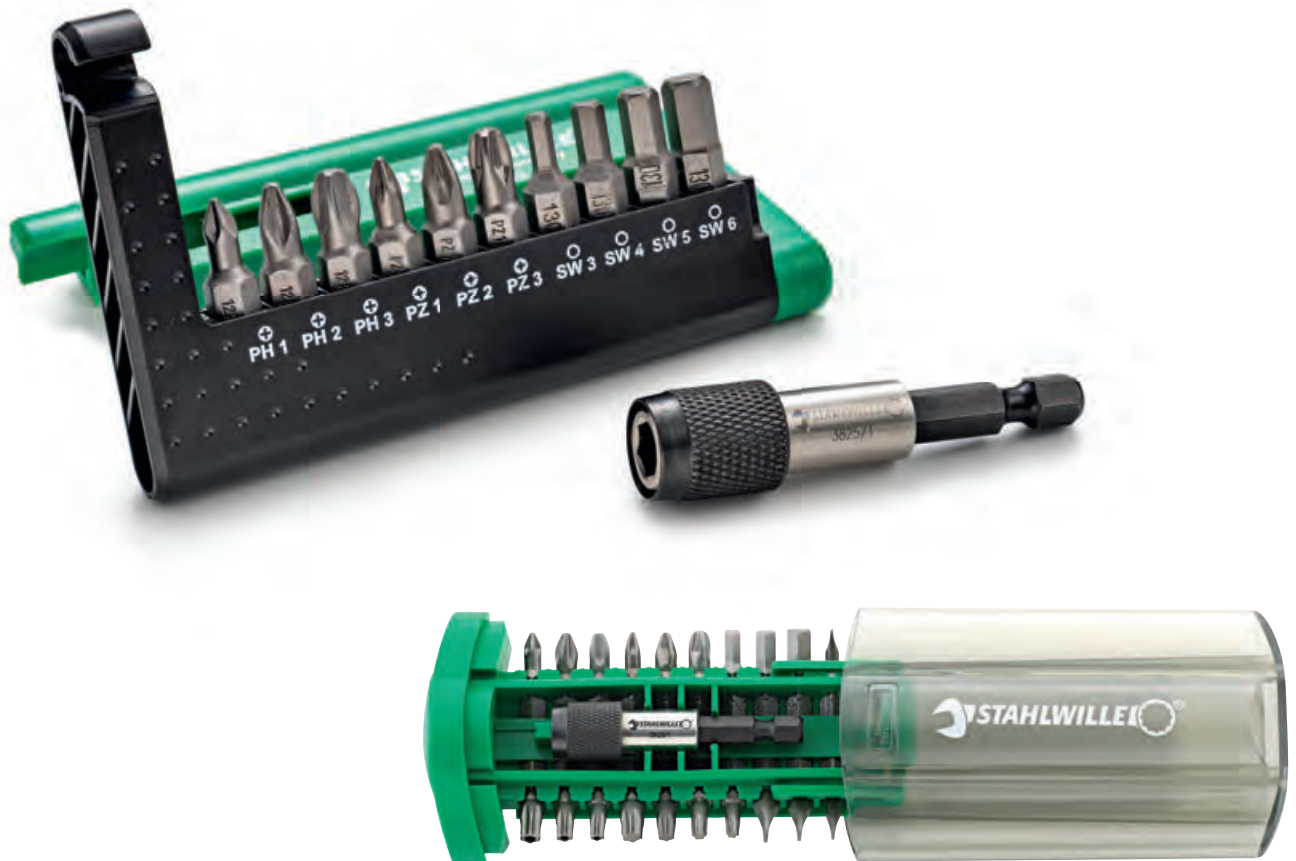
ISO  
1174-2

4

# Always that bit better. The STAHLWILLE range of bits.



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®                     |  |



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.



# Bits

## 1220-1223 1231-1234



- DIN 3128
- for Phillips screws



Code	No	PH size	mm	"	L mm	g	10
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



- for POZIDRIV/SUPADRIV® screws
- extra hard



Code	No	PZ size	mm	"	L mm	g	10
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



- DIN 3127/ISO 2351
- for slotted screws



Code	No	a x b mm	mm	"	L mm	g	10
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



- for tri-square socket head screws (XZN®)



Code	No	size	mm	"	L mm	g	10
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



- for inside TORX® screws



Code	No	size	mm	mm	"	L mm	g	10
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



- with hollow point
- for inside TORX® screws (TORX® TAMPER RESISTANT)



Code	No	size	mm	mm	"	L mm	g	10
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



- for inside TORX® screws



Code	size	mm	"	L mm	g	10
08131025	T 25	C 6.3	1/4	65	18	1

For BMW series 3 and 5  
outside ● DIN 3126/ISO 1173

### 1436 IP-1446 IP Bits

- for inside TORX PLUS® screws



Code	No	Hex	"	L mm	g	Box
08 16 2006	1436 IP 6	C 6.3	1/4	25	5	10
08 16 2007	1437 IP 7	C 6.3	1/4	25	4	10
08 16 2008	1438 IP 8	C 6.3	1/4	25	4	10
08 16 2009	1439 IP 9	C 6.3	1/4	25	4	10
08 16 2010	1440 IP 10	C 6.3	1/4	25	4	10
08 16 2015	1441 IP 15	C 6.3	1/4	25	5	10
08 16 2020	1442 IP 20	C 6.3	1/4	25	5	10
08 16 2025	1443 IP 25	C 6.3	1/4	25	5	10
08 16 2027	1444 IP 27	C 6.3	1/4	25	5	10
08 16 2030	1445 IP 30	C 6.3	1/4	25	6	10
08 16 2040	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	Hex	"	L mm	g	Box
08 16 1010	1440 TPI 10	C 6.3	1/4	26	6	5
08 16 1015	1441 TPI 15	C 6.3	1/4	26	5	5
08 16 1020	1442 TPI 20	C 6.3	1/4	26	5	5
08 16 1025	1443 TPI 25	C 6.3	1/4	26	5	5
08 16 1027	1444 TPI 27	C 6.3	1/4	26	5	5
08 16 1030	1445 TPI 30	C 6.3	1/4	26	5	5
08 16 1040	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	Box
96081113	104	1

### 1300-1304 Bits

- DIN 7426/ISO 3109
- for socket head screws
- extra hard



Code	No	mm	Hex	"	L mm	g	Box
08 09 0003	1300	3	C 6.3	1/4	25	4	10
08 09 0004	1301	4	C 6.3	1/4	25	5	10
08 09 0005	1302	5	C 6.3	1/4	25	6	10
08 09 0006	1303	6	C 6.3	1/4	25	6	10
08 09 0008	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	Hex	"	L mm	g	Box
08 09 0002	2	C 6.3	1/4	34	4	10

outside ● DIN 3126/ISO 1173

### 13008 Bits

- for TRI-WING® screws



Code	TRI-WING®	Hex	"	L mm	g	Box
08 25 0000	0	C 6.3	1/4	25	5	10
08 25 0001	1	C 6.3	1/4	25	5	10
08 25 0002	2	C 6.3	1/4	25	5	10
08 25 0003	3	C 6.3	1/4	25	5	10
08 25 0004	4	C 6.3	1/4	25	5	10
08 25 0005	5	C 6.3	1/4	25	5	10
08 25 0006	6	C 6.3	1/4	25	8	10

outside ● DIN 3126/ISO 1173

### 13010 Bits

- for TORQ-SET® screws



Code	TORQ-SET®	Hex	"	L mm	g	Box
08 26 0000	0	C 6.3	1/4	25	5	10
08 26 0001	1	C 6.3	1/4	25	5	10
08 26 0002	2	C 6.3	1/4	25	5	10
08 26 0003	3	C 6.3	1/4	25	5	10
08 26 0004	4	C 6.3	1/4	25	5	10
08 26 0005	5	C 6.3	1/4	25	5	10
08 26 0006	6	C 6.3	1/4	25	5	10
08 26 0008	8	C 6.3	1/4	25	5	10
08 26 0010	10	C 6.3	1/4	25	5	10
08 26 0016	1/4	C 8	5/16	32	9	10
08 26 0020	5/16	C 8	5/16	32	11	10
08 26 0024	3/8	C 8	5/16	32	11	10

outside ● DIN 3126/ISO 1173

**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	g	g
<b>96080110</b>	222	1	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 Phillips screws
  - 3 bits, PZ1; PZ2; PZ3 for POZIDRIV/SUPADRIV® screws
  - 4 bits, sizes 3; 4; 5; 6 mm for inside hexagon screws



Code	g	g	g
<b>96080115</b>	110	10	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	g	g
<b>96080121</b>	186	1	1

**1204/21-2 Bit box**

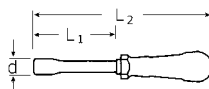
- storage box with screwdriver bits
- Content:
- 1 magnetic bit-holder
  - 3 bits, PH1; PH2; PH3 for Phillips screws
  - 4 bits, sizes 0.5 x 4.0; 0.6 x 4.5; 0.8 x 5.5; 1.2 x 6.5 mm; for slotted screws
  - 6 bits, sizes T10; T15; T20; T25; T30; T40; for inside TORX® screws
  - 3 bits, sizes 4; 5; 6 mm; for inside hexagon screws
  - 4 bits, sizes 4; 6; 8; 10 mm; for TORQ-SET® screws



Code	g	g	g
<b>96080122</b>	181	1	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	g
<b>18073026</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	g
<b>18080017</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	g
<b>18103016</b>	D 6.3	1/4	175	290	168	10

inside ○ DIN 3126/ISO 1173

### 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 <sub>1</sub> mm	L <sub>2</sub> mm	g	
<b>18 1100 16</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	
<b>18 0900 16</b>	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	
<b>11 13 10 11</b>	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	
<b>11 13 20 20</b>	117	22.6	10.7	85	5

### 418B Mini bit ratchet, fine tooth

NEW

FOD

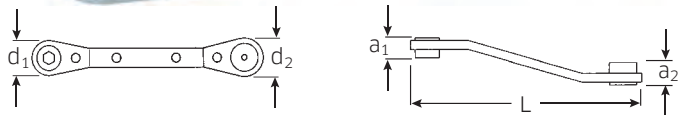
- short model, 90 mm
- reversible
- 80 teeth
- with steel handle
- inside hexagon 1/4"
- DIN 3126/ISO 1173 D 6.3
- for bit screwdriver sockets 1/4"
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with 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	
<b>11 13 30 30</b>	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 <sub>1</sub> mm	d <sub>2</sub> mm	a <sub>1</sub> mm	a <sub>2</sub> mm	g	
<b>41 54 16 20</b>	1/4 x 5/16	138	20	23	15	17	105	1

### Foreign Object Damage.

As safe as safe can be.

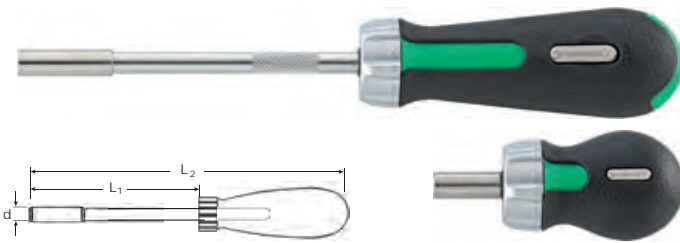


STAHLWILLE protects against foreign object damage. The preferred choice in safety-relevant fields such as aerospace, thanks to the screwless design.

# Bits and accessories

## 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 <sub>1</sub> mm	L <sub>2</sub> mm	d mm	△▽ g	📦
<b>18 120001</b>	<b>1</b>	D 6.3	1/4	127	250	10	220	1
<b>18 120002</b>	<b>2</b>	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	📦
<b>96 18 2203</b>	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	⬠ mm	"	⌀ "	L mm	△▽ g	📦
<b>38 120001</b>	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	⌀ mm	"	⬠ mm	"	L mm	△▽ g	📦
<b>38 250002</b>	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	■ mm	"	⬠ mm	"	L mm	d mm	△▽ g	📦
<b>31 150001</b>	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

4



### 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

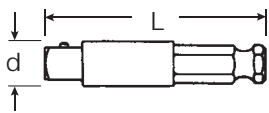


Code	■	"	●	"	L mm	△ g	☐
<b>31150002</b>	A 6.3	1/4	C 6.3	1/4	25	10	5

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

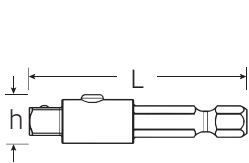


Code	No	■	"	●	"	L mm	d mm	△ g	☐
<b>31160001</b>	<b>3116/1</b>	E 6.3	1/4	E 6.3	1/4	50	8.9	16	5
<b>32160001</b>	<b>3216/1</b>	E 10	3/8	E 6.3	1/4	50	15.5	23	5
<b>33160001</b>	<b>3316/1</b>	E 12.5	1/2	E 6.3	1/4	50	18	34	5

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

- 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	☐
<b>31161001</b>	<b>3116/1QR</b>	E 6.3	1/4	E 6.3	1/4	50	11.2	18	5
<b>32161001</b>	<b>3216/1QR</b>	E 10	3/8	E 6.3	1/4	50	14.6	26	5
<b>33161001</b>	<b>3316/1QR</b>	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	○	"	○	"	L mm	d mm	△ g	☐
<b>11180010</b>	<b>412</b>	D 6.3	1/4	C 6.3	1/4	25	11.6	14	5
<b>12180026</b>	<b>442</b>	D 6.3	1/4	C 10	3/8	32	16.5	30	5
<b>12180030</b>	<b>443</b>	D 8	5/16	C 10	3/8	32	16.5	39	5
<b>13180010</b>	<b>543</b>	D 8	5/16	C 12.5	1/2	38	22	65	5

inside ○ DIN 3126/ISO 1173  
 inside ○ DIN 3120/ISO 1174-1

### 412-1 Bit holder



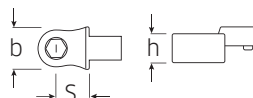
- socket, hexagon 1/4" inside hexagon
- DIN 3126/ISO 1173 D 6.3
- outer size of handle, octagon 10 mm for use in tools with 10 mm internal hex drive or internal double hexagon (e.g. "FLEXI" double-ended flexi-joint spanners, T-handle universal joint spanners, box spanners, ratchet ring spanners etc.)
- 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	☐
<b>11180020</b>	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	○ mm	○ "	☐ mm	b mm	h mm	S mm	△ g
<b>58261010</b>	<b>10</b>	D 8	5/16	9x12	16	12.5	17.5	47
<b>58262610</b>	<b>10-1</b>	D 6.3	1/4	9x12	14	10	17.5	45

inside ○ DIN 3126/ISO 1173

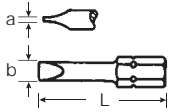
# Bits and accessories

## 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	Hex	"	L mm	g	Box
<b>08300635</b>	<b>1242</b>	0.6 x 3.5	E 6.3	1/4	50	8	10
<b>08300840</b>	<b>1244</b>	0.8 x 4.0	E 6.3	1/4	50	9	10
<b>08301055</b>	<b>1246</b>	1.0 x 5.5	E 6.3	1/4	50	10	10
<b>08301265</b>	<b>1248</b>	1.2 x 6.5	E 6.3	1/4	50	11	10
<b>08301680</b>	<b>1250</b>	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	Hex	"	L mm	g	Box
<b>08310001</b>	<b>1260</b>	1	E 6.3	1/4	50	10	10
<b>08310002</b>	<b>1261</b>	2	E 6.3	1/4	50	11	10
<b>08310003</b>	<b>1262</b>	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	Hex	"	L mm	g	Box
<b>08320001</b>	<b>1270</b>	1	E 6.3	1/4	50	10	10
<b>08320002</b>	<b>1271</b>	2	E 6.3	1/4	50	11	10
<b>08320003</b>	<b>1272</b>	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	Hex	"	L mm	g	Box
<b>08330003</b>	<b>1280</b>	3	E 6.3	1/4	50	9	10
<b>08330004</b>	<b>1281</b>	4	E 6.3	1/4	50	10	10
<b>08330005</b>	<b>1282</b>	5	E 6.3	1/4	50	12	10
<b>08330006</b>	<b>1283</b>	6	E 6.3	1/4	50	13	10
<b>08330008</b>	<b>1284</b>	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	Hex	"	L mm	g	Box
<b>08340010</b>	<b>1290</b>	T 10	E 6.3	1/4	70	14	10
<b>08340015</b>	<b>1291</b>	T 15	E 6.3	1/4	70	14	10
<b>08340020</b>	<b>1292</b>	T 20	E 6.3	1/4	70	14	10
<b>08340025</b>	<b>1293</b>	T 25	E 6.3	1/4	70	15	10
<b>08340027</b>	<b>1294</b>	T 27	E 6.3	1/4	70	16	10
<b>08340030</b>	<b>1295</b>	T 30	E 6.3	1/4	70	16	10
<b>08340040</b>	<b>1296</b>	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

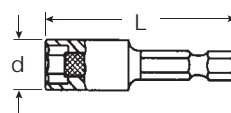


Code	No	size	Hex	"	L mm	g	Box
<b>08161115</b>	<b>1441 TN 15</b>	T 15	E 6.3	1/4	38	4	5
<b>08161120</b>	<b>1442 TN 20</b>	T 20	E 6.3	1/4	38	5	5
<b>08161125</b>	<b>1443 TN 25</b>	T 25	E 6.3	1/4	38	6	5
<b>08161130</b>	<b>1445 TN 30</b>	T 30	E 6.3	1/4	38	7	5
<b>08161140</b>	<b>1446 TN 40</b>	T 40	E 6.3	1/4	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	Hex	"	d mm	L mm	g	Box
<b>28011007</b>	<b>7</b>	E 6.3	1/4	12	50	23	5
<b>28011008</b>	<b>8</b>	E 6.3	1/4	13	50	26	5
<b>28011010</b>	<b>10</b>	E 6.3	1/4	15.5	50	31	5
<b>28011013</b>	<b>13</b>	E 6.3	1/4	18.7	50	44	5

### 13006 Special socket

- for use on plugs in electronic rack Airbus A320-A340



Code	Hex	"	mm	L mm	g	Box
<b>08230001</b>	E 6.3	1/4	11	50	32	5

outside • DIN 3126/ISO 1173

## 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	g	g
<b>96 32 3001</b>	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	g
<b>32 20 0005</b>	3/8	138	604	1

## 4035/4036 Adaptors

- with outside hexagon
- for IMPACT screwdriver No 4030



Code	No	"	L mm	g	g
<b>32 21 0001</b>	<b>4035</b>	3/8	38	34	1
<b>33 21 0001</b>	<b>4036</b>	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	g
<b>08 40 00 10</b>	<b>4040</b>	1.0 x 7	3/8	40	17	10
<b>08 40 00 14</b>	<b>4041</b>	1.4 x 9	3/8	40	20	10
<b>08 40 00 16</b>	<b>4042</b>	1.6 x 10	3/8	40	21	10
<b>08 40 00 20</b>	<b>4043</b>	2.0 x 12	3/8	40	20	10
<b>08 40 00 15</b>	<b>4044</b>	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	g
<b>08 41 00 02</b>	<b>4050</b>	2	3/8	35	17	10
<b>08 41 00 03</b>	<b>4051</b>	3	3/8	35	17	10
<b>08 41 00 04</b>	<b>4052</b>	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	g
<b>08 42 00 05</b>	<b>4055</b>	5	3/8	35	16	10
<b>08 42 00 06</b>	<b>4056</b>	6	3/8	35	16	10
<b>08 42 00 08</b>	<b>4057</b>	8	3/8	35	19	10
<b>08 42 00 10</b>	<b>4058</b>	10	3/8	35	23	10



# 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

>> Page 232



Spare parts

>> Page 234



Torque tester

>> Page 237



Calibration systems

>> Page 240



Accessories torque tester  
and calibration systems

>> Page 249



# As individual as your fastener. STAHLWILLE torque tools.

To ensure safety and productivity, STAHLWILLE torquing 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	<b>192</b>
•		775	2-1000 cN·m	<b>192</b>
•	•	TORSIOTRONIC®	12-1000 cN·m	<b>193</b>

5

### Torque wrenches

Clicking	Indicating	No	Range	Page
	•	71	160-800 N·m	<b>194</b>
	•	73Nm/15	2-15 N·m	<b>195</b>
•		755	1.5-300 N·m	<b>195</b>
•		730 Quick	4-650 N·m	<b>198</b>
•		730/80	160-800 N·m	<b>198</b>
•		721 Quick	6-300 N·m	<b>199</b>
•		720Nf	160-800 N·m	<b>200</b>
•		721Nf	160-1000 N·m	<b>200</b>
•		730N	4-1000 N·m	<b>204, 205</b>
•		730 Fix	10-1000 N·m	<b>205</b>
	•	701	1-20 N·m	<b>207</b>
•	•	730D	10-1000 N·m	<b>212, 213</b>
	•	712R/6	3-60 N·m	<b>220</b>



e.g.  
MANOSKOP® 730 Quick

### Tightening angle torque wrenches

Clicking	Indicating	No	Range	Page
•	•	714	1-1000 N·m	<b>216, 217</b>
	•	713R	3-400 N·m	<b>220</b>



e.g.  
MANOSKOP® 714



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 torquing tools and testers.

**More details on page 236**



## Insert & shell tools

System		Page
9x12 mm	<b>9x12</b>	<b>223 - 226</b>
14x18 mm	<b>14x18</b>	<b>226 - 228</b>
22x28 mm	<b>22x28</b>	<b>228, 229</b>
24.5x28 mm	<b>24.5x28</b>	<b>229</b>



## Torque multipliers

No	Range	Page
MP100-1500	100-1500 N·m	<b>232</b>
MP300	800-5000 N·m	<b>233</b>



e.g.  
perfectControl 7794-2

## Testers & calibration systems

No	Range	Page
SmartCheck	1-800 N·m	<b>237</b>
7707 W Torque Tester	0.2-1100 N·m	<b>238</b>
7791 / 7792 Manutork	1-3000 N·m	<b>241 - 243</b>
7794 perfectControl	1-1000 N·m	<b>245 - 247</b>
Accessories		<b>249 - 251</b>

# Electronics and mechanics: the perfect symbiosis. **TORSIOTRONIC®.**



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.



## CLOCKWISE. OR ANTICLOCKWISE.

Whether the tool is set to indicating only or clicking - both modes can be applied clockwise or anticlockwise.







## 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.

## SAFE.

After the tool trips, the slip mechanism prevents the preset tightening torque from being inadvertently exceeded, which protects against overtightening.

## INTUITIVELY SIMPLE.

Easy learning curve thanks to almost self-explanatory controls and an easily understood menu structure.

## 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.



## BRILLIANT.

Clear display of all the relevant information in a bright, battery-saving colour OLED display – readable at almost any angle.

## LOGGING FUNCTION.

Stores up to 2500 fasteners for reading out and documenting on the PC later by means of the integrated micro-USB port.



## Torque tools

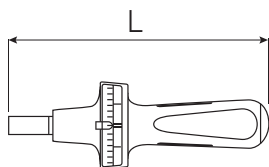
### Torque screwdrivers

#### 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				Ø mm	L mm	Δ 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			Ø mm	L mm	Δ g
51060003	3 <sup>1)</sup>	2-30 cN·m	0.2 cN·m	F 6.3	105	55
51060012	12 <sup>2)</sup>	20-120 cN·m	1 cN·m	F 6.3	157	180
51060030	30 <sup>2)</sup>	40-300 cN·m	1 cN·m	F 6.3	160	205
51060050	50 <sup>2)</sup>	100-500 cN·m	2.5 cN·m	F 6.3	205	420
51060100	100 <sup>3)</sup>	400-1000 cN·m	5 cN·m	F 6.3	235	630
51460003	a/3 <sup>1)</sup>	0.2-3 in·lb	0.02 in·lb	F 6.3	105	55
51460012	a/12 <sup>2)</sup>	2-12 in·lb	0.1 in·lb	F 6.3	157	200
51460050	a/50 <sup>2)</sup>	10-50 in·lb	0.25 in·lb	F 6.3	205	440

<sup>1)</sup> with a swivelling handle-end to improve tool control; and with a clamping screw for locking the preset

<sup>2)</sup> with an additional locking mechanism to prevent the selected torque being inadvertently adjusted

<sup>3)</sup> with screw-on handles for increasing the force applied for large torques

## 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 torqueing 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%**

5

### TORSIOTRONIC Electromechanical torque screwdrivers

NEW

80 4.5°



TORSIOTRONIC® 10

Code	size						L mm	∅ g	∅ g with box
<b>96510712</b>	<b>1.2</b>	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
<b>96510730</b>	<b>3</b>	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
<b>96510760</b>	<b>6</b>	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
<b>96510700</b>	<b>10</b>	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
<b>96511712</b>	<b>1.2</b>	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
<b>96511730</b>	<b>3</b>	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
<b>96511760</b>	<b>6</b>	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
<b>96511700</b>	<b>10</b>	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)

## Torque tools

### MANOSKOP® 71

- 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
- 223-229
- 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						b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	ΔΔ g
50030080	160-800 N·m	120-600 ft·lb	10 N·m	10 ft·lb	24,5x28	28	24	1048	1050	95	2300

### 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



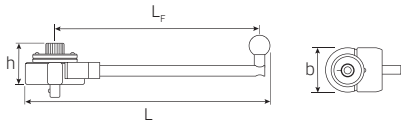
Code						b mm	h mm	L mm	L <sub>F</sub> mm	ΔΔ g
50450080	100-600 ft·lb	160-800 N·m	10 ft·lb	10 N·m	3/4"	70	30	1152	1060	4900

## 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  $\pm 4\%$**

### 73Nm/15 Friction gauge



Code			"	b mm	h mm	L mm	L <sub>F</sub> mm	$\Delta\%$ g
<b>50240015</b>	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

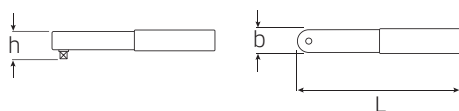
223-229

- cause damage to it
- anticlockwise torquing thanks to swap-over insert tools
- on request with preset cut-out value (surcharge 10%)
- display deviation value  $\pm 4\%$**

5

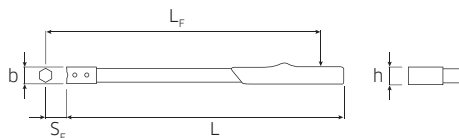
### 755R/1 Series MANOSKOP® torque wrench with permanently installed ratchet

- measurements independent of the point of application of force



Code			"	b mm	h mm	L mm	$\Delta\%$ g
<b>50100001</b>	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				b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	$\Delta\%$ g
<b>50010004</b>	<b>4</b>	4-40 N·m	4-30 ft·lb	9x12	22	18	201	172	17.5	500
<b>50010010</b>	<b>10</b>	20-100 N·m	15-74 ft·lb	9x12	28	24	318	289	17.5	635
<b>50010020</b>	<b>20</b>	40-200 N·m	30-147 ft·lb	14x18	28	24	457	435	25	1045
<b>50010030</b>	<b>30</b>	60-300 N·m	40-220 ft·lb	14x18	28	24	609	587	25	1210

# Versatile and quick. MANOSKOP® 730 Quick.



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 than 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.



## SIMPLE.

Quick adjustment from outside, no disassembly of the torque wrench required, with two adjustment points for the maximum & minimum values.

## 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.



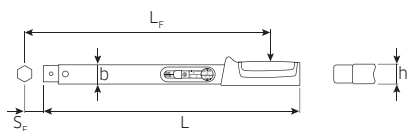
## Torque tools

### 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)
- 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%**

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#### 730 Quick Service MANOSKOP® torque wrenches with mount for insert tools



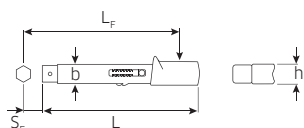
Code	size					mm	b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	
						mm	mm	mm	mm	mm	mm	g
50184005	5	6-50 N·m	5-36 ft·lb	2 N·m	1 ft·lb	9x12	28	23	315	288	17.5	780
50184010	10	20-100 N·m	15-72.5 ft·lb	2.5 N·m	2.5 ft·lb	9x12	28	23	370	343	17.5	936
50184012	12	25-130 N·m	20-95 ft·lb	2.5 N·m	2.5 ft·lb	14x18	28	23	410	390	25	1074
50184020	20	40-200 N·m	30-145 ft·lb	5 N·m	5 ft·lb	14x18	28	23	455	435	25	1310
50184040	40	80-400 N·m	60-300 ft·lb	10 N·m	10 ft·lb	14x18	28	23	590	570	25	1540
50184065	65 <sup>1)2)</sup>	130-650 N·m	100-480 ft·lb	20 N·m	20 ft·lb	14x18	30.6	25.6	875	855	25	3192
50184565	II/65 <sup>2)</sup>	130-650 N·m	100-480 ft·lb	20 N·m	20 ft·lb	22x28	30.6	25.6	897	907	55	4104
50584005	a/5	6-50 N·m	50-440 in·lb	2 N·m	10 in·lb	9x12	28	23	315	288	17.5	780
50584010	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
50584012	a/12	25-130 N·m	225-1150 in·lb	2.5 N·m	25 in·lb	14x18	28	23	410	390	25	1076
50584020	a/20	40-200 N·m	350-1750 in·lb	5 N·m	50 in·lb	14x18	28	23	455	435	25	1216

<sup>1)</sup> recommended ratchet insert tool No 735/40HD

<sup>2)</sup> supplied in textile bag

#### 730 Quick Service MANOSKOP® torque wrenches with tool carrier for insert tools

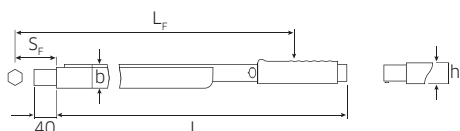
NEW



Code	size				mm	b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	
						mm	mm	mm	mm	mm	g
50184002	2	4-20 N·m		0.5 N·m	9x12	27.5	23.6	179	157.2	17.5	315
50184004	4	8-40 N·m		1 N·m	9x12	27.5	23.6	223	200.8	17.5	395
50584001	a/2-1	17.5-87.5 in·lb		2.5 in·lb	9x12	27.5	23.6	179	157.2	17.5	315
50584002	a/2	30-175 in·lb		5 in·lb	9x12	27.5	23.6	179	157.2	17.5	315
50584004	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



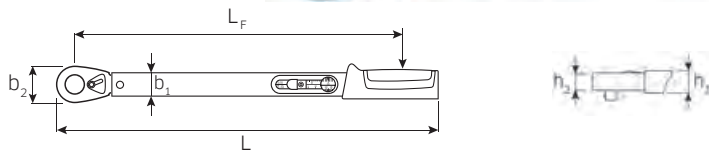
Code					mm	b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	
						mm	mm	mm	mm	mm	g
50180080	160-800 N·m	120-600 ft·lb	20 N·m	20 ft·lb	24,5x28	46	43	970	990	95	4925



## 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

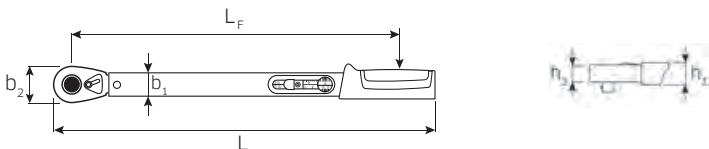


Code	size					"	b <sub>1</sub> mm	b <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	L mm	L <sub>F</sub> mm	Δg
<b>50 20 40 05</b>	<b>5</b>	6-50 N·m	5-36 ft·lb	2 N·m	1 ft·lb	3/8	28	27.5	23	14.5	352	293	880
<b>50 20 40 15</b>	<b>15</b>	30-150 N·m	25-110 ft·lb	5 N·m	5 ft·lb	1/2	28	41	23	18	452	387	1282
<b>50 20 40 20</b>	<b>20</b>	40-200 N·m	30-145 ft·lb	5 N·m	5 ft·lb	1/2	28	41	23	18	483	418	1349
<b>50 20 40 30</b>	<b>30</b>	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 <sub>1</sub> mm	b <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	L mm	L <sub>F</sub> mm	Δg
<b>50 20 41 15</b>	<b>15</b>	30-150 N·m	25-110 ft·lb	5 N·m	5 ft·lb	1/2	28	41	23	18	452.5	387	1268
<b>50 20 41 20</b>	<b>20</b>	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



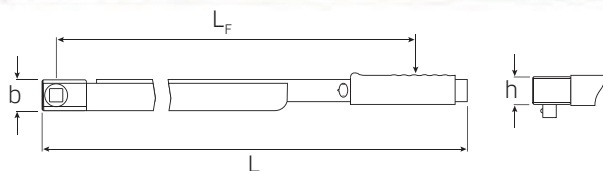
Code	Δg
<b>96 50 72 14</b>	2818

## Torque tools

### Standard MANOSKOP® 720Nf/721Nf

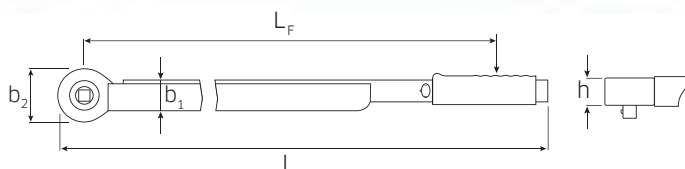
- click-type
- easy setting
- dual stop signal
- twin scales N·m/ft·lb
- anticlockwise torquing thanks to swap-over square drive
- all the sensitive components are protected by the sturdy tubular steel housing in the U-shaped aluminium profile
- calibration using perfectControl® calibrating unit No 7794 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 <sub>F</sub> mm	Δg 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 <sub>1</sub> mm	b <sub>2</sub> mm	h mm	L mm	L <sub>F</sub> mm	Δg 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" ●-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	Δg 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 =  $\Sigma S$ . Where the special tool is angled to the side,  $W_k$  will have to be determined empirically.

$$W_k = \frac{M_A \cdot L_F}{L_k} \left[ \frac{\text{N} \cdot \text{m} \cdot \text{mm}}{\text{mm}} \right]$$

$$W_k = \frac{M_A \cdot L_F}{L_F - S_F + S \text{ (or } \Sigma S)}$$

$M_A$  = 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  $L_k = L_F - S_F + S \text{ (or } \Sigma S)$

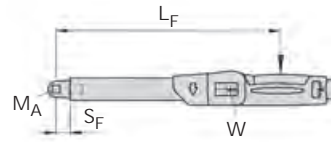
$S$  = extension of STAHLWILLE inserts or special tools (see dimension table for inserts)

$S_F$  = standard extension (see dimension table for torque wrenches)

$\Sigma S$  = total of all extensions of the attached inserts  $S_{\text{adapter}} + S_{\text{insert}} + \dots$

### 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  $M_A = 40 \text{ N} \cdot \text{m}$**



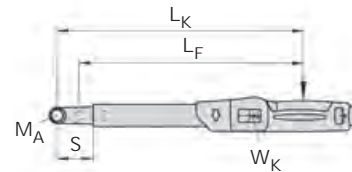
Dimension table for torque wrenches:  $L_F = 336 \text{ mm}$ ,  $S_F = 17.5 \text{ mm}$   
 Dimension table for square drive insert tools:  $S = 17.5 \text{ mm}$

**No adjustment** to setting value required on torque wrench.

$\rightarrow S = S_F$   
 $\rightarrow W = M_A$

### 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  $M_A = 190 \text{ N} \cdot \text{m}$**



Dimension table for torque wrenches:  $L_F = 424.5 \text{ mm}$ ,  $S_F = 25 \text{ mm}$   
 Dimension table for ring insert tools:  $S = 28 \text{ mm}$

And this is what it looks like in the catalogue:

730N		Service MANOSKOP® torque wrenches with mount for insert tools											
<ul style="list-style-type: none"> <li>mount for interchangeable insert tools</li> <li>QuickRelease safety lock</li> </ul>		<ul style="list-style-type: none"> <li>can be applied for either clockwise or anticlockwise tightening by turning the inserts over</li> <li>display deviation value <math>\pm 3\%</math> (size 2; a/2 4 %)</li> </ul>											
Code	size	mm	in	mm	in	Fine scale	mm	b	h	L	L <sub>F</sub>	S <sub>F</sub>	Ø <sub>A</sub>
50181102	2	4-20	0.16-0.79	40-180	1.6-7.1	0.2	28	23	275	226	175	737	123
50181005	5	10-50	0.37-2.25	7-37	0.28-1.46	0.25	28	23	330	280.5	17.5	831	128
50181010	10	20-100	0.75-4.5	15-75	0.59-3.0	0.5	28	23	386	336	17.5	988	144
50181012	12	25-130	1.1-5.5	20-95	0.79-3.9	0.5	28	23	421	379	25	1128	133
50181020	20	40-200	1.6-9.0	30-150	1.18-6.9	1	28	23	467	424.5	25	1264	135
50181040	40	80-400	3.6-18.0	60-300	2.36-13.1	2	28	23	607	564.5	25	1655	134
50181065	65	130-650	6.3-31.5	100-480	6.35-23.6	2.5	30.6	25.6	890	848	25	2321	145
50181365	1/65	130-650	6.3-31.5	100-480	6.35-23.6	2.5	30.6	25.6	911	900	55	3504	144
50181080	80	160-800	8.0-36.0	120-600	9.5-27.1	5	30.6	25.6	1178	1167	55	4825	145
50181100	100	200-1000	10.0-45.0	150-750	11.8-33.7	5	30.6	25.6	1363	1352	55	5000	153
50581102	a/2	40-180	1.6-7.1	3-15	0.12-0.59	0.5	28	23	275	226	17.5	737	162
50581005	a/5	90-450	3.6-18.0	7-37	0.28-1.46	1	28	23	330	280.5	17.5	831	175

732/40		Ring insert tools									
		Ø	mm	b	mm	h	mm	S	mm	Ø <sub>A</sub>	g
58224013	13	16x18	22.5	11	25	130					
58224014	14	16x18	23	11	25	123					
58224015	15	16x18	24	11	25	128					
58224021	21	16x18	33	15	25	144					
58224022	22	16x18	34.5	15	25	145					
58224024	24	16x18	37.5	15	25	153					
58224027	27	16x18	42.5	17	25	162					
58224028	28	16x18	45.5	19	25	175					
58224030	30	16x18	46	19	25	182					
58224032	32	16x18	47.5	19	25	181					
58224034	34	16x18	52	19	28	210					
58224036	36	16x18	54	19	28	203					

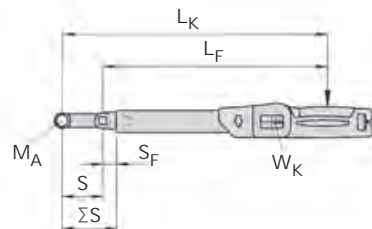
$$W_k = \frac{M_A \cdot L_F}{L_F - S_F + S} = \frac{190 \text{ N} \cdot \text{m} \cdot 424.5 \text{ mm}}{424.5 \text{ mm} - 25 \text{ mm} + 28 \text{ mm}} = \frac{190 \text{ N} \cdot \text{m} \cdot 424.5 \text{ mm}}{427.5 \text{ mm}} = 188.7 \text{ N} \cdot \text{m}$$

**Adjusted setting value  $W_k = 188.7 \text{ N} \cdot \text{m}$**   
 $\rightarrow$  value to set 189 N·m

$\rightarrow S \neq S_F$   
 $\rightarrow W \neq M_A$

### 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  $M_A = 25 \text{ N} \cdot \text{m}$**



Dimension table for torque wrenches:  $L_F = 336 \text{ mm}$ ,  $S_F = 17.5 \text{ mm}$   
 Dimension table for square drive insert tools:  $S_F = 17.5 \text{ mm}$   
 Dimension table for adapters:  $\Sigma S = 50.8 \text{ mm}$

$$W_k = \frac{M_A \cdot L_F}{L_F - S_F + \Sigma S} = \frac{25 \text{ N} \cdot \text{m} \cdot 336 \text{ mm}}{336 \text{ mm} - 17.5 \text{ mm} + 17.5 \text{ mm} + 50.8 \text{ mm}} = \frac{25 \text{ N} \cdot \text{m} \cdot 336 \text{ mm}}{386.8 \text{ mm}}$$

**Adjusted setting value  $W_k = 21.7 \text{ N} \cdot \text{m}$**

$\rightarrow \Sigma S \neq S_F$   
 $\rightarrow W \neq M_A$

# Strong and highly talented. **MANOSKOP® 730N.**



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.



## Torque tools

### Service MANOSKOP® 730N

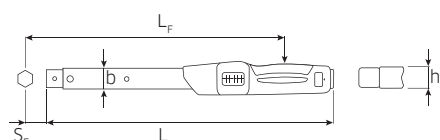
- click-type
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- fast, accurate setting thanks to QuickSelect quick-action adjuster
- dual stop signal
- easy-to-read double scale with colour coding to differentiate between N·m/ft·lb and ft·lb/in·lb 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

223-229

- can be applied for either clockwise or anticlockwise tightening by turning the inserts over
- display deviation value  $\pm 3\%$  (size 2; a/2 4%)



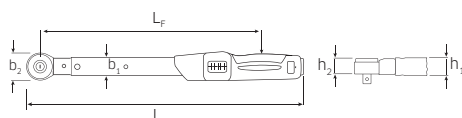
Code	size					Fine scale		b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	$\Delta g$
50181102	2	4-20 N·m	40-180 in·lb	1 N·m	10 in·lb	0.2 N·m	9x12	28	23	275	226	17.5	737
50181005	5	10-50 N·m	7-37 ft·lb	5 N·m	1 ft·lb	0.25 N·m	9x12	28	23	330	280.5	17.5	831
50181010	10	20-100 N·m	15-75 ft·lb	10 N·m	2.5 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	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
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
50581010	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
50581020	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
50581040	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)

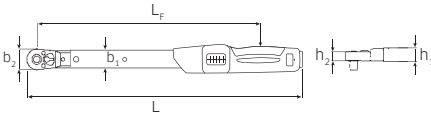
- deviation of indication  $\pm 4\%$



Code	size					Fine scale	"	b <sub>1</sub> mm	b <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	L mm	L <sub>F</sub> mm	$\Delta g$	$\Delta g$ with box
96503105	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
96503110	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
96503120	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
96502140	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
96502265	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

## 730NR Service MANOSKOP® torque wrenches with permanently installed fine-tooth ratchet

- in sturdy plastic box
- with QuickRelease safety lock
- deviation of indication  $\pm 4\%$



Code	size					Fine scale	"	b <sub>1</sub> mm	b <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	L mm	L <sub>F</sub> mm	$\Delta\varnothing$ g	$\Delta\varnothing$ g with box
<b>96 50 21 05</b>	<b>5QR FK</b>	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
<b>96 50 21 10</b>	<b>10QR FK</b>	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
<b>96 50 21 20</b>	<b>20QR FK</b>	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

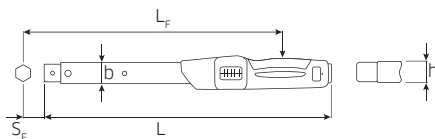
supplied with the tool also protects against unwanted manipulation the adhesive seals supplied offer a further level of security. It is not possible to adjust the setting without breaking the seal

## 730 Fix Service MANOSKOP® torque wrenches with mount for insert tools

- 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

223-229

- 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  $\pm 3\%$



Code	size					Fine scale		b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	$\Delta\varnothing$ g	$\Delta\varnothing$ g with box
<b>96 50 30 05</b>	<b>5</b>	10-50 N·m	7-37 ft·lb	5 N·m	1 ft·lb	0.25 N·m		28	23	330	280.5	17.5	828	1632
<b>96 50 30 10</b>	<b>10</b>	20-100 N·m	15-75 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m		28	23	386	336	17.5	986	1788
<b>96 50 30 12</b>	<b>12</b>	25-130 N·m	20-95 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m		28	23	421	379	25	1124	1928
<b>96 50 30 20</b>	<b>20</b>	40-200 N·m	30-150 ft·lb	10 N·m	5 ft·lb	1 N·m		28	23	467	424.5	25	1266	1890
<b>96 50 30 40</b>	<b>40</b>	80-400 N·m	60-300 ft·lb	20 N·m	10 ft·lb	2 N·m		28	23	607	564.5	25	1666	2444
<b>96 50 30 65</b>	<b>65*</b>	130-650 N·m	100-480 ft·lb	50 N·m	20 ft·lb	2.5 N·m		30.6	25.6	890	848	25	3242	6500
<b>96 50 34 65</b>	<b>II/65</b>	130-650 N·m	100-480 ft·lb	50 N·m	20 ft·lb	2.5 N·m		30.6	25.6	911	900	55	3490	7000
<b>96 50 30 80</b>	<b>80</b>	160-800 N·m	120-600 ft·lb	100 N·m	25 ft·lb	5 N·m		30.6	25.6	1178	1167	55	4794	10500
<b>96 50 31 00</b>	<b>100</b>	200-1000 N·m	150-750 ft·lb	100 N·m	25 ft·lb	5 N·m		30.6	25.6	1363	1352	55	5196	11000
<b>96 58 30 05</b>	<b>a/5</b>	90-450 in·lb	7-37 ft·lb	50 in·lb	1 ft·lb	2.5 in·lb		28	23	330	280.5	17.5	832	1638
<b>96 58 30 10</b>	<b>a/10</b>	180-900 in·lb	15-75 ft·lb	100 in·lb	2.5 ft·lb	5 in·lb		28	23	386	336	17.5	988	1790
<b>96 58 30 20</b>	<b>a/20</b>	350-1800 in·lb	30-150 ft·lb	100 in·lb	5 ft·lb	10 in·lb		28	23	467	424.5	25	1066	2072
<b>96 58 30 40</b>	<b>a/40</b>	60-300 ft·lb	800-3600 in·lb	20 ft·lb	100 in·lb	2 ft·lb		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.**



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  $\pm 4\%$  – and in combination with the SENSOMASTER software, the SENSOTORK® 701 can also be used with full logging capability.



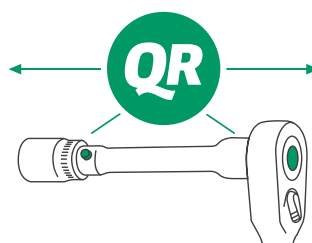
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## **VERSATILE.**

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.



## **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.



4,5°

80

## **EFFICIENT.**

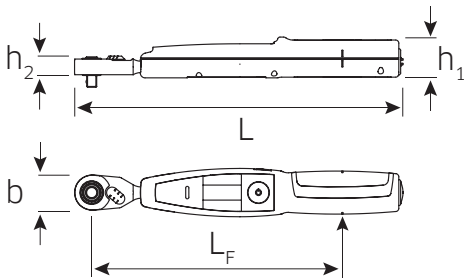
Eighty teeth provide a tight ratchet angle of only 4.5° – facilitating efficient working in confined spaces. In contrast to conventional fine-tooth ratchets, no less than eight teeth engage at once here, ensuring maximum load capacity and, at the same time, smooth action and durability.



## 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](http://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 <sub>1</sub> mm	h <sub>2</sub> mm	L mm	L <sub>F</sub> mm	ΔD g	ΔD g with box
<b>96 50 45 02</b>	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
<b>96 50 46 02</b>	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	ΔD g
<b>96 52 11 61</b>	255



### 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).**

# A stroke of genius – with a logging function. **MANOSKOP® 730D.**



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.

STAHLOWILLE's optional SENSOMASTER software facilitates programming electronic torque wrenches and enables stored data to be read out.



## SAFE.

The QuickRelease technology ensures tools cannot be inadvertently lost - while enabling rapid, safe tool changes.

## 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.

## 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.



## 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

- 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
- 223-229
- 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**

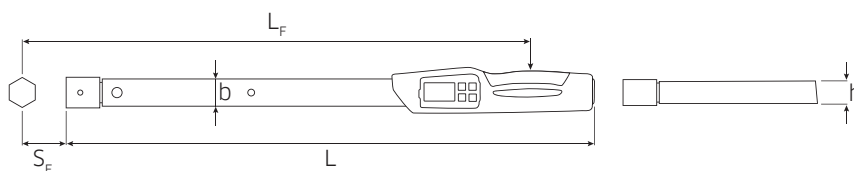
### 730D Service/series MANOSKOP® torque wrenches with mount for insert tools



730D/20



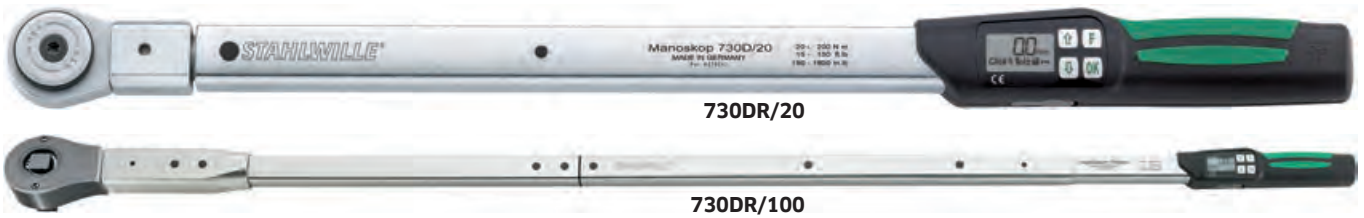
730D/80



Code	size	Setting/display resolution			mm	b	h	L	L <sub>F</sub>	S <sub>F</sub>	Δg	g	with box		
		N·m	ft·lb	in·lb											
9650 17 10	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
9650 17 20	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
9650 17 40	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
9650 17 65	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
9650 19 65	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
9650 20 80	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
9650 21 00	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

## 730DR Service/series MANOSKOP® torque wrenches with reversible ratchet insert tool



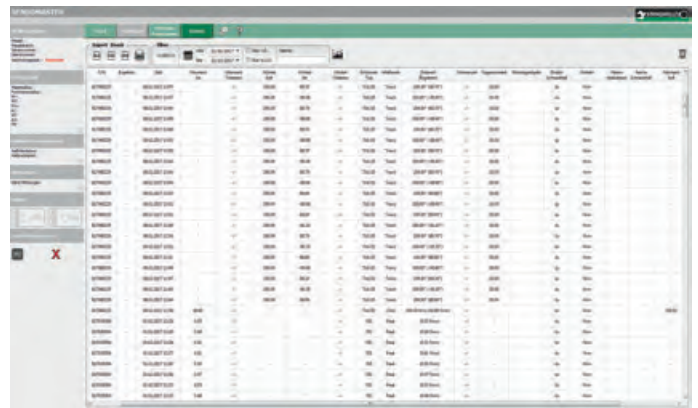
Code	size				Setting/display resolution					L	$\Delta$	$\Delta$
		N·m	ft·lb	in·lb	N·m	ft·lb	in·lb	"	mm	mm	g	g with box
96501810	10	10-100 N·m	7.4-75 ft·lb	90-900 in·lb	0.2/0.1	0.2/0.1	2/1.0	1/2	9x12	501	1232	1657
96501820	20	20-200 N·m	15-150 ft·lb	180-1800 in·lb	0.5/0.1	0.5/0.1	5/1.0	1/2	14x18	595	1663	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	$\Delta$
	m	g
96583630	1.5	65

## 7751 Jack cable

- with jacks at both ends, 90° angled



Code	L	$\Delta$
	m	g
52110051	1.5	50

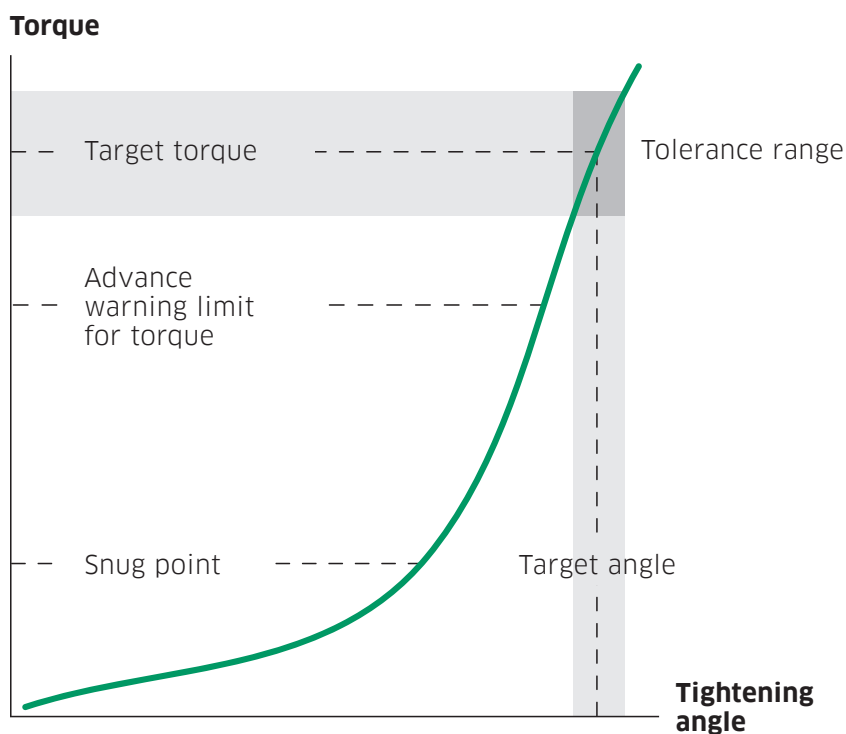
## 7757-1 USB adaptor



Code	$\Delta$
	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

## 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.

## 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.

## ACCURATE.

Accuracy counts – uncertainty is reduced to a minimum to guarantee accurate readings.

## SAFE.

Increased fastener quality – including the angle of turn as the second measured quantity makes the bolted joint even more secure.

## 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.



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  $\pm 2\%$  for torque and  $\pm 1\%$  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.





## MADE TO MEASURE.

Four measuring modes (torque, angle, torque backed up by angle, angle backed up by torque).



## CONNECTING YOU NOW...

Micro-USB interface for quick connection to a PC.



## SIMPLE.

Smooth-action bayonet connection on battery compartment. Can optionally be equipped with Li-Ion battery 7195-2.

## 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.

## VERSATILE.

Three function modes: first peak, peak (indicating mode) and track (indicating mode).



## INDIVIDUAL.

Individually configurable menus. Includes SENSOMASTER software for easy configuration of the tool.

## 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

5

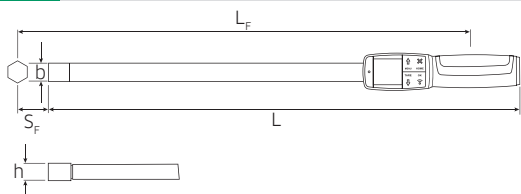
714

### MANOSKOP® tightening angle torque wrenches with mount for insert tools



product design award

2013



714/2



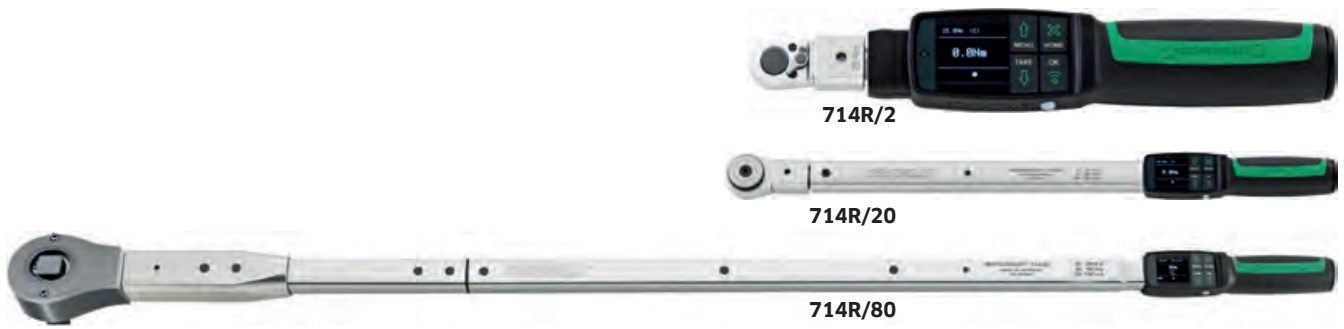
714/20



714/80

Code	size					b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	ΔT g	ΔT g with box
96 50 09 01	1	1–10 N·m	0.7–7.5 ft·lb	9–90 in·lb	9x12	28	23	226	188	17.5	370	795
96 50 09 02	2	2–20 N·m	1.5–15 ft·lb	18–180 in·lb	9x12	28	23	226	188	17.5	380	805
96 50 09 04	4	4–40 N·m	3–30 ft·lb	36–360 in·lb	9x12	28	23	252	214	17.5	420	845
96 50 09 06	6	6–60 N·m	4.5–45 ft·lb	54–540 in·lb	9x12	28	23	393	355	17.5	810	1235
96 50 09 10	10	10–100 N·m	7.4–75 ft·lb	90–900 in·lb	9x12	28	23	466	428	17.5	1085	1655
96 50 09 20	20	20–200 N·m	15–150 ft·lb	180–1800 in·lb	14x18	28	23	547	516	25	1361	1896
96 50 09 40	40	40–400 N·m	30–300 ft·lb	360–3600 in·lb	14x18	28	23	687	656	25	1765	5155
96 50 09 65	65	65–650 N·m	48–480 ft·lb	580–5800 in·lb	22x28	30.6	25.6	890	890	55	3222	7000
96 50 09 80	80	80–800 N·m	60–600 ft·lb	720–7200 in·lb	22x28	30.6	25.6	1158	1158	55	4572	10400
96 50 01 00	100	100–1000 N·m	74–750 ft·lb	900–9000 in·lb	22x28	30.6	25.6	1343	1343	55	4990	10500

## 714R MANOSKOP® tightening angle torque wrenches with reversible ratchet insert tool



Code	size				"		L mm	$\Delta$ g	$\Delta$ 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	$\Delta$ 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	$\Delta$ 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:

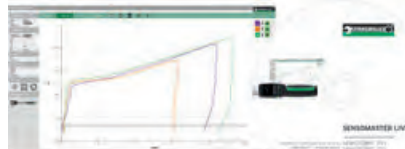
- No 7761 interface adaptor
- No 7752 spiral cable
- No 7760 mains adaptor



Code	$\Delta$ g
96521161	255

## 7732-2 SENSOMASTER Live software

- record torqueing operations with the MANOSKOP® 714, SENSOTORK® 713R (from firmware 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	$\Delta$ 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	$\Delta$ 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	$\Delta$ g
52110162	475

# The torque angle specialist. **SENSOTORK® 713R.**



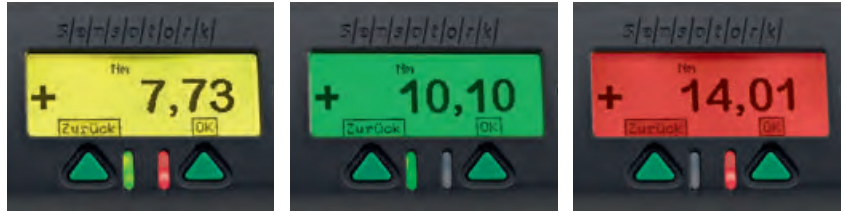
When it comes to prescribed tightening using the torque angle, SENSOTORK® 713R is the ideal tool. This tightening angle torque wrench for clockwise and anticlockwise operation boasts a particularly flexible measuring range and measures the angle and torque applied irrespective of the point of application of force. In this way it prevents human error. In addition, there is a display deviation of only  $\pm 1^\circ$  for the angle of rotation and  $\pm 1\%$  for the torque.

## EXACT.

With a display deviation value of only  $\pm 1\%$ , 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.



## SIMPLE.

Preset individual fasteners and program complex sequences - whether on the PC or on the tool itself using the display and function keys.

## MULTISENSORY.

The torque achieved is indicated by visual, audible and tactile signals - with a multicoloured backlit LED display, acoustic signal and vibration.



## SAFE.

The QuickRelease interlock technology ensures tools cannot be inadvertently lost - while enabling rapid, safe tool changes.



## UNCOMPLICATED.

Operator guidance and the menu structure are intuitive - arrow keys simplify operation.

## LOGGING FUNCTION.

Comprehensive documentation options. As many as 2000 tightening actions can be stored with timestamps.



## 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.

## Electronic angle-controlled torque wrenches SENSOTORK® 713R and electronic torque wrench SENSOTORK® 712R

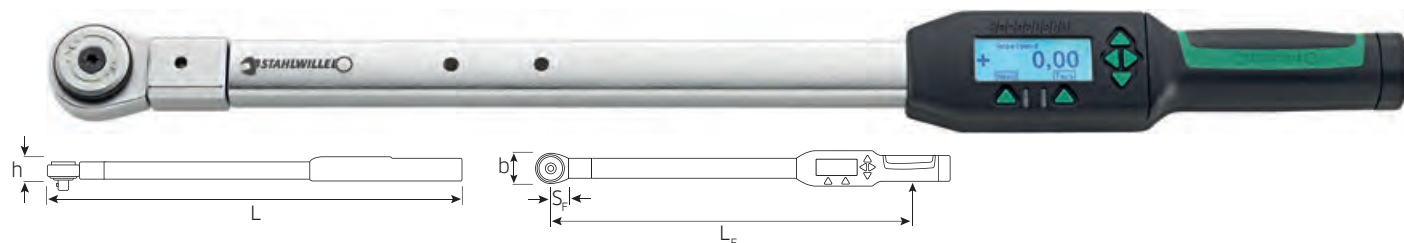
- simple, flexible operation thanks to operator guidance on large-format display
- very broad measuring range (5% to 100% of rated value)
- supplied with insert tool reversible ratchet
- more insert tools
- QuickRelease safety lock
- for clockwise and anticlockwise torquing
- measurements independent 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
- 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%**

223-229

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			"		b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	Δg	Δg 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			"		b mm	h mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	Δg	Δg 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

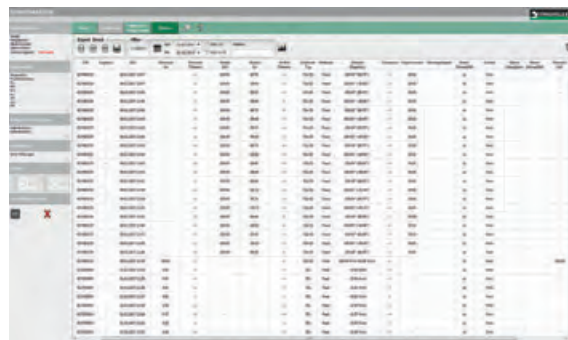
## Accessories for electronic angle-controlled torque wrench Sensotork® No 713R and electronic torque wrench SENSOTORK® No 712R

### 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



Code	L	Δ	g
<b>96 58 36 30</b>	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	Δ	g
<b>52 11 00 51</b>	1.5		50

### 7757-1 USB adaptor



Code	Δ	g
<b>52 11 10 57</b>		10

## Accessories

### 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	Δ 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	Δ 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	Δ 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

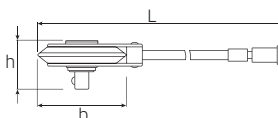
- for torque wrenches
- if light is poor, simply attach this LED lamp to illuminate the work site
- included in the delivery is a 1.5 V micro battery
- supplied without torque wrench



Code	for torque wrenches No	Δ 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	Δ 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	Δ 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	Δ g	□
08090002	2	C 6.3	1/4	34	4	10

outside ● DIN 3126/ISO 1173



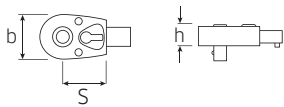
## Insert/shell tools for torque wrenches

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

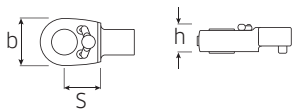


Code	size	■ "	mm	b mm	h mm	S mm	max. N-m	ΔΔ g
<b>58 25 3004</b>	<b>4</b>	1/4	9x12	22	13.8	17.5	40	50
<b>58 25 3005</b>	<b>5</b>	3/8	9x12	29	18	28*	100	130
<b>58 25 3010</b>	<b>10</b>	1/2	9x12	29	18	28*	100	141

\* 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)

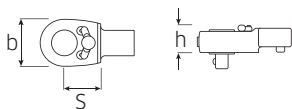


Code	size	○ "	mm	b mm	h mm	S mm	ΔΔ g
<b>58 25 5004</b>	<b>4</b>	1/4	9x12	22	13.6	17.5	54
<b>58 25 5005</b>	<b>5</b>	5/16	9x12	29	17.9	28*	117

\* Caution! Modified settings on torque wrench (refer to note on p. 201)

### 725/4 Ratchet insert tool

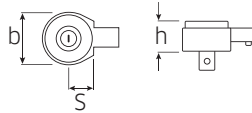
- reversible
- 22 teeth



Code	■ "	mm	b mm	h mm	S mm	max. N-m	ΔΔ g
<b>58 25 4004</b>	1/4	9x12	22	13.8	17.5	40	62

### 735 Ratchet insert tools, fine tooth

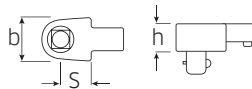
- reversible
- 60 teeth



Code	size	■ "	mm	b mm	h mm	S mm	max. N-m	ΔΔ g
<b>58 25 0005</b>	<b>5</b>	3/8	9x12	33	24	17.5	100	150
<b>58 25 0010</b>	<b>10*</b>	1/2	9x12	33	24	17.5	100	147

\* on request also available as a clockwise-only ratchet

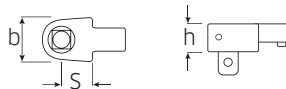
### 734 Square drive insert tools



Code	size	■ "	mm	b mm	h mm	S mm	max. N-m	ΔΔ g
<b>58 24 0004</b>	<b>4</b>	1/4	9x12	20	14	17.5	40	71
<b>58 24 0005</b>	<b>5</b>	3/8	9x12	20	14	17.5	80	76
<b>58 24 0010</b>	<b>10</b>	1/2	9x12	20	14	17.5	100	82

### 734F Square drive insert tools

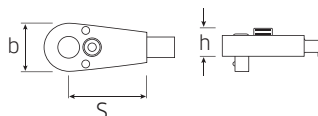
- with permanently attached, captive square drive



Code	size	■ "	mm	b mm	h mm	S mm	ΔΔ g
<b>58 24 1004</b>	<b>4</b>	1/4	9x12	22	14	17.5	72
<b>58 24 1005</b>	<b>5</b>	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)

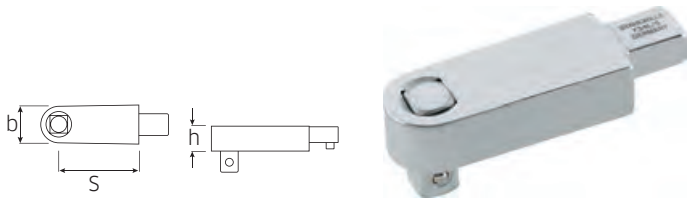


Code	■ "	mm	b mm	h mm	S mm	max. N-m	ΔΔ g
<b>58 15 1005</b>	3/8	9x12	27.5	19.6	45	100	164

# Insert/shell tools

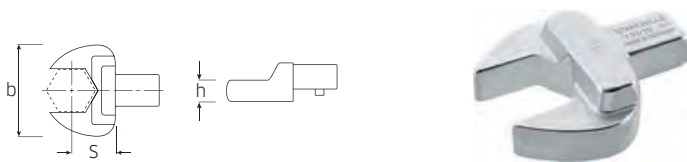
## 734L/5 Square drive insert tool

• Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	"	mm	b mm	h mm	S mm	max. N-m	Δg
58 24 2005	3/8	9x12	20	14	45	80	141

## 731/10 Open ended insert tools



Code	"	mm	b mm	h mm	S mm	max. N-m	Δg
58 21 1007	7	9x12	22	5	17.5	40	
58 21 1008	8	9x12	22	5	17.5	39	
58 21 1009	9	9x12	26	5.5	17.5	38	
58 21 1010	10	9x12	26	5.5	17.5	42	
58 21 1011	11	9x12	26	5.5	17.5	41	
58 21 1012	12 <sup>1)</sup>	9x12	30	7	17.5	43	
58 21 1013	13	9x12	30	7	17.5	45	
58 21 1014	14	9x12	35	8	17.5	52	
58 21 1015	15	9x12	35	8	17.5	51	
58 21 1016	16	9x12	38	8.5	17.5	58	
58 21 1017	17	9x12	38	8.5	17.5	60	
58 21 1018	18	9x12	42	9	20*	71	
58 21 1019	19	9x12	42	9	20*	74	

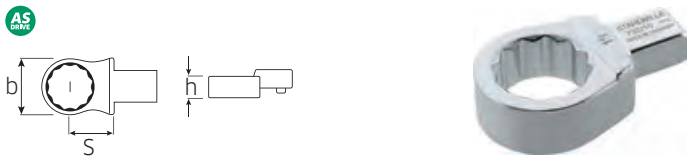
<sup>1)</sup> for flare nuts of hydraulic pipes on French vehicles  
 \* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 731a/10 Open ended insert tools

Code	"	mm	b mm	h mm	S mm	max. N-m	Δg
58 61 1016	1/4	9x12	22	5	17.5	36	
58 61 1020	5/16	9x12	22	5	17.5	53	
58 61 1024	3/8	9x12	26	5.5	17.5	38	
58 61 1028	7/16	9x12	26	5.5	17.5	37	
58 61 1032	1/2	9x12	30	7	17.5	44	
58 61 1034	9/16	9x12	35	8	17.5	49	
58 61 1036	5/8	9x12	38	8.5	17.5	64	
58 61 1038	11/16	9x12	42	9	20*	76	
58 61 1040	3/4	9x12	42	9	20*	73	

\* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 732/10 Ring insert tools



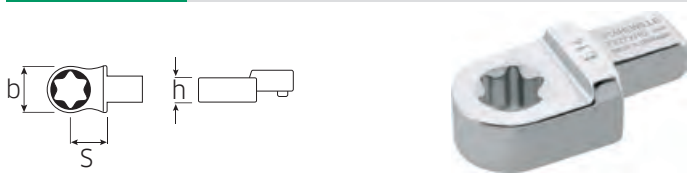
Code	"	mm	b mm	h mm	S mm	max. N-m	Δg
58 22 1007	7	9x12	13	8	17.5	37	
58 22 1008	8	9x12	14.2	8	17.5	40	
58 22 1010	10	9x12	17.2	9	17.5	44	
58 22 1011	11	9x12	18.5	9	17.5	41	
58 22 1012	12	9x12	20.5	11	17.5	49	
58 22 1013	13	9x12	21.5	11	17.5	55	
58 22 1014	14	9x12	22.5	11	17.5	52	
58 22 1015	15	9x12	24.5	12	17.5	52	
58 22 1016	16	9x12	26	12	17.5	54	
58 22 1017	17	9x12	27	13	17.5	59	
58 22 1018	18	9x12	28	13	17.5	56	
58 22 1019	19	9x12	30.5	13	17.5	65	
58 22 1021	21	9x12	33	15	17.5	71	
58 22 1022	22	9x12	34.5	15	17.5	74	

## 732a/10 Ring insert tools

Code	"	mm	b mm	h mm	S mm	max. N-m	Δg
58 62 1016	1/4	9x12	13	8	17.5	36	
58 62 1020	5/16	9x12	14.2	8	17.5	37	
58 62 1024	3/8 <sup>1)</sup>	9x12	17.2	9	17.5	37	
58 62 1028	7/16	9x12	18.5	9	17.5	40	
58 62 1032	1/2	9x12	21.5	11	17.5	53	
58 62 1034	9/16	9x12	22.5	11	17.5	52	
58 62 1036	5/8	9x12	26	12	17.5	54	
58 62 1038	11/16	9x12	28	13	17.5	58	
58 62 1040	3/4	9x12	30.5	13	17.5	58	
58 62 1042	13/16	9x12	33	15	17.5	68	
58 62 1044	7/8	9x12	34.5	15	17.5	69	

<sup>1)</sup> for Volvo aero-engines, types "JAS"

## 732TX/10 TORX® insert tools

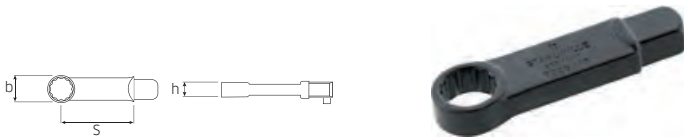


Code	size	mm	b mm	h mm	S mm	max. N-m	Δg
58 29 1006	E6	9x12	13	8	17.5	40	
58 29 1008	E8	9x12	14.2	8	17.5	45	
58 29 1010	E10	9x12	17.2	9	17.5	45	
58 29 1012	E12	9x12	18.5	9	17.5	50	
58 29 1014	E14	9x12	21.5	11	17.5	60	

## 732G/10 Ring insert tools



- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	O mm	mm	b mm	h mm	S mm	ΔΔ g
<b>58620007</b>	<b>7</b>	<b>9x12</b>	11.5	6	45	31
<b>58620008</b>	<b>8</b>	<b>9x12</b>	12.4	6	45	33
<b>58620009</b>	<b>9</b>	<b>9x12</b>	14	8	45	44
<b>58620010</b>	<b>10</b>	<b>9x12</b>	15.6	8	45	45
<b>58620013</b>	<b>13</b>	<b>9x12</b>	19.3	9.2	45	60

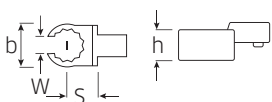
## 732aG/10 Ring insert tools



- 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	O "	mm	b mm	h mm	S mm	ΔΔ g
<b>58621216</b>	<b>1/4</b>	<b>9x12</b>	10.4	6	45	28
<b>58621220</b>	<b>5/16</b>	<b>9x12</b>	12.4	6	45	31
<b>58621224</b>	<b>3/8</b>	<b>9x12</b>	14.9	8	45	42
<b>58621228</b>	<b>7/16</b>	<b>9x12</b>	17	8	45	43
<b>58621232</b>	<b>1/2</b>	<b>9x12</b>	19	9.2	45	58
<b>58621234</b>	<b>9/16</b>	<b>9x12</b>	21	9.2	45	58
<b>58621236</b>	<b>5/8</b>	<b>9x12</b>	23	12	45	74

## 733/10 Open ring insert tools



Code	O mm	mm	b mm	h mm	S mm	W mm	ΔΔ g
<b>58231010</b>	<b>10</b>	<b>9x12</b>	21.5	11	17.5	7.1	57
<b>58231011</b>	<b>11</b>	<b>9x12</b>	22.5	11	17.5	8.6	55
<b>58231012</b>	<b>12</b>	<b>9x12</b>	24.5	12	17.5	9	59
<b>58231013</b>	<b>13</b>	<b>9x12</b>	26	12	17.5	10	55
<b>58231014</b>	<b>14</b>	<b>9x12</b>	27	13	17.5	11	60
<b>58231016</b>	<b>16</b>	<b>9x12</b>	30.5	13	17.5	13	65
<b>58231017</b>	<b>17</b>	<b>9x12</b>	31.5	13	17.5	14	64
<b>58231018</b>	<b>18</b>	<b>9x12</b>	33	15	17.5	14.8	74
<b>58231019</b>	<b>19</b>	<b>9x12</b>	34	15	17.5	15.8	70
<b>58231021</b>	<b>21</b>	<b>9x12</b>	38.5	15	20*	16.2	88
<b>58231022</b>	<b>22</b>	<b>9x12</b>	39.5	15	20*	17	92
<b>58231024</b>	<b>24</b>	<b>9x12</b>	40	15	20*	18	75

\* Caution! Modified settings on torque wrench (refer to note on p. 201)

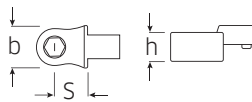
## 733a/10 Open ring insert tools



Code	O "	mm	b mm	h mm	S mm	W mm	ΔΔ g
<b>58631024</b>	<b>3/8</b>	<b>9x12</b>	21.5	11	17.5	7.1	55
<b>58631028</b>	<b>7/16</b>	<b>9x12</b>	22.5	11	17.5	8.6	56
<b>58631032</b>	<b>1/2</b>	<b>9x12</b>	26	12	17.5	9.5	58
<b>58631034</b>	<b>9/16</b>	<b>9x12</b>	27.5	13	17.5	11	59
<b>58631036</b>	<b>5/8</b>	<b>9x12</b>	30.5	13	17.5	12.7	61
<b>58631038</b>	<b>11/16</b>	<b>9x12</b>	33	15	17.5	14	48
<b>58631040</b>	<b>3/4</b>	<b>9x12</b>	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)

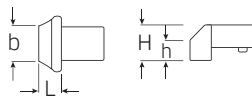


Code	size	O D	"	mm	b mm	h mm	S mm	ΔΔ g
<b>58261010</b>	<b>10</b>	D 8	5/16	<b>9x12</b>	16	12.5	17.5	47
<b>58262610</b>	<b>10-1</b>	D 6.3	1/4	<b>9x12</b>	14	10	17.5	45

inside O DIN 3126/ISO 1173

## 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

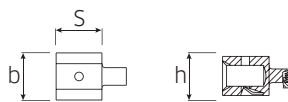


Code	Welding surface h x b mm	mm	H mm	L mm	ΔΔ g
<b>58270010</b>	8 x 14	<b>9x12</b>	14.5	8	35

## 7370/10 Adaptor



- 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)

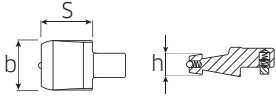


Code	mm	O mm	b mm	h mm	S mm	ΔΔ g
<b>58290010</b>	<b>9x12</b>	<b>14x18</b>	31	26	30.5	118

# Insert/shell tools

## 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	size	b mm	h mm	S mm	Δg
<b>58 29 00 12</b>	9x12	23.5	9.5	24	51

## 1820 Tool holder

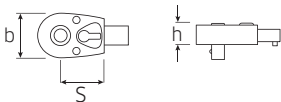
- with tool carrier to receive insert/shell tools (without torque function)



Code	mm	L mm	Δg
<b>18 20 00 01</b>	9x12	382.5	490

## 725QR/20 QuickRelease ratchet insert tool

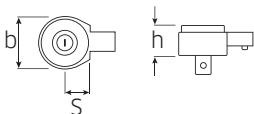
- reversible
- with QuickRelease safety lock
- 36 teeth
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	size	"	mm	b mm	h mm	S mm	max. N-m	Δg
<b>58 25 30 20</b>	20	1/2	14x18	41	22.3	38.5	200	325

## 735 Ratchet insert tools, fine tooth

- reversible
- 60 teeth

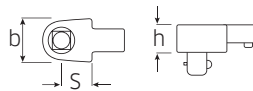


Code	size	"	mm	b mm	h mm	S mm	max. N-m	Δg
<b>58 25 00 20</b>	20	1/2	14x18	43	26	25	300	302
<b>58 25 00 40</b>	40	3/4	14x18	50	31.5	25	400	515
<b>58 25 00 65</b>	40HD	3/4	14x18	58	36	30 *	650	725

on request also available as a clockwise-only ratchet

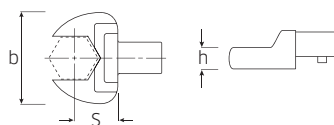
\* Caution! Modified settings on torque wrench (refer to note on p. 210)

## 734 Square drive insert tools



Code	size	"	mm	b mm	h mm	S mm	max. N-m	Δg
<b>58 24 00 20</b>	20	1/2	14x18	27	18	25	300	205
<b>58 24 00 40</b>	40	3/4	14x18	40	25	25	650	396

## 731/40 Open ended insert tools



Code	"	mm	b mm	h mm	S mm	Δg
<b>58 21 40 13</b>	13	14x18	30	7	25	128
<b>58 21 40 14</b>	14	14x18	35	8	25	129
<b>58 21 40 15</b>	15	14x18	35	8	25	132
<b>58 21 40 16</b>	16	14x18	38	9	25	140
<b>58 21 40 17</b>	17	14x18	38	9	25	130
<b>58 21 40 18</b>	18	14x18	42	10	25	147
<b>58 21 40 19</b>	19	14x18	42	10	25	140
<b>58 21 40 21</b>	21	14x18	50	11	25	171
<b>58 21 40 22</b>	22	14x18	50	11	25	165
<b>58 21 40 24</b>	24	14x18	53	12	25	167
<b>58 21 40 25</b>	25	14x18	53	12	25	170
<b>58 21 40 27</b>	27	14x18	60	13	30 *	219
<b>58 21 40 30</b>	30	14x18	66	14	30 *	275
<b>58 21 40 32</b>	32	14x18	66	14	32.5 *	246
<b>58 21 40 34</b>	34	14x18	66	14	32.5 *	239
<b>58 21 40 36</b>	36	14x18	74	15	32.5 *	275
<b>58 21 40 38</b>	38	14x18	74	15	32.5 *	265
<b>58 21 40 41</b>	41	14x18	82	15	36.5 *	307

\* Caution! Modified settings on torque wrench (refer to note on p. 201)

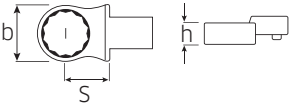
## 731a/40 Open ended insert tools

Code	"	mm	b mm	h mm	S mm	Δg
<b>58 61 40 28</b>	7/16	14x18	30	7	25	127
<b>58 61 40 32</b>	1/2	14x18	30	7	25	125
<b>58 61 40 34</b>	9/16	14x18	35	8	25	129
<b>58 61 40 36</b>	5/8	14x18	38	9	25	136
<b>58 61 40 38</b>	11/16	14x18	42	10	25	148
<b>58 61 40 40</b>	3/4	14x18	42	10	25	144
<b>58 61 40 42</b>	13/16	14x18	50	11	25	171
<b>58 61 40 44</b>	7/8	14x18	50	11	25	165
<b>58 61 40 46</b>	15/16	14x18	53	12	25	177
<b>58 61 40 48</b>	1	14x18	60	13	30 *	224
<b>58 61 40 52</b>	1 1/8	14x18	66	14	30 *	258

\* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 732/40 Ring insert tools

AS  
cont.



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

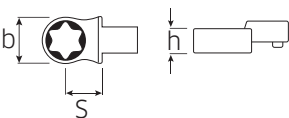
\* Caution! Modified settings on torque wrench (refer to note on p. 201)

## 732a/40 Ring insert tools

AS  
cont.

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)

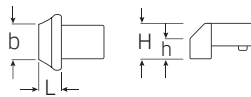


code	mm	"	mm	b mm	h mm	S mm	g
58 26 10 40	D 8	5/16	14x18	16	12.5	25	114

inside  $\odot$  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

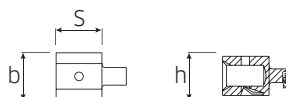


Code	Welding surface h x b mm	mm	H mm	L mm	g
58 27 00 40	11 x 25	14x18	21.5	12	98

## 7370/40 Adaptor

QR

- 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	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)

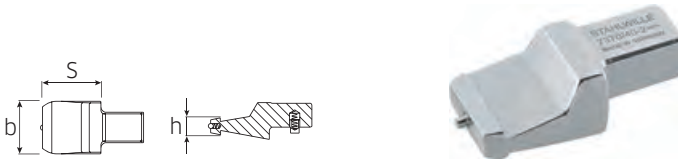


Code	mm	mm	L mm	g
58 29 00 41	14x18	24.5x28	66	251

# Insert/shell tools

## 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	Δg
58290042	14x18	31.5	9.5	34.6	138

## 1821 Tool holder

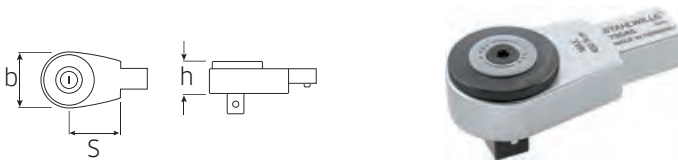
- with tool carrier to receive insert/shell tools (without torque function)



Code	mm	L mm	Δg
18210001	14x18	575	720

## 735/65 Ratchet insert tool, fine tooth

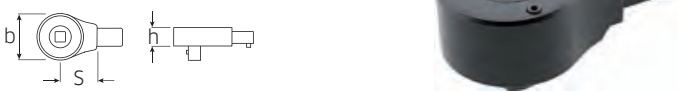
- reversible
- 60 teeth
- load capacity up to 650 N·m
- for size 65 torque wrenches



Code	"	mm	b mm	h mm	S mm	Δg
58251065	3/4	22x28	61	35	55	1115

## 735/100 Ratchet insert tool

- with push through square drive
- 30 teeth



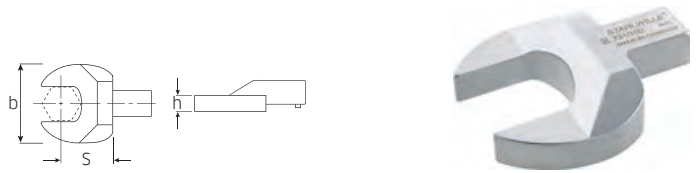
Code	"	mm	b mm	h mm	S mm	Δg
58250100	3/4	22x28	76	42	55	1893

## 734/100 Square drive insert tool



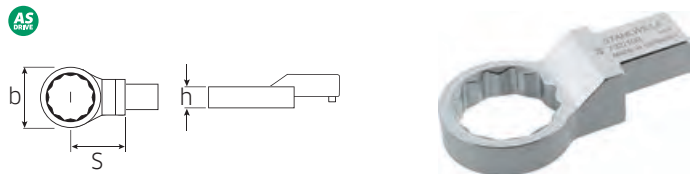
Code	"	mm	b mm	h mm	S mm	Δg
58240100	3/4	22x28	43	42	55	1175

## 731/100 Open ended insert tools



Code	mm	mm	b mm	h mm	S mm	Δg
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

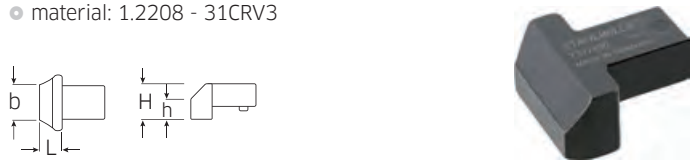
## 732/100 Ring insert tools



Code	mm	mm	b mm	h mm	S mm	Δg
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	Δg
58270100	15 x 50	22x28	32	24	483

### 7370/100 Adaptor

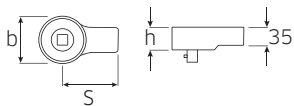
- for using shell tools with an internal square drive of 24.5 x 28 mm on torque wrenches with an internal square drive of 22 x 28 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	mm	mm	L mm	S mm	Δ g
<b>58 29 1100</b>	22x28	24,5x28	85	100	421

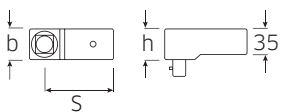
### 735/80 Ratchet shell tool

- with push through square drive
- 30 teeth



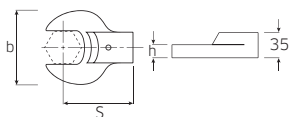
Code	"	mm	b mm	h mm	S mm	Δ g
<b>58 25 0080</b>	3/4	24,5x28	76	43	95	1930

### 734/80 Square drive shell tool



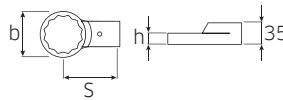
Code	"	mm	h mm	S mm	Δ g
<b>58 24 0080</b>	3/4	24,5x28	42	95	1200

### 731/80 Open ended shell tools



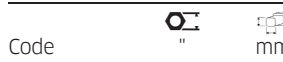
Code	mm	mm	b mm	h mm	S mm	Δ g
<b>58 21 8024</b>	24	24,5x28	50	13	95	601
<b>58 21 8027</b>	27	24,5x28	56	14	95	620
<b>58 21 8030</b>	30	24,5x28	63	15	95	655
<b>58 21 8032</b>	32	24,5x28	67	15	95	670
<b>58 21 8034</b>	34	24,5x28	72	15	95	699
<b>58 21 8036</b>	36	24,5x28	74	15	95	620
<b>58 21 8041</b>	41	24,5x28	84	16	95	810
<b>58 21 8046</b>	46	24,5x28	94	17	95	867
<b>58 21 8050</b>	50	24,5x28	104	18	95	1010
<b>58 21 8055</b>	55	24,5x28	114	19	95	1150
<b>58 21 8060</b>	60	24,5x28	124	20	95	1325

### 732/80 Ring shell tools



Code	mm	mm	b mm	h mm	S mm	Δ g
<b>58 22 8024</b>	24	24,5x28	36	15	95	605
<b>58 22 8027</b>	27	24,5x28	40.5	15	95	610
<b>58 22 8030</b>	30	24,5x28	46	16	95	630
<b>58 22 8032</b>	32	24,5x28	49	16	95	635
<b>58 22 8034</b>	34	24,5x28	52	17	95	650
<b>58 22 8036</b>	36	24,5x28	54	17	95	650
<b>58 22 8041</b>	41	24,5x28	61	18	95	675
<b>58 22 8046</b>	46	24,5x28	66	19	95	700
<b>58 22 8050</b>	50	24,5x28	75	20	95	750
<b>58 22 8055</b>	55	24,5x28	84	21	95	800
<b>58 22 8060</b>	60	24,5x28	93	22	95	850

### 732a/80 Ring shell tools

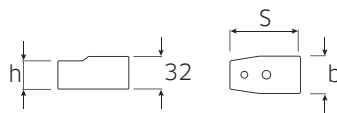


Code	"	mm	b mm	h mm	S mm	Δ g
<b>58 62 8046</b>	15/16 <sup>1)</sup>	24,5x28	36	14	95	604
<b>58 62 8050</b>	1 1/16 <sup>1)</sup>	24,5x28	40.5	14	95	608

<sup>1)</sup> 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	mm	mm	b mm	h mm	S mm	Δ g
<b>58 29 0080</b>	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	Δ g
<b>18 22 0003</b>	24,5x28	1000	2057

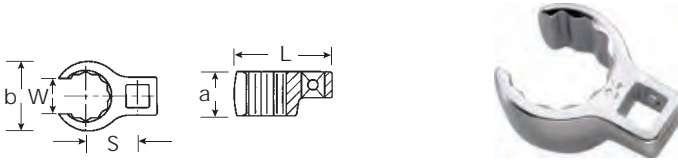
# Insert/shell tools

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	
01 19 00 08	8	1/4	23.8	12.7	8	12.3	6.3	11	1
01 19 00 09	9	1/4	28.5	18.2	13.5	14	6.7	21	1
01 19 00 10	10 <sup>1)</sup>	1/4	28.4	18.2	13.5	14	7.1	16	1
01 19 00 11	11	1/4	28	18.2	13.5	14	8.6	17	1
01 19 00 12	12 <sup>1)</sup>	1/4	30.8	20.6	14	15.7	9	20	1
01 19 00 13	13	1/4	32	22.2	14	16.4	10	30	1
01 19 00 14	14 <sup>1)</sup>	1/4	31.7	22.2	14	16.4	11.1	20	1
02 19 00 15	15	3/8	36.5	24.6	17.5	19.1	11.9	34	1
02 19 00 16	16	3/8	36.1	24.6	17.5	19.1	13	27	1
02 19 00 17	17 <sup>2)</sup>	3/8	39.2	27.3	17.5	20.5	14	40	1
02 19 00 18	18	3/8	40.8	29	18.5	21.3	14.8	45	1
02 19 00 19	19 <sup>2)</sup>	3/8	40.5	29	18.5	21.3	15.8	40	1
02 19 00 20	20	3/8	42.9	31.3	18.5	22.5	15.8	54	1
02 19 00 21	21	3/8	42.8	31.3	18.5	22.5	16.2	45	1
02 19 00 22	22 <sup>2)</sup>	3/8	45.3	33.5	19	23.6	17	57	1
02 19 00 23	23	3/8	47.5	35.7	19.5	24.6	17.5	71	1
02 19 00 24	24 <sup>2)</sup>	3/8	47.3	35.7	19.5	24.6	18	57	1
02 19 00 25	25	3/8	49.3	37.7	20	25.7	19	80	1
02 19 00 26	26	3/8	49.3	37.7	20	25.7	19	63	1
02 19 00 27	27	3/8	52.8	40	21.4	28.2	20	100	1
02 19 10 27	27MB <sup>3)</sup>	3/8	57.1	42.1	15	29.3	20	92	1
03 19 00 28	28	1/2	56.8	42.1	22.5	29.3	21	120	1
03 19 00 30	30	1/2	63	48	22.5	32.5	22	155	1
03 19 00 32	32	1/2	62.5	48	22.5	32.5	24	145	1
03 19 00 34	34	1/2	64.2	50	24	33.5	27	146	1
03 19 00 36	36	1/2	66.5	51.9	24	34.6	27	150	1
03 19 00 38	38	1/2	68.1	53.9	24	35.6	28.6	147	1
03 19 00 40	40	1/2	71.8	57.9	24.5	37.7	31	160	1
03 19 00 41	41	1/2	71.8	57.9	24.5	37.7	31	169	1
03 19 00 42	42	1/2	71	57.9	24.5	37.7	33.2	189	1
03 19 00 46	46	1/2	77.7	64.2	26	40.9	34.1	215	1
03 19 00 50	50	1/2	83.2	70.5	27.5	44.1	39.7	295	1

<sup>1)</sup> for union nuts on fuel injection leads on 4-cylinder Mercedes-Benz diesel engines

<sup>2)</sup> for use on suction or pressure lines within expansion valve of air conditioning unit (Mercedes-Benz)

<sup>3)</sup> 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	"	mm	b mm	a mm	S mm	W mm	g		
01 49 00 24	3/8 <sup>1)</sup>	1/4	28.4	18.2	13.5	14	7.1	16	1
01 49 00 28	7/16	1/4	28	18.2	13.5	14	8.6	14	1
01 49 00 32	1/2	1/4	30.5	20.6	14	15.7	10	19	1
01 49 00 34	9/16	1/4	31.7	22.2	14	16.4	11.1	23	1
02 49 00 36	5/8	3/8	36.5	24.6	17.5	19.1	11.9	33	1
02 49 00 38	11/16	3/8	39.2	27.3	17.5	20.5	14	36	1
02 49 00 40	3/4	3/8	40.9	29	18.5	21.3	14.2	44	1
02 49 00 42	13/16	3/8	42.9	31.3	18.5	22.5	15.8	51	1
02 49 00 44	7/8	3/8	45.2	33.5	19	23.6	17.5	62	1
02 49 00 46	15/16	3/8	47.2	35.7	19.5	24.6	18.3	63	1
02 49 00 48	1	3/8	49.3	37.7	20	25.7	19	71	1
02 49 00 50	1 1/16	3/8	52.8	40	21.4	28.2	20	84	1
03 49 00 52	1 1/8	1/2	56.8	42.1	22.5	29.3	21	110	1
03 49 00 56	1 1/4	1/2	62.5	48	22.5	32.5	23.8	137	1
03 49 00 58	1 5/16	1/2	62.3	48	22.5	32.5	24.6	130	1
03 49 00 60	1 3/8	1/2	64.2	50	24	33.5	27	138	1
03 49 00 62	1 7/16	1/2	66.5	51.9	24	34.6	27	143	1
03 49 00 64	1 1/2	1/2	68.1	53.9	24	35.6	28.6	152	1
03 49 00 65	1 9/16	1/2	70.1	55.9	24	36.7	29.4	172	1
03 49 00 66	1 5/8	1/2	71.8	57.9	24.5	37.7	31	169	1
03 49 00 68	1 3/4	1/2	75.6	62	25.5	39.8	33.2	199	1
03 49 00 69	1 13/16	1/2	77.7	64.2	26	40.9	34.1	229	1
03 49 00 72	2	1/2	83.2	70.5	27.5	44.1	39.7	277	1
03 49 00 76	2 1/4	1/2	91.2	78.7	29.5	48.2	42.8	337	1
03 49 00 77	2 5/16	1/2	93.3	80.9	30	49.2	43.6	309	1
03 49 00 78	2 3/8	1/2	95.2	83	30.5	50.2	46	385	1

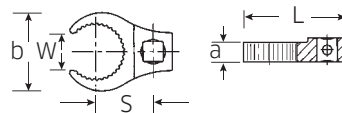
<sup>1)</sup> for Volvo aero-engines, types "JAS"

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)

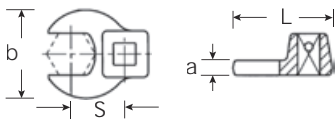


Code	Threaded nut	mm	"	L mm	b mm	a mm	S mm	W mm	g	
01 21 10 10	MJ10	DN04	1/4	31.9	22	8	17	6.5	54	1
01 21 10 14	MJ14	DN06	1/4	36.5	27	8	19.5	8.5	29	1
02 21 10 16	MJ16	DN08	3/8	43.8	31	8	24	10.5	46	1
02 21 10 18	MJ18	DN10	3/8	45.2	33	8	25	13	47	1
02 21 10 20	MJ20	DN12	3/8	46.2	35	8	26	15	49	1
02 21 10 22	MJ22	DN14	3/8	48.4	37	9	27	17.5	54	1
02 21 10 24	MJ24	DN16	3/8	49.5	39	9	28	19.7	56	1
02 21 10 27	MJ27	DN18	3/8	54.4	44	10	31	21.5	70	1
02 21 10 30	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 p. 201)



Code	mm	"	L mm	b mm	a mm	S mm	g	
01 200008	8	1/4	25.5	19.8	6.3	14.6	19	1
01 200009	9	1/4	25.5	19.8	6.3	14.6	21	1
01 200010	10	1/4	25.5	19.8	6.3	14.6	20	1
02 200011	11	3/8	32	22.2	6.3	17.4	36	1
02 200012	12	3/8	34.3	25.4	6.3	18.2	37	1
02 200013	13	3/8	34.3	25.4	6.3	17.8	36	1
02 200014	14	3/8	37.7	30	6.3	20.8	46	1
02 200015	15	3/8	37.7	30	6.3	20.4	45	1
02 200016	16	3/8	37.7	30	6.3	19.9	45	1
02 200017	17	3/8	42.5	38	6.3	23.8	62	1
02 200018	18	3/8	42.5	38	6.3	22.9	61	1
02 200019	19	3/8	42.5	38	6.3	22.4	64	1
02 200020	20	3/8	42.4	38	6.3	25	55	1
02 200021	21	3/8	44.5	41	6.3	23.6	59	1
02 200022	22	3/8	44.5	41	6.3	24.2	64	1
02 200023	23	3/8	44.5	41	6.3	25.8	64	1
02 200024	24	3/8	44.4	41	6.3	26.3	60	1
02 200025	25	3/8	47	45	8	26.4	75	1
02 200026	26	3/8	47	45	8	27.6	80	1
02 200027	27	3/8	47	45	8	27.6	76	1
02 200028	28	3/8	50	50	8	29.2	78	1
02 200030	30	3/8	50	50	8	29.3	84	1
02 200032	32	3/8	53	57	8	30.5	95	1
02 200034	34	3/8	54.5	60	8	31.6	107	1
02 200036	36	3/8	56.5	62	8	32.8	100	1
02 200040	40	3/8	63	70	8	37.6	130	1
02 200041	41	3/8	63	70	8	37.2	130	1
02 200042	42	3/8	63	70	8	37.7	125	1
02 200046	46	3/8	72	82	8	43.1	191	1
02 200050	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

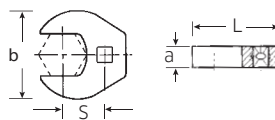
## 540a CROW-FOOT spanners

- 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	
01 50 0024	3/8	1/4	25.5	19.8	6.3	14.6	17	1
02 50 0028	7/16	3/8	32	22.2	6.3	17.2	34	1
02 50 0032	1/2	3/8	34.3	25.4	6.3	18.1	37	1
02 50 0034	9/16	3/8	37.7	30	6.3	20.9	40	1
02 50 0036	5/8	3/8	37.7	30	6.3	20.4	44	1
02 50 0038	11/16	3/8	42.5	38	6.3	24.1	62	1
02 50 0040	3/4	3/8	42.5	38	6.3	24	66	1
02 50 0042	13/16	3/8	42.3	38	6.3	24	59	1
02 50 0044	7/8	3/8	44.5	41	6.3	25.8	65	1
02 50 0048	1	3/8	47	45	8	26.7	78	1
02 50 0050	1 1/16	3/8	47	45	8	27.2	78	1
02 50 0052	1 1/8	3/8	50	50	8	28.5	84	1
02 50 0054	1 3/16	3/8	50	50	8	29.2	83	1
02 50 0056	1 1/4	3/8	53	57	8	30.3	101	1
02 50 0058	1 5/16	3/8	53	57	8	31.2	101	1
02 50 0060	1 3/8	3/8	54.5	60	8	32.3	105	1
02 50 0062	1 7/16	3/8	56.5	62	8	33.1	107	1
02 50 0064	1 1/2	3/8	58	65	8	34.5	118	1
02 50 0065	1 9/16	3/8	59.5	68	8	35.7	126	1
02 50 0066	1 5/8	3/8	63	70	8	37.3	140	1
02 50 0067	1 11/16	3/8	63	70	8	37.7	126	1
02 50 0068	1 3/4	3/8	68	76	8	40.4	161	1
02 50 0070	1 7/8	3/8	72	82	8	42	205	1
02 50 0072	2	3/8	75	88	8	44.8	214	1
02 50 0074	2 1/8	3/8	75.6	91	10	46	265	1
02 50 0076	2 1/4	3/8	80.5	96	10	49.5	297	1
03 50 0078	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	
02 50 1034	9/16	3/8	43.4	32	11	26.8	52	1
02 50 1036	5/8	3/8	45	34.8	11	27.7	58	1
02 50 1038	11/16	3/8	47.2	38	11	28.6	69	1
02 50 1042	13/16	3/8	51	46.4	11	30.5	113	1
02 50 1044	7/8	3/8	52	48	11	31.3	99	1
02 50 1046	15/16	3/8	54	51.2	11	32.3	129	1
02 50 1048	1	3/8	56	53.4	11	33.2	133	1
02 50 1050	1 1/16	3/8	57	53.8	11	34.1	124	1
02 50 1052	1 1/8	3/8	59	53.8	11	35	128	1
02 50 1056	1 1/4	3/8	62	60	11	36.8	153	1
02 50 1062	1 7/16	3/8	66.5	66	11	39.6	172	1
03 50 1064	1 1/2	1/2	76	70	16	45	310	1
03 50 1069	1 13/16	1/2	85	84	16	49.6	400	1
03 50 1072	2	1/2	89	90	16	52.3	451	1
03 50 1074	2 1/8	1/2	91.5	92.8	16	54.2	460	1
03 50 1075	2 3/16	1/2	93	96	16	55.1	480	1
03 50 1076	2 1/4	1/2	95	99	16	56	500	1

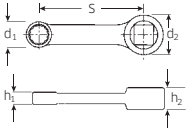
## Insert/shell tools

447

### Adaptor



- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	mm	"	d <sub>1</sub> mm	d <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	S mm	Δ	g	
02 18 1007	7	3/8	11.5	19	6	11	50.8	30	1	
02 18 1008	8	3/8	12.4	19	6	11	50.8	30	1	
02 18 1009	9	3/8	14	19	8	11	50.8	40	1	
02 18 1010	10	3/8	15.6	19	8	11	50.8	40	1	
02 18 1013	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)

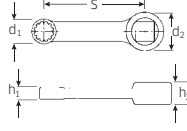
Code	"	"	d <sub>1</sub> mm	d <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	S mm	Δ	g	
02 47 00 16	1/4	3/8	10.4	19	6	11	50.8	27	1	
02 47 00 20	5/16	3/8	12.4	19	6	11	50.8	29	1	
02 47 00 24	3/8	3/8	14.9	19	8	11	50.8	41	1	
02 47 00 28	7/16	3/8	17	19	8	11	50.8	40	1	
02 47 00 32	1/2	3/8	19	19	9.2	11	50.8	56	1	
02 47 00 34	9/16	3/8	21	19	9.2	11	50.8	61	1	
02 47 00 36	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 <sub>1</sub> mm	d <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	S mm	Δ	g	
02 48 00 14	7	7/32	3/8	9.4	19	6	11	50.8	28	1	
02 48 00 16	8	1/4	3/8	10.4	19	6	11	50.8	27	1	
02 48 00 18	9	9/32	3/8	11.5	19	6	11	50.8	29	1	
02 48 00 20	10	5/16	3/8	12.4	19	6	11	50.8	29	1	
02 48 00 24	12	3/8	3/8	14.9	19	8	11	50.8	38	1	
02 48 00 28	14	7/16	3/8	17	19	9.2	11	50.8	39	1	
02 48 00 32	16	1/2	3/8	19	19	9.2	11	50.8	59	1	
02 48 00 34	18	9/16	3/8	21	19	9.2	11	50.8	55	1	
02 48 00 36	20	5/8	3/8	23	19	12	11	50.8	74	1	

5

## 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 <sup>1)</sup>	ft·lb <sup>1)</sup>	N·m <sup>2)</sup>	ft·lb <sup>2)</sup>	Gear ratio	Torque ratio	"	b mm	h mm	L mm	Δ g	Δ g with box
96 53 1500	1500	1106	300	221	5.62 : 1	1 : 5	1/2	105	30	165	1890	3630

<sup>1)</sup> max. output

<sup>2)</sup> 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.

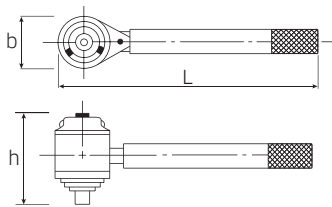
MULTIPOWER tools are also available on request up to 12000 N·m/8850 ft·lb.

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  $\pm 5\%$



code	size	N·m <sup>1)</sup>	ft·lb <sup>1)</sup>	N·m <sup>2)</sup>	ft·lb <sup>2)</sup>	Gear ratio	Torque ratio	⌀ "	■ "	b mm	h mm	L mm	ΔΔ g	ΔΔ g with box
<b>53030800</b>	<b>800</b>	800	590	229	169	4 : 1	1 : 3.5	1/2	3/4	66	85	215	2000	5838
<b>53031350</b>	<b>1350</b>	1350	996	375	277	4 : 1	1 : 3.6	3/4	3/4	90	106	265	3400	7500
<b>53032000</b>	<b>2000 *)</b>	2000	1475	160	118	16 : 1	1 : 12.5	1/2	1	95	161	330	7000	11000
<b>53033000</b>	<b>3000 *)</b>	3000	2212	240	177	16 : 1	1 : 12.5	3/4	1	95	161	330	7000	10805
<b>53035000</b>	<b>5000 *)</b>	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

<sup>1)</sup> max. output

<sup>2)</sup> max. input

## Spares for MULTIPOWER

### SR290-393 Sun wheel with overload cutout



Code	No	for No	ΔΔ g
<b>59030800</b>	<b>SR300-800</b>	MP300-800	45
<b>59031350</b>	<b>SR300-1350</b>	MP300-1350	106
<b>59032000</b>	<b>SR300-2000</b>	MP300-2000	120
<b>59033000</b>	<b>SR300-3000</b>	MP300-3000	130
<b>59035000</b>	<b>SR300-5000</b>	MP300-5000	127
<b>59300039</b>	<b>SR290N</b>	STW 290N	18
<b>59300067</b>	<b>SR295N</b>	STW 295N	95
<b>59300068</b>	<b>SR391N</b>	STW 391N	95
<b>59300069</b>	<b>SR392N</b>	STW 392N	95
<b>59300070</b>	<b>SR393N</b>	STW 393N	105

## Sets of spare parts for ratchet insert tools

**4150QR Spare parts set**

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
<b>1901 1020</b>	725QR/4	24

**4350QR Spare parts set**

Content 8 pieces:  
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs;  
2 screws

code	for No	g
<b>19020020</b>	725QR/5	51

**7250QR/10 Spare parts set**

Content 8 pieces:  
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

code	for No	g
<b>1904 1020</b>	725QR/10	64

**5120QR Spare parts set**

Content 8 pieces:  
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

code	for No	g
<b>19040020</b>	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
<b>1901 2022</b>	4	725B/4	21
<b>1901 2023</b>	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
<b>1902 1000</b>	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
<b>1901 2021</b>	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
<b>59 25 1005</b>	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
<b>59 25 10 10</b>	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
<b>59 25 10 20</b>	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
<b>59 25 10 40</b>	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

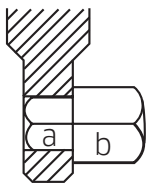
code	for No	g
<b>59 25 10 65</b>	735/40HD; 735/65	429

## 7210 Ratchet spare parts sets for torque wrenches No 721

code	No	Content	△ g
<b>59 19 1005</b>	<b>7210/5</b>	For ratchet/torque wrench No 721/5, 721/5 Quick: 1 pinion, 1 pawl, 1 switch-over button and pin, 1 ball, 2 compression springs, 2 screws	53
<b>19040000</b>	<b>5120 + 7210/15</b>	For ratchet/torque wrench No 721/15, 721/15 Quick, 721/20, 721/20 Quick: 1 pinion, 1 pawl, 1 lever, 1 lever pin, 1 ball, 2 compression springs, 2 screws	127
<b>59 19 1030</b>	<b>7210/30</b>	For ratchet/torque wrench No 721/30, 721/30 Quick: 1 pinion, 1 pawl, 1 lever, 1 lever pin, 1 ball, 2 compression springs, 2 screws	134
<b>59 19 1080</b>	<b>7210/80</b>	For ratchet/torque wrench No 721Nf/80, 721Nf/100, 735/80, 735/100: 1 pinion, 2 pawls, 2 spring contact points, 2 compression springs	443

## 70V Square drive units

• for torque wrenches and insert tools



**502 1/2**



**70V 16**

code	size	for No	a "	b "	L mm	△ g	
<b>59010001</b>	<b>1</b>	71...V/1	1/4	1/4	17,5	5	5
<b>59010014</b>	<b>11</b>	734/4	3/8	1/4	22	12	5
<b>59010003</b>	<b>3</b>	734/5	3/8	3/8	25,8	17	5
<b>59010005</b>	<b>5</b>	734/10	3/8	1/2	30	28	5
<b>59010011</b>	<b>502 1/2</b>	720/30; 734/20	1/2	1/2	33,5	40	5
<b>59010007</b>	<b>7</b>	721/30, 721/30 Quick	1/2	1/2	44,3	52	5
<b>59010008</b>	<b>8</b>	734/40	3/4	3/4	52,2	138	5
<b>59010015</b>	<b>12</b>	720Nf/80; 721Nf/80+100; 734/80; 734/100; 735/80; 735/100	3/4	3/4	65	179	1
<b>59010016</b>	<b>16*</b>	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«.



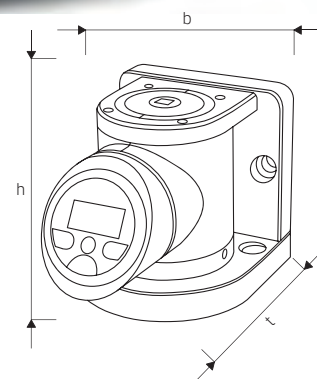
The STAHLWILLE calibration service offers both works calibration certificates and DAkkS calibration certificates.

## 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  $\pm 1\%$**

### SmartCheck Torque Tester



code	No	capacity N·m	capacity ft·lb	capacity in·lb	Ø "	b mm	h mm	t mm	g
96 52 1201	SmartCheck 10S *	1-10	0.74-7.4	8.9-88.5	1/4	120	124	167	5210
96 52 1202	SmartCheck 10	1-10	0.74-7.4	8.9-88.5	1/4	120	124	167	5210
96 52 1203	SmartCheck 100	10-100	7-74	89-885	3/8	120	124	167	5310
96 52 1204	SmartCheck 400	40-400	30-295	354-3540	3/4	120	124	167	5690
96 52 1205	SmartCheck 800	80-800	59-590	708-7081	3/4	120	124	167	5690

\*) for checking torque screwdrivers

## Electronic torque tester for torque wrenches **SENSOTORK® 7707 W** (For complete calibration systems see p. 241, 245)

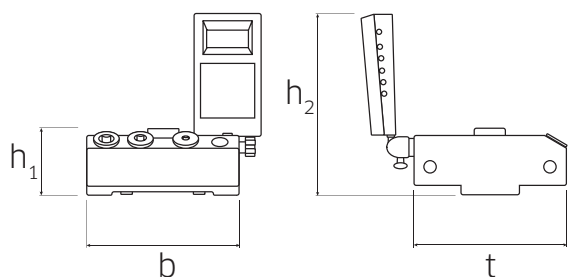
- compact torque tester for easy adaptation by replacement of the transducers
- high degree of accuracy thanks to flat transducer and conversion and digitalisation of readings within the transducer (see p. 239)
- high degree of safety through display showing actual torque read-off where clicking torque 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

5



QR

**QuickRelease** Rapid change and firm locking of the transducers thanks to the QuickRelease safety lock.

**Interchangeable square drive adapters:** A set of interchangeable square drive adapters are conveniently stored in the mounting block for a range of different drive sizes.



Code	No	Capacity N·m	Capacity ft·lb	Capacity in·lb	□ "	b mm	h <sub>1</sub> mm	h <sub>2</sub> mm	t mm	∅ <sub>2</sub> g	∅ <sub>2</sub> g with box
96 52 1086	7707-1-3W <sup>1)</sup>	0.2-10	0.15-7.4	1.8-88.5	1/4	180	79	215	180	6255	9500
96 52 1085	7707-1-2W	0.2-10	0.15-7.4	1.8-88.5	1/4	180	79	215	180	6255	9500
96 52 1080	7707-1W	0.4-20	0.3-15	3.5-177	1/4	180	79	215	180	6255	9500
96 52 1072	7707-2W <sup>2)</sup>	2-100	1.5-74	18-885	3/8	180	79	215	180	7025	10300
96 52 1083	7707-2-1W <sup>3)</sup>	4-200	3-148	35-1770	1/2	180	79	215	180	7511	10975
96 52 1084	7707-2-2W <sup>4)</sup>	8-400	6-295	71-3540	3/4	180	79	215	180	7654	11100
96 52 1082	7707-3W <sup>4)</sup>	25-1100	18-812	221-9736	3/4	180	79	215	180	7495	11000

<sup>1)</sup> for calibrating torque screwdrivers

<sup>2)</sup> with square drive adaptor No 409M (1/4" □ x 3/8" ■)

<sup>3)</sup> with square drive adaptors No 7789-4 (1/4" □ x 1/2" ■), No 7789-5 (3/8" □ x 1/2" ■)

<sup>4)</sup> 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" ■)



## 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		7721	7721-0	7721-1	7722	7723-1	7723-2	7723-3	7724-1		7721	7721-0	7721-1	7722	7723-1	7723-2	7723-3	7724-1
760	•								730a/2		•	•						730Na/20					•	•		
775	•								730a/4			•	•					730Na/40					•	•		
TORSIOTRONIC	•								730/80							•	•	701/2		•						
71/80							•	•	721/5			•	•					730D/10			•	•	•			
71aR/80							•	•	721/15			•	•	•				730D/20			•	•	•			
73Nm/15		•	•						721/20			•	•	•				730D/40				•	•			
755R/1		•							721/30				•	•				730D/65					•	•		
755/4			•	•					721QR/15			•	•	•				730DII/65						•	•	
755/10				•	•				721QR/20			•	•	•				730D/80						•	•	
755/20				•	•	•			720Nf/80						•	•		730D/100						•	•	
755/30					•	•			721Nf/80						•	•		714/ 1		•	•					
730/5			•	•					721Nf/100						•	•		714/ 2		•	•					
730/10				•	•				730N/2		•	•						714/ 4			•	•				
730/12				•	•	•			730N/5			•	•					714/ 6			•	•				
730/20				•	•	•			730N/10			•	•					714/10			•	•	•			
730/40					•	•			730N/12			•	•	•				714/20			•	•				
730/65						•			730N/20			•	•					714/40				•	•			
730II/65						•			730N/40				•	•				714/65						•	•	
730a/5			•	•					730N/65				•					714/80						•	•	
730a/10				•	•				730NII/65					•				714/100						•	•	
730a/12				•	•	•			730N/80					•	•			713R/6			•					
730a/20				•	•	•			730N/100					•	•			713R/20				•	•			
730/2		•	•						730Na/2		•	•						713R/40					•			
730/4			•	•	•				730Na/5			•	•	•				712R/6			•					
730a/2-1	•	•							730Na/10			•	•													

### 7721-7724 Transducers



- 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			Display deviation value ± 0.5% of the reading			Display deviation value ± 0.25% of the reading			Ø mm	Ø "	Δ g	Δ g with box
		N-m	ft-lb	in-lb	N-m	ft-lb	in-lb	N-m	ft-lb	in-lb				
<b>96521021</b>	<b>7721<sup>1)</sup></b>	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
<b>96521000</b>	<b>7721-0</b>	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
<b>96521026</b>	<b>7721-1</b>	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
<b>96521022</b>	<b>7722</b>	2-100	1,5-74	18-885	10-100	7-74	89-885	12-100	9-74	106-885	120	3/8	2486	3223
<b>96521023</b>	<b>7723-1</b>	40-200	3-148	35-1770	20-200	15-148	177-1770	40-200	30-148	354-1770	120	1/2	2983	3605
<b>96522023</b>	<b>7723-2</b>	8-400	6-295	71-3540	40-400	30-295	354-3540	80-400	59-295	708-3540	120	3/4	3134	3745
<b>96521028</b>	<b>7723-3</b>	25-1100	18-812	221-9736	110-1100	81-812	974-9736	220-1100	162-812	1947-9736	120	3/4	2998	3761
<b>96521029</b>	<b>7724-1<sup>2)</sup></b>	150-3000	111-2214	1328-26553	300-3000	221-2214	2655-26553	600-3000	443-2214	5311-26553	195	1 1/2	10500	12000

<sup>1)</sup> for calibrating torque screwdrivers

<sup>2)</sup> 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**

# 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.



**USB adapter** - transfers the data to the PC.



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).



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.

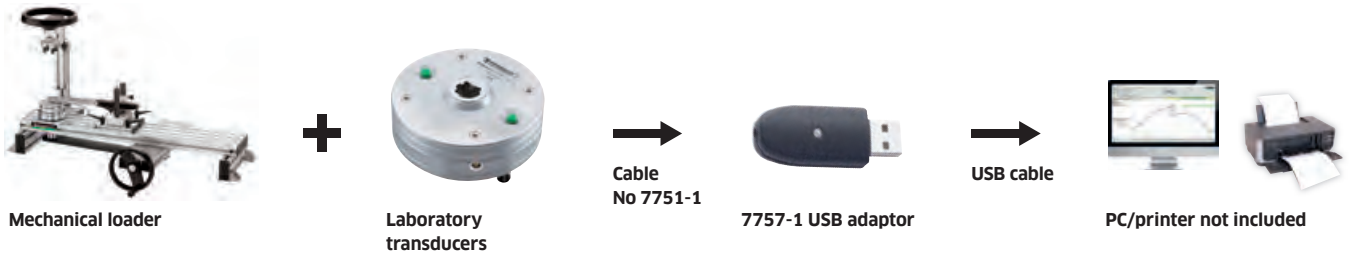


The transducer is connected to the USB adapter by means of a **cable** with a jack and a self-locking precision plug.



**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	<b>96 52 10 68</b>	<b>96 52 10 69</b>	<b>96 52 10 70</b>	<b>96 52 10 74</b>
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) No 7728-10 (10-100 N·m)	No 7728-2 (2-20 N·m) No 7728-10 (10-100 N·m) No 7728-40 (40-400 N·m) No 7728-100 (100-1000 N·m)	No 7728-20 (20-200 N·m) No 7728-100 (100-1000 N·m) 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" ■) No 409M (1/4" □ x 3/8" ■)	No 7787 (1/4" □ x 3/4" ■) No 7788 (3/8" □ x 3/4" ■) No 7789 (1/2" □ x 3/4" ■) No 409M (1/4" □ x 3/8" ■)	No 7787 (1/4" □ x 3/4" ■) No 7788 (3/8" □ x 3/4" ■) No 7789 (1/2" □ x 3/4" ■) No 7789-2 (3/4" □ x 1 1/2" ■) No 7789-3 (1" □ x 1 1/2" ■) No 7789-4 (1/4" □ x 1/2" ■) No 7789-5 (3/8" □ x 1/2" ■)
Calibrating square drive insert tools	-	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■)	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■)	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■)
Adapters	No 3115 (1/4" ■ x 1/4" ● E 6.3) No 3115/1 (1/4" ■ x 1/4" ● C 6.3)	-	-	-
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.

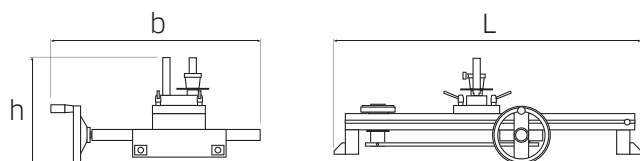
The components can be quickly and easily locked together using the integrated screw joints.

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

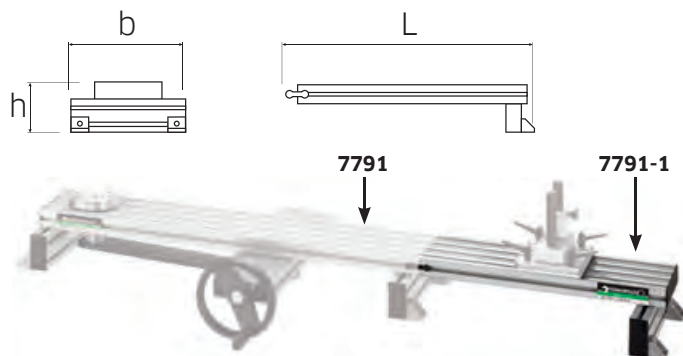
- measurement possible without moving the point of application of force
- thanks to a specially designed force transmission system, mechanical loader No 7791 avoids the risk of the point of force application shifting during the calibration process
- the lever below the test rail is actuated in a linear 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 <sub>F</sub> ) 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 <sub>F</sub> ) max. mm	Profile width mm	b mm	h mm	L mm	∅ kg
52110191	-1000	1390 (7791 + 7791-1)	180	308	135	673	8

## 7792 Mechanical loaders unit to 1000 N·m



Code	Capacity N·m	for transducer	for torque wrenches with functional length (L <sub>F</sub> ) max. mm	Profile width mm	b mm	h mm	L mm	⊕ ⊖ kg
52 11 0092	-1000	sizes 20; 100; 300	1390	270	722	323	1668.5	58

## 7792-1 Extension unit for No 7792 up to 3000 N·m

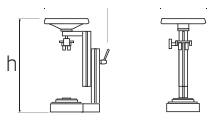


Code	Capacity N·m	for torque wrenches with functional length (L <sub>F</sub> ) max. mm	Profile width mm	b mm	h mm	L mm	⊕ ⊖ kg
52 11 0192	-3000	2390 (7792 + 7792-1)	270	558	135	1073	18.5

## Test attachments for torque screwdrivers

### 7790 Mechanical loaders for torque screwdrivers

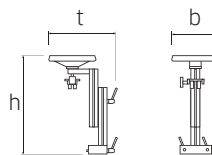
- can be bolted to mechanical loader No 7792
- the torque screwdriver to be calibrated is inserted in the square mount of the transducer and fixed using the universal central clamp
- the handwheel ensures that the required force is applied in a controlled manner to the torque screwdriver
- supplied without transducer or torque screwdriver



Code	Capacity N·m	for transducer	b mm	h mm	t mm	⊕ ⊖ kg
58 52 1090	-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
52 11 0291	-10	250	442-593	351	3.7

## Accessory

### 7750-1 Holder

- for display unit No 7750
- can be bolted to test attachments



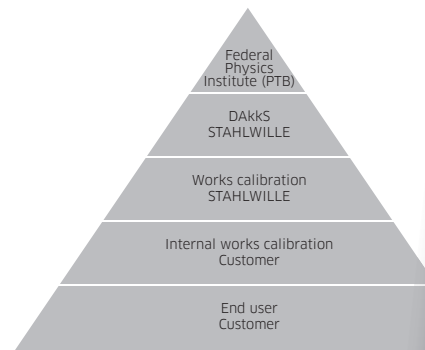
code	⊕ ⊖ g
52 10 1050	165

# 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.

5



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



Laboratory  
transducers



Cable  
No 7751-1



7757-1 USB adaptor



USB cable



PC/printer not included



Manual calibrating unit  
No 7794-1

No for full system	7794-2/400	7794-2/1000	7794-1/400	7794-1/1000
Code	<b>96 52 10 78</b>	<b>96 52 10 79</b>	<b>96 52 10 76</b>	<b>96 52 10 77</b>
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) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m)	No 7728-1 (1-10 N-m) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m) No 7728-100 (100-1000 N-m)	No 7728-1 (1-10 N-m) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m)	No 7728-1 (1-10 N-m) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m) 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" $\text{Ox}$ 3/8" ■) No 7787 (1/4" $\text{Ox}$ 3/4" ■) No 7788 (3/8" $\text{Ox}$ 3/4" ■) No 7789 (1/2" $\text{Ox}$ 3/4" ■) No 7789-4 (1/4" $\text{Ox}$ 1/2" ■) No 7789-5 (3/8" $\text{Ox}$ 1/2" ■)	No 409M (1/4" $\text{Ox}$ 3/8" ■) No 7787 (1/4" $\text{Ox}$ 3/4" ■) No 7788 (3/8" $\text{Ox}$ 3/4" ■) No 7789 (1/2" $\text{Ox}$ 3/4" ■) No 7789-4 (1/4" $\text{Ox}$ 1/2" ■) No 7789-5 (3/8" $\text{Ox}$ 1/2" ■)	No 409M (1/4" $\text{Ox}$ 3/8" ■) No 7787 (1/4" $\text{Ox}$ 3/4" ■) No 7788 (3/8" $\text{Ox}$ 3/4" ■) No 7789 (1/2" $\text{Ox}$ 3/4" ■) No 7789-4 (1/4" $\text{Ox}$ 1/2" ■) No 7789-5 (3/8" $\text{Ox}$ 1/2" ■)	No 409M (1/4" $\text{Ox}$ 3/8" ■) No 7787 (1/4" $\text{Ox}$ 3/4" ■) No 7788 (3/8" $\text{Ox}$ 3/4" ■) No 7789 (1/2" $\text{Ox}$ 3/4" ■) No 7789-4 (1/4" $\text{Ox}$ 1/2" ■) No 7789-5 (3/8" $\text{Ox}$ 1/2" ■)
Calibration square drive insert tools	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/12 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■) No 734K/100 (3/4" ■)	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/12 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■) No 734K/100 (3/4" ■)	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/12 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■) No 734K/100 (3/4" ■)	No 734K/4 (1/4" ■) No 734K/5 (3/8" ■) No 734K/12 (3/8" ■) No 734K/20 (1/2" ■) No 734K/40 (3/4" ■) 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)**



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 <sub>F</sub> ) 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



### 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	$\varnothing$ kg
<b>96 52 1092</b>	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	$\varnothing$ kg
<b>96 52 1094</b>	1-400	7728 (sizes 1-100)	815	180	640	884-1134	1060	230

# Torque testers

7728

Transducers laboratory



- o patented
- o for laboratory environments
- o with optimised measuring range
- o for calibrating torque wrenches and torque screwdrivers
- o for use together with perfectControl® calibrating unit No 7794 or calibration system No 7706
- o high degree of accuracy thanks to conversion and digitization of readings within the transducer itself
- o with high-grade self-locking precision plug
- o not susceptible to lateral forces due to low-profile construction
- o with DAkkS calibration certificate
- o **max. display deviation value ± 0.5% of the reading**
- o further details on request
- o supplied in sturdy plastic box
- o measuring ranges by deviation of indication



Code	size	Display deviation value ± 0.5% of the reading			Display deviation value ± 0.25% of the reading			∅ mm	∅ "	∆∆ g	∆∆ g with box
		N-m	in-lb	ft-lb	N-m	ft-lb	in-lb				
<b>96524011</b>	<b>15<sup>1)</sup></b>	1-10	8,9-88,5	0,74-7,4	2-10	1,5-7,4	18-88,5	120	1/4	1735	2415
<b>96524001</b>	<b>1</b>	1-10	8,9-88,5	0,74-7,4	2-10	1,5-7,4	18-88,5	120	1/4	1735	2415
<b>96524002</b>	<b>2</b>	2-20	18-177	1,5-15	4-20	3-15	35-177	120	1/4	1735	2415
<b>96524004</b>	<b>4</b>	4-40	35-354	3-30	8-40	6-30	71-354	120	3/8	2486	3136
<b>96524006</b>	<b>6</b>	6-60	53-531	4,5-45	12-60	9-45	106-531	120	3/8	2486	3136
<b>96524010</b>	<b>10</b>	10-100	89-885	7-74	20-100	14-74	177-885	120	3/8	2486	3136
<b>96524020</b>	<b>20</b>	20-200	177-1770	15-148	40-200	30-148	354-1770	120	1/2	2983	3170
<b>96524040</b>	<b>40</b>	40-400	354-3540	30-295	80-400	60-295	708-3540	156	3/4	4846	5507
<b>96524065</b>	<b>65</b>	65-650	575-5753	48-479	130-650	96-479	1151-5753	156	3/4	4846	5507
<b>96524080</b>	<b>80</b>	80-800	708-7081	59-590	160-800	118-590	1416-7081	156	3/4	4846	5507
<b>96524100</b>	<b>100</b>	100-1000	885-8851	74-738	200-1000	148-738	1770-8851	156	3/4	4846	5507
<b>96524300</b>	<b>300<sup>2)</sup></b>	300-3000	2655-26553	221-2214	600-3000	443-2214	5310-26553	195	1 1/2	10500	12000

<sup>1)</sup> for calibrating torque screwdrivers

<sup>2)</sup> 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.



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support@stahlwille.de  
www.stahlwille.de

## Accessories for workshop torque tester and calibration systems

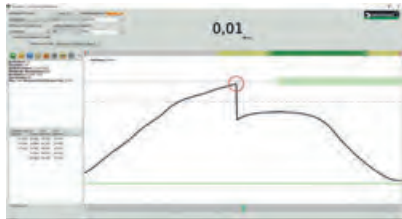
### 7759-4 USB adaptor, jack cable and software Torkmaster

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	Δ∇ g
<b>96 58 36 29</b>	1.5	65

### 7759-6 USB adaptor, cable and software Torkmaster

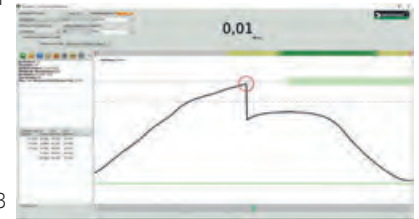
NEW

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	Δ∇ g
<b>96 58 36 31</b>	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	Δ∇ g
<b>52 11 00 51</b>	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	Δ∇ g
<b>52 11 00 54</b>	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	Δ∇ g
<b>52 11 00 52</b>	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	Δ∇ g
<b>52 11 00 57</b>	500	32

## Torque testers

### 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
<b>52 1000 50</b>	182

### 7760 Mains adaptor

- Input: 110 V-230 V AC
- Output: 9 V DC, with interchangeable socket adaptors



Code	⊘ g
<b>52 1100 56</b>	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
<b>52 1100 61</b>	26

### 7761/3 Interface adaptor set

- Contents:
- No 7761 interface adaptor
  - No 7752 spiral cable
  - No 7760 mains adaptor



Code	⊘ g
<b>96 52 11 61</b>	255

### 7311/7312 Plastic box, empty

- for safe storage and transport of transducers (please order inlays separately)



Code	No	for transducer	⊘ g
<b>81 500003</b>	<b>7311</b>	7721; 7722; 7723; 7728 1-20	554
<b>81 500004</b>	<b>7312</b>	7724-1; 7728 40-100	1346

### 7313/7314 Inlays for plastic box

Code	No	for transducer	⊘ g
<b>8307 1030</b>	<b>7313</b>	7721; 7722; 7723; 7728 1-20	77
<b>8307 1031</b>	<b>7314</b>	7724-1; 7728 40-100	242

### 409M Adaptor

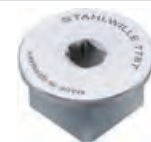
- 1/4" socket x 3/8" plug (6.3 x 10)



code	L mm	∅ mm	⊘ g
<b>110300 10</b>	13	28	14

### 7787 Square drive adaptor

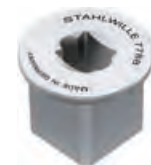
- 1/4" socket x 3/4" plug (6.3 x 20)



Code	L mm	∅ mm	⊘ g
<b>58 52 10 87</b>	15.5	29	41

### 7788 Square drive adaptor

- 3/8" socket x 3/4" plug (10 x 20)



Code	L mm	∅ mm	⊘ g
<b>58 52 10 88</b>	23.5	29	50

### 7789 Square drive adaptor

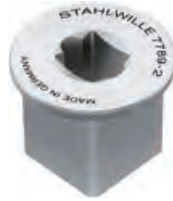
- 1/2" socket x 3/4" plug (12.5 x 20)



Code	L mm	∅ mm	ΔΔ g
<b>58 52 1089</b>	23.5	29	40

### 7789-2 Square drive adaptor

- 3/4" socket x 1 1/2" plug (20 x 40)



Code	L mm	∅ mm	ΔΔ g
<b>58 52 3089</b>	44	60	380

### 7789-3 Square drive adaptor

- 1" socket x 1 1/2" plug (25 x 40)



Code	L mm	∅ mm	ΔΔ g
<b>58 52 4089</b>	44	60	280

### 7789-4 Square drive adaptor

- 1/4" socket x 1/2" plug (6.3 x 12.5)



Code	L mm	∅ mm	ΔΔ g
<b>58 52 4090</b>	15.5	29	25

### 7789-5 Square drive adaptor

- 3/8" socket x 1/2" plug (10 x 12.5)



Code	L mm	∅ mm	ΔΔ g
<b>58 52 4091</b>	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	ΔΔ g
<b>58 24 3004</b>	<b>4</b>	1/4	9x12	20	16.7	17.5	76
<b>58 24 3005</b>	<b>5</b>	3/8	9x12	20	16.7	17.5	76
<b>58 24 3012</b>	<b>12</b>	3/8	14x18	27	21.5	25	199
<b>58 24 3020</b>	<b>20</b>	1/2	14x18	27	21.5	25	218
<b>58 24 3040</b>	<b>40</b>	3/4	14x18	40	29.3	25	410
<b>58 24 1100</b>	<b>100</b>	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	ΔΔ g
<b>5901 1014</b>	<b>11</b>	734/4	3/8	1/4	24.7	12
<b>5901 1003</b>	<b>3</b>	735/5	3/8	3/8	27.6	17
<b>5901 1012</b>	<b>12</b>	734/10; 734/20	1/2	3/8	32.5	34
<b>5901 1011</b>	<b>502</b>	1/2 734/20	1/2	1/2	36.9	60
<b>5901 1008</b>	<b>8</b>	734/40; 734/80; 734/100	3/4	3/4	52.2	138



# 6 SCREWDRIVERS

DRALL<sup>+</sup>  
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3K DRALL<sup>®</sup>  
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Electronics screwdrivers  
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T-handled screwdrivers  
>> Page 265



Offset screwdrivers  
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# Impressive diversity. DRALL<sup>+</sup> screwdrivers.



For professionals who constantly face new challenges in their daily work: the DRALL<sup>+</sup> screwdriver series with the 2-component cushioned handle. DRALL<sup>+</sup> screwdrivers are a byword for long dependability, functional integrity and comfortable handling, which makes light work of any task.

## SAFE.

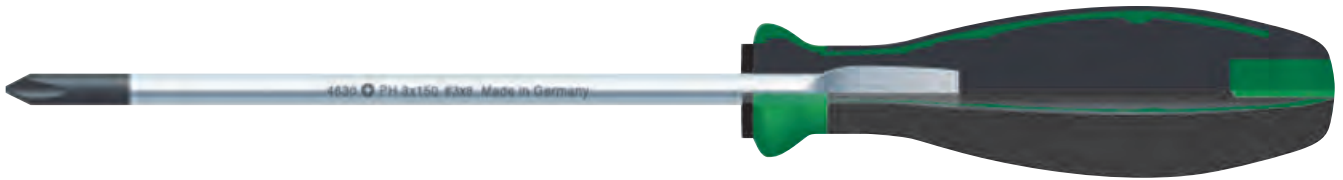
The flange-like hand stop **1** prevents injuries caused by unintentional slipping – and also stops the tool rolling away.

## FAST.

The lower end of the handle (multifunction zone **2**) 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.

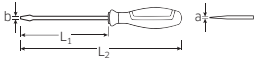
### DRALL+ is available for the following screw-head profiles



	Slotted
	PH cross-head
	PZ cross-head
	TORX®
	TORX® Tamper Resistant with a central bore
	Hexagonal
	TORQ-SET®

# Screwdrivers

## 4620 Screwdrivers for slotted screws DRALL<sup>+</sup>

- 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 <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>46 20 30 35</b>	<b>1</b>	0.6	3.5	75	160	25	10
<b>46 20 30 40</b>	<b>2</b>	0.8	4.0	100	185	34	10
<b>46 20 30 55</b>	<b>3</b>	1.0	5.5	125	240	79	10
<b>46 20 30 65</b>	<b>4</b>	1.2	6.5	150	265	109	10
<b>46 20 30 80</b>	<b>5</b>	1.6	8.0	175	300	136	10
<b>46 20 31 00</b>	<b>6</b>	1.6	10.0	200	325	163	5
<b>46 20 31 20</b>	<b>7</b>	2.0	12.0	250	375	215	5

## 4621 Screwdrivers for slotted screws DRALL<sup>+</sup>

- parallel blades
- as per VSM (Swiss Standard)
- Chrome Alloy Steel, chrome plated
- black tips





Code	size	a mm	b mm	L <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>46 21 30 25</b>	<b>0</b>	0.4	2.5	80	165	27	10
<b>46 21 30 35</b>	<b>1</b>	0.5	3.5	90	175	26	10
<b>46 21 30 40</b>	<b>2</b>	0.6	4.0	100	185	34	10
<b>46 21 30 55</b>	<b>3</b>	0.8	5.5	120	235	78	10
<b>46 21 30 65</b>	<b>4</b>	1.0	6.5	140	255	96	10
<b>46 21 30 80</b>	<b>5</b>	1.2	8.0	160	275	117	10
<b>46 21 31 00</b>	<b>6</b>	1.6	10.0	180	305	174	10

## 4622 Screwdrivers for slotted screws DRALL<sup>+</sup>

- 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 <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>46 22 30 55</b>	<b>1</b>	1.0	5.5	100	215	85	10
<b>46 22 30 65</b>	<b>2</b>	1.2	6.5	125	240	100	10
<b>46 22 30 80</b>	<b>3</b>	1.2	8.0	150	275	159	10
<b>46 22 31 00</b>	<b>4</b>	1.6	10.0	175	300	174	10
<b>46 22 31 20</b>	<b>5</b>	2.0	12.0	200	325	240	5
<b>46 22 31 40</b>	<b>6</b>	2.5	14.0	250	375	310	5

## 4622SK Screwdrivers for slotted screws DRALL<sup>+</sup>

- 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 <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>46 22 32 40</b>	<b>1</b>	0.8	4.0	90	195	50	10
<b>46 22 32 55</b>	<b>2</b>	1.0	5.5	100	215	106	10
<b>46 22 32 65</b>	<b>3</b>	1.2	6.5	125	240	135	5
<b>46 22 32 80</b>	<b>4</b>	1.2	8.0	150	275	191	5
<b>46 22 32 00</b>	<b>5</b>	1.6	10.0	175	300	226	5
<b>46 22 32 20</b>	<b>6</b>	2.0	12.0	200	325	267	5
<b>46 22 33 40</b>	<b>7</b>	2.5	14.0	250	375	340	5

## 4724 Carburettor screwdrivers DRALL

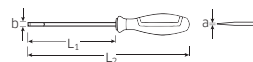
- DIN ISO 2380-1, -2, DIN 5264, ISO 2380-1, -2
- stubby
- Chrome Alloy Steel, chrome plated
- black tips





Code	size	a mm	b mm	L <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>47 24 10 45</b>	<b>1</b>	0.6	3.5	25	80	34	10
<b>47 24 10 60</b>	<b>2</b>	1.0	5.5	25	80	32	10
<b>47 24 10 80</b>	<b>3</b>	1.2	8.0	25	80	39	10

## 4628 Electricians screwdrivers for slotted screws DRALL<sup>+</sup>

- 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 <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>46 28 30 25</b>	<b>1</b>	0.4	2.5	60	145	20	10
<b>46 28 30 35</b>	<b>2</b>	0.6	3.5	75	160	40	10
<b>46 28 31 35</b>	<b>3</b>	0.6	3.5	100	185	41	10
<b>46 28 30 40</b>	<b>4</b>	0.8	4.0	125	210	36	10
<b>46 28 30 55</b>	<b>5</b>	1.0	5.5	150	265	92	10
<b>46 28 31 55</b>	<b>6</b>	1.0	5.5	200	315	102	10

## 4630 Cross-head screwdrivers DRALL<sup>+</sup>

- Phillips-Recess®
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



Code	PH size	L <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>46 30 30 00</b>	<b>0</b>	60	145	20	10
<b>46 30 30 01</b>	<b>1</b>	80	185	35	10
<b>46 30 30 02</b>	<b>2</b>	100	215	90	10
<b>46 30 30 03</b>	<b>3</b>	150	275	146	10

### 4631 Cross-head screwdrivers DRALL<sup>+</sup>

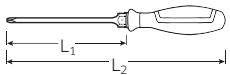
- Phillips-Recess<sup>®</sup>
- extra long
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



Code	PH size	L <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	
<b>46 31 3001</b>	<b>1</b>	250	355	110	1
<b>46 31 3002</b>	<b>2</b>	250	365	122	1

### 4632 Cross-head screwdrivers DRALL<sup>+</sup>

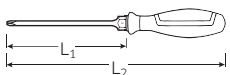
- with hexagon
- Phillips-Recess<sup>®</sup>
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



Code	PH size	L <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	
<b>46 32 3001</b>	<b>1</b>	80	185	45	10
<b>46 32 3002</b>	<b>2</b>	100	215	100	10
<b>46 32 3003</b>	<b>3</b>	150	275	170	5
<b>46 32 3004</b>	<b>4</b>	200	325	237	5

### 4632SK Cross-head screwdrivers DRALL<sup>+</sup>

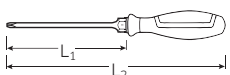
- with impact cap and hexagonal shank
- Phillips-Recess<sup>®</sup>
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



Code	PH size	L <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	
<b>46 32 3101</b>	<b>1</b>	85	190	58	10
<b>46 32 3102</b>	<b>2</b>	100	215	120	10
<b>46 32 3103</b>	<b>3</b>	150	275	194	5

### 4640 Cross-head screwdrivers DRALL<sup>+</sup>

- POZIDRIV/SUPADRIV<sup>®</sup>
- DIN ISO 8764-1, -2, ISO 8764-1, -2
- Chrome Alloy Steel, chrome plated
- black tips



Code	PZ size	L <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	
<b>46 40 3000</b>	<b>0</b>	60	145	35	10
<b>46 40 3001</b>	<b>1</b>	80	185	44	10
<b>46 40 3002</b>	<b>2</b>	100	215	89	10
<b>46 40 3003</b>	<b>3</b>	150	275	145	5

### 4636 TORQ-SET<sup>®</sup> screwdrivers DRALL<sup>+</sup>

- TORQ-SET<sup>®</sup>
- hexagonal blade
- chrome plated
- black tips



code	mm/"	L <sub>1</sub> mm	L <sub>2</sub> mm	"	Δ g	
<b>46 36 3002</b>	<b>2</b>	100	215	1/4	92	5
<b>46 36 3004</b>	<b>4</b>	100	215	1/4	93	5
<b>46 36 3006</b>	<b>6</b>	100	215	1/4	92	5
<b>46 36 3008</b>	<b>8</b>	100	215	1/4	93	5
<b>46 36 3010</b>	<b>10</b>	100	215	1/4	93	5
<b>46 36 3016</b>	<b>1/4</b>	150	265	5/16	138	5

### 4650 TORX<sup>®</sup> screwdrivers DRALL<sup>+</sup>

- for inside TORX<sup>®</sup> screws
- Chrome Alloy Steel, chrome plated
- black tips



Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	
<b>46 50 3005</b>	<b>T5</b>	1.4	60	145	30	5
<b>46 50 3006</b>	<b>T6</b>	1.6	60	145	35	5
<b>46 50 3007</b>	<b>T7</b>	2.0	60	145	35	5
<b>46 50 3008</b>	<b>T8</b>	2.3	60	145	33	5
<b>46 50 3009</b>	<b>T9</b>	2.5	60	145	35	5
<b>46 50 3010</b>	<b>T10</b>	2.7	80	165	35	5
<b>46 50 3015</b>	<b>T15</b>	3.3	80	165	38	5
<b>46 50 3020</b>	<b>T20</b>	3.8	100	205	50	5
<b>46 50 3025</b>	<b>T25</b>	4.4	100	205	50	5
<b>46 50 3027</b>	<b>T27</b>	5.0	115	230	90	5
<b>46 50 3030</b>	<b>T30</b>	5.5	115	230	90	5
<b>46 50 3040</b>	<b>T40</b>	6.6	115	240	131	5
<b>46 50 3045</b>	<b>T45</b>	7.8	130	255	136	5

### 4650L TORX<sup>®</sup> screwdrivers DRALL<sup>+</sup>

- for inside TORX<sup>®</sup> screws
- extra long
- Chrome Alloy Steel, chrome plated
- black tips

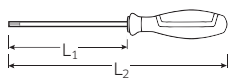


Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	
<b>46 50 3115</b>	<b>T15</b>	3.3	250	335	45	5
<b>46 50 3120</b>	<b>T20</b>	3.8	250	355	180	5
<b>46 50 3125</b>	<b>T25</b>	4.4	250	355	180	5
<b>46 50 3130</b>	<b>T30</b>	5.5	250	365	125	5

# Screwdrivers

## 4656 TORX® screwdrivers DRALL+

- with hollow point (TORX® TAMPER RESISTANT)
- Chrome Alloy Steel, chrome plated
- black tips



Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> 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 <sub>1</sub> mm	L <sub>2</sub> 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 <sub>1</sub> mm	L <sub>2</sub> 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 <sub>1</sub> mm	L <sub>2</sub> 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 <sub>1</sub> mm	L <sub>2</sub> 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 <sub>1</sub> mm	L <sub>2</sub> 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<sup>+</sup> set of screwdrivers

Set of 7 **DRALL<sup>+</sup>** 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
<b>96 46 91 15</b>	580 1

### 4697/8 DRALL<sup>+</sup> set of screwdrivers

Set of 8 **DRALL<sup>+</sup>** 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
<b>96 46 97 15</b>	930 1

### 4692/8 DRALL<sup>+</sup> set of screwdrivers

Set of 8 **DRALL<sup>+</sup>** 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
<b>96 46 92 15</b>	840 1

### 4694/9 DRALL<sup>+</sup> set of TORX<sup>®</sup> screwdrivers

Set of 9 **DRALL<sup>+</sup>** screwdrivers  
 for TORX<sup>®</sup> screws  
 Content:  
 ⊕ 4650: T8, T9, T10, T15, T20, T25,  
 T27, T30, T40



Code	g
<b>96 46 94 15</b>	730 1

### 4693/9 DRALL<sup>+</sup> set of screwdrivers

Set of 9 **DRALL<sup>+</sup>** 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
<b>96 46 93 15</b>	950 1

### 4699/9 DRALL<sup>+</sup> set of TORX<sup>®</sup> screwdrivers

Set of 9 **DRALL<sup>+</sup>** screwdrivers  
 for TORX<sup>®</sup> screws  
 (TORX<sup>®</sup> TAMPER RESISTANT).  
 Content:  
 ⊕ 4656: T8, T9, T10, T15, T20, T25,  
 T27, T30, T40  
 (with hollow point)



Code	g
<b>96 46 99 15</b>	740 1

### 4696/6 DRALL<sup>+</sup> set of screwdrivers

Set of 6 **DRALL<sup>+</sup>** 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
<b>96 46 96 15</b>	870 1

### TCS 4620/4630

• 175 x 350 x 35 mm  
 • 7 pieces



Code	g
<b>96 83 82 78</b>	590

No	Content
<b>4620</b>	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)
<b>4630</b>	PH1; PH2; PH3

# Screwdrivers

## TCS 4620/4640



- 175 x 350 x 40 mm
- 7 pieces

Code	g
<b>96838784</b>	410

No	Content
<b>4620</b>	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)
<b>4640</b>	PZ1; PZ2; PZ3

## TCS 4622/4632



- 175 x 350 x 35 mm
- 6 pieces

Code	g
<b>96838783</b>	845

No	Content
<b>4622</b>	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)
<b>4632</b>	PH2; PH3

## TCS 4620-4734/8



- 175 x 350 x 40 mm
- 8 pieces

Code	g
<b>96838769</b>	503

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

## TCS 4620/4660VDE+10767



- 530 x 350 x 35 mm
- 27 pieces

Code	g
<b>96831168</b>	2200

No	Content
<b>4620</b>	size 1 (0.6 x 3.5 x 75 mm) size 2 (0.8 x 4.0 x 100 mm) size 4 (1.2 x 6.5 x 150 mm) size 5 (1.6 x 8.0 x 175 mm) size 6 (1.6 x 10.0 x 200 mm) size 7 (2.0 x 12.0 x 200 mm)
<b>4628</b>	size 1 (0.4 x 2.5 x 60 mm)
<b>4630</b>	PH1; PH2; PH3
<b>4632</b>	PH4
<b>4640</b>	PZ0; PZ1; PZ2
<b>4660 VDE</b>	size 1 (0.4 x 2.5 x 75 mm)
<b>4724</b>	size 2 (1.0 x 5.5 x 25 mm)
<b>4734</b>	PH2
<b>4744</b>	PZ1
<b>10767/9</b>	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
<b>96831179</b>	1689

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

### TCS 4621/4734/16



TCS



- 530 x 350 x 40 mm
- 16 pieces

Code	ΔΔ g
<b>96 83 20 98</b>	1490

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

### TCS 4622/4650+10760+10766



TCS



- 530 x 350 x 40 mm
- 36 pieces

Code	ΔΔ g
<b>96 83 11 96</b>	1895

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

### TCS 4650



TCS



- 175 x 350 x 35 mm
- 8 pieces

Code	ΔΔ g
<b>96 83 87 67</b>	340

No	Content
<b>4650</b>	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.

6

### 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.



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 <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	g
<b>48 20 1035</b>	0.6	3.5	75	170	63	10
<b>48 20 1040</b>	0.8	4.0	100	195	32	10
<b>48 20 2055</b>	1.0	5.5	125	220	58	10
<b>48 20 1065</b>	1.2	6.5	150	265	100	10
<b>48 20 1080</b>	1.6	8.0	175	290	120	10
<b>48 20 1100</b>	1.6	10.0	200	315	158	5
<b>48 20 2100</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	g
<b>48 30 1000</b>	<b>0</b>	60	155	28	10
<b>48 30 1001</b>	<b>1</b>	80	175	50	10
<b>48 30 1002</b>	<b>2</b>	100	215	70	10
<b>48 30 1003</b>	<b>3</b>	150	275	126	5
<b>48 30 1004</b>	<b>4</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	g
<b>48 40 1001</b>	<b>1</b>	80	175	33	10
<b>48 40 1002</b>	<b>2</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	g
<b>48 56 0006</b>	<b>T6 *</b>	1.6	50	145	45	5
<b>48 56 0007</b>	<b>T7</b>	2.0	50	145	37	5
<b>48 56 0008</b>	<b>T8</b>	2.3	60	155	39	5
<b>48 56 0009</b>	<b>T9</b>	2.5	60	155	50	5
<b>48 56 0010</b>	<b>T10</b>	2.7	80	175	26	5
<b>48 56 0015</b>	<b>T15</b>	3.3	80	175	52	5
<b>48 56 0020</b>	<b>T20</b>	3.8	100	215	32	5
<b>48 56 0025</b>	<b>T25</b>	4.4	100	215	55	5
<b>48 56 0027</b>	<b>T27</b>	5.0	115	230	58	5
<b>48 56 0030</b>	<b>T30</b>	5.5	115	230	63	5
<b>48 56 0040</b>	<b>T40</b>	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	Δ g	g
<b>96 48 91 10</b>	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	Δ g	g
<b>96 48 92 10</b>	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	Δ g	g
<b>96 48 99 10</b>	513	1

### TCS 4820/4830

- 175 x 350 x 35 mm
- 7 pieces



Code	Δ g	g
<b>96 83 81 84</b>	555	

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

# Screwdrivers

## TCS 4724/4840+10767



TCS



- 530 x 350 x 45 mm
- 24 pieces

Code	g
<b>96830706</b>	1755

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

## TCS 4856



TCS



- 175 x 350 x 40 mm
- 7 pieces

Code	g
<b>96838755</b>	447

No	Content
<b>4856</b>	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

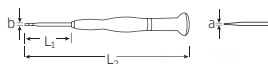


Code	g	☐
<b>96479802</b>	745	1

# Electronics screwdrivers

## 4751 ⊖ Screwdrivers for slotted screws

- DIN ISO 8764



Code	size	a mm	b mm	L <sub>1</sub> mm	L <sub>2</sub> mm	g	☐
<b>47513001</b>	<b>1</b>	0.16	0.8	40	140	12	5
<b>47513002</b>	<b>2</b>	0.18	1.0	40	140	12	5
<b>47513003</b>	<b>3</b>	0.25	1.2	40	140	12	5
<b>47513004</b>	<b>4</b>	0.3	1.5	40	140	12	5
<b>47513005</b>	<b>5</b>	0.3	1.8	60	160	12	5
<b>47513006</b>	<b>6</b>	0.4	2.0	60	160	12	5
<b>47513007</b>	<b>7</b>	0.4	2.5	75	175	12	5
<b>47513008</b>	<b>8</b>	0.5	3.0	75	175	14	5

## 4752 ⊕ Cross-head screwdrivers

- Phillips-Recess®
- DIN ISO 2380



Code	PH size	L <sub>1</sub> mm	L <sub>2</sub> mm	⊕ M	americ. No	∅ mm	g	☐
<b>47523010</b>	<b>00</b>	40	140	-	-	2.5	12	5
<b>47523020</b>	<b>0</b>	60	160	-2	0-1	3	14	5
<b>47523001</b>	<b>1</b>	80	180	2-3	2-4	4.5	24	5

## 4753 ● Hexagon socket screwdrivers



Code	mm/"	L <sub>1</sub> mm	L <sub>2</sub> mm	g	☐
<b>47533007</b>	<b>0.7 / 0.028</b>	40	140	12	5
<b>47533009</b>	<b>0.9 / 0.035</b>	40	140	12	5
<b>47533013</b>	<b>1.3 / 0.050</b>	40	140	12	5
<b>47533015</b>	<b>1.5</b>	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	☐
<b>96479715</b>	234	1

### 10768 T-handled screwdrivers

- for socket head screws
- Chrome Vanadium, matt chrome plated
- black tips



Code	mm	L <sub>1</sub> mm	L <sub>2</sub> 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

### ES 10768/6

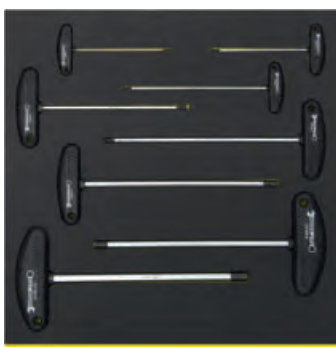


- 350 x 350 x 37 mm
- 6 pieces

Code	g
96 83 81 19	780

No	Content
10768	3; 4; 5; 6; 8; 10 mm

### TCS 10768/8



- 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

### 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 <sub>1</sub> mm	L <sub>2</sub> 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

### 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

### 10769 TORX®-screwdrivers

- T-handled
- for inside TORX® screws
- Chrome Vanadium, matt chrome plated
- black tips



Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> 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

# Screwdrivers


## ES 10769/7



- 175 x 350 x 35 mm
- 7 pieces



Code	Δ	g
<b>96838120</b>		450

No	Content
 <b>10769</b>	sizes T10; T15; T20; T25; T27; T30; T40

## ES 10769B/7



- 175 x 350 x 35 mm
- 7 pieces



Code	Δ	g
<b>96838129</b>		420

No	Content
 <b>10769B</b>	sizes T10; T15; T20; T25; T27; T30; T40



## TCS 10769+10771/17



- 350 x 350 x 30 mm
- 17 pieces



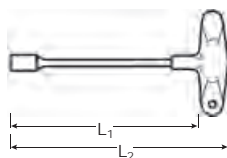
Code	Δ	g
<b>96832099</b>		940

No	Content
 <b>10769</b>	sizes T9; T10; T15; T20; T25; T30; T40; T45; T50
 <b>10771/8</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	g
<b>43232060</b>	<b>6</b>	200	224	83	10
<b>43232070</b>	<b>7</b>	200	234	115	10
<b>43232080</b>	<b>8</b>	200	234	135	10
<b>43232090</b>	<b>9</b>	200	234	137	10
<b>43232100</b>	<b>10</b>	200	234	160	10
<b>43232110</b>	<b>11</b>	200	240	169	5
<b>43232120</b>	<b>12</b>	200	240	171	5
<b>43232130</b>	<b>13</b>	200	240	176	5


## TCS 12507-2K/5



- 175 x 350 x 40 mm
- 5 pieces



Code	Δ	g
<b>96838761</b>		792

No	Content
 <b>12507-2K</b>	7; 8; 10; 12; 13 mm

## 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 <sub>1</sub> mm	L <sub>2</sub> mm	Δ g	g
<b>43300010</b>	<b>T10</b>	2.7	100	116	14	5
<b>43300015</b>	<b>T15</b>	3.3	100	116	16	5
<b>43300020</b>	<b>T20</b>	3.8	100	125	36	5
<b>43300025</b>	<b>T25</b>	4.4	110	135	41	5
<b>43300027</b>	<b>T27</b>	5.0	110	135	49	5
<b>43300030</b>	<b>T30</b>	5.5	130	155	59	5
<b>43300040</b>	<b>T40</b>	6.6	130	165	102	5

### TCS 10765/10768/12507/19



- 530 x 350 x 30 mm
- 19 pieces

Code	g
<b>96830621</b>	1610

No	Content
<b>10765/9</b>	1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm
<b>10768</b>	2.5; 3; 4; 5; 6; 8; 10 mm
<b>12507-2K</b>	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	g	g
<b>73272001</b>	<b>1</b>	0.6	3.5	90	9	10	10
<b>73272002</b>	<b>2</b>	0.8	4	100	12	10	10
<b>73272003</b>	<b>3</b>	1	5.5	125	29	10	10
<b>73272004</b>	<b>4</b>	1.2	8	150	69	10	10

### 10551 ⊕ Offset screwdrivers

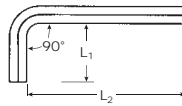
- DIN 5208
- for recessed head screws, Phillips-Recess®
- centre handle covered with impact proof plastic
- Chrome Vanadium, chrome plated



Code	PH size	L mm	g	g
<b>73282012</b>	<b>1 x 2</b>	125	29	10
<b>73282023</b>	<b>2 x 3</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	g
<b>43150070</b>	<b>0.7</b>	8	32	1	10
<b>43150090</b>	<b>0.9</b>	10	32	1	10
<b>43150130</b>	<b>1.3</b>	12	40	1	10
<b>43150150</b>	<b>1.5</b>	14	45	1	10
<b>43150002</b>	<b>2</b>	16	50	2	10
<b>43150250</b>	<b>2.5</b>	18	56	3	10
<b>43150003</b>	<b>3</b>	20	63	4	10
<b>43150350</b>	<b>3.5</b>	22	66	7	10
<b>43150004</b>	<b>4</b>	25	70	10	10
<b>43150005</b>	<b>5</b>	28	80	18	10
<b>43150006</b>	<b>6</b>	32	90	29	10
<b>43150007</b>	<b>7</b>	34	95	42	10
<b>43150008</b>	<b>8</b>	36	100	59	10
<b>43150009</b>	<b>9</b>	38	105	80	10
<b>43150010</b>	<b>10</b>	40	112	103	10
<b>43150011</b>	<b>11</b>	42	119	130	10
<b>43150012</b>	<b>12</b>	45	125	169	5
<b>43150014</b>	<b>14</b>	56	140	261	5
<b>43150017</b>	<b>17</b>	63	160	442	5
<b>43150019</b>	<b>19</b>	70	180	603	5
<b>43150022</b>	<b>22</b>	80	200	895	1
<b>43150024</b>	<b>24</b>	90	224	1220	1
<b>43150027</b>	<b>27</b>	100	250	1692	1
<b>43150030</b>	<b>30</b>	112	280	2434	1
<b>43150032</b>	<b>32</b>	125	315	3117	1
<b>43150036</b>	<b>36</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	g
<b>43150070</b>	<b>0.028</b>	8	32	1	10
<b>43150090</b>	<b>0.035</b>	10	32	1	10
<b>43150130</b>	<b>0.050</b>	12	40	1	10
<b>43550003</b>	<b>3/64</b>	14	45	1	10
<b>43550004</b>	<b>1/16</b>	15	45	1	10
<b>43550005</b>	<b>5/64</b>	16	50	2	10
<b>43550006</b>	<b>3/32</b>	17	51	3	10
<b>43550007</b>	<b>7/64</b>	20	54	4	10
<b>43550008</b>	<b>1/8</b>	22	57	5	10
<b>43550009</b>	<b>9/64</b>	23	63	7	10
<b>43550010</b>	<b>5/32</b>	25	65	10	10
<b>43550012</b>	<b>3/16</b>	29	70	15	10
<b>43550014</b>	<b>7/32</b>	32	80	23	10
<b>43550016</b>	<b>1/4</b>	32	87	32	10
<b>43550018</b>	<b>9/32</b>	35	95	45	10
<b>43550020</b>	<b>5/16</b>	40	98	59	10
<b>43550022</b>	<b>11/32</b>	41	105	75	10
<b>43550024</b>	<b>3/8</b>	45	110	95	10
<b>43550028</b>	<b>7/16</b>	48	124	143	10
<b>43550032</b>	<b>1/2</b>	50	133	201	5
<b>43550034</b>	<b>9/16</b>	57	152	292	5
<b>43550036</b>	<b>5/8</b>	59	160	380	5
<b>43550040</b>	<b>3/4</b>	70	180	605	5
<b>43550044</b>	<b>7/8</b>	80	200	945	1

# Screwdrivers

## 10760CV Hexagon key wrenches

- DIN ISO 2936 (metric)
- for socket head screws
- Chrome Vanadium, nickel-plated



Code	No	△△ g	📦
96 43 55 05	10760CV/8 <sup>1)</sup> <b>NEW</b>	708	1
96 43 15 01	10760CV/9 <sup>2)</sup>	252	1
96 43 55 04	10760aCV/10T <sup>3)</sup>	286	1
96 43 55 02	10760aCV/13 <sup>4)</sup>	126	1

- <sup>1)</sup> Content: 3; 4; 5; 6; 8; 10; 12; 14 mm (in textile bag)  
<sup>2)</sup> Content: 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm (in holder)  
<sup>3)</sup> Content: 1/16; 5/64; 3/32; 1/8; 5/32; 3/16; 7/32; 1/4; 5/16; 3/8" (in textile bag)  
<sup>4)</sup> 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 <sub>1</sub> mm	L <sub>2</sub> mm	△△ g	📦
43 21 00 15	1.5	14	90	3	10
43 21 00 02	2	16	100	3	10
43 21 00 25	2.5	18	112	5	10
43 21 00 03	3	20	126	9	10
43 21 00 04	4	25	140	20	10
43 21 00 05	5	28	160	31	10
43 21 00 06	6	32	180	50	10
43 21 00 07	7	34	190	74	10
43 21 00 08	8	36	200	100	10
43 21 00 09	9	38	210	134	10
43 21 00 10	10	40	224	179	10
43 21 00 12	12	45	250	287	5
43 21 00 14	14	56	280	440	5
43 21 00 17	17	63	320	742	5
43 21 00 19	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	📦
96 43 21 01	415	5

## 10766 Key wrenches

- for inside TORX® screws
- Chrome Vanadium, chrome plated



Code	size	mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△△ g	📦
43 22 00 08	T8	2.3	16	44	3	10
43 22 00 09	T9	2.5	16	48	3	10
43 22 00 10	T10	2.7	17	51	3	10
43 22 00 15	T15	3.3	18	54	5	10
43 22 00 20	T20	3.8	19	57	7	10
43 22 00 25	T25	4.4	20	60	9	10
43 22 00 27	T27	5.0	21	64	15	10
43 22 00 30	T30	5.5	24	70	20	10
43 22 00 40	T40	6.6	26	76	29	10

## 10766 Key wrenches

- for inside TORX® screws
- Chrome Vanadium, chrome plated
- in holder



Code	No	△△ g	📦
96 43 22 01	10766/6 <sup>1)</sup>	105	1
96 43 22 02	10766/9 <sup>2)</sup>	120	1

- <sup>1)</sup> Content: sizes T15; T20; T25; T27; T30; T40  
<sup>2)</sup> 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 <sub>1</sub> mm	L <sub>2</sub> mm	△△ g	📦
43 27 00 10	T10	2.7	23	121	10	5
43 27 00 15	T15	3.3	27	136	10	5
43 27 00 20	T20	3.8	29	148	20	5
43 27 00 25	T25	4.4	33	163	24	5
43 27 00 27	T27	5.0	36	176	28	5
43 27 00 30	T30	5.5	38	191	30	5
43 27 00 40	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	📦
96 43 27 01	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	
43 570130	1.3	12	72	1	10
43 260015	1.5	14	89	2	10
43 260002	2	16	99	3	10
43 260025	2.5	18	112	5	10
43 260003	3	20	124	8	10
43 260004	4	25	138	17	10
43 260005	5	28	158	30	10
43 260006	6	32	178	50	10
43 260008	8	36	198	99	10
43 260010	10	40	222	175	10
43 260012	12	45	248	280	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	
43 570004	1/16	14	78	2	10
43 570005	5/64	16	87	4	10
43 570006	3/32	18	99	5	10
43 570007	7/64	20	108	8	10
43 570008	1/8	20	119	10	10
43 570009	9/64	23	132	13	10
43 570010	5/32	25	145	17	10
43 570012	3/16	26	159	26	10
43 570014	7/32	29	170	39	10
43 570016	1/4	31	184	60	10
43 570020	5/16	36	202	100	10
43 570024	3/8	38	222	157	10

### 10767 Ball ended hexagon key wrenches

- Chrome Vanadium, gunmetal finish
- in holder



Code	No	g	
96 43 2601	10767/9 <sup>1)</sup>	411	5
96 43 5701	10767a/8 <sup>2)</sup>	280	1
96 43 5702	10767a/13 <sup>3)</sup>	465	1

<sup>1)</sup> Content: 1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm

<sup>2)</sup> Content: 5/64; 3/32; 1/8; 5/32; 3/16; 7/32; 1/4; 5/16"

<sup>3)</sup> 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"

### 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 <sub>1</sub> mm	L <sub>2</sub> mm	g	
46 23 1003	3	20	126	8	10
46 23 1004	4	25	140	17	10
46 23 1005	5	28	160	30	10
46 23 1006	6	32	180	50	10
46 23 1008	8	36	200	100	10
46 23 1010	10	40	224	175	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	
96 43 2602	401	5





# 7 PLIERS & CUTTERS

Combination pliers, flat nose pliers,  
round nose pliers, snipe nose pliers  
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Circlip pliers  
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Waterpump pliers, pipe wrenches  
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Self grip wrenches  
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Wire twisting pliers, connector pliers  
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Side cutters, oblique cutter,  
top cutters  
>> Page 286



Plastic sidecutters  
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Wire stripping pliers, cable shear, crimping pliers,  
various cutting pliers  
>> Page 289



Sets of tools  
>> Page 292



Electronics pliers  
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Accurate. Strong. Reliable.  
**STAHLWILLE pliers, cutters & wrenches.**



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.

**SAFE.**

The anti-slip protection prevents your hands slipping off towards the jaws.

**ERGONOMICALLY REFINED.**

Work without repetitive strain injury thanks to ergonomically designed cushion grip handles.



**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	$\Delta$ g
<b>65013160</b>	160	polished	multi-component handles with softer layers	1.8	1.5	10	16	183
<b>65013180</b>	180			2	1.8	12	16	226
<b>65013200</b>	200			2.5	2	13	16	312
<b>65015160</b>	160	chrome plated	multi-component handles with softer layers	1.8	1.5	10	16	190
<b>65015180</b>	180			2	1.8	12	16	230
<b>65015200</b>	200			2.5	2	13	16	310
<b>65016160</b>	160	polished	dip-coated with sure-grip surface	1.8	1.5	10	16	165
<b>65016180</b>	180			2	1.8	12	16	205
<b>65016200</b>	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 mm<sup>2</sup> for cable

## Flat nose pliers

### 6507 Flat nose pliers, short

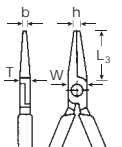
- DIN ISO 5745
- short, flat serrated jaws



65075160



65076160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	$\Delta$ g
<b>65075160</b>	160	chrome plated	multi-component handles with softer layers	30	17	10	5	9	180
<b>65076160</b>	160	polished	dip-coated with sure-grip surface	30	17	10	5	9	151

### 6508 Flat nose pliers, long

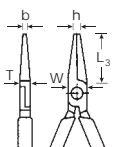
- DIN ISO 5745
- long, flat serrated jaws



65085160



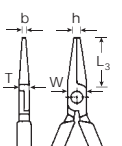
65086160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	$\Delta$ g
<b>65085160</b>	160	chrome plated	multi-component handles with softer layers	50	15	8	3	5	160
<b>65086160</b>	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

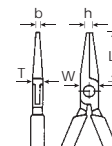


Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	$\Delta$ g
<b>65095160</b>	160	chrome plated	multi-component handles with softer layers	50	15	8	3	5	160

## Pliers & cutters

### 6510 Mechanics flat nose pliers

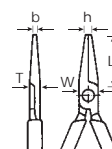
- designed for use in fine mechanical and electronics industries
- flat, slim, long serrated jaws
- box joint, for long life
- serrated gripping areas



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	g 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

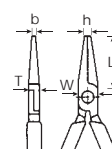
- designed for use by instrument mechanics
- flat blunt, serrated jaws
- wear resistant



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	g g
65165200	200	chrome plated	dip-coated with sure-grip surface	40	13.5	9.5	2.5	9.5	158

### 6511 Relay pliers

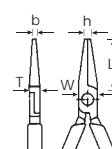
- DIN 5235
- Form A, flat pointed
- for use on contact and relay springs and on small components
- smooth jaws



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	g g
65115135	140	chrome plated	dip-coated with sure-grip surface	33	13	7.5	1	1.5	72

### 6512 Relay pliers

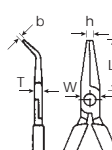
- DIN 5235
- Form B, flat blunt
- for use on contact and relay springs and on small components
- smooth jaws



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	g 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 <sub>3</sub> mm	W mm	T mm	h mm	b mm	g g
65135135	140	chrome plated	dip-coated with sure-grip surface	31	13	7.5	1	3.5	78

### 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 <sub>3</sub> mm	W mm	T mm	h mm	b mm	⊘ g
<b>65 18 5130</b>	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 <sub>3</sub> mm	W mm	T mm	h mm	b mm	⊘ g
<b>65 19 5130</b>	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 <sub>3</sub> mm	W mm	T mm	b mm	⊘ g
<b>65 23 5160</b>	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 <sub>3</sub> mm	W mm	T mm	b mm	⊘ g
<b>65 24 5160</b>	160	chrome plated	multi-component handles with softer layers	47	15.5	8.5	2.5	155

## 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



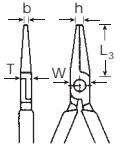
65293160



65295160



65296160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	Δ g
<b>65293145</b>	140	polished	multi-component handles with softer layers	44	15	8	2.5	2	115
<b>65293160</b>	160			51	16	9	3	2.5	155
<b>65293200</b>	200			73	17	9	3	2.5	197
<b>65295145</b>	140	chrome plated	multi-component handles with softer layers	44	15	8	2.5	2	115
<b>65295160</b>	160			51	16	9	3	2.5	150
<b>65295200</b>	200			73	17	9	3	2.5	200
<b>65296145</b>	140	polished	dip-coated with sure-grip surface	44	15	8	2.5	2	92
<b>65296160</b>	160			51	16	9	3	2.5	125
<b>65296200</b>	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



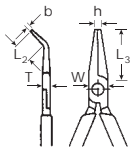
65303200



65305200



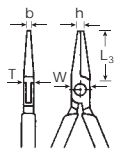
65306200



Code	L mm	Head	Handles	L <sub>2</sub> mm	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	Δ g
<b>65303160</b>	160	polished	multi-component handles with softer layers	24	55	16	9	3	2.5	145
<b>65303200</b>	200			28	76	17	9	3.5	2.5	198
<b>65305160</b>	160	chrome plated	multi-component handles with softer layers	24	55	16	9	3	2.5	170
<b>65305200</b>	200			28	76	17	9	3.5	2.5	200
<b>65306160</b>	160	polished	dip-coated with sure-grip surface	24	55	16	9	3	2.5	146
<b>65306200</b>	200			28	76	17	9	3.5	2.5	178

### 6531 Mechanics snipe nose pliers

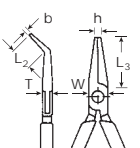
- Form A (straight)
- designed for use on miniature electronic and mechanical components
- half round extra thin, long tapering jaws with fine serration
- box joint for precise movement



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	Δ g
<b>65315170</b>	170	chrome plated	dip-coated with sure-grip surface	63	13.5	8	2.5	2	101

### 6532 Mechanics snipe nose pliers

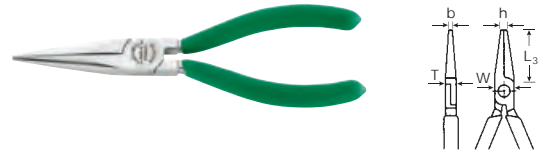
- Form B, bent 45°
- designed for use on miniature electronic and mechanical components
- half round extra thin, long tapering jaws with fine serrations
- box joint for precise movement



Code	L mm	Head	Handles	L <sub>2</sub> mm	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	Δ g
<b>65325170</b>	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 <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65 33 5160</b>	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



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65 34 5200</b>	200	chrome plated	multi-component handles with softer layers	76	16	10	3	2.5	220
<b>65 34 5280</b>	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



Code	L mm	Head	Handles	L <sub>2</sub> mm	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65 35 5200</b>	200	chrome plated	multi-component handles with softer layers	28	68	17	9.5	3.5	2.5	220
<b>65 35 5280</b>	280	chrome plated	dip-coated with sure-grip surface	28	66	20	9.5	3	2.5	255

### 6536 Snipe nose pliers (needle pliers)

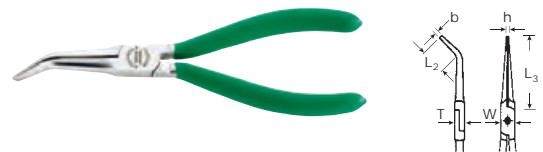
- DIN ISO 9655
- Form A (straight)
- designed for use on electronic components
- half round, extra long tapering jaws with fine serration



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65 36 5160</b>	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

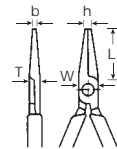


Code	L mm	Head	Handles	L <sub>2</sub> mm	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65 37 5160</b>	160	chrome plated	dip-coated with sure-grip surface	25	54	14	8	1	3	115

## Pliers & cutters

### 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 <sub>3</sub> mm	W mm	T mm	h mm	b mm	g
<b>65385200</b>	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
<b>65434000</b>	<b>J 0</b>	140	0.9	8-13	matchrome plated	chrome plated, chequered	90
<b>65434001</b>	<b>J 1</b>	140	1.3	12-25			90
<b>65434002</b>	<b>J 2</b>	180	1.8	19-60			135
<b>65434003</b>	<b>J 3</b>	225	2.3	40-100			195
<b>65434004</b>	<b>J 4</b>	320	3.2	85-140			419
<b>65436000</b>	<b>J 0</b>	140	0.9	8-13	polished	dip-coated with sure-grip surface	100
<b>65436001</b>	<b>J 1</b>	140	1.3	12-25			100
<b>65436002</b>	<b>J 2</b>	180	1.8	19-60			150
<b>65436003</b>	<b>J 3</b>	225	2.3	40-100			215
<b>65436004</b>	<b>J 4</b>	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
<b>65444001</b>	<b>J 01</b>	130	0.9	8-13	matchrome plated	chrome plated, chequered	90
<b>65444011</b>	<b>J 11</b>	130	1.3	12-25			90
<b>65444021</b>	<b>J 21</b>	170	1.8	19-60			135
<b>65444031</b>	<b>J 31</b>	215	2.3	40-100			195
<b>65444041</b>	<b>J 41</b>	300	3.2	85-140			416
<b>65446001</b>	<b>J 01</b>	130	0.9	8-13	polished	dip-coated with sure-grip surface	100
<b>65446011</b>	<b>J 11</b>	130	1.3	12-25			100
<b>65446021</b>	<b>J 21</b>	170	1.8	19-60			150
<b>65446031</b>	<b>J 31</b>	215	2.3	40-100			215
<b>65446041</b>	<b>J 41</b>	300	3.2	85-140			432



### 6545 Circlip pliers for outside circlips

- DIN 5254 A
- straight
- H.D. drop forged
- precision points
- with wear resistant compression spring



65 45 40 02



65 45 60 02

Code	size	L mm	tips Ø mm	for circlips mm	Head	Handles	⚖ g
<b>65 45 40 00</b>	<b>A 0</b>	140	0.9	3-10	matchrome plated	chrome plated, chequered	95
<b>65 45 40 01</b>	<b>A 1</b>	140	1.3	10-25			95
<b>65 45 40 02</b>	<b>A 2</b>	180	1.8	19-60			145
<b>65 45 40 03</b>	<b>A 3</b>	210	2.3	40-100			205
<b>65 45 40 04</b>	<b>A 4</b>	315	3.2	85-140			437
<b>65 45 60 00</b>	<b>A 0</b>	140	0.9	3-10	polished	dip-coated with sure-grip surface	105
<b>65 45 60 01</b>	<b>A 1</b>	140	1.3	10-25			105
<b>65 45 60 02</b>	<b>A 2</b>	180	1.8	19-60			160
<b>65 45 60 03</b>	<b>A 3</b>	210	2.3	40-100			232
<b>65 45 60 04</b>	<b>A 4</b>	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



65 46 40 21



65 46 60 21

Code	size	L mm	tips Ø mm	for circlips mm	Head	Handles	⚖ g
<b>65 46 40 01</b>	<b>A 01</b>	125	0.9	3-10	matchrome plated	chrome plated, chequered	95
<b>65 46 40 11</b>	<b>A 11</b>	125	1.3	10-25			95
<b>65 46 40 21</b>	<b>A 21</b>	170	1.8	19-60			145
<b>65 46 40 31</b>	<b>A 31</b>	200	2.3	40-100			111
<b>65 46 40 41</b>	<b>A 41</b>	290	3.2	85-140			431
<b>65 46 60 01</b>	<b>A 01</b>	125	0.9	3-10	polished	dip-coated with sure-grip surface	105
<b>65 46 60 11</b>	<b>A 11</b>	125	1.3	10-25			105
<b>65 46 60 21</b>	<b>A 21</b>	170	1.8	19-60			160
<b>65 46 60 31</b>	<b>A 31</b>	200	2.3	40-100			236
<b>65 46 60 41</b>	<b>A 41</b>	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



65 47 41 70



65 47 61 70

Code	L mm	Head	Handles	⚖ g
<b>65 47 41 70</b>	170	matchrome plated	chrome plated, chequered	154
<b>65 47 61 70</b>	170	polished	dip-coated with sure-grip surface	162

## 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	Weight g
<b>65515240</b>	245	34	chrome plated	multi-component handles with softer layers	330
<b>65516175</b>	177	24	black lacquered, jaws polished	black lacquered, box frame polished, dip-coated	173
<b>65516240</b>	240	34			320
<b>65516300</b>	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	Weight g
<b>65726180</b>	180	28	polished	dip-coated with sure-grip surface	236
<b>65726240</b>	240	37			405
<b>65726300</b>	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	Weight g
<b>65735180</b>	192	36	chrome plated	dip-coated with sure-grip surface	291
<b>65735250</b>	253	46			485
<b>65735300</b>	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	Weight g
<b>6554250</b>	255 <sup>1)</sup>	52	chrome plated	chrome plated, chequered	476
<b>6554375</b>	375	61			1066

<sup>1)</sup> anti-squeeze protection

## 6954 Spare springs for No 6554

Code	Spare spring for No	g
<b>69 54 0002</b>	65544250	3
<b>69 54 0003</b>	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
<b>65 15 61 25</b>	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
<b>65 49 03 15</b>	<b>1</b>	330	35	red lacquered	red lacquered	780
<b>65 49 04 20</b>	<b>1 1/2</b>	445	62			1626
<b>65 49 05 55</b>	<b>2</b>	560	78			2780

### 6556 Swedish pattern wrenches

- Type A
- 90°
- DIN 5234



Code	size	L mm	Jaw opening max. mm	Head	Handles	g
<b>65 56 03 10</b>	<b>1</b>	320	44	red lacquered	red lacquered	780
<b>65 56 04 20</b>	<b>1 1/2</b>	420	64			1560
<b>65 56 05 60</b>	<b>2</b>	540	83			2676

### 6557 S-shaped Swedish pattern wrenches

- Type C
- DIN 5234



Code	size	L mm	Jaw opening max. mm	Head	Handles	g
<b>65 57 03 20</b>	<b>1</b>	330	40	red lacquered, polished	red lacquered	811
<b>65 57 04 16</b>	<b>1 1/2</b>	440	60			1595
<b>65 57 05 35</b>	<b>2</b>	560	70			2677

## Pliers & cutters

### 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
<b>65 58 02 50</b>	<b>10"</b>	250	49	black lacquered, polished	red lacquered	805
<b>65 58 03 00</b>	<b>12"</b>	300	61			1255
<b>65 58 03 50</b>	<b>14"</b>	350	61			1665
<b>65 58 04 50</b>	<b>18"</b>	450	77			2660
<b>65 58 06 00</b>	<b>24"</b>	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
<b>65 59 02 50</b>	<b>10"</b>	250	35	black lacquered, polished	red lacquered	550
<b>65 59 03 00</b>	<b>12"</b>	300	43			750
<b>65 59 03 50</b>	<b>14"</b>	350	49			1080
<b>65 59 04 50</b>	<b>18"</b>	450	61			1725
<b>65 59 06 00</b>	<b>24"</b>	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
<b>65 61 21 75</b>	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
<b>65 62 22 50</b>	250	50	bright nickel-plated	bright nickel-plated	700

## 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
<b>65622100</b>	250	100	bright nickel-plated	bright nickel-plated	998
<b>65622200</b>	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
<b>69620001</b>	10

## 6563 Universal self grip wrenches

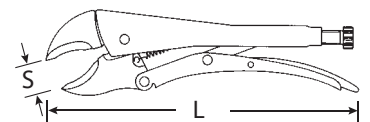
- forged jaws (one straight, one contoured), quick release lever
- Chrome Vanadium



Code	L mm	S mm	Head	Handles	△ g
<b>65632175</b>	175	25	bright nickel-plated	bright nickel-plated	365
<b>65632250</b>	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
<b>65642145</b>	145	14	bright nickel-plated	bright nickel-plated	175
<b>65642175</b>	175	30			323
<b>65642250</b>	250	40			550
<b>65642300</b>	300	65			977

## Pliers & cutters

### 6565 Welders self grip wrench

- with quick release lever
- **malleable cast iron jaws**
- Chrome Vanadium



Code	L mm	S mm	Head	Handles	△ g
<b>6565 2280</b>	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
<b>6566 2280</b>	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
<b>6567 2175</b>	175	75	bright nickel-plated	bright nickel-plated	236
<b>6567 2280</b>	280	85			694

### 6568 Long reach grip wrenches

- extra large capacity
- quick release lever
- Chrome Vanadium



Code	L mm	S mm	Head	Handles	△ g
<b>6568 2460</b>	460	180	bright nickel-plated	bright nickel-plated	1100
<b>6568 2600</b>	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
<b>6571 2165</b>	165	23	bright nickel-plated	bright nickel-plated	190

## 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  $\varnothing$  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	$\varnothing$ g
<b>6575 1220</b>	230	gunmetal finish, polished	gunmetal finish	330
<b>6575 1280</b>	280			440



7

## 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	$\varnothing$ g
<b>6576 5231</b>	230	chrome plated	with dip-coated	288

### 6976 Loose plastic jaws for No 6576N

Code	$\varnothing$ g
<b>6976 0001</b>	4

## 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



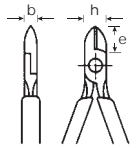
66003160



66005160



66006160



Code	L mm	Head	Handles	e mm	h mm	b mm	①	②	③	④	△ g
<b>66003130</b>	125	polished	multi-component handles with softer layers	24	17	8.6	2.8	2.3	1.5	1.25	110
<b>66003145</b>	140			25.7	18.5	8.2	3	2.5	1.8	1.6	147
<b>66003160</b>	160			29.5	22.5	9.5	3	2.8	2	1.6	188
<b>66003180</b>	180			32	23.5	11	3.8	3	2.5	2	242
<b>66005130</b>	125	chrome plated	multi-component handles with softer layers	24	17	8.6	2.8	2.3	1.5	1.25	105
<b>66005145</b>	140			25.7	18.5	8.2	3	2.5	1.8	1.6	160
<b>66005160</b>	160			29.5	22.5	9.5	3	2.8	2	1.6	190
<b>66005180</b>	180			32	23.5	11	3.8	3	2.5	2	255
<b>66006130</b>	125	polished	dip-coated with suregrip surface	24	17	8.6	2.8	2.3	1.5	1.25	92
<b>66006145</b>	140			25.7	18.5	8.2	3	2.5	1.8	1.6	121
<b>66006160</b>	160			29.5	22.5	9.5	3	2.8	2	1.6	165
<b>66006180</b>	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



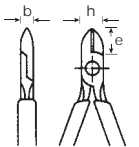
66023200



66025200



66026200



Code	L mm	Head	Handles	e mm	h mm	b mm	①	②	③	④	△ g
<b>66023140</b>	140	polished	multi-component handles with softer layers	23.5	20	9	4	3.1	2	1.5	156
<b>66023160</b>	160			25.5	25	9.5	4	3.4	2.5	2	203
<b>66023180</b>	180			27.5	26.5	10.5	4	3.8	2.7	2.2	251
<b>66023200</b>	200			31	28	11.5	4	4	3	2.5	305
<b>66023250</b>	250			32	29.5	12	4	4	3.5	3	407
<b>66025140</b>	140	chrome plated	multi-component handles with softer layers	23.5	20	9	4	3.1	2	1.5	145
<b>66025160</b>	160			25.5	25	9.5	4	3.4	2.5	2	210
<b>66025180</b>	180			27.5	26.5	10.5	4	3.8	2.7	2.2	245
<b>66025200</b>	200			31	28	11.5	4	4	3	2.5	310
<b>66025250</b>	250			32	29.5	12	4	4	3.5	3	409
<b>66026140</b>	140	polished	dip-coated with suregrip surface	23.5	20	9	4	3.1	2	1.5	140
<b>66026160</b>	160			25.5	25	9.5	4	3.4	2.5	2	170
<b>66026180</b>	180			27.5	26.5	10.5	4	3.8	2.7	2.2	230
<b>66026200</b>	200			31	28	11.5	4	4	3	2.5	260
<b>66026250</b>	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



## 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
<b>66016110</b>	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  $\varnothing$  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
<b>66125185</b>	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 ✂

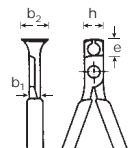
- DIN ISO 5748
- precision cutting edges for all wires, incl. piano wire
- alloy steel of highest quality
- induction hardened bevelled cutting edges, approx. 63 HRC



66 185160



66 186160



Code	L mm	Head	Handles	e mm	h mm	b <sub>1</sub> mm	b <sub>2</sub> mm	①	②	③	④	g
<b>66185160</b>	160	chrome plated	multi-component handles with softer layers	17	26	11.5	24	3.8	3	2.5	2	240
<b>66186160</b>	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
<b>66170180</b>	180	polished	black lacquered	3.5	3	2.5	2.25	394
<b>66170215</b>	215			4	3.5	2.8	2.5	440
<b>66170235</b>	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

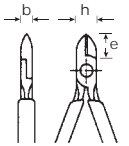
③ Cutting capacity in mm for hard wire

④ Cutting capacity in mm for piano wire

## Plastic side-cutters

### 6670 Plastic side-cutter ✂

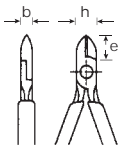
- for plastic injection mouldings
- with particularly narrow, straight cutting edges
- with no bevel to enable flush trimming of sprues and burrs
- only for thin sprues made of soft thermoplastic
- with spring-loaded opening
- induction-hardened cutting edges



Code	L mm	Head	Handles	e mm	h mm	b mm	$\Delta \nabla$ g
<b>66706120</b>	120	polished	dip-coated with sure-grip surface	13	11	7	56

### 6671 Plastic side-cutter ✂

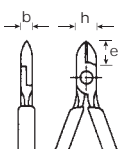
- for plastic injection mouldings
- with particularly narrow, straight cutting edges
- 45° angled
- with no bevel to enable flush trimming of sprues and burrs
- only for thin sprues made of soft thermoplastic
- with spring-loaded opening
- induction-hardened cutting edges



Code	L mm	Head	Handles	e mm	h mm	b mm	$\Delta \nabla$ g
<b>66716120</b>	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

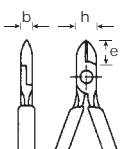


Code	L mm	Head	Handles	e mm	h mm	b mm	$\Delta \nabla$ g
<b>66726130</b>	130	polished	dip-coated with sure-grip surface	22	16	9	107
<b>66726145</b>	145			25	17	10	120
<b>66726160</b>	160			28	18	10	161

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### 6673 Plastic side-cutters ✂

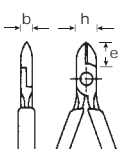
- for plastic injection mouldings
- with raised cutting edges
- 20° angled
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges



Code	L mm	Head	Handles	e mm	h mm	b mm	$\Delta \nabla$ g
<b>66736130</b>	130	polished	dip-coated with sure-grip surface	22	17	8.5	107
<b>66736145</b>	145			23	18	9.5	119
<b>66736160</b>	160			28	18	10.5	165

### 6674 Plastic side-cutter ✂

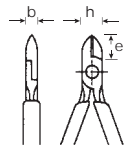
- for plastic injection mouldings
- with convex cutting edge
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges



Code	L mm	Head	Handles	e mm	h mm	b mm	$\Delta \nabla$ g
<b>66746160</b>	160	polished	dip-coated with sure-grip surface	28	20	11	162

### 6676 Plastic side-cutters

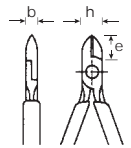
- for plastic injection mouldings
- with straight cutting edges
- 30° angled
- with no bevel to enable flush trimming of sprues and burrs
- with spring-loaded opening
- induction-hardened cutting edges



Code	L mm	Head	Handles	e mm	h mm	b mm	$\Delta$ g
<b>66766130</b>	130	polished	dip-coated with sure-grip surface	19	16.5	8.5	105
<b>66766145</b>	145			21	18.5	9.5	125
<b>66766160</b>	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	$\Delta$ g
<b>66776160</b>	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  $\phi$  10 mm<sup>2</sup> conductor cross-section



66225160



66226160

Code	L mm	Head	Handles	$\Delta$ g
<b>66225160</b>	160	chrome plated	multi-component handles with softer layers	195
<b>66226160</b>	160	polished	dip-coated with sure-grip surface	134

### 6623 Wire stripping pliers

- for wires from 0.5 to 5 mm  $\phi$
- self adjusting
- cutter hole for cutting wire or stranded wires up to 5 mm  $\phi$
- special steel



Code	L mm	Head	Handles	$\Delta$ g
<b>66235160</b>	160	chrome plated	multi-component handles with softer layers	175

### 6923 Replacement stripping knives (1 pair) for No 6623

Code	$\Delta$ g
<b>69230001</b>	11

### 6624 Wire stripping pliers

- for wires from 0.3 to 1.2 mm  $\phi$
- self adjusting
- cutter hole for cutting wire or stranded wires up to 5 mm  $\phi$
- special alloy steel



Code	L mm	Head	Handles	$\Delta$ g
<b>66245160</b>	160	chrome plated	multi-component handles with softer layers	186

## 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
<b>66305220</b>	220	chrome-plated	dip-coated with sure-grip surface	16	35	70	290

⑦ cutting capacity in mm<sup>2</sup> for single wire Al-/Cu-Cable

⑧ cutting capacity in mm<sup>2</sup> for thin wire Al-/Cu-Cable

⑨ cutting capacity in mm<sup>2</sup> for multiple 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 mm <sup>2</sup>	△▽ g
<b>66346220</b>	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

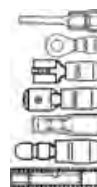
- for use with terminal sleeves with or without an insulating collar in accordance with DIN 46228
- high precision crimping
- easy-action force transmission coupled with simple handling
- unlockable autolock
- accurately ground profiles
- crimp shape: □



Code	L mm	Head	Handles	crimping range mm <sup>2</sup>	△▽ g
<b>66370195</b>	195	gunmetal finish	with plastic sleeves	0.08 - 10	298

### 6638 Crimping pliers

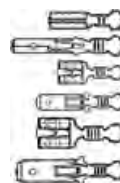
- for red/blue/yellow insulated cable lugs, pin-type cable lugs, flat plugs and sleeves, round plugs and sleeves, butt and parallel connectors
- unlockable autolock
- easy handling
- stripping and cutting device, refer to No 6966
- crimp shape: ○



Code	L mm	Head	Handles	crimping range mm <sup>2</sup>	△▽ g
<b>66380220</b>	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 mm <sup>2</sup>	△▽ g
<b>66390220</b>	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

### 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 mm <sup>2</sup>	△▽ g
<b>66400220</b>	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 mm <sup>2</sup>	△▽ g
<b>66410220</b>	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  $\phi$
- cables can also be cut
- for use with crimping pliers No 6638, 6639, 6640 and 6641



Code	△▽ g
<b>69660000</b>	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
<b>66601220</b>	224	polished	black lacquered	318
<b>66601250</b>	250			390
<b>66601280</b>	280			475

### 6661 Pincers

- DIN ISO 9243
- special steel
- drop-forged
- oil hardened



Code	L mm	Head	Handles	△▽ g
<b>66611180</b>	180	polished	black lacquered	322
<b>66611200</b>	200			350

## Pliers & cutters

### 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

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	ΔΔ g
<b>96838121</b>	2085

No		
	<b>65015180</b>	180 mm
	<b>65295200</b>	200 mm
	<b>65434002</b>	J2 180 mm
	<b>65454002</b>	A2 180 mm
	<b>65516240</b>	240 mm
	<b>65642250</b>	250 mm
	<b>66025160</b>	160 mm

### ES 6501-6602/7B



- 530 x 350 x 40 mm
- 7 pieces

Code	ΔΔ g
<b>96838132</b>	2055

No		
	<b>65015200</b>	200 mm
	<b>65295160</b>	160 mm
	<b>65434002</b>	J2 180 mm
	<b>65454002</b>	A2 180 mm
	<b>65516240</b>	240 mm
	<b>65642250</b>	250 mm
	<b>66025160</b>	160 mm

### TCS 6501-6602/3



TCS



- 175 x 350 x 40 mm
- 3 pieces

Code	ΔΔ g
<b>96838775</b>	1125

No		
	<b>65015200</b>	200 mm
	<b>65516300</b>	302 mm
	<b>66025180</b>	180 mm

### TCS 6501-6602/4



TCS



- 175 x 350 x 35 mm
- 4 pieces

Code	ΔΔ g
<b>96838179</b>	1070

No		
	<b>65015180</b>	180 mm
	<b>65295200</b>	200 mm
	<b>65516240</b>	240 mm
	<b>66025160</b>	160 mm

### TCS 6501-6602/4N



TCS



- 175 x 350 x 35 mm
- 4 pieces

Code	ΔΔ g
<b>96830622</b>	1145

No		
	<b>65015180</b>	180 mm
	<b>65295200</b>	200 mm
	<b>65726240</b>	240 mm
	<b>66025160</b>	160 mm

## Pliers & cutters




### TCS 6543-6564/3



- 175 x 350 x 30 mm
- 3 pieces



Code	Δ⊗ g
<b>96838180</b>	975

No		
	<b>65 43 4002</b>	J2 180 mm
	<b>65 45 4002</b>	A2 180 mm
	<b>65 64 2250</b>	250 mm





### TCS 6543-6546/4



- 175 x 350 x 30 mm
- 4 pieces



Code	Δ⊗ g
<b>96830608</b>	626

No		
	<b>65 43 4002</b>	J2 180 mm
	<b>65 44 4021</b>	J21 170 mm
	<b>65 45 4002</b>	A2 180 mm
	<b>65 46 4021</b>	A21 170 mm


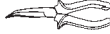




### TCS 6534-6545/6



- 350 x 350 x 30 mm
- 6 pieces



Code	Δ⊗ g
<b>96832100</b>	1070

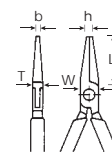
No		
	<b>65 34 5280</b>	280 mm
	<b>65 35 5200</b>	200 mm
	<b>65 43 4001</b>	J1 140 mm
	<b>65 43 4002</b>	J2 180 mm
	<b>65 45 4001</b>	A1 140 mm
	<b>65 45 4002</b>	A2 180 mm

7

## Electronics Pliers, suitable for electrostatic discharge (ESD) applications

### 6517 Electronics flat nose pliers

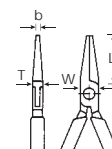
- DIN ISO 9655
- designed for use on miniature electronic and mechanical components
- welded on double leaf spring
- precision jaws, smooth, tapering
- box joint for precise movement



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	Δ⊗ g
<b>65 17 6120</b>	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

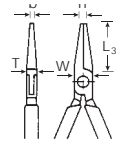


Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	b mm	Δ⊗ g
<b>65 26 6120</b>	125	polished	dip-coated with sure-grip surface, ESD applications	22	9	6.5	1.25	45



### 6540 Electronics snipe nose pliers

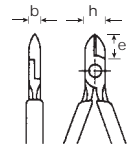
- DIN ISO 9655
- designed for use on miniature electronic and mechanical components
- welded on double leaf spring
- half round, smooth precision jaws, tapering
- box joint for precise movement



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	$\Delta$ g
<b>65406120</b>	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  $\phi$  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	$\Delta$ g
<b>66036115</b>	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

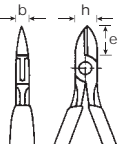
② Cutting capacity in mm for medium hard wire

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	$\Delta$ g
<b>66056110</b>	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

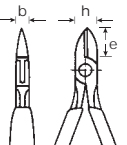
② Cutting capacity in mm for medium hard wire

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  $\phi$  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	$\Delta$ g
<b>66066110</b>	112	polished	dip-coated with sure-grip surface, ESD applications	13	12	7.5	1.5	1	0.8	0.6	64
<b>66066130</b>	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

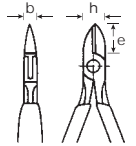
③ Cutting capacity in mm for hard wire

④ Cutting capacity in mm for piano wire

## Pliers & cutters

### 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



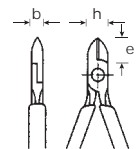
Code	L mm	Head	Handles	e mm	h mm	b mm	①	②	$\Delta$ g
<b>66076110</b>	112	polished	dip-coated with sure-grip surface, ESD applications	13	12	7.5	1.5	1	64
<b>66076130</b>	125			18	16	10	1.5	1	104

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  $\varnothing$  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	$\Delta$ g
<b>66046110</b>	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

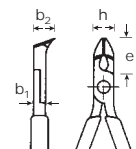
③ Cutting capacity in mm for hard wire

② Cutting capacity in mm for medium 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  $\varnothing$  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 <sub>1</sub> mm	b <sub>2</sub> mm	①	②	③	④	$\Delta$ g
<b>66136115</b>	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

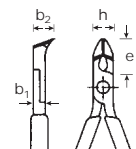
③ Cutting capacity in mm for hard wire

② Cutting capacity in mm for medium 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 <sub>1</sub> mm	b <sub>2</sub> mm	①	②	$\Delta$ g
<b>66146115</b>	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

### 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 <sub>2</sub> mm	L <sub>3</sub> mm	h mm	b mm	①	②	$\Delta$ g
<b>66156115</b>	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 <sub>1</sub> mm	b <sub>2</sub> mm	①	②	$\Delta$ g
<b>66196115</b>	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  $\phi$  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 <sub>1</sub> mm	b <sub>2</sub> mm	①	②	③	④	$\Delta$ g
<b>66206115</b>	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      ③ Cutting capacity in mm for hard wire  
② Cutting capacity in mm for medium 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 <sub>1</sub> mm	b <sub>2</sub> mm	①	②	$\Delta$ g
<b>66216115</b>	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



# 8 TUBE TOOLS, OTHER TOOLS

Pipe tools  
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Hammers  
>> Page 303



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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Torches  
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Tweezers, wire cutter  
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# As versatile as the work day is demanding. **STAHLWILLE problem-solvers.**



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 and »Made in Germany«.



## **UNBREAKABLE.**

Indispensable aid that helps you »think round corners« in confined working spaces. With unbreakable stainless steel mirrors - F&D 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.



## 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.

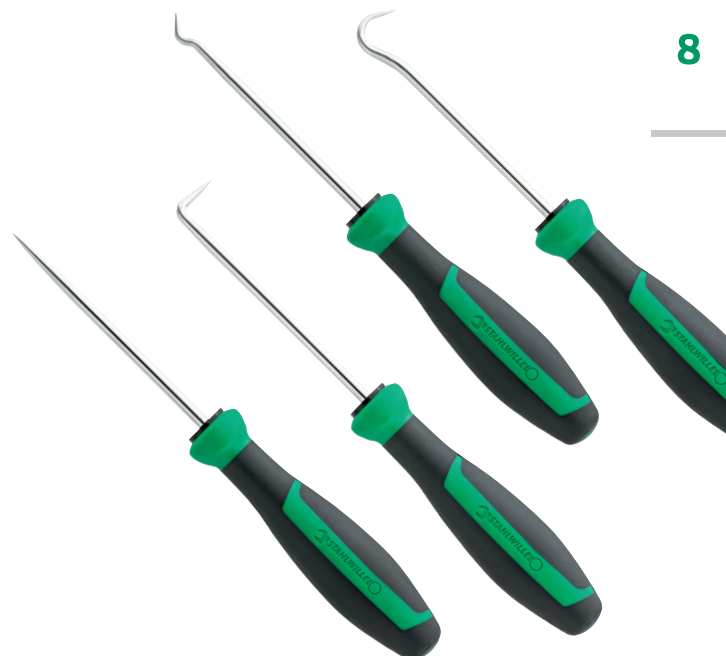
## UNIVERSAL.

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.



## 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.



## Tube tools, other tools

### 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	
<b>60021001</b>	<b>1</b> <sup>1)</sup>	1/8-1 1/4	3-32	6-43	4.5	1166	1
<b>60021002</b>	<b>2</b> <sup>1)</sup>	1/8-2	3-50	10-63	7	2149	1
<b>60121001</b>	<b>1/3</b> <sup>2)</sup>	1/8-1 1/4	3-32	6-43	4.5	1113	1
<b>60121002</b>	<b>2/3</b> <sup>2)</sup>	1/8-2	3-50	10-63	7	1975	1

- <sup>1)</sup> with wide guide rollers  
<sup>2)</sup> 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	
<b>60010000</b>	1/8-1 3/8	3-35	2.5	356	1

### 155 Small bore pipe cutter

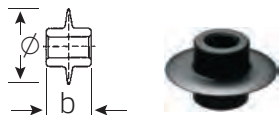
- for use on copper, brass, light alloy, PVC and thin walled steel tubes



Code	"	mm	Cutting depth max. mm	g	
<b>60070001</b>	1/8-5/8	3-16	2	102	1

### SR150 Cutting wheels

- for steel pipes



Code	size	for pipe cutter	∅ mm	b mm	g	
<b>69020101</b>	<b>1</b>	150/1	25	14	14	10
<b>69020201</b>	<b>2</b>	150/2	32	19	28	10
<b>69020301</b>	<b>3 + 4</b>	150/3 + 4	41	19	38	10

### SR153 Cutting wheels



Code	for pipe cutter	∅ mm	b mm	g	
<b>69010001</b>	153	20	6	6	10

### SR155 Cutting wheels

Code	for pipe cutter	∅ mm	b mm	g	
<b>69110001</b>	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	
<b>60110001</b>	25-75	2	665	1

### K157 Chain

Code	g	
<b>69130001</b>	183	1

### RL 150/153/1500 Guide rollers

- for pipe cutters



Code	No	for pipe cutter	∅ mm	b mm	g	
<b>69020107</b>	<b>RL 1500/1</b>	150/1	23	21.5	62	2
<b>69070202</b>	<b>RL 1500/2</b>	150-151/2	28	27.5	117	5
<b>69020302</b>	<b>RL 150/3/4</b>	150-151/3 + 4	33	19	115	5
<b>69010002</b>	<b>RL 153</b>	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	∅ mm	L mm	g	
<b>69020104</b>	<b>BL 150/1</b>	x <sup>1)</sup>		150/1	7.5	29	10	1
<b>69020103</b>	<b>BZ 1500/1</b>		x <sup>2)</sup>	150/1	7.5	38.5	14	10
<b>69070203</b>	<b>BZ 1500/2</b>		x	150-151/2	9	46	23	10
<b>69070204</b>	<b>BL 1500/2</b>	x		150-151/2	9	38	19	10
<b>69020303</b>	<b>BZ 150/3/4</b>	x	x	150-151/3 + 4	9	40	21	1
<b>69020304</b>	<b>BL 150/4N</b>	x <sup>3)</sup>		150/4	9	40	21	1
<b>69010003</b>	<b>BZ 153</b>		x	153	4	18.5	2	10
<b>69010004</b>	<b>BL 153</b>	x		153	4.75	13	2	1

- BL = wheel bolt  
 BZ = roller bolt  
<sup>1)</sup> wheel- and roller bolt for 150/1 until 1985, wheel bolt for 150/1 from 1986  
<sup>2)</sup> roller bolt for 150/1 from 1986  
<sup>3)</sup> 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



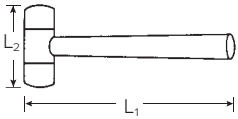
Code	size	for pipe cutter	∅ mm	b mm	g	
<b>68020101</b>	<b>1</b>	150/1	14	3.9	8	6
<b>68020201</b>	<b>2</b>	150/2, 151/2	16	4.45	4	6
<b>68020301</b>	<b>4</b>	150/4 *)	18	9.5	18	1

- \*) for 150/4 from 2009



## 10955 Plastic hammers

- with interchangeable heads of impact resisting cellulose acetate and ash handles



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
<b>70 160027</b>	<b>27</b>	265	90	235	6
<b>70 160032</b>	<b>32</b>	280	100	320	6
<b>70 160035</b>	<b>35</b>	290	105	376	2
<b>70 160040</b>	<b>40</b>	320	110	545	2
<b>70 160050</b>	<b>50</b>	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	
<b>79040027</b>	<b>27</b>	14	5
<b>79040032</b>	<b>32</b>	22	10
<b>79040035</b>	<b>35</b>	29	10
<b>79040040</b>	<b>40</b>	39	10
<b>79040050</b>	<b>50</b>	69	10

## 10958 Embossing hammer

- aluminium
- cylindrical
- with hickory handle



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
<b>70 240040</b>	40	340	155	648	2

## 10940 Rubber composition hammers

- DIN 5128
- with two plane faces



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
<b>70 140001</b>	<b>55</b>	320	90	317	2
<b>70 140002</b>	<b>65</b>	350	115	527	2
<b>70 140003</b>	<b>75</b>	350	130	780	2
<b>70 140004</b>	<b>90</b>	380	140	1220	2

## 10956 Nylon hammers

- with interchangeable heads of shockproof nylon vestamid and hickory handles



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
<b>70 17 1027</b>	<b>27</b>	265	90	232	6
<b>70 17 1032</b>	<b>32</b>	280	100	336	6
<b>70 17 1035</b>	<b>35</b>	290	105	413	2
<b>70 17 1040</b>	<b>40</b>	320	110	546	2
<b>70 17 1050</b>	<b>50</b>	340	115	865	2
<b>70 17 1060</b>	<b>60</b>	380	135	1339	2

## 10956R Spare nylon heads

- these are lightly heated and then tapped into position

Code	∅ mm	△ g	
<b>79050027</b>	<b>27</b>	11	10
<b>79050032</b>	<b>32</b>	18	10
<b>79050035</b>	<b>35</b>	23	10
<b>79050040</b>	<b>40</b>	31	10
<b>79050050</b>	<b>50</b>	53	10
<b>79050060</b>	<b>60</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
<b>70 190130</b>	<b>30</b>	330	110	460	6
<b>70 190135</b>	<b>35</b>	335	110	580	6
<b>70 190140</b>	<b>40</b>	355	115	760	2
<b>70 190150</b>	<b>50</b>	365	120	1250	2
<b>70 190160</b>	<b>60</b>	360	145	1900	2

## 10959R Spare heads

NEW

Code	∅ mm	△ g	
<b>79091030</b>	<b>30</b>	19	1
<b>79091035</b>	<b>35</b>	26	1
<b>79091040</b>	<b>40</b>	38	1
<b>79091050</b>	<b>50</b>	72	1
<b>79091060</b>	<b>60</b>	118	1

## Tube tools, other tools

### 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 <sub>1</sub> mm	L <sub>2</sub> mm	△△ g	☐
70110009	200	280	95	254	6
70110010	300	300	105	400	6
70110011	500	320	118	600	6
70110013	800	350	130	951	2
70110015	1000	360	135	1132	2
70110016	1500	380	145	1617	1
70110017	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 <sub>1</sub> mm	L <sub>2</sub> mm	△△ g	☐
70111010	1000	260	95	1410	2
70111015	1250	260	100	1660	2
70111020	1500	280	110	1910	2

### 10970 Engineers hammers

- with ash handles



Code	lb.	L <sub>1</sub> mm	L <sub>2</sub> mm	△△ g	☐
70120001	1/4	270	67	176	6
70120005	1/2	290	82	320	6
70120006	3/4	310	93	454	6
70120002	1	320	99	572	6
70120004	1 1/2	350	118	790	2
70120003	2	380	126	1045	2

### ES 10956/10961/2

- 175 x 350 x 45 mm
- 2 pieces



Code	△△ g
96838125	1130

No	Code	△△ g
	10956	∅ 35 mm
	10961	500 g

### ES 10956/10970/2

- 175 x 350 x 45 mm
- 2 pieces



Code	△△ g
96838131	1075

No	Code	△△ g
	10956	∅ 35 mm
	10970	1 lb.

### 100 Ribbed cold chisels

- chrome vanadium steel, chrome plated



Code	size	L mm	b mm	△△ g	☐
70010006	6	150	20	165	10
70010008	8	200	26	305	5
70010010	10	250	30	507	5
70010012	12	300	35	807	5

### 102 Cold chisels

- DIN 6453
- flat
- chrome vanadium steel, lacquered silver



Code	size	L mm	b mm	△△ g	☐
70020002	125	125	15	96	10
70020003	150	150	18	172	10
70020004	175	175	21	269	10
70020005	200	200	24	379	5
70020007	250	250	25	521	5
70020008	300	300	26	591	5

### 103 Cross-cut chisels

- DIN 6451
- flat
- chrome vanadium steel, lacquered silver



Code	size	L mm	b mm	△△ g	☐
70040003	150	150	16	147	10
70040004	175	175	17	239	10
70040005	200	200	18	340	5

### 110 Grooving chisel

- flat
- chrome vanadium steel, lacquered silver



Code	L mm	b mm	△△ g	☐
70080001	240	26	298	5

## 112 Grooving chisel

- as No 110, but with finger protector



Code	L mm	b mm	⚖️ g	📦
<b>70080002</b>	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	📦
<b>79160001</b>	101	5

## 104 Drift pins

- DIN 6458
- octagonal
- chrome vanadium, lacquered silver



Code	size	● mm	● mm	L mm	⚖️ g	📦
<b>70060007</b>	<b>120 x 2</b>	2	10	120	60	10
<b>70060010</b>	<b>120 x 3</b>	3	10	120	60	10
<b>70060002</b>	<b>120 x 4</b>	4	10	120	62	10
<b>70060008</b>	<b>120 x 5</b>	5	10	120	64	10
<b>70060003</b>	<b>120 x 6</b>	6	10	120	66	10
<b>70060009</b>	<b>120 x 8</b>	8	12	120	68	10

## 105 Centre punches

- DIN 7250
- octagonal
- chrome vanadium, lacquered silver



Code	size	● mm	L mm	⚖️ g	📦
<b>70050001</b>	<b>100 x 10</b>	10	100	52	10
<b>70050005</b>	<b>120 x 10</b>	10	120	63	10
<b>70050002</b>	<b>120 x 12</b>	12	120	90	10

## ES 102/108/109/4

- 175 x 350 x 30 mm
- 4 pieces



Code	⚖️ g
<b>96838123</b>	555

No	Content
<b>102</b>	175 mm
<b>108</b>	150 x 6; 175 x 6 mm
<b>109</b>	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	📦
<b>70071152</b>	<b>115 x 2</b>	2	8	115	29	10
<b>70070013</b>	<b>125 x 3</b>	3	8	125	35	10
<b>70070001</b>	<b>150 x 2.5</b>	2.5	10	150	65	10
<b>70070002</b>	<b>150 x 3</b>	3	10	150	62	10
<b>70070003</b>	<b>150 x 4</b>	4	10	150	64	10
<b>70070004</b>	<b>150 x 5</b>	5	10	150	67	10
<b>70070005</b>	<b>150 x 6</b>	6	10	150	72	10
<b>70070006</b>	<b>150 x 8</b>	8	10	150	81	10
<b>70070009</b>	<b>175 x 3</b>	3	10	175	57	10
<b>70070010</b>	<b>175 x 4<sup>1)</sup></b>	4	10	175	64	10
<b>70070012</b>	<b>175 x 6</b>	6	10	175	69	10
<b>70070008</b>	<b>200 x 8</b>	8	12	200	141	10
<b>70070011</b>	<b>200 x 10</b>	10	12	200	159	10

<sup>1)</sup> 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	📦
<b>70090001</b>	<b>1</b>	0.9	5	80	7	10
<b>70090002</b>	<b>2</b>	1.4	5.5	82	12	10
<b>70090003</b>	<b>3</b>	1.8	6	86	12	10
<b>70090004</b>	<b>4</b>	2.4	7	95	18	10
<b>70090005</b>	<b>5</b>	2.8	7	97	19	10
<b>70090006</b>	<b>6</b>	3.4	8	100	25	10
<b>70090007</b>	<b>7</b>	3.9	9	100	27	10
<b>70090008</b>	<b>8*</b>	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
<b>96838124</b>	900

No	Content
<b>102</b>	175 mm
<b>105</b>	120 x 12 mm
<b>108</b>	150 x 2.5; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm

## Tube tools, other tools

### 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		
98812201	102-5/6 D	445 g	1
98812202	102-5/6 T	470 g	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		
96700601	417 g	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		
96700711	483 g	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		
96700701	108/6 D	450 g	1
96700702	108/6 T	460 g	5

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



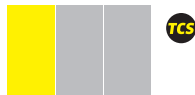
- 175 x 350 x 40 mm
- 6 pieces



Code	
96838181	1605 g

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	
96838754	1665 g

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	
96830355	3343 g

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 102-108/10959/12718/13



TCS



- 530 x 350 x 40 mm
- 13 pieces

Code	♻️ g
<b>96830226</b>	3730

No	Content
<b>102</b>	200 mm
<b>103</b>	150 mm
<b>105</b>	120 x 10 mm
<b>108</b>	150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8; 200 x 8 mm
<b>10959</b>	∅ 40 mm
<b>10961</b>	500; 800 g
<b>12718</b>	

### TCS 102-108/10961/10



TCS



- 175 x 350 x 40 mm
- 10 pieces

Code	♻️ g
<b>96830361</b>	1569

No	Content
<b>102</b>	200 mm
<b>105</b>	120 x 12 mm
<b>108</b>	115 x 2; 150 x 3; 150 x 4; 150 x 5; 150 x 6; 175 x 4; 200 x 8 mm
<b>10961</b>	500 g

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



TCS



- 530 x 350 x 60 mm
- 13 pieces

Code	♻️ g
<b>96830177</b>	5800

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

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



TCS



- 530 x 350 x 45 mm
- 16 pieces

Code	♻️ g
<b>96830609</b>	3715

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

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



TCS



- 530 x 350 x 55 mm
- 18 pieces

Code	♻️ g
<b>96830620</b>	3653

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

## Tube tools, other tools

### 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	Icons
<b>77593000</b>	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	Icons
<b>77592000</b>	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	Icons
<b>72060100</b>	25 x 8	147	28	5

### 10670 Three square engineers scrapers

- special steel



Code	L mm	g	Icons
<b>72063101</b>	<b>210</b>	106	5
<b>72063103</b>	<b>260</b>	124	5
<b>72063104</b>	<b>285</b>	140	5
<b>72063105</b>	<b>310</b>	152	5

### 10672 Flat engineers scrapers

- special steel



Code	Dimensions mm	g	Icons
<b>72053104</b>	<b>20 x 315</b>	227	5
<b>72053105</b>	<b>25 x 365</b>	367	5

### 10676 Three square engineers bearing scraper

- special steel



Code	Dimensions mm	g	Icons
<b>72083103</b>	85 x 12 x 315	160	5

### 12025 Engineers file, round

- DIN 8349
- cut 2



Code	L mm	g	Icons
<b>72123100</b>	210	118	5

### 12030 Engineers file, half round

- DIN 8349
- cut 2



Code	L mm	g	Icons
<b>72133100</b>	260	339	5

### 12035 Engineers file, three-square

- DIN 8349
- cut 2



Code	L mm	g	Icons
<b>72143100</b>	210	201	5

### 12036 Engineers file, hand

- DIN 8349
- cut 2



Code	L mm	g	Icons
<b>72173102</b>	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	Icons
<b>72230001</b>	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	Icons
<b>96722801</b>	140	50	1

### 12050 Tubular hacksaw

- with blade size 300 mm/12"



Code	L mm	⚖ g	📦
<b>72210000</b>	465	490	1

### 12050R Spare hacksaw blades for No 12050

- 10 pieces
- H.S. Steel
- 24 teeth per inch

Code	L mm	⚖ g	📦
<b>79180001</b>	300	174	1

### ES 10670-13110/11



- 530 x 350 x 35 mm
- 11 pieces

Code	⚖ g
<b>96838173</b>	2120

No	
<b>10670</b>	265 mm
<b>12025</b>	210 mm
<b>12030</b>	260 mm
<b>12035</b>	210 mm
<b>12036</b>	260 mm
<b>12050</b>	465 mm
<b>12320</b>	
<b>12321</b>	
<b>12377</b>	
<b>12935/3</b>	3 m
<b>13110</b>	300 mm

### 12053 Hacksaw frame



Code	L mm	⚖ g	📦
<b>72210002</b>	252	159	1

### 12053R Spare hacksaw blades for No 12053

- 6 pieces
- Chrome Alloy Tool Steel
- 32 teeth per inch

Code	L mm	⚖ g	📦
<b>79180002</b>	158	20	1

### TCS 10356-12965/5



TCS



- 175 x 350 x 40 mm
- 5 pieces

Code	⚖ g
<b>96838790</b>	595

No	
<b>12053</b>	158 mm
<b>10356</b>	40 mm
<b>10356R</b>	10 pieces
<b>12320</b>	
<b>12965</b>	

### TCS 11095-13110/8



TCS



- 175 x 350 x 40 mm
- 8 pieces

Code	⚖ g
<b>96838789</b>	700

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

## Tube tools, other tools

### 12000 Universal thread restorers

- suitable for inside and outside threads



Code	size	L mm	ΔΔ g	
<b>72100004</b>	<b>ISO</b>	230	115	10
<b>72100003</b>	<b>SAE</b>	230	118	10
<b>72100002</b>	<b>WW</b>	230	122	10

Pitch mm	metr. thread	threads per inch	Whitworth thread	SAE/US 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



- 530 x 350 x 35 mm
- 11 pieces

Code	ΔΔ g
<b>96838759</b>	2410

No		
<b>12025</b>	210 mm	
<b>12030</b>	260 mm	
<b>12035</b>	210 mm	
<b>12036</b>	260 mm	
<b>12050</b>	300 mm	
<b>12320</b>		
<b>12321</b>		
<b>12718</b>		
<b>12935/3</b>	3 m	
<b>12965N</b>		
<b>13110</b>	300 mm	

### 900 Screw EXTRACTOR

- for left-hand threads



Code	size	for bolts	mm	"	L mm	recomm. Drill	ΔΔ g		
<b>71010001</b>	<b>1</b>	M3-M4	1/8-5/32"	3	1/8	49	2 mm 5/64"	3	10
<b>71010002</b>	<b>2</b>	M5-M7	3/16-1/4"	3.4	9/64	54	3 mm 7/64"	6	10
<b>71010003</b>	<b>3</b>	M8	5/16"	4.9	3/16	59	5 mm 3/16"	12	10
<b>71010004</b>	<b>4</b>	M10-M12	3/8-7/16"	7	9/32	65	6.4 mm 1/4"	25	5
<b>71010005</b>	<b>5</b>	M14-M16	1/2-9/16"	9	23/64	88	8 mm 5/16"	50	5
<b>71010006</b>	<b>6</b>	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	ΔΔ g	
<b>96710101</b>	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	recomm. Drill	ΔΔ g		
<b>71050001</b>	<b>1</b>	M5-M6	3/16-1/4"	6.35	1/4	60	3.2 mm 1/8"	6	1
<b>71050002</b>	<b>2</b>	M8-M10	5/16-3/8"	9.5	3/8	67	4.8 mm 3/16"	16	1
<b>71050003</b>	<b>3</b>	M10-M12	7/16-1/2"	12.7	1/2	75	6.4 mm 1/4"	30	1
<b>71050004</b>	<b>4</b>	M12-M16	1/2-9/16"	15.9	5/8	90	9.5 mm 3/8"	60	1
<b>71050005</b>	<b>5</b>	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	ΔΔ g	
<b>96710505</b>	248	1



## 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	Ø	Δ	g	Box
<b>71 34 0000</b>	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	Δ	g	Box
<b>96 71 3025</b>	605	1	

## 906 Spare parts

- removal pins and splined nuts, in pairs in plastic bags

Code	size	for threads	Δ	g	Box
<b>71 31 0001</b>	<b>1</b>	M5-M6 3/16-1/4"	5	1	
<b>71 31 0002</b>	<b>2</b>	M7-M8 1/4-5/16"	10	1	
<b>71 31 0003</b>	<b>3</b>	M10 3/8"	33	1	
<b>71 31 0004</b>	<b>4</b>	M12 7/16"	46	1	
<b>71 31 0005</b>	<b>5</b>	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	Δ	g	Box
<b>71 25 00 11</b>	<b>1</b>	10-18	40	193	1	
<b>71 25 00 12</b>	<b>2</b>	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	Δ	g	Box
<b>77 27 00 03</b>	<b>52</b>	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/"	Δ	g	Box
<b>77 37 10 01</b>	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/"	Δ	g	Box
<b>77 37 10 02</b>	150/6	312	1	

## Tube tools, other tools

### 12900/3 Tyre-tread Vernier gauge

- sturdy brass construction
- smooth ground surface



Code	measuring range mm	△△ g	☐
<b>77371004</b>	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	☐
<b>77371005</b>	25/1	60	1

### 12935 Tape measure

- with tape lock
- metric-inch scales



Code	size	L m	△△ g	☐
<b>77040010</b>	<b>3</b>	3	92	10
<b>77040011</b>	<b>5</b>	5	164	10

### 13110 Steel rule

- metric-inch scales
- length 300 mm



Code	Divisions Top Edge "	Divisions Lower Edge mm	△△ g	☐
<b>77460001</b>	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 <sup>1)</sup>	ISO <sup>2)</sup>	L mm	△△ g	☐
<b>77390001</b>	<b>1</b>	2.0-5.0	M3-8	M1-6	85	180	1
<b>77390002</b>	<b>2</b>	4.6-8	M5-12	M6-12	110	305	1

<sup>1)</sup> for taps DIN

<sup>2)</sup> for taps ISO

### 12932 Padlock



Code	△△ g	☐
<b>77210002</b>	85	1

### 12250 Force feed oil can

- metal container
- brass pump
- Content: 500 ccm



Code	△△ g	☐
<b>77010001</b>	275	1

### 12251 Plastic oil can

- made of plastic
- Content: 250 ccm



Code	△△ g	☐
<b>77110002</b>	60	5

### 12320 Electricians cable knife

- with stainless blade



Code	Blade mm	△△ g	☐
<b>77020000</b>	90	78	10

### 12321 Scribing iron

- with knurled centre-section
- 1 straight and 1 offset blade
- blades gunmetal finished



Code	L mm	△△ g	☐
<b>77100000</b>	250	31	10

### 12322 Tungsten carbide scribing iron

- straight type
- sturdy shank with tungsten carbide tip
- can be reground
- holder and clip



Code	L mm	△ g	☐
<b>77 10 0001</b>	150	40	10

### 12374 Wire brush

- wood, steel wire dia. 0.35 mm



Code	L mm	Rows	△ g	☐
<b>77 09 0000</b>	290	4	129	10

### 12377 Wire brush

- with brass coated steel bristles



Code	L mm	△ g	☐
<b>77 09 00 10</b>	270	140	24

### 12378 File brush



Code	L mm	△ g	☐
<b>77 25 0000</b>	260	74	5

### 13115 Brass wire brush

- for use on light alloys



Code	L mm	Rows	△ g	☐
<b>77 47 0001</b>	280	4	134	1

### 12481 Scraper



Code	L mm	b mm	△ g	☐
<b>77 07 0000</b>	212	60	65	10

### 12600 Magnetic lifters

- loss of adhesion above 80° C



Code	lifting power g	∅ mm	L mm	△ g	☐
<b>77 26 00 27</b>	<b>270</b> <sup>1)</sup>	5	500	30	1
<b>77 26 00 25</b>	<b>500</b>	8	460	70	1
<b>77 26 00 60</b>	<b>1800</b>	15	525	230	1
<b>77 26 02 00</b>	<b>3000</b>	19	535	297	1

<sup>1)</sup> miniature magnetic lifter with tiny head, very powerful

### 12910 Adjustable hook spanners

- for slotted nuts as per DIN 1810
- adjustable



Code	size	∅ mm	△ g	☐
<b>44 01 0001</b>	<b>1</b>	20-42	90	5
<b>44 01 0002</b>	<b>2</b>	45-90	245	5
<b>44 01 0003</b>	<b>3</b>	95-165	686	5

### 12920N Telescopic mirror

- with non-twisting, oval-section telescopic rod



Code	dimensions mirrors mm	L mm	△ g	☐
<b>77 40 1001</b>	65 x 43	310-750	65	1

### 12920NR-1 Replacement mirror for No 12920N

Code	△ g	☐
<b>79 40 1001</b>	39	1

### 12920NR-2 Stainless steel replacement mirror for No 12920N

Code	△ g	☐
<b>79 40 1002</b>	43	1

### 12921M Telescopic stainless steel mirror



- 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	☐
<b>77 40 10 32</b>	<b>1 1/4"/32 mm</b>	∅ 32	171-699	60	1
<b>77 40 10 45</b>	<b>1 3/4" x 2 3/4"/45 x 70 mm</b>	∅ 45 x 70	178-927	76	1
<b>77 40 10 57</b>	<b>2 1/4"/57 mm</b>	∅ 57	178-921	70	1

## Tube tools, other tools

### 12921N Telescopic mirrors



Code	∅ mm	L mm	⚖ g	📦
<b>7740 1030</b>	<b>30</b>	265-705	108	1
<b>7740 1040</b>	<b>40</b>	275-715	115	1
<b>7740 1050</b>	<b>50</b>	285-725	110	1
<b>7740 1060</b>	<b>60</b>	295-735	130	1

### 12921NR Replacement mirror for 12921N

Code	∅ mm	⚖ g	📦
<b>7940 1030</b>	<b>30</b>	10	1
<b>7940 1040</b>	<b>40</b>	15	1
<b>7940 1050</b>	<b>50</b>	20	1
<b>7940 1060</b>	<b>60</b>	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	📦
<b>77480002</b>	<b>55</b>	310-750	235	1

### 13120R Replacement concave mirror for No 13120N, No 13120-1

Code	∅ mm	⚖ g	📦
<b>7940 1055</b>	<b>55</b>	22	1

### 12922E Claw lifter

- with ergonomic handle



Code	∅ mm	L mm	⚖ g	📦
<b>7740 1103</b>	<b>6</b>	540	113	1
<b>7740 7203</b>	<b>8</b>	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	📦
<b>7762 1001</b>	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	📦
<b>7762 1002</b>	174	197	1

### 12965R Spare blades

- 5 pieces
- for No 12965N, 12965-1



Code	⚖ g	📦
<b>79250001</b>	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	📦
<b>7762 1003</b>	145	60	1

### 12965-2R Spare blades 9 mm

- 10 pieces
- für No 12965-2



Code	⚖ g	📦
<b>7925 1003</b>	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	📦
<b>7762 1004</b>	168	249	1

### 12965-3R Spare blades 18 mm

- 10 pieces
- for No 12965-3



Code		g	
<b>79 25 1004</b>		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  $\phi$
- no damage to the inner conductors thanks to infinitely variable adjustment of the cutting depth



Code		g	
<b>77 62 00 10</b>		82	1

### 12967R Spare blade for No 12967



Code		g	
<b>79 25 00 10</b>		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	
<b>77 45 00 01</b>	1	3.5	190	37	10

### 13000-13003 Hooks and picks

- universally applicable for punching holes in soft materials, fitting and removing small components such as simmering seals and O-rings, seals, trim strip clips and panelling



Code	No	L mm	Model	g	
<b>77 10 10 00</b>	<b>13000</b>	155	straight	22	5
<b>77 10 10 01</b>	<b>13001</b>	155	45°	22	5
<b>77 10 10 02</b>	<b>13002</b>	155	90°	22	5
<b>77 10 10 03</b>	<b>13003</b>	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 simmering seals and O-rings, seals, trim strip clips and panelling
- in textile bag



Code	L mm	g	
<b>96 72 28 02</b>	165	144	1

### 13009 Split-pin puller

NEW



Code	L mm	g	
<b>77 10 10 10</b>	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 O-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	
<b>77 49 00 11</b>	170 x 40 x 35	79	1

## Tube tools, other tools

### 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
- 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
- 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	☐
<b>77490012</b>	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	☐
<b>77490013</b>	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	☐
<b>77490004</b>	130 x 37 x 37	250	1

### 13130 Tweezers

- straight
- blunt
- finely milled inside
- stainless steel



Code	L mm	△△ g	☐
<b>77500001</b>	160	26	5

### 13131 Tweezers

- bent
- blunt
- finely milled inside
- stainless steel



Code	L mm	△△ g	☐
<b>77510001</b>	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	☐
<b>75270002</b>	150	93	1







# 9 PULLERS

Standard pullers, pullers  
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# For improved safety. STAHLWILLE pullers.



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.

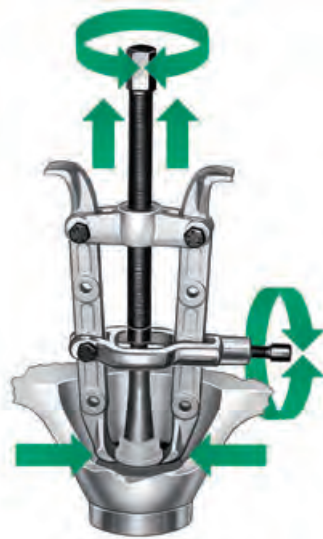


## 2 vs 3

### 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.





## 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.

## 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.



## POWERFUL.

Smooth running and high force transmission through the nut with its hard-wearing, smooth thread contours.

# Pullers

## 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	📦
<b>71130011</b>	<b>1</b>	25-80	100	4.5	80	999	1
<b>71130012</b>	<b>2</b>	25-130	100	4.5	80	1103	1
<b>71130013</b>	<b>3</b>	50-160	150	6.5	150	2754	1
<b>71130014</b>	<b>4</b>	60-200	150	6.5	150	3085	1
<b>71130015</b>	<b>5</b>	80-250	200	11.0	320	7000	1
<b>71130016</b>	<b>6</b>	80-350	200	11.0	320	8400	1

## H 11050 Arms for pullers No 11050/11051

- 1 piece

Code	size	for puller No	⚖️ g	📦
<b>79130011</b>	<b>1</b>	11050-1, -2 11051-1, -2	238	1
<b>79130012</b>	<b>3</b>	11050-3, -4 11051-3, -4	602	1
<b>79130013</b>	<b>5</b>	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	📦
<b>71150211</b>	<b>1</b>	50-300	270	6.0	120	4330	1
<b>71150212</b>	<b>2</b>	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	📦
<b>71080011</b>	<b>1</b>	25-80	100	5.5	55	1280	1
<b>71080012</b>	<b>2</b>	25-120	100	5.5	55	1422	1
<b>71080013</b>	<b>3</b>	25-160	150	7.0	70	3507	1
<b>71080014</b>	<b>4</b>	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	📦
<b>71150311</b>	<b>1</b>	50-300	270	12.0	220	4990	1
<b>71150312</b>	<b>2</b>	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	📦
<b>96711311</b>	120	100/200/250	7000	1

## 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	$\Delta$ g	
<b>71 1402 11</b>	<b>1</b>	20-150	80	3.5	50	708	1
<b>71 1402 12</b>	<b>2</b>	40-220	130	4.0	60	1675	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	$\Delta$ g	
<b>71 1403 11</b>	<b>1</b>	20-150	80	4.0	60	920	1
<b>71 1403 12</b>	<b>2</b>	40-200	130	4.5	70	2235	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	$\Delta$ g	
<b>71 1900 11</b>	<b>1</b>	20-70	85	5.0	120	1211	1
<b>71 1900 12</b>	<b>2</b>	20-100	100	6.0	120	1643	1
<b>71 1900 13</b>	<b>3</b>	30-150	150	8.0	150	2907	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	$\Delta$ g	
<b>71 1200 11</b>	<b>1</b>	10-60	45	2.5	25	245	1
<b>71 1200 12</b>	<b>2</b>	10-70	65	3.0	35	261	1
<b>71 1200 13</b>	<b>3</b>	10-100	80	3.5	45	315	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	$\Delta$ g	
<b>71 1800 11</b>	<b>1</b>	10-60	45	2.5	25	299	1
<b>71 1800 12</b>	<b>2</b>	10-70	65	3.0	35	340	1
<b>71 1800 13</b>	<b>3</b>	10-100	80	3.5	45	692	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	$\Delta$ g	
<b>71 1600 10</b>	<b>0</b>	8-12	30	102	1
<b>71 1610 11</b>	<b>1</b>	12-16	30	110	1
<b>71 1600 21</b>	<b>1a</b>	16-20	30	116	1
<b>71 1600 12</b>	<b>2</b>	20-27	30	131	1
<b>71 1600 13</b>	<b>3</b>	27-36	60	365	1
<b>71 1600 15</b>	<b>5</b>	36-46	60	385	1
<b>71 1600 16</b>	<b>6</b>	46-58	60	558	1
<b>71 1600 17</b>	<b>7</b>	58-70	60	612	1
<b>71 1600 18</b>	<b>8</b>	70-100	60	1659	1

## Pullers

### 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	ΔΔ g	
<b>71170011</b>	<b>1</b>	sizes 0-2	30	654	1
<b>71170012</b>	<b>2</b>	sizes 3-7	60	1518	1
<b>71170013</b>	<b>3</b>	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	ΔΔ g	
<b>71161001</b>	<b>1</b>	sizes 0-2	650	1
<b>71161002</b>	<b>2</b>	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	ΔΔ g	
<b>71030010</b>	<b>0</b>	5-60	60	2.0	30	562	1
<b>71030011</b>	<b>1</b>	12-75	75	2.5	40	787	1
<b>71030012</b>	<b>2</b>	22-115	115	4.0	70	2020	1
<b>71030013</b>	<b>3</b>	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	ΔΔ g	
<b>71040010</b>	<b>0</b>	45-110	110	2.0	30	910	1
<b>71040011</b>	<b>1</b>	55-140	155	2.5	40	1220	1
<b>71040012</b>	<b>2</b>	60-215	200	4.0	70	2802	1
<b>71040013</b>	<b>3</b>	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	ΔΔ g	
<b>79440011</b>	<b>1</b>	12614-0, -1	100	89	1
<b>79440012</b>	<b>2</b>	12614-2	150	233	1
<b>79440013</b>	<b>3</b>	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	ΔΔ g	
<b>71110013</b>	<b>1</b>	3	14.0	280	3566	1
<b>71110015</b>	<b>2</b>	5	14.0	280	4568	1

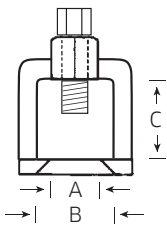
### H 11030 Arm for No 11030

- 1 piece

Code	ΔΔ g	
<b>79100010</b>	524	1

## 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	📦
<b>71230011</b>	<b>1</b>	18	37	37	50	285	1
<b>71230012</b>	<b>2</b>	23	45	45	120	476	1
<b>71230013</b>	<b>3</b>	29	55	60	160	910	1
<b>71230014</b>	<b>4</b>	39	70	80	280	2024	1

size 1 for passenger vehicles  
size 2 for passenger vehicles and vans  
size 3 + 4 for trucks

## SP Spindles

Code	No	for puller No	⚖ g	📦
<b>79281011</b>	<b>SP 11040-1</b>	11040-1; 11042-1	108	1
<b>79281011</b>	<b>SP 11040-2</b>	11040-2; 11042-2	1	1
<b>79281012</b>	<b>SP 11040-3</b>	11040-3; 11042-3	66	1
<b>79281019</b>	<b>SP 11041-1</b>	11041-1	74	1
<b>79281020</b>	<b>SP 11041-2</b>	11041-2	94	1
<b>79281021</b>	<b>SP 11041-3</b>	11041-3	360	1
<b>79281022</b>	<b>SP 11041-4</b>	11041-4	231	1
<b>79281013</b>	<b>SP 11050-1</b>	11050-1, -2; 11051-1, -2; 11056; 12150-1, 12152-1, 12614-0, -1	171	1
<b>79281014</b>	<b>SP 11050-3</b>	11050-3, -4; 11051-3, -4; 12614-2	590	1
<b>79281015</b>	<b>SP 11050-5</b>	11050-5, -6	1235	1
<b>79281023</b>	<b>SP 11053-1</b>	11053-1, -2; 11054-1, -2; 12614-3	876	1
<b>79281016</b>	<b>SP 11055-1</b>	11055-1	177	1
<b>79281017</b>	<b>SP 11055-2</b>	11055-2	176	1
<b>79281018</b>	<b>SP 11055-3</b>	11055-3	592	1
<b>79281034</b>	<b>SP 12150-2</b>	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	📦
<b>71050010</b>	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	📦
<b>71050011</b>	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	📦
<b>71050012</b>	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	📦
<b>71050014</b>	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	📦
<b>71050015</b>	27-36	90	10	100	2790	1





# 10 SPECIAL AUTOMOTIVE TOOLS

KABELEX® tools and sets

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Car body repair tools

>> Page 334



Tools for vehicle doors

>> Page 337



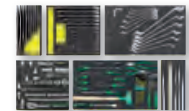
Tools for fitting/removing vehicle glass

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Workshop sets

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Special tools for cars

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Special tools for HGVs

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# The right solution is always on hand. **STAHLWILLE special-purpose tools for the automotive industry.**



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.



## 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.



## 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.

## 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.



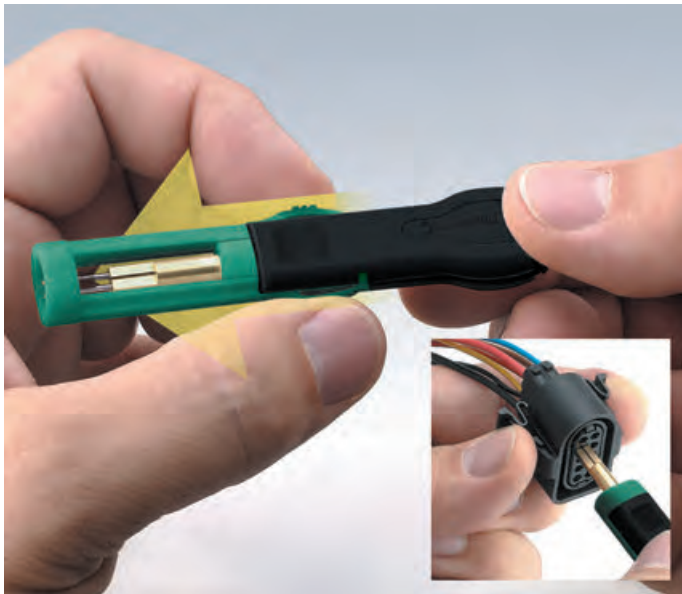
## EFFICIENT.

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.

# Special automotive tools



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+secondary)	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	



## 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 Ø mm	♻️ g	📦
96 74 62 30	1501 + 1511 (e.g. BMW, Mercedes-Benz, Fiat, MAN, Opel, Porsche, Seat, Skoda, VW/Audi)	1.5	45	1
96 74 62 31	1502 + 1512 (e.g. BMW, Mercedes-Benz, Fiat, MAN, Opel, Porsche, Seat, Skoda, VW/Audi)	3.5	59	1
96 74 62 32	1503 + 1513 for ABS (lorries) please order corresponding assembly sleeve No 1523 (e.g. Mercedes-Benz, MAN, Scania) separately	4.0	79	1
96 74 62 33	1504 + 1514 (e.g. BMW, Mercedes-Benz, Opel)	2.5	60	1
96 74 62 34	1505 + 1515 (e.g. Ford, Opel, PSA, Renault)	2.3	46	1
96 74 62 35	1506 + 1516 (e.g. Mercedes-Benz trucks, MAN, Scania)	4.0	72	1

### 1511-1516 Dismantling sleeves KABELEX®



Code	No	for contact sizes Ø mm	L mm	inside Ø mm	outside Ø mm	♻️ g	📦
78 60 00 01	1511 for No 1501	1.5	30	2.9	3.3	1	10
78 60 00 02	1512 for No 1502	3.5	30	4.4	5.0	1	10
78 60 00 03	1513 for No 1503	4.0	45	6.0	6.5	2	10
78 60 00 04	1514 for No 1504	2.5	30	4.0	4.4	1	10
78 60 00 05	1515 for No 1505	2.3	35	3.0	3.3	8	10
78 60 00 06	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 Ø mm	L mm	inside Ø mm	outside Ø mm	♻️ g	📦
78 61 00 01	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	📦
74 62 00 01	1551	2.8	19	1
74 64 00 02	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	📦
74 62 00 03	1553 (e.g. BMW, Mercedes-Benz, Ford, MAN, Opel, Porsche, PSA, Renault, Seat, Skoda, VW/Audi)	2.8; 5.8	16	1
74 62 00 04	1554 (e.g. BMW, PSA, Renault)	2.8	16	1
74 62 00 05	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	📦
74 62 00 06	1.6	17	1

## Special automotive tools

### 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	$\Delta$ g	
<b>74612006</b>	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	$\Delta$ g	
<b>74620007</b>	<b>1557</b>	2.8	21	1
<b>74620008</b>	<b>1558</b>	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	$\Delta$ g	
<b>74620009</b>	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	$\Delta$ g	
<b>74620012</b>	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	$\Delta$ g	
<b>74620024</b>	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	$\Delta$ g	
<b>74620025</b>	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	$\Delta$ g	
<b>74620026</b>	2.8	18	1

### 1577 Cable extractor tool KABELEX®

- for flat plug-in sockets, VKR Box contacts, e.g. MAN



Code	$\Delta$ g	
<b>74620027</b>	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	$\Delta$ g	
<b>74615027</b>	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	$\Delta$ g	
<b>74610028</b>	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	$\Delta$ g	
<b>74612028</b>	2.8	35	1

### 1584/1585 Cable extractor tools KABELEX®

- for round soldered contacts, Mercedes-Benz



Code	No	for contact sizes ∅ mm	$\Delta$ g	
<b>74620034</b>	<b>1584</b>	4.0	13	1
<b>74620035</b>	<b>1585</b>	2.5	11	1

### 1587 Cable extractor tool KABELEX®

- for flat plug-in sockets, E-95 contacts, Mercedes-Benz



Code	for contact sizes □ mm	♻️ g	📦
<b>74620037</b>	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	📦
<b>74610039</b>	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  $\varnothing$  1.5; 3.5; 4.0 (ABS) and 4.0 mm

No 1511, 1512, 1513, 1516: dismantling sleeves for contact sizes  $\varnothing$  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	📦
<b>96747208</b>	1300	1

### 1560 Tool set KABELEX®

- for round plug connections (incl. ABS)

Content 10 pieces:

1 each No 1501: ejection tool for contact sizes  $\varnothing$  1.5 mm

1 each No 1502: ejection tool for contact sizes  $\varnothing$  3.5 mm

1 each No 1503: ejection tool for contact sizes  $\varnothing$  4.0 mm

assembly or dismantling sleeve (ABS)

2 each No 1511: dismantling sleeves for contact sizes  $\varnothing$  1.5 mm (1 each mounted)

2 each No 1512: dismantling sleeves for contact sizes  $\varnothing$  3.5 mm (1 each mounted)

2 each No 1513: dismantling sleeves for contact sizes  $\varnothing$  4.0 mm (1 each mounted)

1 each No 1523: assembly sleeve (ABS)



Code	♻️ g	📦
<b>96747201</b>	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	📦
<b>74620041</b>	2.8; 5.8	25	1

### 1570/2 Universal set KABELEX®

Content 12 pieces:

No 1501, 1502, 1505: ejection tools for contact sizes  $\varnothing$  1.5; 3.5; 2.3 mm

No 1511, 1512, 1515: dismantling sleeves for contact sizes  $\varnothing$  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	📦
<b>96747304</b>	1230	1

### STAHLWILLE KABELEX®.

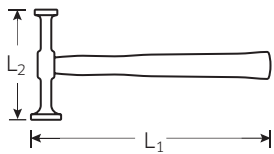
The specialists.



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.

## Car body repair tools and pullers

### 10775 Dinging hammer



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130002	30/40	300	155	516	2

### 10776 Special planishing hammer

- large extra thin faces
- square face chequered



Code	∅ mm	□ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130010	46	40	320	115	521	2

### 10780 Planishing hammer

- short



Code	∅ mm	□ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130003	32	25	300	100	346	2

### 10785 Planishing hammer

- short
- round face chequered



Code	∅ mm	□ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130004	40	35	300	96	484	2

### 10790 Pecking hammer

- with round face and ball pein



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130005	18/41	300	158	479	2

### 10795 Pecking hammer

- with round face and acorn shaped pein



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130006	20/41	300	160	461	2

### 10800 Pecking hammer

- short
- round flat face and pointed pein



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130007	35	300	135	357	2

### 10805 Pecking hammer

- round flat face
- oblong, thin pein, approx. 1 mm thick



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130008	40	300	160	446	2

### 10806 Pecking hammer

- extra large thin face and pein



Code	∅ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130011	40	300	135	764	2

### 10811 Planishing and grooving hammer



Code	∅ mm	□ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130012	30	36 x 10	320	160	545	2

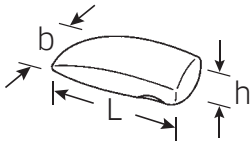
### 10812 Planishing and grooving hammer



Code	∅ mm	□ mm	L <sub>1</sub> mm	L <sub>2</sub> mm	△ g	
70130013	30	25 x 5	300	115	344	2



### 10835 Wedge dolly



Code	L mm	b mm	h mm	g	
<b>70210002</b>	130	55	32	958	1

### 10841 Thin dolly



Code	L mm	b mm	h mm	g	
<b>70210005</b>	107	66	28	984	1

### 10842 Diabolo dolly



Code	∅ mm	h mm	g	
<b>70210006</b>	57	60	658	1

### 10845 Toe dolly



Code	L mm	b mm	h mm	g	
<b>70210008</b>	120	55	22	770	1

### 10855 Universal anvil dolly



Code	L mm	b mm	h mm	g	
<b>70210010</b>	70/60	50/45	58	1110	1

### 10861 Toe dolly

- chequered surface



Code	L mm	b mm	h mm	g	
<b>70210014</b>	120	55	30	1033	1

### 10865 Heel dolly



Code	L mm	b mm	h mm	g	
<b>70210012</b>	80	60	35	1070	1

### 10880 Bumping spoon



Code	L <sub>1</sub> mm	L <sub>2</sub> mm	g	
<b>70220001</b>	460	200	1866	1

L<sub>1</sub> = length overall, L<sub>2</sub> = working length

### 10885 Bumping spoon



Code	L mm	g	
<b>70220002</b>	500	2210	1

### 10890 Body spoon



Code	L <sub>1</sub> mm	L <sub>2</sub> mm	g	
<b>70220003</b>	270	130	552	1

L<sub>1</sub> = length overall, L<sub>2</sub> = working length

### 10895 Body spoon



Code	L <sub>1</sub> mm	L <sub>2</sub> mm	g	
<b>70220004</b>	390	200	1035	1

L<sub>1</sub> = length overall, L<sub>2</sub> = working length

### 10905 Body file holder

- with coarse blade



Code	L mm	b mm	h mm	g	
<b>72160000</b>	365	35	110	765	2

L = Length, b = Width, h = Height

## Special automotive tools

### 11005 Pry bar

- head and point polished



Code	L mm	∅ mm	△ g	△ g	△ g
<b>72090000</b>	400	14	477	6	

### 11006 Lever bar

- special steel
- bright nickel-plated



Code	L mm	b mm	△ g	△ g	△ g
<b>72090002</b>	400	14	498	6	

### 11007 Lever bar

- special steel
- bright nickel-plated



Code	L mm	b mm	△ g	△ g	△ g
<b>72090003</b>	400	17	641	6	

### 10923 Body file holder

- from beech wood
- for flat blades



Code	L mm	△ g	△ g	△ g
<b>72200002</b>	530	302	1	

### 10906-10916 Spare blades for No 10905 and No 10923



Code	No	shape	teeth per inch	L mm	△ g	△ g	△ g
<b>79060001</b>	<b>10906</b>	fine, radial cut	15	350	321	10	
<b>79060002</b>	<b>10907</b>	medium, radial cut	12	350	286	10	
<b>79060003</b>	<b>10908</b>	coarse, radial cut	9	350	279	10	
<b>79060012</b>	<b>10915</b>	medium, angled cut	12	350	282	10	
<b>79060013</b>	<b>10916</b>	coarse, angled cut	9	350	252	10	

### 10922 Body file holder

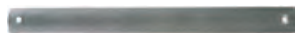
- from beech wood
- for half round radius file blades



Code	L mm	△ g	△ g	△ g
<b>72200001</b>	530	255	1	

### 10921 File blade for No 10922

- coarse
- without swarf breaker
- half round
- radial cut



Code	teeth per inch	L mm	△ g	△ g	△ g
<b>79060004</b>	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	△ g
<b>75230001</b>	<b>L</b>	260	10 1/2	532	1
<b>75230002</b>	<b>R</b>	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 up to 1.8 mm or stainless steel sheet up to 1.2 mm



Code	shape	L mm	L "	△ g	△ g
<b>75240001</b>	<b>L</b>	260	10 1/2	473	1
<b>75240002</b>	<b>R</b>	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	△ g	△ g
<b>72260001</b>	72	19	5	

### 12728 Replacement milling cutter



Code	L mm	△ g	△ g	△ g
<b>79260001</b>	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	△ g	△ g
<b>72270007</b>	<b>12729</b>	7	18	5	
<b>72270008</b>	<b>12730</b>	8	30	5	

## Tools for vehicle doors

### 12770 Lever bar

- powder coated for improved slide effect
- for removal of doors trims in cars



Code	L mm	g	
<b>74593101</b>	260	168	5

### 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	
<b>74593102</b>	185	20	1

### 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	
<b>74590003</b>	300	209	1



## Tools for fitting/removing vehicle glass

### 10352 Two double suction lifters

- suction cap  $\varnothing$  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	
<b>74280001</b>	1405	1

### 10352/1 Double suction lifter

- suction cap  $\varnothing$  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	
<b>74280005</b>	670	1

### SD10351N Spare cutting wire

- steel wire  $\varnothing$  0.6 mm
- easy wire removal without the rest unrolling



Code	L m	g	
<b>79270011</b>	50	170	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	
<b>98742711</b>	1760	1

### 10351/1 Draw handle

- for drawing cutting wire through adhesive seal



Code	g	
<b>74270001</b>	90	1



## Special automotive tools

### 10351N Windscreen removal set VERITRAC

- as 10350N, but without double suction lifters



Code	g	g	g
96742711	458	1	

### 10351/2 Guide handle

- for fixing and clamping cutting wire inside vehicle



Code	g	g	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	g	g
74270006	190	1	

### 1474/2 Wire insert awl

- for feeding or pulling cutting wire through hardened adhesive



Code	g	g	g
78033102	69	1	

### 12718 Flat scraper

- for removing residues of sealant and adhesive



Code	L mm	g	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	g
74270005	165	40	85	1

### 10356R Spare blades

- 10 pieces



Code	g	g	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	g
72313101	460	458	1

### 12749R Spare blade

- for scraper No 12749

Code	g	g	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	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	g	g
74270004	115	1	

## 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
<b>98830001</b>	13.8



**96838126**



**96838127**



**96838128**



**96838110**



**96838112**



**96838113**



**96838121**



**96838123**



**96838125**



**96838237**

96838126	No	Content
	<b>10</b>	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
	<b>13</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15 mm

96838128	No	Content
	<b>13</b>	16; 17; 18; 19; 20; 21; 22; 24 mm

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

96838112	No	Content
	<b>52</b>	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm

96838113	No	Content
	<b>506</b>	1/2" ■ 300 mm
	<b>509/2</b>	1/2" ■ ○ 52 mm
	<b>509/5</b>	1/2" ■ ○ 130 mm
	<b>509/10</b>	1/2" ■ ○ 255 mm
	<b>510</b>	1/2" ■ ○ 71 mm
	<b>512</b>	1/2" ■

96838121	No	Content
	<b>65015180</b>	180 mm
	<b>65295200</b>	200 mm
	<b>65434002</b>	J2 180 mm
	<b>65454002</b>	A2 180 mm
	<b>65516240</b>	240 mm
	<b>65642250</b>	250 mm
	<b>66025160</b>	160 mm

96838123	No	Content
	<b>102</b>	175 mm
	<b>108</b>	150 x 6; 175 x 6 mm
	<b>109</b>	size 6; 100 x 3.4 mm

96838125	No	Content
	<b>10956</b>	∅ 35 mm
	<b>10961</b>	500 g

96838237	No	Content
	<b>4620</b>	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)
	<b>4630</b>	PH1; PH2; PH3

# Special automotive tools

## 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	Δ kg
98830004	13.2



96838175



96838176



96838177



96838278



96838179



96838180



96838181



96838182



96838183

96838175	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" ■

96838176	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

96838176	No	Content
	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

96838177	No	Content
	52	1/2" ○ 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) 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)
	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

## 2500 TCS

### Workshop set for BMW vehicles



- 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



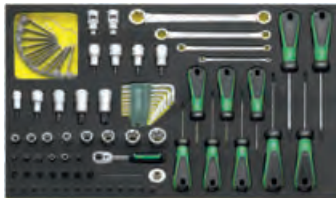
96830602



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" $\bigcirc$ 3; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm

96830679	No	Content
	40L	1/4" $\bigcirc$ 4; 4.5; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
	41K	1/4" $\bigcirc$ , $\ominus$ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
	44K	1/4" $\bigcirc$ , $\bullet$ 3; 4; 5; 6; 8 mm
	44P	1/4" $\bigcirc$ , $\oplus$ PH1; PH2; PH3; PH4
	400	1/4" $\blacksquare$ 150 mm
	404	1/4" $\blacksquare$ 116 mm
	405/2	1/4" $\blacksquare$ $\bigcirc$ 54 mm
	405/4	1/4" $\blacksquare$ $\bigcirc$ 100 mm
	405/6	1/4" $\blacksquare$ $\bigcirc$ 150 mm
	407	1/4" $\blacksquare$ $\bigcirc$ 38 mm
	409	3/8" $\blacksquare$ 1/4" $\bigcirc$
	412	1/4" $\bigcirc$ $\bigcirc$
	415	1/4" $\blacksquare$
	736/40	5/16" $\bigcirc$ , $\blacksquare$ 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" $\bigcirc$ 10; 11; 12; 13 mm
	47	3/8" $\bigcirc$ 10; 11; 12; 13; 14; 15; 16 mm
	1049	3/8" $\bigcirc$ 9 mm
	49X	3/8" $\bigcirc$ sizes M6; M8; M10
	427/3	3/8" $\blacksquare$ $\bigcirc$ 76 mm
	427/5	3/8" $\blacksquare$ $\bigcirc$ 125 mm
	427/10	3/8" $\blacksquare$ $\bigcirc$ 240 mm
	428	3/8" $\blacksquare$ $\bigcirc$ 46 mm
	431	1/4" $\blacksquare$ 3/8" $\bigcirc$
	432	1/2" $\blacksquare$ 3/8" $\bigcirc$
	435	3/8" $\blacksquare$
	452QR	3/8" $\blacksquare$
	456	3/8" $\bigcirc$ 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm
















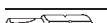












96830603	No	Content
	506	1/2" $\blacksquare$ 300 mm
	509/2	1/2" $\blacksquare$ $\bigcirc$ 52 mm
	509/5	1/2" $\blacksquare$ $\bigcirc$ 130 mm
	509/10	1/2" $\blacksquare$ $\bigcirc$ 255 mm (2x)
	510	1/2" $\blacksquare$ $\bigcirc$ 71 mm
	512	1/2" $\blacksquare$
	513	3/8" $\blacksquare$ 1/2" $\bigcirc$
	514	3/4" $\blacksquare$ 1/2" $\bigcirc$


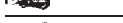








96838177	No	Content
	52	1/2" $\bigcirc$ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm





96830607	No	Content
	21TX	sizes E6 x E8; E10 x E12; E14 x E18; E20 x E24
	40TX	1/4" $\bigcirc$ sizes E4; E5; E6; E7; E8





Continuation see next page





## Special automotive tools

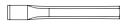
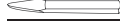









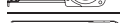
96830607	No	Content
	<b>44KTXB</b>	1/4" $\odot$ sizes T10; T15; T20; T25; T27; T30; T40
	<b>409M</b>	3/8" $\blacksquare$ 1/4" $\odot$
	<b>415B</b>	1/4" $\odot$
	<b>3115/1</b>	1/4" $\blacksquare$ $\blacklozenge$
	<b>45TX</b>	3/8" $\odot$ sizes E10; E12; E14
	<b>47TX</b>	3/8" $\odot$ sizes E8; E10
	<b>49TX</b>	3/8" $\odot$ size T40
	<b>50TX</b>	1/2" $\odot$ sizes E11; E16; E18; E20; E24
	<b>54TX</b>	1/2" $\odot$ sizes T45; T50; T55; T60
	<b>54TXB</b>	1/2" $\odot$ sizes T30; T40; T45; T50
	<b>PZ 1221</b>	PZ1
	<b>PZ 1222</b>	PZ2
	<b>PZ 1223</b>	PZ3
	<b>1410</b>	size T6
	<b>1411</b>	size T7
	<b>1412</b>	size T8
	<b>1413</b>	size T9
	<b>1427</b>	size T25 (65 mm)
	<b>1440</b>	size T10
	<b>1441</b>	size T15
	<b>1442</b>	size T20
	<b>1443</b>	size T25
	<b>1444</b>	size T27
	<b>1445</b>	size T30
	<b>1446</b>	size T40
	<b>4856</b>	sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30
	<b>10766/9</b>	sizes T8; T9; T10; T15; T20; T25; T27; T30; T40
		TORX® controller

96830706	No	Content
	<b>4628</b>	size 1 (0.4 x 2.5 x 60 mm)
	<b>4724</b>	size 2 (1.0 x 5.5 x 25 mm)
	<b>4734</b>	PH2
	<b>4744</b>	PZ1
	<b>4820</b>	size 0.6 x 3.5 x 75 mm size 0.8 x 4.0 x 100 mm size 1.2 x 6.5 x 150 mm size 1.6 x 10.0 x 200 mm size 2.0 x 12.0 x 250 mm
	<b>4830</b>	PH1; PH2; PH3
	<b>4840</b>	PZ1
	<b>7756</b>	
	<b>10767/9</b>	1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm
	<b>12922E</b>	$\varnothing$ 6 mm

96830608	No	Content
	<b>65 43 4002</b>	J2 180 mm
	<b>65 44 4021</b>	J21 170 mm
	<b>65 45 4002</b>	A2 180 mm
	<b>65 46 4021</b>	A21 170 mm

96830622	No	Content
	<b>65 01 5180</b>	180 mm
	<b>65 29 5200</b>	200 mm
	<b>65 72 6240</b>	240 mm
	<b>66 02 5160</b>	160 mm

96830604	No	Content
	<b>49</b>	3/8" $\odot$ 5; 6; 7 mm
	<b>54</b>	1/2" $\odot$ 8; 10; 12; 14; 17 mm
	<b>2309K</b>	1/2" $\odot$ 17; 19 mm
	<b>12506</b>	6; 7 mm

96830609	No	Content
	<b>102</b>	200 mm
	<b>103</b>	150 mm
	<b>105</b>	120 x 10 mm
	<b>108</b>	150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm
	<b>10959</b>	$\varnothing$ 40 mm
	<b>10961</b>	500 g
	<b>12373</b>	
	<b>12600</b>	500 g
	<b>12718</b>	
	<b>12935/3</b>	3 m
	<b>39Pkw</b>	400 mm
	<b>65 64 22 50</b>	250 mm

### 2501N TCS Workshop set for BMW motorbikes



- 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	$\Delta$ kg
<b>97830606</b>	24.5



96832096



96832095



96832097



96832098



96832099



96832100





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" $\varnothing$ 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
	40TX	1/4" $\varnothing$ sizes E8; E10
	44K	1/4" $\varnothing$ , $\bullet$ 3; 4; 5; 6; 8 mm
	44KTXB	1/4" $\varnothing$ sizes T8; T10; T15; T20; T25; T27; T30; T40
	400	1/4" ■ 150 mm
	404	1/4" ■ 116 mm
	405/2	1/4" ■ $\varnothing$ 54 mm
	405/4	1/4" ■ $\varnothing$ 100 mm
	407	1/4" ■ $\varnothing$ 38 mm
	412	1/4" $\varnothing$ $\varnothing$
	415	1/4" ■
	45TX	3/8" $\varnothing$ sizes E8; E10; E12; E14
	49	3/8" $\varnothing$ 5; 6; 8 mm
	49TX	3/8" $\varnothing$ sizes T25; T45
	425	3/8" ■ 165 mm
	427/3	3/8" ■ $\varnothing$ 76 mm
	427/10	3/8" ■ $\varnothing$ 240 mm
	428	3/8" ■ $\varnothing$ 46 mm
	431	1/4" ■ 3/8" $\varnothing$
	432	1/2" ■ 3/8" $\varnothing$
	435	3/8" ■
	456	3/8" $\varnothing$ 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22 mm
	52	1/2" $\varnothing$ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32; 34 mm
	54	1/2" $\varnothing$ 10; 12 mm
	54TX	1/2" $\varnothing$ sizes T40; T50; T55; T60
	506	1/2" ■ 300 mm
	509/5	1/2" ■ $\varnothing$ 130 mm
	509/10	1/2" ■ $\varnothing$ 255 mm
	510	1/2" ■ $\varnothing$ 71 mm
	512	1/2" ■
	513	3/8" ■ 1/2" $\varnothing$
	1054TX	1/2" $\varnothing$ sizes T50; T55
	2054TX	1/2" $\varnothing$ 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) size 1 (0.5 x 3.5 x 90 mm) size 2 (0.6 x 4.0 x 100 mm) size 4 (1.0 x 6.5 x 140 mm) 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	$\varnothing$ 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
	6535200	200 mm
	65434001	J1 140 mm
	65434002	J2 180 mm
	65454001	A1 140 mm
	65454002	A2 180 mm

96832102	No	Content
	46	3/8" $\varnothing$ 20.8 mm-13/16"
	4600	3/8" $\varnothing$ 16 mm-5/8"
	4606	3/8" $\varnothing$ 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	$\varnothing$ 40 mm
	10961	300; 500 g
	12374	
	12900N	
	12965N	

96830622	No	Content
	65015180	180 mm
	65295200	200 mm
	65726240	240 mm
	66025160	160 mm

## Special automotive tools

### 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" ○ 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13 mm
	400	1/4" ■ 150 mm
	405/2	1/4" ■ ○ 54 mm
	405/6	1/4" ■ ○ 150 mm
	407	1/4" ■ ○ 38 mm
	409	3/8" ■ 1/4" ○
	410	1/4" ○, 1/2" ■, 28 mm
	412	1/4" ○ ○
	415	1/4" ■
	431	1/4" ■ 3/8" ○
	432	1/2" ■ 3/8" ○
	52	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm
	509/3	1/2" ■ ○ 75 mm
	509/5	1/2" ■ ○ 130 mm
	509/10	1/2" ■ ○ 255 mm
	510	1/2" ■ ○ 71 mm
	513	3/8" ■ 1/2" ○
	514	3/4" ■ 1/2" ○
	1204/21-1	4 x ⊕; 4 x ⊕; 9 x ⊕; 3 x ○
	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) 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)
	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 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	1/2" ○ 8; 10 mm
	2054	1/2" ○ 5; 6 mm
	1054TX	1/2" ○ sizes T30; T50
	2054TX	1/2" ○ 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.

## 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
<b>97830208</b>	36.4



**96830166**



**96830353**



**96830608**



**96831609**



**96833415**



**96833416**



**96833417**



**96833418**



**96833419**



**96833420**



**96833442**



**96833460**

96830166	No	Content
	<b>20</b>	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
	<b>10</b>	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
	<b>65434002</b>	J2 180 mm
	<b>65444021</b>	J21 170 mm
	<b>65454002</b>	A2 180 mm
	<b>65464021</b>	A21 170 mm

96831609	No	Content
	<b>17</b>	8; 10; 12; 13; 17; 19 mm

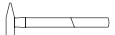


96833415	No	Content
	<b>12506</b>	6; 7; 8 mm
	<b>12507-2K</b>	8; 10; 13 mm
	<b>65015180</b>	180 mm
	<b>65295145</b>	140 mm
	<b>65516240</b>	240 mm
	<b>66005145</b>	140 mm
	<b>66025180</b>	180 mm
	<b>66025200</b>	200 mm




96833416	No	Content
	<b>4620</b>	size 1 (0.6 x 3.5 x 75 mm) size 2 (0.8 x 4.0 x 100 mm) size 4 (1.2 x 6.5 x 150 mm)
	<b>4621</b>	size 1 (0.5 x 3.5 x 90 mm) size 5 (1.2 x 8.0 x 160 mm)
	<b>4628</b>	size 1 (0.4 x 2.5 x 60 mm)
	<b>4630</b>	PH1; PH2; PH3
	<b>4650</b>	sizes T6; T7; T8; T10; T15; T20; T25; T27; T30
	<b>4650L</b>	sizes T15; T20; T25; T30
	<b>4724</b>	size 2 (1.0 x 5.5 x 25 mm)
	<b>4734</b>	PH2







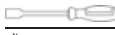





96833417	No	Content
	<b>13</b>	6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 19; 21; 22; 24; 27; 30; 32 mm
	<b>21TX</b>	sizes E6 x E8; E10 x E12; E14 x E18; E20 x E24
	<b>24</b>	10 x 11 mm







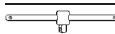
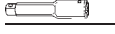







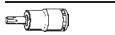

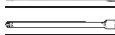

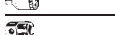




96833418	No	Content
	<b>39Pkw</b>	400 mm
	<b>102</b>	150 mm; 200 mm
	<b>105</b>	120 x 10 mm
	<b>108</b>	150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm
	<b>10959</b>	∅ 35 mm





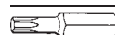


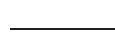










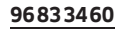



## Special automotive tools





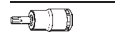

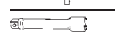






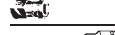
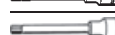




96833418	No	Content
	<b>10961</b>	500 g
	<b>11006</b>	400 mm
	<b>12600</b>	3000 g

96833419	No	Content
	<b>10766/9</b>	sizes T8; T9; T10; T15; T20; T25; T27; T30; T40
	<b>10767H/9</b>	1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm
	<b>10769</b>	size T45

96833420	No	Content
	<b>50D IMP</b>	1/2" O 32; 36 mm
	<b>2309K</b>	1/2" O 17; 19 mm
	<b>59X</b>	3/4" O M18
	<b>556</b>	3/4" ■ 320 mm
	<b>558</b>	510 mm
	<b>11095/20</b>	20 blades, 0.05 - 1.00 mm
	<b>12374</b>	
	<b>12718</b>	
	<b>12900N</b>	150 mm/6"
	<b>12900/3</b>	
	<b>12935/3</b>	3 m
	<b>65 64 22 50</b>	250 mm

96833442	No	Content
	<b>40</b>	1/4" O 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
	<b>40TX</b>	1/4" O sizes E4; E5; E6; E7; E8
	<b>41K</b>	1/4" O, ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
	<b>44K</b>	1/4" O, ● 3; 4; 5; 6; 8 mm
	<b>44P</b>	1/4" O, ⊕ PH1; PH2
	<b>44PZ</b>	1/4" O, ⊕ PZ1; PZ2
	<b>400</b>	1/4" ■ 150 mm
	<b>404</b>	1/4" ■ 116 mm
	<b>405/2</b>	1/4" ■ O 54 mm
	<b>405/6</b>	1/4" ■ O 150 mm
	<b>407</b>	1/4" ■ O 38 mm
	<b>409</b>	3/8" ■ 1/4" O
	<b>412</b>	1/4" O O
	<b>415</b>	1/4" ■
	<b>415B</b>	1/4" O
	<b>45TX</b>	3/8" O sizes E10; E12; E14
	<b>46</b>	3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
	<b>47</b>	3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
	<b>49TX</b>	3/8" O sizes T40; T45
	<b>427/3</b>	3/8" ■ O 76 mm
	<b>427/6</b>	3/8" ■ O 160 mm
	<b>427/10</b>	3/8" ■ O 240 mm
	<b>428</b>	3/8" ■ O 46 mm
	<b>431</b>	1/4" ■ 3/8" O
	<b>432</b>	1/2" ■ 3/8" O
	<b>435</b>	3/8" ■
	<b>442</b>	1/4" O 3/8" O

96833442	No	Content
	<b>456</b>	3/8" O 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
	<b>736/10</b>	1/4" O, ■ D 6.3
	<b>736/10-1</b>	5/16" O, ■ D 8
	<b>PZ 1221</b>	1/4" ● ⊕ PZ1
	<b>PZ 1222</b>	1/4" ● ⊕ PZ2
	<b>1410</b>	size T6
	<b>1411</b>	size T7
	<b>1412</b>	size T8
	<b>1413</b>	size T9
	<b>1427</b>	size T25 (65 mm)
	<b>1440</b>	size T10
	<b>1441</b>	size T15
	<b>1442</b>	size T20
	<b>1443</b>	size T25
	<b>1444</b>	size T27
	<b>1445</b>	size T30
	<b>1446</b>	size T40
	<b>1350</b>	M4
	<b>1356</b>	M5
	<b>1357</b>	M6
	<b>1358</b>	M8
	<b>1359</b>	M10

96833460	No	Content
	<b>50</b>	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
	<b>50TX</b>	1/2" O sizes E11; E16; E18; E20; E24
	<b>54</b>	1/2" O 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
	<b>54KK</b>	1/2" O 6; 7; 8; 10 mm
	<b>54TX</b>	1/2" O sizes T50; T55; T60
	<b>54X</b>	1/2" O sizes M8; M10; M12; M14; M16
	<b>506</b>	1/2" ■ 300 mm
	<b>509/5</b>	1/2" ■ O 130 mm
	<b>509W/2</b>	1/2" ■ O 52 mm
	<b>509W/5</b>	1/2" ■ O 130 mm
	<b>509W/10</b>	1/2" ■ O 255 mm
	<b>509QR/2</b>	1/2" ■ O 52 mm
	<b>509QR/5</b>	1/2" ■ O 130 mm (2x)
	<b>510</b>	1/2" ■ O 71 mm
	<b>512</b>	1/2" ■
	<b>513</b>	3/8" ■ 1/2" O
	<b>514</b>	3/4" ■ 1/2" O
	<b>2054X</b>	1/2" O sizes M8; M10
	<b>3054X</b>	1/2" O sizes M12; M14

## 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



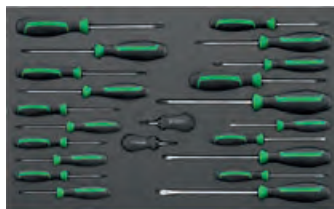
96830221



96830608



96830622



96833399



96833400



96833401



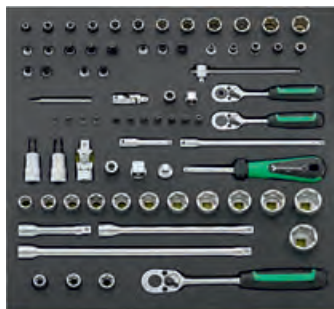
96833402



96833403



96833404



96833413

96830172	No	Content
	51IMP	1/2" ○ 24; 27 mm
	54	1/2" ○ 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
	2309	1/2" ○ 22 mm
	2309K	1/2" ○ 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" ○ 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" ■ ○ 200 mm
	559/16	3/4" ■ ○ 400 mm
	568	1/2" ■ 3/4" ○

96830608	No	Content
	65 43 4002	J2 180 mm
	65 44 4021	J21 170 mm
	65 45 4002	A2 180 mm
	65 46 4021	A21 170 mm

96830622	No	Content
	65 01 5180	180 mm
	65 29 5200	200 mm
	65 72 6240	240 mm
	66 02 5160	160 mm





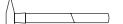


96833399	No	Content
	4620	size 1 (0.6 x 3.5 x 75 mm) size 2 (0.8 x 4.0 x 100 mm) size 4 (1.2 x 6.5 x 150 mm)
	4621	size 1 (0.5 x 3.5 x 90 mm) size 5 (1.2 x 8.0 x 160 mm)
	4630	PH1; PH2; PH3
	4640	PZ1; PZ2
	4650	sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30
	4724	size 2 (1.0 x 5.5 x 25 mm)
	4734	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





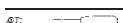
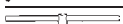






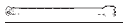


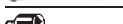
96833401	No	Content
	10	6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15; 16 x 17; 18 x 21; 19 x 22; 24 x 27; 30 x 32; 34 x 36; 36 x 41 mm
	20	6 x 7; 8 x 9; 10 x 11; 12 x 13; 14 x 15 mm
	21TX	E6 x E8; E10 x E12; E14 x E18; E20 x E24 mm




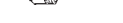






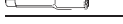
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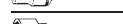


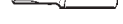









## Special automotive tools

96833402	No	Content
	<b>102</b>	150; 200 mm
	<b>105</b>	120 x 12 mm
	<b>108</b>	150 x 3; 150 x 4; 150 x 5; 150 x 6; 150 x 8 mm
	<b>10959</b>	∅ 50 mm
	<b>10961</b>	500; 1000 g
	<b>12374</b>	
	<b>12600</b>	3000 g

96833403	No	Content
	<b>10669</b>	
	<b>10767/9</b>	1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm
	<b>10771/8</b>	sizes T9; T10; T15; T20; T25; T27; T30; T40
	<b>12025</b>	210 mm
	<b>12030</b>	260 mm
	<b>12035</b>	210 mm
	<b>12036</b>	260 mm
	<b>12718</b>	
	<b>12900N</b>	150 mm/6"
	<b>12900/3</b>	
	<b>12935/3</b>	3 m

96833404	No	Content
	<b>50</b>	1/2" ∅ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 26; 27; 28; 30; 32; 34 mm
	<b>50TX</b>	1/2" ∅ sizes E11; E16; E18; E20; E24
	<b>54TX</b>	1/2" ∅ sizes T50; T55; T60
	<b>54X</b>	1/2" ∅ sizes M6; M8; M10; M12; M14; M16
	<b>504/15</b>	1/2" ■ 397 mm
	<b>506</b>	1/2" ■ 300 mm
	<b>509/2</b>	1/2" ■ ∅ 52 mm
	<b>509/5</b>	1/2" ■ ∅ 130 mm
	<b>509/10</b>	1/2" ■ ∅ 255 mm
	<b>509W/2</b>	1/2" ■ ∅ 52 mm
	<b>509W/5</b>	1/2" ■ ∅ 130 mm
	<b>509W/10</b>	1/2" ■ ∅ 255 mm
	<b>510</b>	1/2" ■ ∅ 71 mm
	<b>512</b>	1/2" ■
	<b>513</b>	3/8" ■ 1/2" ∅
	<b>514</b>	3/4" ■ 1/2" ∅

96833413	No	Content
	<b>40</b>	1/4" ∅ 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14
	<b>40TX</b>	1/4" ∅ sizes E4; E5; E6; E7; E8
	<b>41K</b>	1/4" ∅ ⊖ 0.6 x 3.5; 1.0 x 5.5; 1.2 x 8 mm
	<b>44K</b>	1/4" ∅ ● 3; 4; 5; 6; 8
	<b>44P</b>	1/4" ∅ ⊕ PH1, PH2
	<b>44PZ</b>	1/4" ∅ ⊕ PZ1; PZ2
	<b>400</b>	1/4" ■ 150 mm
	<b>404</b>	1/4" ■ 116 mm
	<b>405/2</b>	1/4" ■ ∅ 54 mm
	<b>405/6</b>	1/4" ■ ∅ 150 mm
	<b>407</b>	1/4" ■ ∅ 38 mm

96833413	No	Content
	<b>409</b>	3/8" ■ 1/4" ∅
	<b>412</b>	1/4" ∅ ∅
	<b>415</b>	1/4" ■
	<b>415B</b>	1/4" ■
	<b>45TX</b>	3/8" ∅ E10; E12; E14
	<b>49TX</b>	3/8" ∅ T40; T45
	<b>427/3</b>	3/8" ■ ∅ 76 mm
	<b>427/6</b>	3/8" ■ ∅ 160 mm
	<b>427/10</b>	3/8" ■ ∅ 240 mm
	<b>428</b>	3/8" ■ ∅ 46 mm
	<b>431</b>	1/4" ■ 3/8" ∅
	<b>432</b>	1/2" ■ 3/8" ∅
	<b>435</b>	3/8" ■
	<b>442</b>	1/4" ∅ 3/8" ∅
	<b>456</b>	3/8" ∅ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22 mm
	<b>1410</b>	T6
	<b>1411</b>	T7
	<b>1412</b>	T8
	<b>1413</b>	T9
	<b>1427</b>	T25
	<b>1440</b>	T10
	<b>1441</b>	T15
	<b>1442</b>	T20
	<b>1443</b>	T25
	<b>1444</b>	T27
	<b>1445</b>	T30
	<b>1446</b>	T40

## 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



96830197



96830198

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





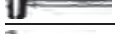










96831196	No	Content
	4622	size 1 (1.0 x 5.5 x 100 mm) size 2 (1.2 x 6.5 x 125 mm) size 4 (1.6 x 10.0 x 175 mm) size 5 (2.0 x 12.0 x 200 mm)
	4630	PH1
	4632	PH3
	4650	sizes T6; T7; T8; T9; T10; T15; T20; T25; T27; T30
	4724	size 2 (1.0 x 5.5 x 25 mm)
	4734	PH2
	10760CV/9	1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 mm

Continuation see next page

## Special automotive tools

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" ∅ 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14 mm
	40TX	1/4" ∅ sizes E4; E5; E6; E8
	41K	1/4" ∅, ⊖ 1.0 x 5.5 mm
	44K	1/4" ∅, ● 3; 4; 5; 6 mm
	44KTX	1/4" ∅ sizes T10; T15; T20; T25; T27
	44P	1/4" ∅, ⊕ PH1; PH2
	400	1/4" ■ 150 mm
	405W/2 405W/4	1/4" ■ ∅ 100 mm



96831608	No	Content
	405W/6	1/4" ■ ○ 150 mm
	407	1/4" ■ ○ 38 mm
	409	3/8" ■ 1/4" ○
	412	1/4" ○ ○
	415	1/4" ■
	431	1/4" ■ 3/8" ○
	432	1/2" ■ 3/8" ○
	50	1/2" ○ 8; 9; 10; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 27; 30; 32 mm
	52	1/2" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 24; 27; 30; 32 mm
	54TX	1/2" ○ sizes T25; T27; T30; T40; T45; T50; T55; T60
	506	1/2" ■ 300 mm
	509W/2	1/2" ■ ○ 52 mm
	509W/5	1/2" ■ ○ 130 mm
	509W/10	1/2" ■ ○ 255 mm
	510	1/2" ■ ○ 71 mm
	512	1/2" ■
	513	3/8" ■ 1/2" ○
	514	3/4" ■ 1/2" ○
	556	3/4" ■ 320 mm
	558	510 mm
	568	1/2" ■ 3/4" ○
	1410	size T6
	1411	size T7
	1412	size T8
	1413	size T9

96831613	No	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) size 6 (1.6 x 10.0 x 200 mm) size 7 (2.0 x 12.0 x 200 mm)
	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)
	4632	PH1; PH2; PH3
	4632SK	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" ○ 5; 6; 7; 8; 10; 12; 14; 17; 19 mm
	54KK	1/2" ○ 5; 6; 7; 8; 10 mm

96831610	No	Content
	50D IMP	1/2" ○ 32; 36 mm
	50TX	1/2" ○ sizes E10; E12; E14; E16; E18; E20
	54X	1/2" ○ sizes M5; M6; M8; M10; M12; M14; M16
	59X	3/4" ○ size M18
	1054X/M8	1/2" ○ 80 mm
	2309K	1/2" ○ 17; 19 mm
	3054X/M10	1/2" ○ 140 mm
	3054X/M12	
	3054X/M14	

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

## Special automotive tools

### 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" ○ 8 mm
	415B	1/4" ○
	46	3/8" ○ 12 mm
	51	1/2" ○ 10; 13; 14; 15; 16; 17; 18; 19 mm
	54TX	1/2" ○ sizes T30; T40; T45; T50; T55
	512	1/2" ■
	513	3/8" ■ 1/2" ○
	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" ○ 1/2" ○
	736/10	1/4" ○, ■ D 6,3
	736/10-1	5/16" ○, ■ 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

96831695	No	Content
	46	3/8" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
	47	3/8" ○ 10; 11; 12; 13; 14; 15; 16; 17; 18; 19 mm
	427/3	3/8" ■ ○ 76 mm
	427/6	3/8" ■ ○ 160 mm
	427/10	3/8" ■ ○ 240 mm
	427W/3	3/8" ■ ○ 76 mm
	427W/5	3/8" ■ ○ 125 mm
	427W/6	3/8" ■ ○ 160 mm
	428	3/8" ■ ○ 46 mm
	435	3/8" ■
	456	3/8" ○ 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 12752R
	65632175 175 mm
	65642145 145 mm
	65642250 250 mm

## Special tools for cars

### Special tools for carburetors

#### 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 carburetors: 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

## Special automotive tools

### 12504 Bit holder

- for all screwdriver bits
- flexible shaft
- for adjustment



Code	L mm	Ø"	Blade mm	g	g
18 10 30 16	290	1/4	150	168	10

### 54TX-T20 Screwdriver socket

- for inside TORX® screws, size T20
- 1/2" Ø-drive
- use on mounting screws for choke-switch on choke-flap L-Jetronic



Code	g	g
03 10 00 20	71	5

### 540-22 CROW-FOOT spanner

- 22 mm
- 3/8" Ø-drive
- on through-flow jet of 2B4-carburettor
- for use with reducing adaptor No 513



Code	Type	g	g
02 20 00 22	BMW: series 3, 518, 520	64	1

### 513 Reducing adaptor

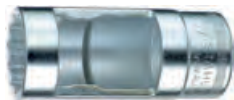
- 1/2" socket x 3/8" plug



Code	Type	g	g
13 03 00 02	BMW: series 3, 518, 520	60	5

### 1062 Socket

- bi-hexagon, 27 mm
- 1/2" Ø-drive
- for diesel injectors



Code	Type	g	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	g
41 11 00 13	Citroën: all diesel 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" Ø-drive
- for injection nozzles on diesel car engines



Code	Type	g	g
03 02 00 27	Mercedes-Benz	280	5

### 51-30 Socket

- 30 mm
- 1/2" Ø-drive
- for injectors



Code	Type	g	g
03 02 00 30	Mercedes-Benz	341	5

### 3000 Socket

- multi-spline
- 1.5 x 58 mm
- 1/2" Ø-drive
- for use on pre-chamber with indirect injection



Code	Type	g	g
03 39 00 01	Mercedes-Benz diesel	185	10

### 3505 Special extension



Code	L mm	g	g
13 21 00 01	120	186	1

### 1054-13 INHEX sockets

- for hexagon socket head screws, 13 mm
- length 70 mm
- 1/2" Ø-drive
- for oil drain plug on engine



Code	Type	g	g
03 15 07 13	VW/Audi: for engines with fuel injection	130	5

## 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	☐
<b>74290001</b>	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	☐
<b>74290002</b>	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	☐
<b>74140000</b>	<b>0</b>	40-75	50	106	1
<b>74140001</b>	<b>1<sup>1)</sup></b>	57-125	80	230	1
<b>74140003</b>	<b>2</b>	90-175	80	270	1
<b>74140005</b>	<b>5</b>	90-175	165	603	1

<sup>1)</sup> 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	☐
<b>74152001</b>	<b>1<sup>1)</sup></b>	50-100	200	245	1
<b>74152002</b>	<b>2</b>	80-120	240	279	1
<b>74152003</b>	<b>3</b>	110-160	240	394	1
<b>74152005</b>	<b>5<sup>2)</sup></b>	60-160	220	194	1

<sup>1)</sup> Fiat-No A 60 182 (Type 126, 127, 133, 850T)

<sup>2)</sup> 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	☐
<b>74240001</b>	<b>11095/13</b>	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
<b>74240002</b>	<b>11095/20</b>	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
<b>74240005</b>	<b>11097/26</b>	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/ <b>1000"</b>	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	☐
<b>74570001</b>	780	1

### 12705 Motor mechanics stethoscope

- steel probe
- plastic handle and sound tubes



Code	△ g	☐
<b>74060001</b>	137	1

### 40-3 Socket



- hexagon, 3 mm
- 1/4" O-drive
- for releasing and tightening screws on the expansion valve



Code	Type	△ g	☐
<b>01010003</b>	<b>BMW: X6 model E71, 7 Series model F01/F02</b>	7	10

## Special automotive tools

### 732/10-10 Ring insert tool



- 10 mm
- valve adjustment
- tightening torque 8–12 N·m



Code	Type	mm	g	
5822 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" □-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" □-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" □-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	
9603 19 01	Fiat, Alfa	1225	1

### 54CV Screwdriver sockets

- for spline socket head screws (Ribe-CV®)
- length 60 mm
- 1/2" □-drive
- for brakes and cylinder head bolts



Code	size	Type	g	
03090007	M7	Fiat	70	5
03090008	M8	Fiat	78	5
03090009	M9	Fiat (1.2 l; 8V/16V)	92	5
03090010	M10	Fiat (1.2 l; 8V/16V)	95	5
03090012	M12	Fiat (2.0 l)	119	5
03090013	M13	Fiat, Alfa (e.g. 1.6 l; 16V)	125	5
03090014	M14	Alfa (e.g. 1.6 l; 16V)	126	5
03090016	M16	Alfa (e.g. 1.6 l; 16V)	163	5

### STAHLWILLE fine-tooth ratchet.

Efficiency in confined spaces.



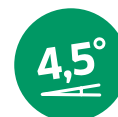
512SG-QR N 1/2"



512QR N 1/2"



517QR 1/2"



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" -drive
- for steering lock screws



Code	Type		g	
01 27 00 08	BMW		10	10

### 24-17x19 OPEN-Ring spanner

AS

- bi-hexagon, 17 x 19 mm
- use on wingpump manifold (hydro-steering)



Code	Type		g	
41 08 17 19	BMW		150	10

### 55-36 Socket

AS HPQ

- hexagon, 36 mm
- 3/4" -drive
- use on vibration damper



Code	Type		g	
05 01 00 36	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	
71 16 00 13	Mercedes-Benz		365	1

### 11061-2 Counter stay with reduction unit

- for taper roller bearing outer ring on steering housing



Code	Type		g	
71 17 00 12	Mercedes-Benz		1518	1

### 540-22 CROW-FOOT spanner

- 22 mm
- 3/8" -drive
- use on track-rods



Code	Type		g	
02 20 00 22	BMW: series 3, 518, 520		64	1

### 513 Reducing adaptor

HPQ

- 1/2" socket x 3/8" plug



Code	Type		g	
13 03 00 02	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	
08 13 00 25	BMW		6	10

### 3054X-M10 Screwdriver socket

- for tri-square socket head screws (XZN®), size M10
- on drive shaft bolts



Code	Type		g	
03 26 14 10	Mercedes-Benz		142	5

### 46-19 Socket

AS HPQ

- Fiat-No A 57 052
- bi-hexagon, 19 mm
- 3/8" -drive
- for front mounting screw of top steering link on front wheel suspension



Code	Type		g	
02 02 00 19	Fiat: 1500, 125		112	10

### 12495 Brass punch

- $\varnothing$  20 mm, length 200 mm
- for use on bushes bearing rings
- steering pivot pin



Code	Type		g	
77 13 00 00			533	5

## 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	Ø mm/"	L mm	g	Box
02 14 00 36	16-5/8	85	180	5

### 4600 Spark plug socket



- 3/8" O-drive
- with rubber insert



Code	Ø mm/"	L mm	g	Box
02 12 00 36	16-5/8	60	84	10

### 4606 Spark plug socket



- 3/8" O-drive
- with rubber insert



Code	Ø mm/"	L mm	g	Box
02 13 00 18	18-11/16	65	132	10

### 46 Sockets



- 3/8" O-drive
- with rubber insert



Code	Ø mm/"	L mm	g	Box
02 02 02 08	20.8-13/16	65	151	10

### 51 Sockets



- 1/2" O-drive
- with rubber insert



Code	Ø mm/"	L mm	g	Box
03 02 02 16	16-5/8	83	137	10
03 02 02 08	20.8-13/16	83	194	10

### 51S Sockets



- 1/2" O-drive
- with rubber insert



Code	Ø mm/"	L mm	g	Box
03 24 02 08	20.8-13/16	83	196	10

### 5100 Rubber insert

- for size 20.8 mm (No 46; 51; 51S)



Code	g	Box
09 01 00 01	6	5

### 10626 Spark plug connector pliers

- forged
- with 45° offset, curved jaws
- for extracting and replacing sparkplug connectors



Code	L mm	g	Box
76 53 00 01	195	223	1

### 12375 Spark plug brush

- wood, brass wire dia 0.15 mm



Code	L mm	Rows	g	Box
74 16 00 01	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	Ø mm	L mm	g	Box
41 18 08 12	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	Ø mm	L mm	g	Box
02 18 00 10	10	140	138	1
02 18 00 12	12	140	138	1



## 46-12 Socket

AS  
cert. HPQ

- extra deep
- bi-hexagon, 12 mm
- 3/8" O-drive
- use on glow plugs of diesel engines



Code	Type		
<b>02020012</b>	<b>BMW: 324d; 524d</b>	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		
<b>77380001</b>	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		
<b>77560002</b>	100	1

## Special tools for brakes and wheels

### ES 721/15/3/2



- 530 x 350 x 40 mm
- 6 pieces

Code	
<b>96838172</b>	5060

No	Content
<b>2309K</b>	1/2" O 17; 19; 21 mm
<b>721/15 Quick</b>	30-150 N·m
<b>35c Pkw</b>	17; 19; 22 mm; ■ 1/2"
<b>10599/2</b>	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		L mm		
<b>43030005</b>	<b>34c Lkw</b>	24; 27; 32; ■ 3/4"	400	2058	1
<b>43030006</b>	<b>35c Pkw</b>	17; 19; 22; ■ 1/2"	400	5020	1

### 39 Tyre levers

- handy, sturdy construction, purposefully shaped
- Chrome Alloy Steel



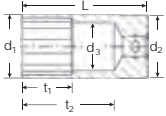
Code	No	L mm		
<b>74010401</b>	<b>39 Pkw</b>	400	358	5
<b>74010601</b>	<b>39/1 Lkw</b>	600	897	5
<b>74010602</b>	<b>39/1 Lkw</b>	600	1180	5
<b>74010603</b>	<b>39/1 Lkw</b>	600	900	5

## Special automotive tools

### 51S Socket

AS CRV HPQ

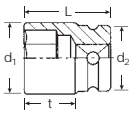
- 1/2" O-drive
- extra deep
- DIN 3124/ISO 2725-1, E DIN EN 3710, E DIN EN 3709 (testloads)
- with rubber insert for spark plugs and for tightening and untightening wheel nuts on Japanese cars
- HPQ® high performance steel, chrome plated



Code	O-drive mm/"	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	△△ g	☐
<b>03240208</b>	<b>20.8-13/16</b>	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	O-drive mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	△△ g	☐
<b>23090017</b>	<b>17</b>	25.7	30	85	68	242	5
<b>23090019</b>	<b>19</b>	28.2	30	85	67.5	257	5
<b>23090221</b>	<b>21</b>	30.7	30	85	66.5	272	5
<b>23090022</b>	<b>22</b>	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	O-drive mm	L mm	∅ mm	△△ g	☐
<b>23091017</b>	<b>17</b>	86	27	235	1
<b>23091019</b>	<b>19</b>	86	29	250	1
<b>23091221</b>	<b>21</b>	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	☐
<b>76294003</b>	245	380	1

### 10613 Brake spring pliers

- for rivetted brake linings/shoes
- Chrome Vanadium, bright nickel-plated



Code	L mm	△△ g	☐
<b>76413001</b>	210	245	6

### 10613/1 Brake spring pliers

- with flexible anvil
- for rivetted and glued brake linings/shoes



Code	L mm	△△ g	☐
<b>76413021</b>	330	461	2

### 12371 Brake calliper file

- for removing dust, rust and dirt from brake calliper groove



Code	L mm	△△ g	☐
<b>74543101</b>	260	130	5

### 12373 Steel wire brush

- special slim design



Code	L mm	Rows	△△ g	☐
<b>77440001</b>	230	2	65	10

### 12900/3 Tyre-tread Vernier gauge

- sturdy brass construction
- smooth ground surface



Code	measuring range mm	△△ g	☐
<b>77371004</b>	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	☐
<b>77371005</b>	25/1	60	1

### 54-7 INHEX socket

- for hexagon socket head screws, 7 mm
- 1/2" -drive
- for changing brake linings



Code	Type			
03050007	BMW: 518, 520i, 525i, 528i	75	5	

### 1049-9 INHEX socket

- for hexagon socket head screws, 9 mm
- 3/8" -drive
- for brake calliper retainers



Code	Type			
02151009	BMW, MINI	62	5	

### 733/10-11 Open ring insert tool

- 11 mm
- use with Service-MANOSKOP® torque wrench No 730/5 Quick
- for flare nuts on brake lines and bleed screws



Code	Type			
58231011	Mercedes-Benz	9x12	55	1

### 733/10-12 Open ring insert tool

- 12 mm
- for flare nuts on brake pressure regulator
- tightening torque 15-18 N·m



Code	Type			
58231012	BMW	9x12	59	1

### 733/10-14 Open ring insert tool

- 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			
58231014	BMW, Mercedes-Benz	9x12	60	1

### 733/10-17 Open ring insert tool

- 17 mm
- for flare nuts on main brake cylinder
- tightening torque 16-25 N·m



Code	Type			
58231017	BMW	9x12	64	1

### 733/10-19 Open ring insert tool

- 19 mm
- for flare nuts on main brake regulator
- tightening torque 30-40 N·m



Code	Type			
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		
96031901	Fiat, Alfa	1225	1

### 54CV Screwdriver sockets

- for spline socket head screws (Ribe-CV®)
- length 60mm
- 1/2" -drive
- for brakes and cylinder head bolts



Code	Size	Type		
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  $\varnothing$
- non-slip rubber cloth tape, 22 mm width



Code	No	L mm	$\Delta$ g	
76500001	12005	236	264	1
79150001	12005/1 <sup>1)</sup>	600	69	1

<sup>1)</sup> spare strap

### 12007 Oil filter wrenches

- adjustable for diameters 80-110 mm
- hardened anti-slip cams ensure safety during use



Code	No	L mm	$\Delta$ g	
76521001	12007/1 <sup>1)</sup>	150	226	1
76521002	12007/2 <sup>2)</sup>	240	319	1

<sup>1)</sup> with 1/2"  $\varnothing$

<sup>2)</sup> 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	$\Delta$ 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	$\Delta$ g	
44730810	Peugeot, Renault	315	5

### 1015 Oil filter claw

- for loosening of oil filters on cars



Code	$\varnothing$ "	Clamp. width mm	total height mm	length of claws mm	$\Delta$ 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  $\varnothing$



Code	total height mm	$\Delta$ g	
74370001	52	131	1

### 3046 Special sockets

- for fitting and removing oil filter covers when changing oil filter cartridges



Code	$\varnothing$ mm	$\varnothing$ "	Type	$\Delta$ 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 INEX socket

- for hexagon socket head screws, 14 mm
- 1/2"  $\varnothing$ -drive
- for use on oil drain plug



Code	Type	$\Delta$ g	
03050014	Mercedes-Benz	135	5

### 1054-13 INEX sockets

- for hexagon socket head screws, 13 mm
- length 70 mm
- 1/2"  $\varnothing$ -drive
- for oil drain plug on engine



Code	Type	$\Delta$ g	
03150713	Lancia	130	5

### 1054KK-5 INHEX socket

- with ball-point hexagon
- 5 mm
- length 238 mm
- 1/2" -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		
03 31 0005	VW/Audi	145 g	5

### 1054KK-8 INHEX socket

- 8 mm
- length 238 mm



Code	Type		
03 31 0008	VW/Audi	154 g	5

## Special tools for engine and gear transmission

### 50TX-E10 Socket

- for external TORX® screws, size E10
- 1/2" -drive
- use on mounting screws for GETRAG 260 gearbox, as well as on automatic gearboxes fitted to US and Japanese models



Code	Type		
03 27 00 10	BMW	55 g	10

### 50TX-E12 Socket

- size E12



Code	Type		
03 27 00 12	BMW	60 g	10

### 50TX-E14 Socket

- size E14



Code	Type		
03 27 00 14	BMW	56 g	10

### 54TX-T27 Screwdriver socket

- for inside TORX® screws, size T27
- 1/2" -drive
- use on switchgear of automatic gearbox 3HP 22, 4HP 22



Code	Type		
03 10 00 27	BMW	72 g	5

### 1418 Bit

- for inside TORX® screws, size T27
- 1/4" -drive
- use on switchgear on automatic gearbox 3HP 22, 4HP 22



Code	Type		
08 13 00 27	BMW	6 g	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		
50 18 10 05	BMW	1054 g	1

### 735/10 Ratchet insert tool

- reversible
- 1/2" -drive



Code			
58 25 00 10	9x12	147 g	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		
65 47 41 70	BMW	154 g	1

## Special automotive tools

### 1054-10 INHEX socket


- for hexagon socket head screws, 10 mm
- length 140 mm
- 1/2" -drive
- for bolts on car engines





Code	Type	 g	
03 15 14 10	Mercedes-Benz	150	5

### 51-27 Socket


 

- bi-hexagon, 27 mm
- 1/2" -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" -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	Type	 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	Type	 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" -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.  $\varnothing$  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

## 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	
60 11 0001	25-75	665	1

### K157 Chain

Code	g	
69 13 0001	183	1

### 1225 Special extension

- offset
- for use on magnetic switch diesel pump



Code	"	g	
12 25 0001	3/8	128	5

### 10614 Hose clip pliers

- for self tightening hose clips
- nickel-plated



Code	L mm	g	
76 46 0000	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	
76 46 00 13	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	
76 46 00 12	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	
76 54 0001	300	565	1

### Replacement Bowden cable for No 10623/2

Code	g	
79 54 0001	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	
76 54 0002	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	
76 54 0003	200	173	1

## Special automotive tools

### 12718 Flat scraper

- special steel
- for removal of gasket seals on carburettor, valve cover, cylinder head etc.



Code	L mm	g	g	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	g	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	g	g
76480001	230	205	1	

### 12975 Fuel hose clamp

- capacity up to  $\varnothing$  20 mm
- for stopping fuel flow temporarily



Code	g	g	g
74340001	38	10	

### 1435 Bit

- for inside TORX® screws, size T55
- 5/16"  $\bullet$ -drive
- for screws in rear seats
- for use with bit-holder insert tool No 736/40



Code	Type	g	g	g
08 140055	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	g
58 26 10 40	BMW: X6 model E71, series 7 model F01/F02	14x18	114	1

### 1445 Bit

- for inside TORX® tamper resistant screws, size T30
- 1/4"  $\bullet$ -drive
- use on sensor screws wheel house (models with airbag system)



Code	Type	g	g	g
08 160030	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	g	g
43 10 32 06	BMW	167	10	

### 440-17 CROW-RING spanner

- 17 mm
- 3/8"  $\bullet$ -drive
- for use on pipes for air conditioning unit



Code	Type	g	g	g
02 1900 17	Mercedes-Benz	40	1	

### 440-19 CROW-RING spanner

- 19 mm



Code	g	g	g
02 1900 19	40	1	



### 440-22 CROW-RING spanner



- 22 mm



Code	g	g	g
02 190022	57	1	

### 440-24 CROW-RING spanner



- 24 mm



Code	g	g	g
02 190024	57	1	

### 735/20 Ratchet insert tool, fine tooth

- reversible
- 1/2" ■-drive
- use with Service-MANOSKOP® torque wrench No 730/20 Quick



Code	Type	mm	g	g
58 250020	Mercedes-Benz	14x18	302	1

### 730R/5 Service-MANOSKOP® Quick torque wrench

- 6-50 N·m
- 3/8" ■-drive
- for general service work



Code	Type	g	g
96 504005	Mercedes-Benz	994	1

### 730R/12 Service-MANOSKOP® Quick torque wrench

- 25-130 N·m
- 1/2" ■-drive
- for valve adjustment



Code	Type	g	g
96 504012	Mercedes-Benz	1488	1

### 730R/20 Service-MANOSKOP® Quick torque wrench

- 40-200 N·m
- 1/2" ■-drive



Code	Type	g	g
96 504020	Mercedes-Benz	1626	1

### 11060-1 Internal puller

- capacity 12-16 mm
- for use on bearings, seals and bushes



Code	Type	g	g
71 161011	Mercedes-Benz	110	1

### 11060-2 Internal puller

- capacity 20-27 mm



Code	Type	g	g
71 160012	Mercedes-Benz	131	1

### 11060-3 Internal puller

- capacity 27-36 mm



Code	Type	g	g
71 160013	Mercedes-Benz	365	1

### 11060-5 Internal puller

- capacity 36-46 mm



Code	Type	g	g
71 160016	Mercedes-Benz	558	1

### 11060-6 Internal puller

- capacity 46-58 mm



Code	Type	g	g
71 160016	Mercedes-Benz	558	1

## Special automotive tools

### 11061-1 Counter stay

- for internal puller No 11060/0-2
- for use on bearings, seals and bushes



Code	Type	g	g	g
71170011		654	1	

### 11061-2 Counter stay

- for internal puller No 11060/3-7



Code	Type	g	g	g
71170012	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	g	g
43103207	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	Type	g	g	g
43150017		442	5	

### 720Nf/80 Standard-MANOSKOP® torque wrench

- 160-800 N·m
- 3/4" O-drive



Code	Type	g	g	g
50190081	VW: LT Syncro	5650	1	

### 730/5 Quick Service-MANOSKOP® torque wrench

- 6-50 N·m
- for general service work



Code	Type	g	g	g
50184005	VW/Audi	780	1	

### 732/10-13 Ring insert tool

- 13 mm
- for use with Service-MANOSKOP® torque wrench No 730/5 Quick



Code	Typ	mm	g	g
58221013	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	g
58250010	VW/Audi	9x12	147	1

### 730/20 Quick Service-MANOSKOP® torque wrench

- 40-200 N·m



Code	Type	g	g	g
50184020	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	g
58250020	VW/Audi	14x18	302	1

### 730/40 Quick Service-MANOSKOP® torque wrench

- capacity 80-400 N·m



Code	Type	g	g	g
50184040	VW/Audi	1540	1	

### 735/40 Ratchet insert tool

- reversible
- 3/4" ■-drive
- for use with Service-MANOSKOP® torque wrench No 730/40 Quick



Code	Typ	mm	g	
<b>58 25 00 40</b>	<b>VW/Audi</b>	14x18	515	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	
<b>08 13 00 45</b>	<b>VW: Golf III</b>	8	10

## 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	
<b>43 03 00 05</b>	24; 27; 32; ■ 3/4"	400	2058	1

### 39 Tyre levers

- handy, sturdy construction, purposefully shaped
- Chrome Alloy Steel



Code	No	L mm	g	
<b>74 01 06 01</b>	<b>39/1 Lkw</b>	600	897	5
<b>74 01 06 02</b>	<b>39/1 Lkw</b>	600	1180	5
<b>74 01 06 03</b>	<b>39/1 Lkw</b>	600	900	5

### 1068 Air filter claw

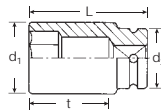
- for loosening of filter cartridges on air brakes (trucks)



Code	Clamp. width "	mm	total height mm	length of claws mm	g	
<b>74 62 00 11</b>	1/2	100-145	85	60	925	1

### 2509 IMPACT sockets

- 3/4" ○-drive
- for power drivers
- extra deep
- with reduced diameter
- Chrome Alloy Steel, gunmetal finish

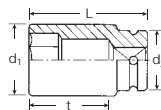


Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	g	
<b>25 09 00 27</b>	<b>27</b>	40.5	44	100	72.5	672	2
<b>25 09 00 30</b>	<b>30</b>	44.3	44	100	72.5	728	2
<b>25 09 00 32</b>	<b>32</b>	46.8	44	100	72	778	2
<b>25 09 00 33</b>	<b>33</b>	48	44	100	72	803	2

for Trilex wheels

### 2609 IMPACT sockets

- 1" ○-drive
- for power drivers
- extra deep
- with reduced outside diameter
- Chrome Alloy Steel, gunmetal finish



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	L mm	t mm	g	
<b>26 09 00 27</b>	<b>27</b>	42.3	54	110	80	1001	2
<b>26 09 00 30</b>	<b>30</b>	46	54	110	79.5	1047	2
<b>26 09 00 32</b>	<b>32</b>	48.5	54	110	79	1015	2
<b>26 09 00 33</b>	<b>33</b>	49.8	54	110	78.5	1102	2

for wheel nuts

## Special automotive tools

### 24-17x19 OPEN-RING spanner

AS  
cert.

- bi-hexagon, 17 x 19 mm
- for all threaded connectors on injector pipes



Code	Type	g	g
41081719	BMW	150	10

### 51-30 Socket

AS  
cert. HPQ

- extra deep
- bi-hexagon, 30 mm
- 1/2" O-drive
- on injector post



Code	Type	g	g
03020030	Mercedes-Benz	341	5

### 440-27MB CROW-RING spanner

AS  
cert.

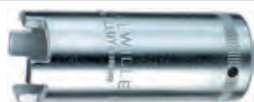
- for setting of electronic injection on 440-HP-engines



Code	Type	g	g
02191027	Mercedes-Benz	92	1

### 3678 4-pin socket

- length 72 mm
- 1/2" O-drive
- for use on pressure nut of injector post



Code	Type	g	g
03810001	Mercedes-Benz	151	5

### 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	g
03151410	Mercedes-Benz	150	5

### 3054X-M12 Screwdriver socket

- for tri-square socket head screws (XZN®), size 12
- length 140 mm
- ø 11.5 mm
- 1/2" O-drive for cylinder head bolts with tri-square socket head M12



Code	Type	g	g
03261412	Mercedes-Benz	160	5

### 11068-2 Piston ring compressor

- of special spring steel
- infinitely variable adjustment
- c/w adj. spanner
- capacity ø 90-175 mm



Code	Type	g	g
74140003	Mercedes-Benz	270	1

### 55-30 Socket

AS  
cert. HPQ

- hexagon, 30 mm
- 3/4" O-drive
- for U-bolt nuts, front



Code	Type	g	g
05010030	Mercedes-Benz	313	5

### 55-36 Socket

AS  
cert. HPQ

- 36 mm
- 3/4" O-drive
- for U-bolt nuts, rear



Code	Type	g	g
05010036	Mercedes-Benz	386	2

### 24-10x12 OPEN-RING spanner

AS  
cert.

- hexagon, 10 x 12 mm
- for general service work



Code	Type	g	g
41081012	Mercedes-Benz	59	10

### 440-30 CROW-RING spanner

AS  
cert

- 30 mm
- 1/2"  $\square$ -drive
- for use on hydraulic pipe flare nuts



Code	Type	g	g	g
<b>03 190030</b>		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	g	g
<b>02 200019</b>	<b>Mercedes-Benz</b>	64	1	

### 540-24 CROW-FOOT spanner

- 24 mm

Code	Type	g	g	g
<b>02 200024</b>		60	1	

### 730R/2 Quick Service-MANOSKOP® torque wrench

- capacity 4-20 N·m
- 3/8"  $\square$ -drive
- for use on new push connector for pneumatic installations on new light-weight truck series



Code	Type	g	g	g
<b>96 50 4002</b>	<b>Mercedes-Benz</b>	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"  $\square$ -drive
- 1 square drive insert tool No 734/20, 1/2"  $\square$ -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"  $\square$ -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	g	g
<b>96 50 2053</b>	<b>Mercedes-Benz</b>	9739	1	

### 54/12 Set of INHEX sockets

- for hexagon socket head screws
  - sturdy, 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	g	g
<b>96 03 1503</b>	<b>Mercedes-Benz</b>	1894	1	

### 721Nf/80 Standard-MANOSKOP® torque wrench

- 160-800 N·m
- 3/4"  $\square$ -drive
- for general service work



Code	Type	g	g	g
<b>50 20 0081</b>	<b>Mercedes-Benz</b>	6380	1	



# 11 VDE TOOLS

Sets of tools  
>> Page 376



Spanners  
>> Page 377



Torque wrenches  
>> Page 378



Ratchets, sockets, screwdriver sockets,  
extensions  
>> Page 378



Screwdrivers  
>> Page 379



Pliers  
>> Page 381



Accessories  
>> Page 385



# When things get hot, they keep cool. VDE tools from STAHLWILLE.



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" ■).



## EFFICIENT.

Proven QuickSelect setting of torque and an additional ring scale that allows fine adjustment.



## FAST.

With a QuickRelease safety lock that enables rapid tool changing but effectively protects against tool loss.



## 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.



## ADJUSTABLE.

Fast adjustment without dismantling. End-users can easily readjust the tool themselves – without having to send it in and have it retested.

## VDE tools

### 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
<b>96838193</b>	13

No	Content
<b>12171 VDE</b>	3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 16; 17; 18; 19; 20; 22 mm
<b>12174 VDE</b>	3/8" ○ sizes T20; T25; T30
<b>12175 VDE</b>	3/8" ○ M8; M10
<b>12167/3 VDE</b>	3/8" ■ ○ 94 mm
<b>12167/6 VDE</b>	3/8" ■ ○ 178 mm
<b>12167/10 VDE</b>	3/8" ■ ○ 258 mm
<b>12165 VDE</b>	3/8" ■
<b>4660 VDE</b>	size 1 (0.4 x 2.5 x 75 mm) size 2 (0.5 x 3.0 x 100 mm) size 3 (0.6 x 3.5 x 100 mm) size 4 (0.8 x 4.0 x 100 mm)
<b>4665 VDE</b>	PH1; PH2; PH3
<b>4675 VDE</b>	sizes T8; T10; T15; T20; T25; T30
<b>6501 VDE</b>	200 mm
<b>6508 VDE</b>	160 mm
<b>6530 VDE</b>	200 mm
<b>6551 VDE</b>	250 mm
<b>6602 VDE</b>	180 mm
<b>6630 VDE</b>	220 mm
<b>12188 VDE</b>	
<b>12191 VDE</b>	
<b>12192 VDE</b>	
<b>12193 VDE</b>	
<b>12194 VDE</b>	
<b>12195 VDE</b>	
<b>13209 VDE</b>	

### 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
<b>96022020</b>	3056



### TCS 12171/19/4 VDE



TCS



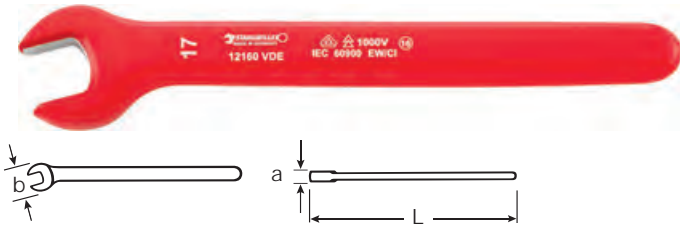
- 350 x 350 x 45 mm
- 23 pieces

Code	△▽ g
<b>96830041</b>	2800

No	Content
<b>12171 VDE</b>	3/8" ○ 7; 8; 9; 10; 11; 12; 13; 14; 16; 17; 18; 19; 20; 22 mm
<b>12174 VDE</b>	3/8" ○ sizes T20; T25; T30
<b>12175 VDE</b>	3/8" ○ M8; M10
<b>12167 VDE 3</b>	3/8" ■ ○ 94 mm
<b>12167 VDE 6</b>	3/8" ■ ○ 178 mm
<b>12167 VDE 10</b>	3/8" ■ ○ 258 mm
<b>12165 VDE</b>	3/8" ■

### 12160 VDE VDE single-ended open-jaw spanners

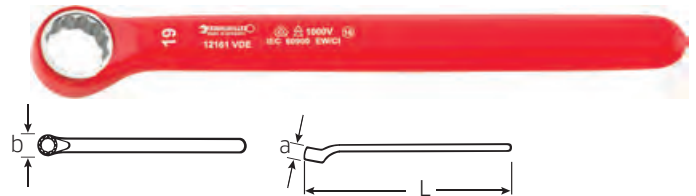
- Chrome Alloy Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	Ø mm	L mm	b mm	a mm	⚡ g	📦
44 1800 10	10	140.7	26	10.5	48	1
44 1800 13	13	166.4	32.5	11.5	80	1
44 1800 14	14	181	34.5	11.5	88	1
44 1800 17	17	200	40	12.5	146	1
44 1800 19	19	218	44.5	13	184	1
44 1800 22	22	248	50	13.5	254	1

### 12161 VDE VDE single-ended ring spanners

- Chrome Alloy Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	Ø mm	L mm	b mm	a mm	⚡ g	📦
44 1900 10	10	147.6	19.6	13	48	1
44 1900 13	13	171.2	23.6	15	82	1
44 1900 14	14	184.1	25.1	15	82	1
44 1900 17	17	208.3	29.1	17	144	1
44 1900 19	19	227.1	32	18	190	1
44 1900 22	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
96 40 4301	10; 13; 14; 17; 19; 22	950

### 12161/6 VDE Set VDE single-ended ring 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
96 40 4302	10; 13; 14; 17; 19; 22	430

### TCS 12160 VDE



- 175 x 350 x 30 mm
- 6 pieces

Code	⚡ g
96 83 0042	900

No	Content
12160 VDE	10; 13; 14; 17; 19; 22 mm

### TCS 12161 VDE



- 175 x 350 x 30 mm
- 6 pieces

Code	⚡ g
96 83 0045	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

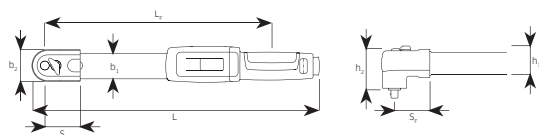
4,5°

**730R/5 VDE VDE MANOSKOP® torque wrench with QuickRelease ratchet**



- 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 %**

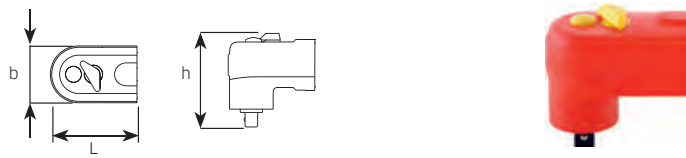


Code	10-50 N·m	7-37 ft·lb	5 N·m	1 ft·lb	0.25 N·m	Fine scale	mm	"	b <sub>1</sub> mm	b <sub>2</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	L mm	L <sub>F</sub> mm	S <sub>F</sub> mm	Δg
<b>96550150</b>							<b>9x12</b>	3/8	43	49.5	36	59.5	390.5	308.5	28	1365

**725QR VDE VDE QuickRelease ratchet insert tool**



- 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

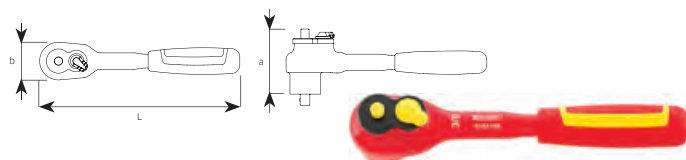


Code	"	mm	b mm	h mm	L mm	Δg	g
<b>58253105</b>	3/8	<b>9x12</b>	43	70.5	65.5	230	1

**12165 VDE VDE QuickRelease ratchet, fine tooth, 3/8"**



- 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

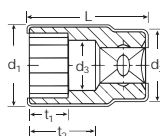


Code	L mm	b mm	a mm	Δg	g
<b>12430001</b>	205	61	37	298	1

**12171 VDE VDE sockets 3/8"**



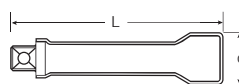
- HPQ® high performance steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	Δg	g
<b>02380007</b>	<b>7</b>	15.5	21.5	6	42	6	12.5	24	1
<b>02380008</b>	<b>8</b>	16.7	21.5	7	43	7	13.5	26	1
<b>02380009</b>	<b>9</b>	18	21.5	8	43	7	13.5	28	1
<b>02380010</b>	<b>10</b>	19.3	21.5	9	45	8.5	15.5	28	1
<b>02380011</b>	<b>11</b>	20.6	21.5	10	45	8.5	13.7	29	1
<b>02380012</b>	<b>12</b>	21.9	22.5	11	46	9.5	14.4	36	1
<b>02380013</b>	<b>13</b>	23	22.5	12	48	11.5	16.1	36	1
<b>02380014</b>	<b>14</b>	24.4	22.5	13	48	11.5	15.8	40	1
<b>02380016</b>	<b>16</b>	26.7	24	15	49	13.5	18.9	48	1
<b>02380017</b>	<b>17</b>	28	24	16	49	12.5	18.6	54	1
<b>02380018</b>	<b>18</b>	29.2	24	17	50	13.5	19.3	58	1
<b>02380019</b>	<b>19</b>	30.2	24	18	50	13.5	19	58	1
<b>02380020</b>	<b>20</b>	31.2	25	19	52	15.5	20.7	68	1
<b>02380022</b>	<b>22</b>	33.7	26	21	53	17	21.2	78	1

**12167 VDE VDE extensions 3/8"**

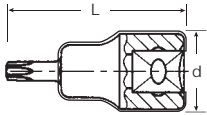
- Chrome-Alloy-Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	size	L mm	d mm	Δg	g
<b>12420001</b>	<b>3</b>	94	23	84	1
<b>12420002</b>	<b>6</b>	178	23	162	1
<b>12420003</b>	<b>10</b>	258	23	224	1

### 12174 VDE VDE screwdriver sockets 3/8"

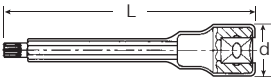
- for internal TORX® screws
- Chrome-Alloy-Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	size	mm	L mm	d mm	g	
<b>02390020</b>	<b>T20</b>	3.8	67	22.8	52	1
<b>02390025</b>	<b>T25</b>	4.4	67	22.8	52	1
<b>02390030</b>	<b>T30</b>	5.5	67	22.8	54	1
<b>02390040</b>	<b>T40</b>	6.6	67	22.8	56	1
<b>02390045</b>	<b>T45</b>	7.8	67	22.8	58	1

### 12175 VDE VDE screwdriver sockets 3/8"

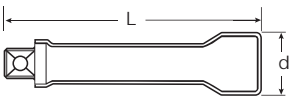
- for tri-square socket head screws (XZN®)
- Chrome-Alloy-Steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	size	L mm	d mm	g	
<b>02370006</b>	<b>M6 NEW</b>	136	23	100	1
<b>02370008</b>	<b>M8</b>	136	23	98	1
<b>02370010</b>	<b>M10</b>	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	
<b>13420001</b>	<b>3</b>	93	27	130	1
<b>13420002</b>	<b>5</b>	148	27	206	1
<b>13420003</b>	<b>10</b>	273	27	380	1

### 432 VDE VDE extending adaptor

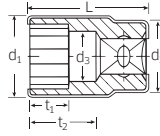
- HPQ
- 3/8" socket 1/2" plug (10 x 12.5)
- HPQ® high performance steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	L mm	d mm	g	
<b>12030005</b>	68	22.6	84	1

### 12179 VDE VDE sockets 1/2"

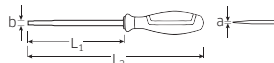
- AS
- HPQ
- HPQ® high performance steel, chrome plated
- VDE insulated up to 1000 V
- DIN EN 60900
- ⚡ AC/1000 V



Code	mm	d <sub>1</sub> mm	d <sub>2</sub> mm	d <sub>3</sub> mm	L mm	t <sub>1</sub> mm	t <sub>2</sub> mm	g	
<b>03370010</b>	<b>10</b>	19.5	27	9	56	9	22	60	1
<b>03370011</b>	<b>11</b>	20.8	27	10	56	9.5	22	64	1
<b>03370012</b>	<b>12</b>	22	27	11	56	13	22	64	1
<b>03370013</b>	<b>13</b>	23.3	27	12	56	13	22	64	1
<b>03370014</b>	<b>14</b>	24.9	27.7	13	56	13	20.5	70	1
<b>03370017</b>	<b>17</b>	29	28.7	15.2	56	15	19.6	82	1
<b>03370019</b>	<b>19</b>	31.2	30	18	56	16	21.7	94	1
<b>03370022</b>	<b>22</b>	34.7	31	21	60	16.5	24.9	116	1
<b>03370024</b>	<b>24</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	
<b>46603025</b>	<b>1</b>	0.4	2.5	75	160	20	10
<b>46603030</b>	<b>2</b>	0.5	3.0	100	185	39	10
<b>46603035</b>	<b>3</b>	0.6	3.5	100	205	42	10
<b>46603040</b>	<b>4</b>	0.8	4.0	100	205	46	10
<b>46603055</b>	<b>5</b>	1.0	5.5	125	240	93	10
<b>46603065</b>	<b>6</b>	1.2	6.5	150	265	120	10
<b>46603080</b>	<b>7</b>	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 <sub>1</sub> mm	L <sub>2</sub> mm	g	
<b>46653000</b>	<b>0</b>	60	145	35	10
<b>46653001</b>	<b>1</b>	80	185	47	10
<b>46653002</b>	<b>2</b>	100	215	89	10
<b>46653003</b>	<b>3</b>	150	275	159	10

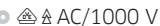
## 4670 VDE VDE cross-head screwdrivers DRALL<sup>+</sup>

- POZIDRIV/SUPADRIV®
- Chrome Alloy Steel
- blade gunmetal finished
- VDE insulated up to 1000 V
- DIN EN 60900
- 






Code	PZ size	L <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>4670 3000</b>	<b>0</b>	60	145	36	10
<b>4670 3001</b>	<b>1</b>	80	185	46	10
<b>4670 3002</b>	<b>2</b>	100	215	89	10

## 4675 VDE VDE TORX® screwdrivers DRALL<sup>+</sup>

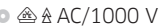
- for inside TORX® screws
- Chrome Alloy Steel
- blade gunmetal finished
- VDE insulated up to 1000 V
- DIN EN 60900
- 




code	size	 mm	L <sub>1</sub> mm	L <sub>2</sub> mm	 g	
<b>4675 3008</b>	<b>T8</b>	2.3	60	145	22	10
<b>4675 3010</b>	<b>T10</b>	2.7	60	145	22	10
<b>4675 3015</b>	<b>T15</b>	3.3	75	180	40	10
<b>4675 3020</b>	<b>T20</b>	3.8	100	205	47	10
<b>4675 3025</b>	<b>T25</b>	4.4	100	205	51	10
<b>4675 3030</b>	<b>T30</b>	5.5	100	215	89	10

## 4695 VDE VDE screwdriver set DRALL<sup>+</sup>

Content 6 screwdrivers DRALL<sup>+</sup>:

- VDE insulated up to 1000 V
- DIN EN 60900
- 
- 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
<b>96469515</b>	595

## TCS 4660/4665 VDE



- 175 x 350 x 40 mm
- 6 pieces


Code	 g
<b>96838766</b>	391


No	Content
 <b>4660 VDE</b>	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)
 <b>4665 VDE</b>	PH1; PH2

## TCS 4665/4670 VDE



- 175 x 350 x 40 mm
- 7 pieces


Code	 g
<b>96838785</b>	622

No	Content
 <b>4665 VDE</b>	PH0; PH1; PH2; PH3
<b>4670 VDE</b>	PZ0; PZ1; PZ2

## TCS 4675 VDE




- 175 x 350 x 40 mm
- 6 pieces

Code	 g
<b>96838793</b>	385

No	Content
 <b>4675 VDE</b>	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
- 
- 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
<b>96469511</b>	814

### TCS 6501-6600/3 VDE



- 175 x 350 x 40 mm
- 3 pieces



Code	△ g
<b>96838770</b>	725

No		
	<b>65017180</b>	180 mm
	<b>65297200</b>	200 mm
	<b>66007160</b>	160 mm

### TCS 6501/6551/6600 VDE



- 175 x 350 x 40 mm
- 3 pieces



Code	△ g
<b>96830039</b>	918

No		
	<b>65017180</b>	180 mm
	<b>65517240</b>	240 mm
	<b>66007160</b>	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
<b>65017160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	1.8	1.5	10	16	202
<b>65017180</b>	180			2	1.8	12	16	279
<b>65017200</b>	200			2.5	2	13	16	359
<b>65018160</b>	160	chrome plated	insulated, with plastic sleeves, DIN EN 60900, ⚡ AC/1000 V	1.8	1.5	10	16	186
<b>65018180</b>	180			2	1.8	12	16	186
<b>65018200</b>	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<sup>2</sup>

### 6507 VDE VDE flat nose pliers, short

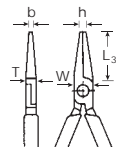
- DIN ISO 5745
- short, flat serrated jaws



65077160



65078160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65077160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	30	17	10	5	9	200
<b>65078160</b>	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

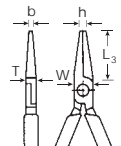
- DIN ISO 5745
- long, flat serrated jaws



65087160



65088160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65087160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	50	15	8	3	5	148
<b>65088160</b>	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

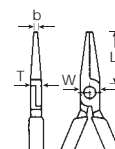
- DIN ISO 5745
- for bending wire loops and rings
- short, round, ground jaws
- fine serrations on gripping areas



65237160



65238160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	b mm	Δg g
<b>65237160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	30	18	10	3	201
<b>65238160</b>	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

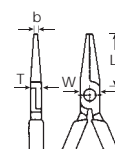
- DIN ISO 5745
- for bending wire loops and rings
- long, round, ground jaws
- fine serrations on gripping areas



65247160



65248160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	b mm	Δg g
<b>65247160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	47	15.5	8.5	2.5	162
<b>65248160</b>	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)

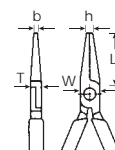
- DIN ISO 5745
- Form A (straight)
- half round, long tapering, serrated jaws, with burner hole
- precision cutting edges for soft and hard wires
- induction hardened cutting edges, approx. 60 HRC



65297160



65298160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	Δg g
<b>65297160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	51	16	9	3	2.5	174
<b>65297200</b>	200			73	17	9	3	2.5	226
<b>65298160</b>	160	chrome plated	insulated, with plastic sleeves, DIN EN 60900, ⚡ AC/1000 V	51	16	9	3	2.5	158
<b>65298200</b>	200			73	17	9	3	2.5	202

## 6530 VDE VDE snipe nose pliers with cutter (radio- or telephone pliers)

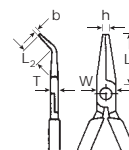
- DIN ISO 5745
- Form B, bent 45°
- half round, long tapering, serrated jaws, with burner hole
- precision cutting edges for soft and hard wires
- induction hardened cutting edges, approx. 60 HRC



65307160



65308160



Code	L mm	Head	Handles	L <sub>2</sub> mm	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	Δg g
<b>65307160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	24	55	16	9	3	2.5	185
<b>65307200</b>	200			28	76	17	9	3.5	2.5	230
<b>65308160</b>	160	chrome plated	insulated, with plastic sleeves, DIN EN 60900, ⚡ AC/1000 V	24	55	16	9	3	2.5	154
<b>65308200</b>	200			28	76	17	9	3.5	3	201



### 6533 VDE VDE mechanics snipe nose pliers

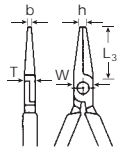
- half round, long tapering
- serrated jaws



65337160



65338160



Code	L mm	Head	Handles	L <sub>3</sub> mm	W mm	T mm	h mm	b mm	△ g
<b>65337160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	50	15	8	3	2.5	147
<b>65338160</b>	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
<b>65517240</b>	250	35	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	358

### 6600 VDE VDE side cutters

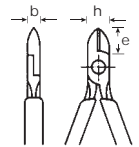
- DIN ISO 5749
- Form B
- precision cutting edges for all wires  
incl. piano wire
- high quality alloy steel
- bevelled cutting edges induction hardened,  
approx. 63 HRC



66007160



66008160



Code	L mm	Head	Handles	e mm	h mm	b mm	①	②	③	④	△ g
<b>66007145</b>	140	chrome plated	dip-coated insulation DIN EN 60900, ⚡ AC/1000 V	19	20	8.2	3	2.5	1.8	1.6	155
<b>66007160</b>	160			23.5	20	9	3	2.8	2	1.6	215
<b>66007180</b>	180			25.5	25	9.5	3.8	3	2.5	2	260
<b>66008145</b>	140	chrome plated	insulated, with plastic sleeves, DIN EN 60900,	19	20	8.2	3	2.5	1.8	1.6	149
<b>66008160</b>	160		⚡ AC/1000 V	23.5	20	9	3	2.8	2	1.6	190
<b>66008180</b>	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

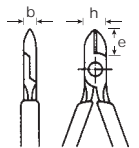
- DIN ISO 5749
- Form A
- precision cutting edges for all wires  
incl. piano wire
- high quality alloy steel
- bevelled cutting edges induction hardened,  
approx. 63 HRC



66027200



66028200



Code	L mm	Head	Handles	e mm	h mm	b mm	①	②	③	④	△ g
<b>66027160</b>	160	chrome plated	dip-coated insulation, DIN EN 60900 ⚡ AC/1000 V	25.5	25	9.5	4	3.4	2.5	2	220
<b>66027200</b>	200			31	28	11.5	4	4	3	2.5	325
<b>66027250</b>	250			32	29.5	12	4	4	3.5	3	475
<b>66028160</b>	160	chrome plated	insulated, with plastic sleeves, DIN EN 60900	25.5	25	9.5	4	3.4	2.5	2	210
<b>66028180</b>	180		⚡ AC/1000 V	27.5	26.5	10.5	4	3.8	2.7	2.2	250
<b>66028200</b>	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

## VDE tools

### 6622 VDE VDE wire stripping pliers

- with adjustment screw to cut insulation only on wire or cable
- max. 5 mm  $\varnothing$  10 mm<sup>2</sup> conductor cross-section



66227160



66228160

Code	L mm	Head	Handles		⚠ g
<b>66227160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚠ AC/1000 V		180
<b>66228160</b>	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  $\varnothing$
- self adjusting
- cutter hole for cutting wire or stranded wires up to 5 mm  $\varnothing$
- special steel



66237160



66238160

Code	L mm	Head	Handles		⚠ g
<b>66237160</b>	160	chrome plated	dip-coated insulation DIN EN 60900, ⚠ AC/1000 V		214
<b>66238160</b>	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
<b>69230001</b>		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
<b>66307220</b>	220	chrome plated	dip-coated insulation, DIN EN 60900 ⚠ AC/1000 V	16	35	70	380

⑦ cutting capacity in mm<sup>2</sup> for single wire Al-/Cu-Cable

⑧ cutting capacity in mm<sup>2</sup> for multiple wire Al-/Cu-Cable

⑨ cutting capacity in mm<sup>2</sup> 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	g	g
<b>77020700</b>	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	g	g
<b>77020701</b>	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	g	g
<b>77030700</b>	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	g	g
<b>77030701</b>	1000 x 300	784	1	

### 12196 VDE VDE insulating underlay mat in bag



Code	Measures mm	g	g	g
<b>96404303</b>	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	g
<b>77030702</b>	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	g	g
<b>77030705</b>	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	Ø mm	g	g	g
<b>77030706</b>	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	Ø mm	L mm	g	g
<b>77030708</b>	10	100	10	1
<b>77030709</b>	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	g	g
<b>81620700</b>	460 x 375 x 235	6000	1	

**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			
Ø 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			
Ø 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	-

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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		Thread diameters											Thread diameters - American standard ANSI												
		DIN ISO 272		ISO R 272 1968		German standard DIN			French standard	Swedish standard			Nuts				Bolts and screws								
Minimum dimension (mm <sup>1)</sup> )	Maximum dimension (mm <sup>1)</sup> )	Nominal size of wrench, mm											Nominal Size of Wrench												
		Standard hexagon	Large hexagon	Screw with flange	Nut with flange	Normal hexagon	Small hexagon	Normal hexagon <sup>2)</sup>	Large hexagon <sup>3)</sup>	Small hexagon <sup>4)</sup>	Screw with flange <sup>5)</sup>	Nut with flange <sup>6)</sup>	NFE 27-111-1930 <sup>6)</sup>	Metric, large <sup>8)</sup> SWS 1412	Metric, small <sup>8)</sup> SWS 1414	Whitworth, large <sup>8)</sup> SWS 1413	Whitworth, small <sup>8)</sup> SWS 1415	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																								
38.10	38.60												24			7/8	1"								
38.30	38.61																	1 1/2	1"	1"		1"			1 1/2
39.89	40.20																	1 1/2	1"						
41.10	41.60																	1 1/2	1"						
41.50	41.81																	1 1/2	1"						
42.10	42.60																	1 1/2	1"						
42.67	42.93																	1 1/2	1"						
43.08	43.38																	1 1/2	1"						
44.70	45.03																	1 1/2	1"						
46.10	46.60																	1 1/2	1"						
46.28	46.61																	1 1/2	1"						
47.10	47.60																	1 1/2	1"						
47.88	48.21																	1 1/2	1"						
50.10	50.60																	1 1/2	1"						
51.08	51.44																	1 1/2	1"						
52.10	52.60																	1 1/2	1"						
52.68	53.04																	1 1/2	1"						
54.12	54.72																	1 1/2	1"						
54.25	54.61																	1 1/2	1"						
55.12	55.72																	1 1/2	1"						
55.88	56.26																	1 1/2	1"						
56.12	56.72																	1 1/2	1"						
57.45	57.84																	1 1/2	1"						
58.12	58.72																	1 1/2	1"						
60.12	60.72																	1 1/2	1"						
60.66	61.06																	1 1/2	1"						
62.23	62.64																	1 1/2	1"						
63.12	63.72																	1 1/2	1"						
63.83	64.24																	1 1/2	1"						
65.12	65.72																	1 1/2	1"						
65.43	65.86																	1 1/2	1"						
67.03	67.46																	1 1/2	1"						
67.12	67.72																	1 1/2	1"						
70.12	70.72																	1 1/2	1"						
70.26	70.69																	1 1/2	1"						
71.12	71.72																	1 1/2	1"						
71.81	72.26																	1 1/2	1"						
75.03	75.51																	1 1/2	1"						
75.15	75.85																	1 1/2	1"						
76.61	77.09																	1 1/2	1"						
77.15	77.85																	1 1/2	1"						
79.81	80.31																	1 1/2	1"						
80.15	80.85																	1 1/2	1"						
82.15	82.85																	1 1/2	1"						
85.15	85.85																	1 1/2	1"						
86.18	86.72																	1 1/2	1"						
88.15	88.85																	1 1/2	1"						
89.36	89.92																	1 1/2	1"						
90.15	90.85																	1 1/2	1"						
94.15	94.85																	1 1/2	1"						
95.15	95.85																	1 1/2	1"						
95.76	96.34																	1 1/2	1"						
98.93	99.52																	1 1/2	1"						
100.15	100.85																	1 1/2	1"						
105.20	106.00																	1 1/2	1"						
105.33	105.97																	1 1/2	1"						
108.51	109.14																	1 1/2	1"						
110.20	111.00																	1 1/2	1"						
114.91	115.57																	1 1/2	1"						
115.20	116.00																	1 1/2	1"						
116.20	117.00																	1 1/2	1"						
118.08	118.77																	1 1/2	1"						
120.20	121.00																	1 1/2	1"						

**ASME/ANSI B 18.2.2-1987**

- <sup>1)</sup> 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
- <sup>2)</sup> DIN ISO 4014, 4016, 4017, 4018, 4032, 4034, 4035, 4036, 8673, 8674, 8675, 8676, 8677, 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
- <sup>3)</sup> DIN 6914, 6915, 7999 (SW 21 + 34)
- <sup>4)</sup> DIN 561, 564
- <sup>5)</sup> DIN 6921, 6922
- <sup>6)</sup> DIN 6923, 6926, 6927
- <sup>7)</sup> Standards prior to 1963
- <sup>8)</sup> old standards














































- <sup>a)</sup> 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
- <sup>b)</sup> Square Nuts
- <sup>c)</sup> 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**

- <sup>d)</sup> ANSI B 18.6.3 - 1972
  - <sup>e)</sup> Square Bolts  
Hex Bolts  
Hex Cap Screws  
Lag Screws
  - <sup>f)</sup> Heavy Hex Bolts  
Heavy Hex Structural Bolts  
Heavy Hex Screws
  - <sup>g)</sup> ANSI B 18.6.3 - 1972 (R 1983)
  - <sup>h)</sup> ANSI B 18.6.2 - 1972 (R 1983)
  - \* Square Bolt and Lag Screws only
- SP = Spark Plug

# Symbols used throughout this catalogue

## Symbols

	Spanner Opening		for Trisquare Socket Head Screws
	Spanner Opening for Hexagon Socket Head Screws		for Inside TORX® Screws
	TORX® size in mm		for Inside TORX® Screws with hollow drive tip
	Outside Square		for Inside TORX PLUS® Screws
	Inside Square		for 5-star screws
	Inside Hexagon		for Outside TORX® Screws
	Outside Hexagon	<b>TORX®</b>	registered trademark of Fa. Acument Intellectual Properties, LLC, Rockford, USA STAHLWILLE holds the Manufacturing Licence for TORX® Tools
	Pipe Diameter, inside		for Spline Socket Head Screws Ribe-CV®, registered trademark of Richard Bergner GmbH & Co.
	Pipe Diameter, outside		for Slotted Head Screws
	Size of Insert Tool Carrier in mm (MANOSKOP®) (Inside Square)		for TRI-WING® Screws, registered trademark of Phillips Screw Company
	Size of Shell Tool Carrier in mm (MANOSKOP®) (Outside Square)		for TORQ-SET® Screws, registered trademark of Phillips Screw Company
	Open Ring Spanner, hexagon		Diameter in mm
	Open Ring Spanner, bi-hexagon		Anti-Slip-drive
	Socket, hexagon		High-Performance-Quality
	Socket, bi-hexagon		Scale Range
	Socket, hexagon, AS-drive		Scale Division
	Socket, bi-hexagon, AS-drive		Weight
	Socket, bi-square		Standard Pack (pieces)
	Socket, spline-drive		full flush cutting
	for Socket Head Screw, hexagon		semi flush cutting
	for Socket Head Screw, hexagon with guide pin		standard bevel
	for Phillips-Recessed head Screws Phillips-Recess®, registered trademark of Phillips Screw Company		Safety insulated as per IEC 900 - AC 1000 V
	for POZIDRIV/SUPADRIV Screws POZIDRIV/SUPADRIV®, registered trademark of European Industrial Services Ltd.		new items

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WEEE-Reg.-Nr. DE 70431151

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