Made in Germany

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

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

Made in Germany

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.

Made in Germany

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

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


STAHLWILLE

5 TORQUE TOOLS, TORQUE TESTERS

As individual as your fastener.
STAHLWILLE torque tools.

To ensure safety and productivity, STAHLWILLE torqueing tools offer you a high degree of convenience, accurate setting and optimised ergonomic designs. The following overview is designed to help you select just the right model for your application.

e.g.
TORSIOTRONIC®

Torque screwdrivers

Clicking	Indicating	No	Range	Page
	○	760	15–600 cN·m	**192**
○		775	2–1000 cN·m	**192**
○	○	TORSIOTRONIC®	12–1000 cN·m	**193**

5

e.g.
MANOSKOP® 730 Quick

Torque wrenches

Clicking	Indicating	No	Range	Page
	○	71	160–800 N·m	**194**
	○	73Nm/15	2–15 N·m	**195**
○		755	1.5–300 N·m	**195**
○		730 Quick	4–650 N·m	**198**
○		730/80	160–800 N·m	**198**
○		721 Quick	6–300 N·m	**199**
○		720Nf	160–800 N·m	**200**
○		721Nf	160–1000 N·m	**200**
○		730N	4–1000 N·m	**204, 205**
○		730 Fix	10–1000 N·m	**205**
	○	701	1–20 N·m	**207**
○	○	730D	10–1000 N·m	**212, 213**
	○	712R/6	3–60 N·m	**220**

e.g.
MANOSKOP® 714

Tightening angle torque wrenches

Clicking	Indicating	No	Range	Page
○	○	714	1–1000 N·m	**216, 217**
	○	713R	3–400 N·m	**220**

STAHLWILLE's calibration laboratory – accredited by the highest authority. Controlled bolt tightening is an essential aspect of operating safety and the durability of screws and bolts. Put your trust in STAHLWILLE's DAkkS calibration laboratory. For all your torqueing tools and testers.

More details on page 236

Insert & shell tools

System		Page
9x12 mm	9x12	**223 – 226**
14x18 mm	14x18	**226 – 228**
22x28 mm	22x28	**228, 229**
24.5x28 mm	24,5x28	**229**

Torque multipliers

No	Range	Page
MP100-1500	100–1500 N·m	**232**
MP300	800–5000 N·m	**233**

e.g.
perfectControl 7794-2

Testers & calibration systems

No	Range	Page
SmartCheck	1–800 N·m	**237**
7707 W Torque Tester	0.2–1100 N·m	**238**
7791 / 7792 Manutork	1–3000 N·m	**241 – 243**
7794 perfectControl	1–1000 N·m	**245 – 247**
Accessories		**249 – 251**

Electronics and mechanics: the perfect symbiosis. **TORSIOTRONIC®.**

Made in Germany

TORSIOTRONIC® – this is the name behind the first electromechanical torque screwdriver in the world. The patented trigger system, based on a ball mechanism, trips with audible and tactile signals when the target torque is reached. The tool measures as accurately as only an electronic torque tool can. The fine-tooth ratchet, a wide range of programming options and a micro-USB port make the TORSIOTRONIC the ideal tool when it comes to logging work steps, applying very small torques or following complex tightening sequences.

UNIQUE.

The first electromechanical torque screwdriver on the market – combines the accuracy of electronic measurement with the convenience of the »click« from mechanical trigger mechanisms.

GERMAN DESIGN AWARD GOLD 2020

CLOCKWISE. OR ANTICLOCKWISE.

Whether the tool is set to indicating only or clicking – both modes can be applied clockwise or anticlockwise.

4,5° 80

SENSITIVE.

Integrated ratcheting bit-holder with 80 teeth that provide a particularly small ratchet angle of only 4.5° and thus enable particularly sensitive working – ideal for hard-to-reach fasteners. The 1/4" male square allows the direct application of sockets, while the bit holder supplied allows tightening with screwdriver bits.

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.

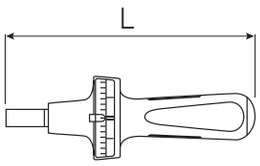
Stores up to 2500 fasteners for reading out and documenting on the PC later by means of the integrated micro-USB port.

Torque 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				mm	L mm	g
51040007	**7.5**	15–75 cN·m	1.5–6.5 in·lb	2.5 cN·m	F 6.3	185	225
51040015	**15**	30–150 cN·m	3–13 in·lb	5 cN·m	F 6.3	185	225
51040030	**30**	60–300 cN·m	6–26 in·lb	10 cN·m	F 6.3	185	230
51040060	**60**	120–600 cN·m	12–52 in·lb	20 cN·m	F 6.3	185	230

5

TORSIOMAX 775

- click-type
- for torque-controlled bolt tightening in the cN·m and in·lb ranges
- for one-off or production runs
- anticlockwise and clockwise tightening
- with 1/4" internal hex drive (F 6.3 DIN 3126/ ISO1173)
- infinitely variable via micrometer scale (twist scale)
- disengaging clutch coupling prevents the preset value being exceeded
- the shape of the handle and its surface texture ensure safe and accurate transmission of torque
- insert tools: For all 1/4" hex E 6.3, Phillips-head screws, POZIDRIV/SUPADRIV®, straight-slot, TORX®, hex bits (see pp. 184)
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 6%**

775 Torque screwdrivers TORSIOMAX

775/3

775/12-30

775/100

Code	size			mm	L mm	g
51060003	**3** [1]	2–30 cN·m	0.2 cN·m	F 6.3	105	55
51060012	**12** [2]	20–120 cN·m	1 cN·m	F 6.3	157	180
51060030	**30** [2]	40–300 cN·m	1 cN·m	F 6.3	160	205
51060050	**50** [2]	100–500 cN·m	2.5 cN·m	F 6.3	205	420
51060100	**100** [3]	400–1000 cN·m	5 cN·m	F 6.3	235	630
51460003	**a/3** [1]	0.2–3 in·lb	0.02 in·lb	F 6.3	105	55
51460012	**a/12** [2]	2–12 in·lb	0.1 in·lb	F 6.3	157	200
51460050	**a/50** [2]	10–50 in·lb	0.25 in·lb	F 6.3	205	440

[1]) with a swivelling handle-end to improve tool control; and with a clamping screw for locking the preset
[2]) with an additional locking mechanism to prevent the selected torque being inadvertently adjusted
[3]) with screw-on handles for increasing the force applied for large torques

TORSIOTRONIC®

- indicating and click-type
- integrated ratcheting bit-holder with 80 teeth that provide a particularly small ratchet angle of only 4.5° and thus enable particularly sensitive working – ideal for hard-to-reach fasteners
- after the tool trips, the slip mechanism prevents the preset tightening torque from being inadvertently exceeded, which protects against overtightening
- clear display of all the relevant information in a bright, battery-saving colour OLED display – readable at almost any angle
- visual assessment of the torqueingπ action by means of the traffic light colours in the display and laterally placed LEDs
- display in a number of languages
- long-lasting battery charge with battery-saving stand-by mode. The rechargeable batteries can be quickly and easily changed.
- stores up to 2500 fasteners and sequences for reading out and documenting on the PC later by means of the integrated micro-USB interface
- the target torque and tolerances can be individually set to evaluate the readings
- easy learning curve thanks to almost self-explanatory controls and an easily understood menu structure
- three operating modes (first peak, track, peak hold)
- tactile, visual and acoustic trigger signals.
- the ergonomically designed convex handle promotes strain-free working and is resistant to oils, grease, fuels, brake fluids and Skydrol
- clockwise and anticlockwise operation
- with 1/4" male square drive (6.3 DIN 3120/ISO 1174-1) for 1/4" sockets
- with 1/4" female square drive in the handle end (6.3 DIN 3120/ISO 1174-1) for attaching a 1/4" T-bar
- units of measure: cN·m, N·m, ft·lb, in·lb, in·oz
- included in the set: SENSOMASTER 4 software, USB cable, bit holder, T-bar handle (size 10)
- supplied with 3.6 V lithium battery, type 18650, packaged according to UN 3480
- patented
- certificate in accordance with DIN EN ISO 6789-2:2017
- in robust plastic case
- **display deviation value ± 4%**

TORSIOTRONIC Electromechanical torque screwdrivers

NEW

80 4.5°

TORSIOTRONIC® 10

Code	size						L mm	g	g with box
96510712	**1.2**	12-120 cN·m	0.12-1.2 N·m	0.08-0.885 ft·lb	1.06-10.7 in·lb	16.9-169.9 in·oz	317	569	1494
96510730	**3**	30-300 cN·m	0.3-3 N·m	0.2-2.3 ft·lb	2.6-26.6 in·lb	42-425 in·oz	317	570	1502
96510760	**6**	60-600 cN·m	0.6-6 N·m	0.4-4.45 ft·lb	5.3-53.1 in·lb	84.5-849.5 in·oz	317	572	1508
96510700	**10**	100-1000 cN·m	1-10 N·m	0.7-7.3 ft·lb	8.8-88.5 in·lb	141-1417 in·oz	317	575	1616
96511712	**1.2**	12-120 cN·m	0.12-1.2 N·m	0.08-0.885 ft·lb	1.06-10.7 in·lb	16.9-169.9 in·oz	317	523	1448
96511730	**3**	30-300 cN·m	0.3-3 N·m	0.2-2.3 ft·lb	2.6-26.6 in·lb	42-425 in·oz	317	524	1456
96511760	**6**	60-600 cN·m	0.6-6 N·m	0.4-4.45 ft·lb	5.3-53.1 in·lb	84.5-849.5 in·oz	317	526	1462
96511700	**10**	100-1000 cN·m	1-10 N·m	0.7-7.3 ft·lb	8.8-88.5 in·lb	141-1417 in·oz	317	529	1570

96 51 17 12 - 96 51 17 00: As for 96 51 07 12 - 96 51 07 00, but without accu **(not hazardous)**

MANOSKOP® 71

223-229

- indicating type
- mount for interchangeable shell tools
- all 14 x 18 mm insert tools can also be used with insert tool adaptor No 7370/80 (max. 650 N·m)
- trailing pointer dial
- twin scales N·m/ft·lb
- scale is made of luminescent light yellow special film enabling clear readings even in poor light conditions
- handle with integrated force compensator
- measuring element is a bending plate housed in the handle
- with overload protection
- can be applied for either clockwise or anticlockwise tightening by turning the wrench over
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Adjustment without disassembly
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag
- **display deviation value ± 4%**

71/80 MANOSKOP® torque wrench with dial gauge and mount for shell tools

Code					mm	b mm	h mm	L mm	L_F mm	S_F mm	g
50030080	160–800 N·m	120–600 ft·lb	10 N·m	10 ft·lb	24,5x28	28	24	1048	1050	95	2300

MANOSKOP® 71 with permanently installed reversible ratchet

- indicating type
- trailing pointer dial
- twin scales N·m/ft·lb
- scale is made of luminescent light yellow special film enabling clear readings even in poor light conditions
- additional protection for the gauge by the protective ring
- handle with integrated force compensator
- not for anticlockwise measurement
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Adjustment without disassembly
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag
- **display deviation value ± 4%**

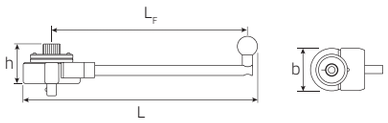
71aR/80 MANOSKOP® torque wrench with dial gauge and permanently installed ratchet

Code					■ "	b mm	h mm	L mm	L_F mm	g
50450080	100–600 ft·lb	160–800 N·m	10 ft·lb	10 N·m	3/4	70	30	1152	1060	4900

Friction gauge

- indicating type
- permanently installed square drive for clockwise use
- trailing pointer dial
- no "needle wobble" during measurements
- lighter construction due to use of aluminium
- certificate in accordance with DIN EN ISO 6789-2:2017
- **display deviation value ± 4%**

73Nm/15 Friction gauge



Code			■ "	b mm	h mm	L mm	L_F mm	g
50240015	2-15 N·m	0.5 N·m	1/2	72	50	298.5	250	676

Industrial MANOSKOP® 755

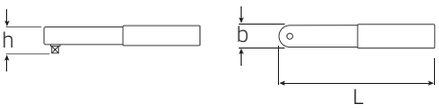
For work on production lines or series production. No setting scale; have to be set with testers such as the STAHLWILLE No 7707 W, SmartCheck tester or the No 7794, No 7706 calibration system.

- click-type
- mount for interchangeable insert tools (755/4-30)
- dual stop signal
- particularly light and easy to handle
- handle and shank are made of square tubular steel
- any force applied to the tool after the 'click' or applied in the opposite direction to the current function (up to the maximum of the wrench's range) does not act on the trigger mechanism and cannot cause damage to it
- anticlockwise torquing thanks to swap-over insert tools
- on request with preset cut-out value (surcharge 10%)
- **display deviation value ± 4%**

223-229

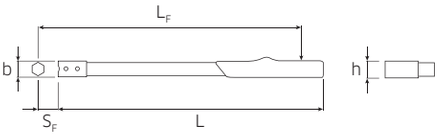
755R/1 Series MANOSKOP® torque wrench with permanently installed ratchet

- measurements independent of the point of application of force



Code			■ "	b mm	h mm	L mm	g
50100001	1.5-12.5 N·m	1.0-9.0 ft·lb	1/4	22	18	173.5	335

755 Series MANOSKOP® torque wrenches with mount for insert tools



Code	size			mm	b mm	h mm	L mm	L_F mm	S_F mm	g
50010004	**4**	4-40 N·m	4-30 ft·lb	9x12	22	18	201	172	17.5	500
50010010	**10**	20-100 N·m	15-74 ft·lb	9x12	28	24	318	289	17.5	635
50010020	**20**	40-200 N·m	30-147 ft·lb	14x18	28	24	457	435	25	1045
50010030	**30**	60-300 N·m	40-220 ft·lb	14x18	28	24	609	587	25	1210

Versatile and quick.
MANOSKOP® 730 Quick.

Made in Germany

Anyone in need of a mechanical torque wrench that can be quickly set for the next operation will find the MANOSKOP® 730 Quick the ideal helper. Thanks to its flexible range of 4 – 650 N·m and the interchangeable insert tools (9 x 12 mm, 14 x 18 mm and 22 x 28 mm), the MANOSKOP® Quick is remarkably versatile – and quicker then ever: as a result of the much improved ergonomics and accessibility to the essential controls, the target torque is set in seconds.

EXACT.

The design, with opposing V-shaped »sights« and an integrated magnifier, facilitates fast, accurate setting even at an awkward reading angle. With a Vernier scale in N·m/ft·lb or N·m/in·lb.

PROTECTED.

The internal mechanism is extremely resistant to mechanical wear and well protected against dirt and soiling inside the outer housing.

FAST.

Rapid setting thanks to the easy-action locking lever in the handle. Ergonomically designed, non-slip adjuster with a thumb recess for fast, safe setting of the slider.

WEAR-RESISTANT.

Wear resistant trigger system with a flexible rod. In contrast to conventional torque wrenches, it is not necessary to reset the wrench to zero after each job to unload the spring. In this way, users benefit from long-term accuracy and safe measurement results with less time required.

SAFE.

QuickRelease safety lock guarantees secure locking of insert tools on sizes 5 – 65 and fast removal.

COMPACT.

Compact and space-saving, the MANOSKOP® 730 Quick torque wrenches are available in sizes 2 and 4. They feature the same measuring and trigger technology as their »big brother«, and are just as precise and reliable.

SIMPLE.

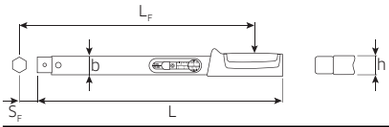
Quick adjustment from outside, no disassembly of the torque wrench required, with two adjustment points for the maximum & minimum values.

Service MANOSKOP® 730

- click-type
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- mount for interchangeable insert/shell tools
- QuickRelease safety lock (sizes 5–65)
- rapid setting thanks to easy-action locking lever in the handle (sizes 5–65)
- ergonomically designed, non-slip adjuster with a thumb recess
- magnifying glass integrated in the display window
- optimised convex handle for strain-free working
- dual stop signal
- twin scales N·m/ft·lb and N·m/in·lb (sizes 5–80)
- on request also available as an N·m-only version without twin scale (sizes 5-65)
- 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%**

223-229

730 Quick Service MANOSKOP® torque wrenches with mount for insert tools

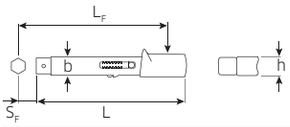


Code	size					mm	b mm	h mm	L mm	L_F mm	S_F mm	g
50184005	**5**	6–50 N·m	5–36 ft·lb	2 N·m	1 ft·lb	9x12	28	23	315	288	17.5	780
50184010	**10**	20–100 N·m	15–72.5 ft·lb	2.5 N·m	2.5 ft·lb	9x12	28	23	370	343	17.5	936
50184012	**12**	25–130 N·m	20–95 ft·lb	2.5 N·m	2.5 ft·lb	14x18	28	23	410	390	25	1074
50184020	**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** [1][2]	130–650 N·m	100–480 ft·lb	20 N·m	20 ft·lb	14x18	30.6	25.6	875	855	25	3192
50184565	**II/65** [2]	130–650 N·m	100–480 ft·lb	20 N·m	20 ft·lb	22x28	30.6	25.6	897	907	55	4104
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

[1]) recommended ratchet insert tool No 735/40HD
[2]) supplied in textile bag

730 Quick Service MANOSKOP® torque wrenches with tool carrier for insert tools

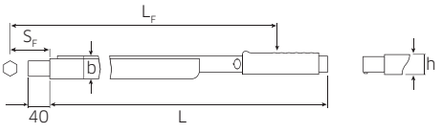
NEW



Code	size			mm	b mm	h mm	L mm	L_F mm	S_F mm	g
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

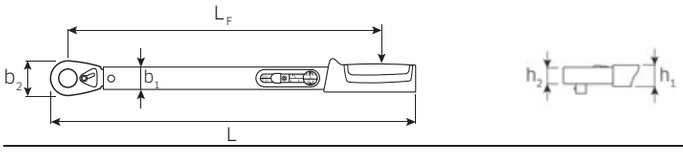


Code					mm	b mm	h mm	L mm	L_F mm	S_F mm	g
50180080	160–800 N·m	120–600 ft·lb	20 N·m	20 ft·lb	24,5x28	46	43	970	990	95	4925

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

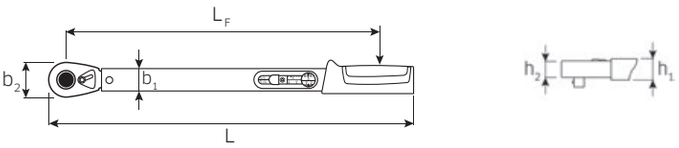


Code	size					■ "	b_1 mm	b_2 mm	h_1 mm	h_2 mm	L mm	L_F mm	g
50 20 40 05	**5**	6–50 N·m	5–36 ft·lb	2 N·m	1 ft·lb	3/8	28	27.5	23	14.5	352	293	880
50 20 40 15	**15**	30–150 N·m	25–110 ft·lb	5 N·m	5 ft·lb	1/2	28	41	23	18	452	387	1282
50 20 40 20	**20**	40–200 N·m	30–145 ft·lb	5 N·m	5 ft·lb	1/2	28	41	23	18	483	418	1349
50 20 40 30	**30**	60–300 N·m	50–220 ft·lb	10 N·m	10 ft·lb	1/2	28	44	23	27.5	553	486	1646

size 30 with push through square drive for anticlockwise torquing (spare square drive, refer to page 235)

721QR Quick — Standard MANOSKOP® torque wrenches with permanently installed QuickRelease ratchet

QR



Code	size					■ "	b_1 mm	b_2 mm	h_1 mm	h_2 mm	L mm	L_F mm	g
50 20 41 15	**15**	30–150 N·m	25–110 ft·lb	5 N·m	5 ft·lb	1/2	28	41	23	18	452.5	387	1268
50 20 41 20	**20**	40–200 N·m	30–145 ft·lb	5 N·m	5 ft·lb	1/2	28	41	23	18	482	416.5	1338

721QR/20/3/1 Quick — Wheel-fitting set

QR

- in sturdy plastic box

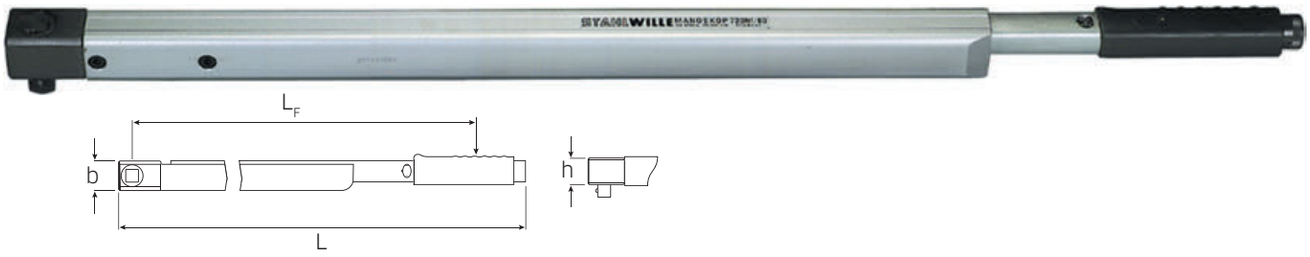
Content 5 pieces:
1 standard MANOSKOP® No 721QR/20 Quick, 40-200 N·m, 30 - 150 ft·lb, with permanently installed QuickRelease ratchet, reversible, 1/2" ■-drive
3 wheel nut sockets No 51IMP K, sizes 17 (green), 19 (blue), 20.8 mm (red)
1 extension No 509QR/5, 130 mm

Code	g
96 50 72 14	2818

Standard MANOSKOP® 720Nf/721Nf

- click-type
- easy setting
- dual stop signal
- twin scales N·m/ft·lb
- anticlockwise torquing thanks to swap-over square drive
- all the sensitive components are protected by the sturdy tubular steel housing in the U-shaped aluminium profile
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Readjustment does not require disassembly.
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag
- **display deviation value ± 4%**

720Nf/80 Standard MANOSKOP® torque wrench with permanently installed square drive



Code					■ "	b mm	h mm	L mm	L_F mm	g
50190081	160–800 N·m	120–600 ft·lb	20 N·m	20 ft·lb	3/4	45	42	1034	938	5650

721Nf Standard MANOSKOP® torque wrenches with permanently installed ratchet

721Nf/80

721Nf/100

Code	size					■ "	b_1 mm	b_2 mm	h mm	L mm	L_F mm	g
50200081	**80**	160–800 N·m	120–600 ft·lb	20 N·m	20 ft·lb	3/4	46.5	76	42	1051	938	6380
96502001	**100**	200–1000 N·m	150–725 ft·lb	25 N·m	25 ft·lb	3/4	46.5	76	42	1504	1365	7010

730R/40/32 Quick Torque wrench set

- in steel case
- for general service work

Content 32 pieces:
1 Service-MANOSKOP®
No 730/40 Quick, 80-400 N·m
1 ratchet insert tool
No 735/20, reversible, 1/2" ■-drive
1 square drive insert tool
No 734/20, 1/2" ■-drive
7 open ended insert tools
No 731/40: 13; 15; 17; 19; 22; 27; 30 mm
1 open ended insert tool
No 3731/40, 24 mm
7 ring insert tools
No 732/40: 13; 15; 17; 19; 22; 24; 27 mm
10 sockets, bi-hexagon No 50:
13; 14; 15; 17; 19; 22; 24; 27; 30; 32 mm
4 accessories, 1/2" O-drive:
- 1 T-handle No 506
- 1 extension No 509/10, 255 mm
- 1 extension No 509/5, 130 mm
- 1 extension No 509/2, 55 mm

code	g	
96502053	9739	1

This is how to achieve the correct tightening torque –
even if you are using inserts with an extension

When you tighten fasteners using inserts whose extension length S deviates from the standard length S_F, it is necessary to recalculate the setting/display value for the torque wrench in use.

Caution! If adapters are combined with inserts or special tools, use the sum of the extensions = Σ S. Where the special tool is angled to the side, W_K will have to be determined empirically.

$$W_K = \frac{M_A \cdot L_F}{L_K} \left[\frac{N{\cdot}m \cdot mm}{mm}\right]$$

$$W_K = \frac{M_A \cdot L_F}{L_F - S_F + S \text{ (or } \Sigma S)}$$

M_A = desired tightening torque

W = reading/setting W = M_A

W_K = adjusted reading or setting value $W_K \neq M_A$

L_F = functional length (see dimension table for torque wrenches)

L_K = adjusted functional length $L_K = L_F - S_F + S$ (or Σ S)

S = extension of STAHLWILLE inserts or special tools (see dimension table for inserts)

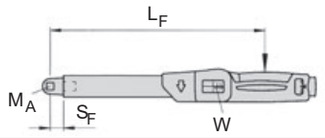
S_F = standard extension (see dimension table for torque wrenches)

ΣS = total of all extensions of the attached inserts $S_{adapter} + S_{insert} + \ldots$

Normal situation

Torque wrench No 730N/10 combined with
square drive insert tool No 734/5 and socket size 13 mm.
Required tightening torque for the screw M_A = 40 N·m

Dimension table for torque wrenches: L_F = 336 mm, S_F = 17.5 mm
Dimension table for square drive insert tools: S = 17.5 mm



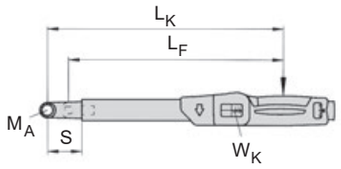
No adjustment to setting value required on torque wrench.

→ S = S_F
→ W = M_A

Example 1: adjusted setting value (1 insert tool)

Torque wrench No 730N/20 combined with
ring insert tool No 732/40 size 36 mm
Required tightening torque for the screw M_A = 190 N·m

Dimension table for torque wrenches: L_F = 424.5 mm, S_F = 25 mm
Dimension table for ring insert tools: S = 28 mm



And this is what it looks like in the catalogue:

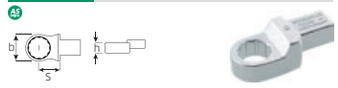
730N **Service MANOSKOP® torque wrenches with mount for insert tools**

- mount for interchangeable insert tools
- QuickRelease safety lock
- can be applied for either clockwise or anticlockwise tightening by turning the inserts over
- **display deviation value ± 3% (size 2; a/2 4 %)**

Code	size					Fine scale	mm	b mm	h mm	L mm	L_F mm	S_F mm	g
50181102	**2**	4-20 N·m	40-180 in·lb	1 N·m	10 in·lb	0.2 N·m	9x12	28	23	275	226	17.5	737
50181005	**5**	10-50 N·m	7-37 ft·lb	5 N·m	1 ft·lb	0.25 N·m	9x12	28	23	330	280.5	17.5	831
50181010	**10**	20-100 N·m	15-75 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	9x12	28	23	386	336	17.5	988
50181012	**12**	25-130 N·m	20-95 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	14x18	28	23	421	379	25	1128
50181020	**20**	40-200 N·m	30-150 ft·lb	10 N·m	5 ft·lb	1 N·m	14x18	28	23	467	424.5	25	1264
50181040	**40**	80-400 N·m	60-300 ft·lb	20 N·m	10 ft·lb	2 N·m	14x18	28	23	607	564.5	25	1655
50181065	**65** *	130-650 N·m	100-480 ft·lb	50 N·m	20 ft·lb	2.5 N·m	14x18	30.6	25.6	890	848	25	3231
50181365	**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

732/40 **Ring insert tools**

A9



Code	mm	mm	b mm	h mm	S mm	g
58224013	**13**	14x18	22.5	11	25	130
58224014	**14**	14x18	23	11	25	123
58224015	**15**	14x18	24	11	25	128
58224016	**16**	14x18	25.5	12	25	133
58224017	**17**	14x18	27	12	25	135
58224018	**18**	14x18	29	13	25	134
58224019	**19**	14x18	30.5	13	25	145
58224021	**21**	14x18	33	15	25	144
58224022	**22**	14x18	34.5	15	25	145
58224024	**24**	14x18	37.5	15	25	153
58224027	**27**	14x18	42.5	17	25	162
58224028	**28**	14x18	45.5	19	25	175
58224030	**30**	14x18	46	19	25	182
58224032	**32**	14x18	47.5	19	25	181
58224034	**34**	14x18	52	19	28 *	210
58224036	**36**	14x18	54	19	28 *	203

$$W_K = \frac{M_A \cdot L_F}{L_F - S_F + S} = \frac{190 \text{ N·m} \cdot 424.5 \text{ mm}}{424.5 \text{ mm} - 25 \text{ mm} + 28 \text{ mm}} = \frac{190 \text{ N·m} \cdot 424.5 \text{ mm}}{427.5 \text{ mm}} = \mathbf{188.7 \text{ N·m}}$$

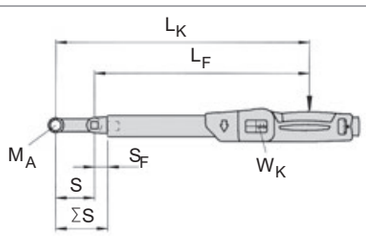
Adjusted setting value W_K = 188.7 N·m
→ value to set 189 N·m

→ S ≠ S_F
→ W ≠ M_A

Example 2: adjusted reading (insert tool and adapter)

Torque wrench No 730N/10 combined with
square drive insert tool No 734/5 and adapter No 447 size 10 mm
Required tightening torque for the screw M_A = 25 N·m

Dimension table for torque wrenches: L_F = 336 mm, S_F = 17.5 mm
Dimension table for square drive insert tools: S_F = 17.5 mm
Dimension table for adapters: ΣS = 50.8 mm



$$W_K = \frac{M_A \cdot L_F}{L_F - S_F + \Sigma S} = \frac{25 \text{ N·m} \cdot 336 \text{ mm}}{336 \text{ mm} - 17.5 \text{ mm} + 17.5 \text{ mm} + 50.8 \text{ mm}} = \frac{25 \text{ N·m} \cdot 336 \text{ mm}}{386.8 \text{ mm}}$$

Adjusted setting value W_K = 21.7 N·m

→ ΣS ≠ S_F
→ W ≠ M_A

Strong and highly talented.
MANOSKOP® 730N.

Made in Germany

The mechanical MANOSKOP® 730N torque wrench features an extremely wide range and is suitable for accurate application up to 1000 N·m. Its QuickSelect technology makes setting the target torque particularly easy – and very accurate. Unlock, set and lock the control knob in the end of the handle. The audible and tactile mechanism and the fine adjustment ring scale simplify setting.

CLICKING.

When the target torque is reached, MANOSKOP® 730N provides a noticeable tactile dual stop signal.

Square drive for use with insert tools in a range of formats (9 x 12 mm, 14 x 18 mm and 22 x 28 mm).

USER FRIENDLY.

Accurate QuickSelect one-handed setting – quick & easy control using the knob at the end of the handle. Unlock. Set. Lock.

UNCOMPLICATED.

Quick adjustment from outside, no disassembly of the torque wrench required, with two adjustment points for the maximum & minimum values.

QR

SAFE.

The QuickRelease safety interlock guarantees secure linking but quick release for changing the insert tools.

WEAR-RESISTANT.

Wear resistant trigger system with a flexible rod. In contrast to conventional torque wrenches, it is not necessary to reset the wrench to zero after each job to unload the spring. In this way, users benefit from long-term accuracy and safe measurement results with less time required.

CLEAR VIEW.

Easy-to-read dual scale with colour differentiation between the N·m and ft.lb scales to simplify fine setting.

Service MANOSKOP® 730N

- click-type
- the measuring element is only under load while force is being applied, no need for manual reset to zero
- fast, accurate setting thanks to QuickSelect quick-action adjuster
- dual stop signal
- easy-to-read double scale with colour coding to differentiate between N·m/ft·lb and ft·lb/in·lb scales
- any force applied to the tool after the 'click' or applied in the opposite direction to the current function – e.g. forcible loosening of a jammed screw -does not act on the trigger mechanism and cannot cause damage to it
- two-component handle with ergonomically designed green softer layers (resistant to oils, grease, fuels, brake fluids and skydrol)
- calibration using perfectControl® calibrating unit No 7794 or calibration system No 7706. Readjustment does not require disassembly.
- certificate in accordance with DIN EN ISO 6789-2:2017
- supplied in textile bag (from size 65)
- registered design

730N Service MANOSKOP® torque wrenches with mount for insert tools

- mount for interchangeable insert tools
- QuickRelease safety lock

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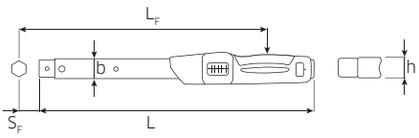
- can be applied for either clockwise or anticlockwise tightening by turning the inserts over
- **display deviation value ± 3% (size 2; a/2 4 %)**



730N/10

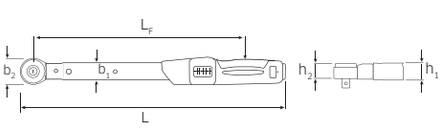
730N/80

Code	size					Fine scale	mm	b mm	h mm	L mm	L_F mm	S_F mm	g
50 18 11 02	**2**	4-20 N·m	40-180 in·lb	1 N·m	10 in·lb	0.2 N·m	9x12	28	23	275	226	17.5	737
50 18 10 05	**5**	10-50 N·m	7-37 ft·lb	5 N·m	1 ft·lb	0.25 N·m	9x12	28	23	330	280.5	17.5	831
50 18 10 10	**10**	20-100 N·m	15-75 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	9x12	28	23	386	336	17.5	988
50 18 10 12	**12**	25-130 N·m	20-95 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	14x18	28	23	421	379	25	1128
50 18 10 20	**20**	40-200 N·m	30-150 ft·lb	10 N·m	5 ft·lb	1 N·m	14x18	28	23	467	424.5	25	1264
50 18 10 40	**40**	80-400 N·m	60-300 ft·lb	20 N·m	10 ft·lb	2 N·m	14x18	28	23	607	564.5	25	1655
50 18 10 65	**65 ***	130-650 N·m	100-480 ft·lb	50 N·m	20 ft·lb	2.5 N·m	14x18	30.6	25.6	890	848	25	3231
50 18 13 65	**II/65**	130-650 N·m	100-480 ft·lb	50 N·m	20 ft·lb	2.5 N·m	22x28	30.6	25.6	911	900	55	3504
50 18 10 80	**80**	160-800 N·m	120-600 ft·lb	100 N·m	25 ft·lb	5 N·m	22x28	30.6	25.6	1178	1167	55	4825
50 18 11 00	**100**	200-1000 N·m	150-750 ft·lb	100 N·m	25 ft·lb	5 N·m	22x28	30.6	25.6	1363	1352	55	5000
50 58 11 02	**a/2**	40-180 in·lb	3-15 ft·lb	10 in·lb	0.5 ft·lb	2 in·lb	9x12	28	23	275	226	17.5	737
50 58 10 05	**a/5**	90-450 in·lb	7-37 ft·lb	50 in·lb	1 ft·lb	2.5 in·lb	9x12	28	23	330	280.5	17.5	831
50 58 10 10	**a/10**	180-900 in·lb	15-75 ft·lb	100 in·lb	2.5 ft·lb	5 in·lb	9x12	28	23	386	336	17.5	988
50 58 10 20	**a/20**	350-1800 in·lb	30-150 ft·lb	100 in·lb	5 ft·lb	10 in·lb	14x18	28	23	467	424.5	25	1264
50 58 10 40	**a/40**	60-300 ft·lb	800-3600 in·lb	20 ft·lb	100 in·lb	2 ft·lb	14x18	28	23	607	564.5	25	1655

* recommended ratchet insert tool No 735/40HD

730NR Service MANOSKOP® torque wrenches with permanently installed fine-tooth ratchet

- in sturdy plastic box (size 65 in steel box)
- **deviation of indication ± 4%**

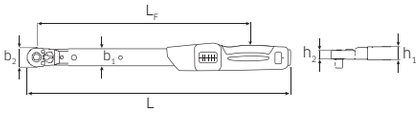


Code	size					Fine scale	■ "	b_1 mm	b_2 mm	h_1 mm	h_2 mm	L mm	L_F mm	g	g with box
96 50 31 05	**5 FK**	10-50 N·m	7-37 ft·lb	5 N·m	1 ft·lb	0.25 N·m	3/8	28	33	23	24	364	280.5	973	1763
96 50 31 10	**10 FK**	20-100 N·m	15-75 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	1/2	28	33	23	24	420	336.5	1146	1934
96 50 31 20	**20 FK**	40-200 N·m	30-150 ft·lb	10 N·m	5 ft·lb	1 N·m	1/2	28	43	23	26	513.5	425	1583	2370
96 50 21 40	**40 FK**	80-400 N·m	60-300 ft·lb	20 N·m	10 ft·lb	2 N·m	3/4	28	50	23	31.5	657	564.5	2122	2657
96 50 22 65	**65 FK-HD**	130-650 N·m	100-480 ft·lb	50 N·m	20 ft·lb	2.5 N·m	3/4	30.6	58	25.6	36	944	848	3698	6188

730NR Service MANOSKOP® torque wrenches with permanently installed fine-tooth ratchet

QR

- in sturdy plastic box
- with QuickRelease safety lock
- **deviation of indication ± 4%**



Code	size					Fine scale	■	b_1	b_2	h_1	h_2	L	L_F		g
							"	mm	mm	mm	mm	mm	mm	g	with box
96 50 21 05	**5QR FK**	10–50 N·m	7–37 ft·lb	5 N·m	1 ft·lb	0.25 N·m	3/8	28	29	23	14.5	372.5	291	961	1386
96 50 21 10	**10QR FK**	20–100 N·m	15–75 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	1/2	28	29	23	14.5	428.5	346.5	1129	1554
96 50 21 20	**20QR FK**	40–200 N·m	30–150 ft·lb	10 N·m	5 ft·lb	1 N·m	1/2	28	41	23	18	526	438.5	1589	2014

Service MANOSKOP® 730 Fix

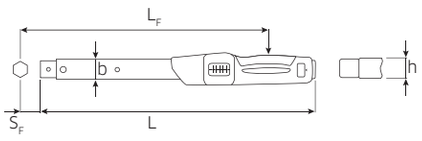
- for daily use in series production
- the setting knob can be unscrewed after the target has been set – making inadvertent changes to the settings impossible
- the TORX® TAMPER-RESISTANT locking screw supplied with the tool also protects against unwanted manipulation the adhesive seals supplied offer a further level of security. It is not possible to adjust the setting without breaking the seal

730 Fix Service MANOSKOP® torque wrenches with mount for insert tools

- 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 ± 3%**



Code	size					Fine scale	mm	b	h	L	L_F	S_F	g	g
								mm	mm	mm	mm	mm		with box
96 50 30 05	**5**	10–50 N·m	7–37 ft·lb	5 N·m	1 ft·lb	0.25 N·m	9x12	28	23	330	280.5	17.5	828	1632
96 50 30 10	**10**	20–100 N·m	15–75 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	9x12	28	23	386	336	17.5	986	1788
96 50 30 12	**12**	25–130 N·m	20–95 ft·lb	10 N·m	2.5 ft·lb	0.5 N·m	14x18	28	23	421	379	25	1124	1928
96 50 30 20	**20**	40–200 N·m	30–150 ft·lb	10 N·m	5 ft·lb	1 N·m	14x18	28	23	467	424.5	25	1266	1890
96 50 30 40	**40**	80–400 N·m	60–300 ft·lb	20 N·m	10 ft·lb	2 N·m	14x18	28	23	607	564.5	25	1666	2444
96 50 30 65	**65 ***	130–650 N·m	100–480 ft·lb	50 N·m	20 ft·lb	2.5 N·m	14x18	30.6	25.6	890	848	25	3242	6500
96 50 34 65	**II/65**	130–650 N·m	100–480 ft·lb	50 N·m	20 ft·lb	2.5 N·m	22x28	30.6	25.6	911	900	55	3490	7000
96 50 30 80	**80**	160–800 N·m	120–600 ft·lb	100 N·m	25 ft·lb	5 N·m	22x28	30.6	25.6	1178	1167	55	4794	10500
96 50 31 00	**100**	200–1000 N·m	150–750 ft·lb	100 N·m	25 ft·lb	5 N·m	22x28	30.6	25.6	1363	1352	55	5196	11000
96 58 30 05	**a/5**	90–450 in·lb	7–37 ft·lb	50 in·lb	1 ft·lb	2.5 in·lb	9x12	28	23	330	280.5	17.5	832	1638
96 58 30 10	**a/10**	180–900 in·lb	15–75 ft·lb	100 in·lb	2.5 ft·lb	5 in·lb	9x12	28	23	386	336	17.5	988	1790
96 58 30 20	**a/20**	350–1800 in·lb	30–150 ft·lb	100 in·lb	5 ft·lb	10 in·lb	14x18	28	23	467	424.5	25	1066	2072
96 58 30 40	**a/40**	60–300 ft·lb	800–3600 in·lb	20 ft·lb	100 in·lb	2 ft·lb	14x18	28	23	607	564.5	25	1670	2614

* recommended ratchet insert tool No 735/40HD

TRIPLE SAFETY.

The setting knob can be unscrewed after the target has been set – making inadvertent changes to the settings impossible.

The TORX® TAMPER-RESISTANT locking screw supplied with the tool also protects against unwanted manipulation.

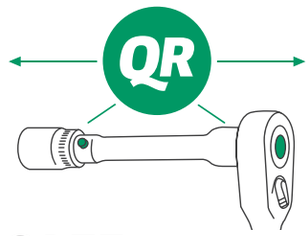
The adhesive seals supplied offer a further level of security. It is not possible to adjust the setting without breaking the seal.

Small fits all.
SENSOTORK® 701.

Made in Germany

Working in confined spaces – and with very low torques? SENSOTORK® 701 is designed specifically for such cases. With its compact design and permanently installed fine-tooth ratchet, precise fastener tightening is no problem even in very tight spaces. The electronic torque wrench shows torques from 1 to 20 N·m with a display deviation of only ± 4% – and in combination with the SENSOMASTER software, the SENSOTORK® 701 can also be used with full logging capability.

5



SAFE.

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

COMPACT.

With a compact length of only 21 cm, it is ideally suited to safe, accurate work in confined spaces.

VERSATILE.

For torques from 1 to 20 N·m – the ideal choice for bolt tightening on modern materials such as plastic, carbon and aluminium, for state-of-the-art bicycles with carbon frames, for example.

INTUITIVE.

The required mode of operation (track, peak hold, user (fastener evaluation)) can be quickly and easily set using the single-button setting system.

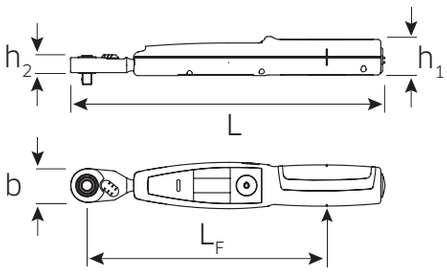
EFFICIENT.

Eighty teeth provide a tight ratchet angle of only 4.5° – facilitating efficient working in confined spaces. In contrast to conventional fine-tooth ratchets, no less than eight teeth engage at once here, ensuring maximum load capacity and, at the same time, smooth action and durability.

701/2 Electronic torque wrench SENSOTORK® with permanently installed fine-tooth ratchet

QR

- indicating
- slim, compact shape for smaller torques from 1 N·m upwards
- measuring units: N·m, cN·m, ft·lb, in·lb
- measurements independent of the point of application of force
- additional functions using SENSOMASTER 4 software (not included, free download at www.stahlwille.de):
  - adjustable joints
  - evaluation of tightening operation by means of coloured LEDs, buzzer and vibration
  - calibrating interval adjustable
  - logging function
- supplied with 3.6 V lithium battery, type 14500, packed in accordance with UN3091, Class 9
- calibration in conjunction with perfectControl® calibrating unit No 7794 or complete calibration system No 7706. Readjustment does not require disassembly
- certificate in accordance with DIN EN ISO 6789-2:2017
- in sturdy plastic box
- **display deviation value ± 4%**



Code					■ "	b mm	h_1 mm	h_2 mm	L mm	L_F mm	g	g with box
96504502	1-20 N·m	100-2000 cN·m	0.7-15 ft·lb	9-180 in·lb	¼	22.6	26	10	210	160	145	710
96504602	1-20 N·m	100-2000 cN·m	0.7-15 ft·lb	9-180 in·lb	¼	22.6	26	10	210	160	132	700

96 50 46 02 - As for 96 50 45 02, but without battery **(not hazardous)**

7761/3 Interface adaptor set

required for automated calibration and adjustment using calibrating and adjusting units perfectControl® No 7794-2 and 7794-3.

Contents:
- No 7761 interface adaptor
- No 7752 spiral cable
- No 7760 mains adaptor

Code	g
96521161	255

5

Note!

**Torque tightening tools are measuring instruments.
They must be regularly calibrated with suitable instruments and adjusted accordingly (refer to DIN EN ISO 6789-1, 5.3 Conformance test during use and DIN EN ISO 6789-2, 4.1 Calibration during use).**

A stroke of genius – with a logging function.
MANOSKOP® 730D.

Made in Germany

Tool owners wishing to combine the benefits of precision digital technology with the tried-and-tested mechanical torque wrench need look no further than the MANOSKOP® 730D. The patented electromechanical release triggers when the target torque is reached – and indicates this with a definite tactile signal and an audible click. In addition, the LC display gives a visual evaluation of the tightening action using different colours.

IDEAL.

After clicking, the MANOSKOP® 730D indicates the torque actually applied. As a result, the user has the opportunity to optimise his/her working methods.

Square drive for use with a wide range of different insert tools, including the 22 x 28 mm system for especially high torques.

ELECTROMECHANICAL.

The MANOSKOP® 730D has an electromechanical release and, in this way, combines precise, electronic measurement with the comforting, perceptible tactile signal when the target torque is reached.

OPTIONAL.

STAHLWILLE's optional SENSOMASTER software facilitates programming electronic torque wrenches and enables stored data to be read out.

QR

SAFE.

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

CONNECTING YOU NOW...

The stored tightening torques can be read out via the USB interface and then evaluated and documented in conjunction with the SENSOMASTER 4 software.

ERGONOMICALLY REFINED.

The 2-component grip lies comfortably in the hand even after several tightening actions due to its soft zone, but it is still resistant to oils, grease, fuels, brake fluids and Skydrol.

READER-FRIENDLY.

The LC display is easy to read and evaluates the fastener visually by means of coloured displays. All settings can be made quickly and easily using the keyboard, which uses only four keys.

Service work & series production MANOSKOP® 730D – indicating and click-type

- 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

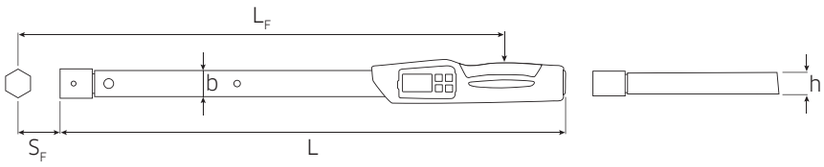
223-229

- 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 N·m	ft·lb	in·lb	mm	b mm	h mm	L mm	L_F mm	S_F mm	g	g with box
96501710	**10**	10-100 N·m	7.4-75 ft·lb	90-900 in·lb	0.2/0.1	0.2/0.1	2/1.0	9x12	28	23	467	426.5	17.5	1085	1510
96501720	**20**	20-200 N·m	15-150 ft·lb	180-1800 in·lb	0.5/0.1	0.5/0.1	5/1.0	14x18	28	23	548	515	25	1361	1896
96501740	**40**	40-400 N·m	30-300 ft·lb	360-3600 in·lb	1.0/0.1	1.0/0.1	10/1.0	14x18	28	23	688	655	25	3300	5155
96501765	**65** *	65-650 N·m	48-480 ft·lb	580-5800 in·lb	1.0/0.1	1.0/0.1	10/1.0	14x18	30.6	25.6	870	837	25	3300	6000
96501965	**II/65**	65-650 N·m	48-480 ft·lb	580-5800 in·lb	1.0/0.1	1.0/0.1	10/1.0	22x28	30.6	25.6	892	889	55	3224	7500
96502080	**80**	80-800 N·m	60-600 ft·lb	720-7200 in·lb	1.0/1.0	1.0/1.0	10/1.0	22x28	30.6	25.6	1160	1157	55	4577	10500
96502100	**100**	100-1000 N·m	74-750 ft·lb	900-9000 in·lb	1.0/1.0	1.0/1.0	10/1.0	22x28	30.6	25.6	1344	1341	55	4995	11000

* recommended ratchet insert tool No 735/40HD

730DR Service/series MANOSKOP® torque wrenches with reversible ratchet insert tool

730DR/20

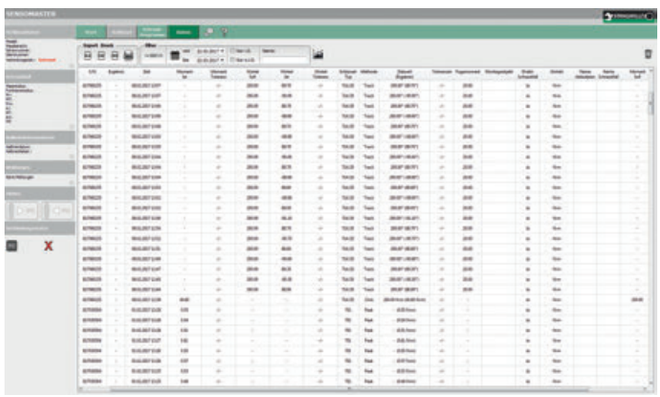
730DR/100

Code	size				Setting/display resolution N·m	ft·lb	in·lb	■ "	mm	L mm	g	g with box
96501810	**10**	10–100 N·m	7.4–75 ft·lb	90–900 in·lb	0.2/0.1	0.2/0.1	2/1.0	1/2	9x12	501	1232	1657
96501820	**20**	20–200 N·m	15–150 ft·lb	180–1800 in·lb	0.5/0.1	0.5/0.1	5/1.0	1/2	14x18	595	1663	2198
96501840	**40**	40–400 N·m	30–300 ft·lb	360–3600 in·lb	1.0/0.1	1.0/0.1	10/1.0	3/4	14x18	738	2232	4722
96501865	**65**	65–650 N·m	48–480 ft·lb	580–5800 in·lb	1.0/0.1	1.0/0.1	10/1.0	3/4	14x18	975	3767	6530
96502065	**II/65**	65–650 N·m	48–480 ft·lb	580–5800 in·lb	1.0/0.1	1.0/0.1	10/1.0	3/4	22x28	977	3994	9000
96501880	**80**	80–800 N·m	60–600 ft·lb	720–7200 in·lb	1.0/0.1	1.0/0.1	10/1.0	3/4	22x28	1255	6492	12500
96501800	**100**	100–1000 N·m	74–750 ft·lb	900–9000 in·lb	1.0/0.1	1.0/0.1	10/1.0	3/4	22x28	1439	6910	12500

7759-5 USB hub, jack cable and SENSOMASTER 4 software

- SENSOMASTER 4 - one software package for all electronic torque wrenches from STAHLWILLE
- self-explanatory thanks to intuitive GUI with clearly organised tabbed layout
- quick and easy programming for electronic torque wrenches
- enables comprehensive evaluations, for example in connection with quality assurance
- read out stored wrench data and joint readings:
  - joint identifier
  - tool serial number
  - date and time of tightening operation
  - target torque or target angle
  - torque level at which the tool cuts out
  - tightening torque or angle reached
  - tolerances
  - joint evaluation
- storage of joint data in a database
- delete or print highlighted joints from the database
- export displayed joint data to a range of file formats (*.XLS,*.CSV,*.ODG)
- user management
- define new PIN
- delete joint data stored in wrench

System requirements:
- PC
- from Microsoft Windows XP on
- USB connection



Code	L m	g
96583630	1.5	65

7751 Jack cable

- with jacks at both ends, 90° angled

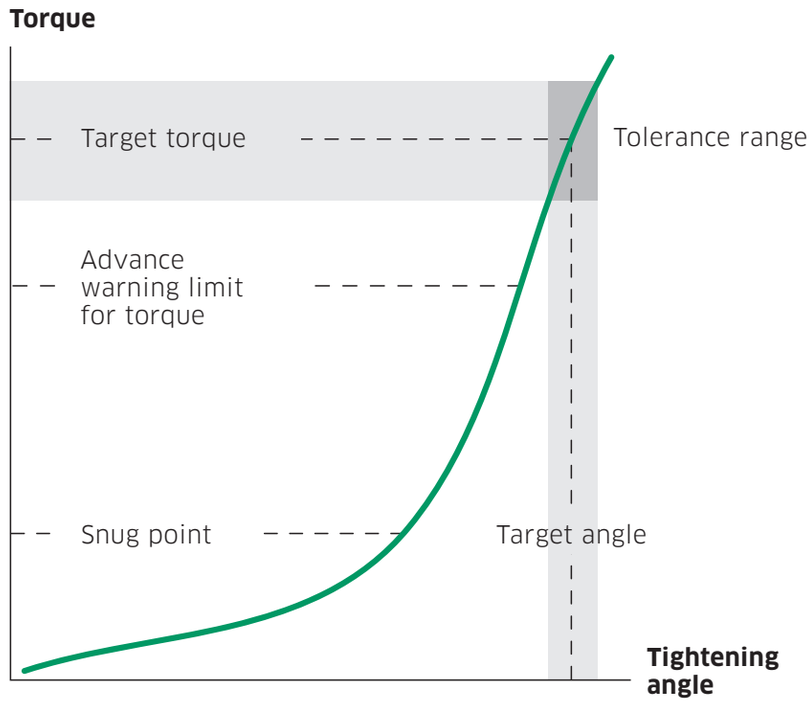
Code	L m	g
52110051	1.5	50

7757-1 USB adaptor

Code	g
52111057	10

For absolute accuracy.
STAHLWILLE torque angle/torque wrenches.

For high-accuracy applications – Category A bolted connections, for example – just checking the torque is not enough. As well as the torque, it is crucial to tighten to the correct tightening angle.



The torque reading specifies how much force was applied to tighten a fastener. For many applications, this is perfectly good enough. However, in certain cases, the additional measure of accuracy is an essential requirement. The tightening force that is generated between the workpieces in a bolted joint has to be exactly adhered to: if the force is too great, there is a risk of breakage. If it is too low, on the other hand, the connection will not be firm enough and may lead to failure in the assembly under normal operation conditions. Since the tension is dependent on the tightening torque and the angle, measuring equipment that can measure both quantities exactly is required. For applications of this kind, STAHLWILLE has precisely the solutions industry needs.

MANOSKOP® 714
» 216

SENSOTORK® 713R
» 220

ACCURATE.

Accuracy counts – uncertainty is reduced to a minimum to guarantee accurate readings.

EFFICIENT.

Easily readable displays and automatic switch-over to angle-controlled measurement once the target tightening torque has been reached – key features in efficient, safe work practice.

SAFE.

Increased fastener quality – including the angle of turn as the second measured quantity makes the bolted joint even more secure.

AUDITED.

All our angle-controlled torque wrenches have a logging function. Using the corresponding software (this is an optional extra), it is possible to read out programmed, stored readings and archive them on the PC – for example by the serial number of the tool, date and timestamp of the tightening operation, target torque and angle and the torques and angles actually recorded.

ECONOMICAL.

Thanks to the considerably extended measuring ranges, every angle-controlled torque wrench can replace as many as four mechanical torque wrenches (two indicating and two clicking), which simultaneously reduces the costs of maintenance, calibration and adjustment. All these models are suitable for clockwise and anticlockwise tightening.

Simply special.
MANOSKOP® 714.

Made in Germany

As an electromechanical torque wrench, the MANOSKOP® 714 delivers the best of both worlds. Users benefit from precise, electronic tracking, but also feel and hear the familiar »click« of mechanical torque wrenches. The result of the tightening action is evaluated visually on the high-resolution OLED display and lateral LEDs and is indicated acoustically. The menu is intuitive to use and can be freely configured. As one would expect, the MANOSKOP® 714 is capable of logging tightening actions, indicates in both anticlockwise and clockwise directions and clicks in a clockwise direction.

5

ACCURATE.

Display deviation value ± 2% for torque and ± 1% for angle. All readings are independent of the point of application of force (with sizes 1, 2 and 4).

Optional rechargeable lithium-ion batteries with 2600 mAh and a corresponding charger cradle ensure the tool is always ready for use.

MADE TO MEASURE.

Four measuring modes (torque, angle, torque backed up by angle, angle backed up by torque).

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.

CONNECTING YOU NOW...

Micro-USB interface for quick connection to a PC.

VERSATILE.

Three function modes: first peak, peak (indicating mode) and track (indicating mode).

SIMPLE.

Smooth-action bayonet connection on battery compartment. Can optionally be equipped with Li-Ion battery 7195-2.

INDIVIDUAL.

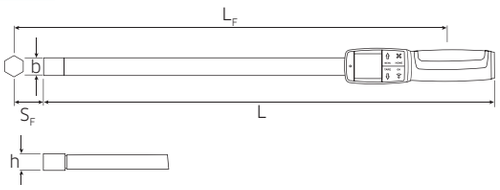
Individually configurable menus. Includes SENSOMASTER software for easy configuration of the tool.

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 223-229
- 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**

714 MANOSKOP® tightening angle torque wrenches with mount for insert tools

product design award 2013



714/2

714/20

714/80

Code	size				mm	b mm	h mm	L mm	L_F mm	S_F mm	g	g with box
96500901	**1**	1–10 N·m	0.7–7.5 ft·lb	9–90 in·lb	9x12	28	23	226	188	17.5	370	795
96500902	**2**	2–20 N·m	1.5–15 ft·lb	18–180 in·lb	9x12	28	23	226	188	17.5	380	805
96500904	**4**	4–40 N·m	3–30 ft·lb	36–360 in·lb	9x12	28	23	252	214	17.5	420	845
96500906	**6**	6–60 N·m	4.5–45 ft·lb	54–540 in·lb	9x12	28	23	393	355	17.5	810	1235
96500910	**10**	10–100 N·m	7.4–75 ft·lb	90–900 in·lb	9x12	28	23	466	428	17.5	1085	1655
96500920	**20**	20–200 N·m	15–150 ft·lb	180–1800 in·lb	14x18	28	23	547	516	25	1361	1896
96500940	**40**	40–400 N·m	30–300 ft·lb	360–3600 in·lb	14x18	28	23	687	656	25	1765	5155
96500965	**65**	65–650 N·m	48–480 ft·lb	580–5800 in·lb	22x28	30.6	25.6	890	890	55	3222	7000
96500980	**80**	80–800 N·m	60–600 ft·lb	720–7200 in·lb	22x28	30.6	25.6	1158	1158	55	4572	10400
96501100	**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

714R/2

714R/20

714R/80

Code	size				■ "	mm	L mm	g	g with box
96501001	**1**	1–10 N·m	0.7–7.5 ft·lb	9–90 in·lb	1/4	9x12	269	432	857
96501002	**2**	2–20 N·m	1.5–15 ft·lb	18–180 in·lb	1/4	9x12	269	442	867
96501004	**4**	4–40 N·m	3–30 ft·lb	36–360 in·lb	1/4	9x12	295	482	907
96501006	**6**	6–60 N·m	4.5–45 ft·lb	54–540 in·lb	3/8	9x12	427	965	1390
96501010	**10**	10–100 N·m	7.4–75 ft·lb	90–900 in·lb	1/2	9x12	500	1232	1657
96501020	**20**	20–200 N·m	15–150 ft·lb	180–1800 in·lb	1/2	14x18	594	1663	2198
96501040	**40**	40–400 N·m	30–300 ft·lb	360–3600 in·lb	3/4	14x18	737	2275	5665
96501065	**65**	65–650 N·m	48–480 ft·lb	580–5800 in·lb	3/4	22x28	980	5137	9000
96501080	**80**	80–800 N·m	60–600 ft·lb	720–7200 in·lb	3/4	22x28	1253	6487	12300
96501100	**100**	100–1000 N·m	73–735 ft·lb	885–8850 in·lb	3/4	22x28	1438	6905	12500

7195-2 Li-ion battery for No 714

- max. charge voltage 4.2 V
- capacity 2600 mAh
- hazardous goods: Rechargeable Li-ion battery according to UN 3480, Class 9

Code	g
54101195	74

7160 Charging dock for Li-ion battery No 7195-2

- including charger
- Input: 100 V-240 V AC
- Output: 4.2 V DC
- charge duration: 4 hrs.
- with interchangeable socket adaptors

Code	g
54100060	440

7761/3 Interface adaptor set

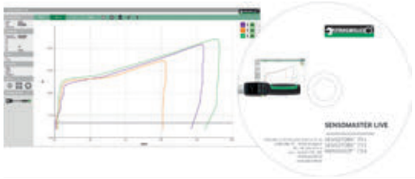
required for automated calibration and adjustment of angle-controlled torque wrench No 714 using calibrating and adjusting units perfectControl® No 7794-2 and 7794-3.

Contents:
- No 7761 interface adaptor
- No 7752 spiral cable
- No 7760 mains adaptor

Code	g
96521161	255

7732-2 SENSOMASTER Live software

- record torqueing operations with the MANOSKOP® 714, SENSOTORK® 713R (from 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	g
96585235	111

7762 Docking station for No 714

- stationary base for securely connecting angle-controlled torque wrench No 714 to a PC via a USB port

Code	g
52110062	440

7762-1 Rest for docking station No 762

- for securely supporting long angle-controlled torque wrenches No 714 from size 6 up

Code	g
52110162	475

The torque angle specialist.
SENSOTORK® 713R.

Made in Germany

When it comes to prescribed tightening using the torque angle, SENSOTORK® 713R is the ideal tool. This tightening angle torque wrench for clockwise and anticlockwise operation boasts a particularly flexible measuring range and measures the angle and torque applied irrespective of the point of application of force. In this way it prevents human error. In addition, there is a display deviation of only ± 1° for the angle of rotation and ± 1% for the torque.

5

EXACT.

With a display deviation value of only ± 1%, the SENSOTORK® 713R is the champion in the STAHLWILLE range.

Easy extension setting. Where the insert tool requires an extension adjustment, simply enter the new value – recalculation using formulae is not necessary.

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

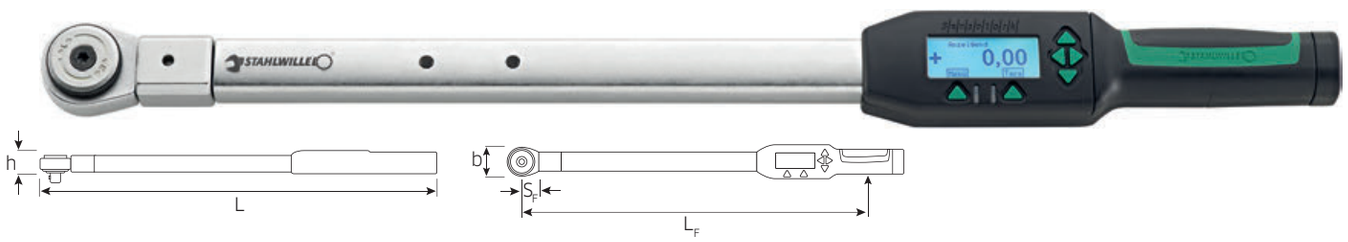
- simple, flexible operation thanks to operator guidance on large-format display
- very broad measuring range (5% to 100% of rated value)
- supplied with insert tool reversible ratchet
- more insert tools
- QuickRelease safety lock
- for clockwise and anticlockwise torquing
- measurements independent 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

223-229

- repeated joints can be collated to form a single menu-guided sequence
- tightening jobs are stored with a timestamp
- individual identification markings possible
- password protection to prevent inadvertent changes and make the tool tamper-proof
- meets requirements of DKD-R 3-7, Class 2
- with 2 certificates (torque in accordance with DIN EN ISO 6789-2:2017/angle)
- in sturdy plastic box (size 40 in tough steel box)
- supplied with two 1.5 V AA batteries. AA/LR6, 1.2 V NiMH rechargeable cells may also be used
- fully automated calibration (torque) using perfectControl® calibrating unit No 7794-2. Readjustment does not require disassembly.
- registered design
- **display deviation value ± 1%**

713R Electronic SENSOTORK® tightening angle torque wrenches with reversible ratchet insert tool

- torque and angle are simultaneously visible
- convenient angle measurement across a very wide angle range
- **display deviation value, angle ±1%, ±1 digit**



Code	size			■ "	mm	b mm	h mm	L mm	L_F mm	S_F mm	g	g with box
96501606	**6**	3–60 N·m	2.5–44 ft·lb	3/8	9x12	33	24	378	299	17.5	856	1500
96501620	**20**	10–200 N·m	7–148 ft·lb	1/2	14x18	43	26	608	524	25	1552	2430
96501640	**40**	20–400 N·m	15–296 ft·lb	3/4	14x18	50	31.5	838	750	25	2332	5555

712R/6 Electronic SENSOTORK® torque wrench with reversible ratchet insert tool

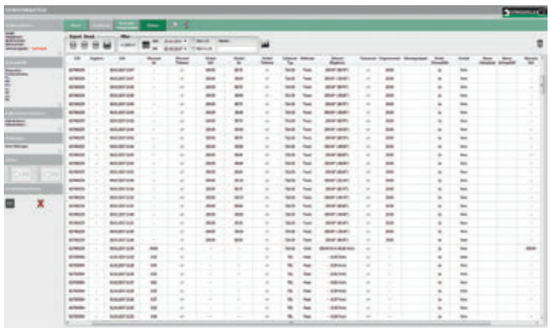
Code			■ "	mm	b mm	h mm	L mm	L_F mm	S_F mm	g	g with box
96501506	3–60 N·m	2.5–44 ft·lb	3/8	9x12	33	24	378	299	17.5	856	1500

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 m	g
96583630	1.5	65

7751 Jack cable

- connection between transducers 7721-7724 and USB adaptor or display unit
- with jacks at both ends, 90° angled

Code	L m	g
52110051	1.5	50

7757-1 USB adaptor

Code	g
52111057	10

7301/7302 Plastic box, empty

- for safe storage and transport of torque wrenches (please order inlays separately)
- supplied without torque wrench

Code	No	for torque wrenches No	L mm	g
81370002	**7301**	712R/6; 713R/6; 714/1-10; 721/5-20 Quick; 730/5-20 Quick; 730/5-20 Fix; 730N/5-20; 730D/10	550	425
81370003	**7302**	713R/20; 714/20; 721/30 Quick; 730/40 Quick; 730/40 Fix; 730N/40; 730D/20	680	535

7303/7304 Inlays for plastic box

Code	No	for torque wrenches No	g
83071004	**7303**	712R/6; 713R/6; 721/5-20 Quick; 730/5-20 Quick; 730/5-20 Fix; 730N/5-20; 730D/10	60
83071002	**7304**	713R/20; 721/30 Quick; 730/40 Quick; 730/40 Fix; 730N/40; 730D/20	81

TWBE 65-100 Textile bags for larger torque wrenches

- for safe storage and transport of large torque wrenches

Code	No	for torque wrenches No	g
81231100	**TWBE 65**	714/65; 730/65 Quick; 730II/65 Quick; 730N/65; 730NII/65; 730/65 Fix; 730II/65 Fix; 730D/65; 730DII/65	670
81231101	**TWBE 80**	714/80; 71/80; 71aR/80; 720Nf/80; 721Nf/80; 730/80; 730D/80	714
81231102	**TWBE 100**	714/100; 730N/80; 730/80 Fix; 730N/100; 730D/100	760
81231103	**TWBE 721NF/100**	721Nf/100	850

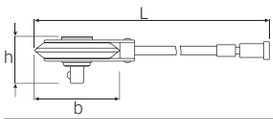
7396 LED lighting

- for torque wrenches
- if light is poor, simply attach this LED lamp to illuminate the work site
- included in the delivery is a 1.5 V micro battery
- supplied without torque wrench

Code	for torque wrenches No	g
54010004	712R/6; 713R/6-40; 714/6-40; 721/5-30 Quick; 730/5-40 Quick; 730/5-40 Fix; 730N/5-40; 730D/10-40	55

7380N/7385N Torque angle gauges

- for angle controlled bolt/screw tightening, with static read-off point
- read-off possible from any angle thanks to a pair of angled scales
- removable magnet for attaching sockets with 1/2" internal square drive
- for use in conjunction with tightening tools such as service MANOSKOP® No 730N
- since this tightening method requires a pre-determined snug torque to be applied, it is essential to choose a torque wrench covering both snug torque as well as maximum torque required to reach the recommended tightening angle
- whether 1/2" or 3/4" square drive torque angle gauge is used depends upon the square drive of the appropriate torque wrench employed



code	No	○ "	■ "			b mm	h mm	L mm	g
54010001	**7380N**	1/2	1/2	± 360°	2°	78	43	416	505
54010002	**7385N**	3/4	3/4	± 360°	2°	78	76	416	720

7161 QuickRelease safety lock

- prevents insert tools being swapped
- the system is locked in place on the head of the torque wrench by means of a safety screw
- once the protection system has been fitted, it is possible to attach an insert tool but not to remove it because the QuickRelease unlock button itself is locked
- after the safety screw has been removed, the torque wrench reverts to being a standard, versatile tool
- the safety screw can be fitted and removed using a TORX® screwdriver with a central bore in the tip (No 4656, size T20, Code 46 56 00 20) or a bit screwdriver insert with a central bore in the tip (No 1442, size T20, Code 08 16 00 20)

Code	size	for torque wrenches No	g
54100070	**1**	714/1-4	4
54100071	**2**	712R/6; 713R/6; 714/6-10; 730/10 Quick; 730/10 Fix; 730N/10; 730D/10	5
54100072	**3**	713R/20-40; 714/20-40; 730/12-40 Quick; 730/12-40 Fix; 730N/12-40; 730D/20-40	11
54100073	**4**	730/5 Quick; 730/5 Fix; 730N/5	2
54100074	**5**	714/65-100; 730II/65; 730II/65 Quick; 730II/65 Fix; 730/80-100 Fix; 730NII/65; 730N/80-100; 730DII/65; 730D/80-100	30

for other torque wrenches on request

1299 ⬢ Bit

- for inside hexagon screws
- for operating the adjusting screws on torque wrenches No 720, 721, 721 Quick, 730, 730 Quick, 730N, 730 Fix

Code	mm	⬢	"	L mm	g	
08090002	2	C 6.3	1/4	34	4	10

outside ⬢ DIN 3126/ISO 1173

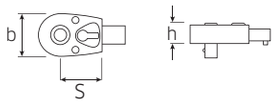
Insert/shell tools for torque wrenches

Output square drive ■ in accordance with DIN 3120. Long-term loading of the input and output square drive is in accordance with DIN EN ISO 6789. This limit must not be exceeded if larger torque wrenches and tool holders are used.

725QR QuickRelease ratchet insert tools

QR

- reversible
- with QuickRelease safety lock
- size 4: 22 teeth
- sizes 5 and 10: 30 teeth

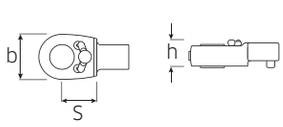


Code	size	■ "	mm	b mm	h mm	S mm	max. N·m	g
58253004	**4**	1/4	9x12	22	13.8	17.5	40	50
58253005	**5**	3/8	9x12	29	18	28*	100	130
58253010	**10**	1/2	9x12	29	18	28*	100	141

* Caution! Modified settings on torque wrench (refer to note on p. 201)

725B Bit ratchet insert tool

- reversible
- with inside hexagon, 1/4" or 5/16", DIN 3126/ISO 1173 D 6.3 or D8
- for direct acceptance of bits 1/4" or 5/16" outside hexagon C 6.3 (size 4: 22 teeth, size 5: 30 teeth)
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

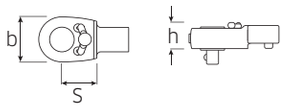


Code	size	○ "	mm	b mm	h mm	S mm	g
58255004	**4**	1/4	9x12	22	13.6	17.5	54
58255005	**5**	5/16	9x12	29	17.9	28*	117

* Caution! Modified settings on torque wrench (refer to note on p. 201)

725/4 Ratchet insert tool

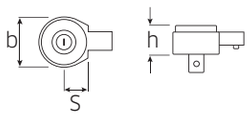
- reversible
- 22 teeth



Code	■ "	mm	b mm	h mm	S mm	max. N·m	g
58254004	1/4	9x12	22	13.8	17.5	40	62

735 Ratchet insert tools, fine tooth

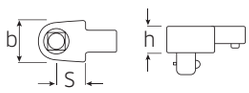
- reversible
- 60 teeth



Code	size	■ "	mm	b mm	h mm	S mm	max. N·m	g
58250005	**5**	3/8	9x12	33	24	17.5	100	150
58250010	**10 ***	1/2	9x12	33	24	17.5	100	147

* on request also available as a clockwise-only ratchet

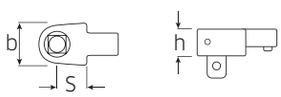
734 Square drive insert tools



Code	size	■ "	mm	b mm	h mm	S mm	max. N·m	g
58240004	**4**	1/4	9x12	20	14	17.5	40	71
58240005	**5**	3/8	9x12	20	14	17.5	80	76
58240010	**10**	1/2	9x12	20	14	17.5	100	82

734F Square drive insert tools

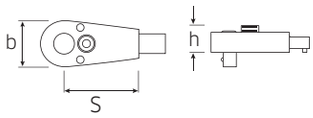
- with permanently attached, captive square drive



Code	size	■ "	mm	b mm	h mm	S mm	g
58241004	**4**	1/4	9x12	22	14	17.5	72
58241005	**5**	3/8	9x12	22	14	17.5	75

725L/5 Ratchet insert tool

- reversible
- 30 teeth
- Caution! Modified settings on torque wrench (refer to note on p. 201)

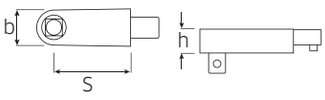


Code	■ "	mm	b mm	h mm	S mm	max. N·m	g
58151005	3/8	9x12	27.5	19.6	45	100	164

5

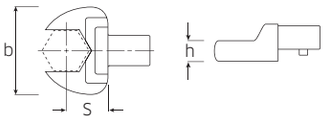
734L/5 Square drive insert tool

Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	■ "	mm	b mm	h mm	S mm	max. N·m	g
58242005	3/8	9x12	20	14	45	80	141

731/10 Open ended insert tools



Code	mm	mm	b mm	h mm	S mm	g
58211007	**7**	9x12	22	5	17.5	40
58211008	**8**	9x12	22	5	17.5	39
58211009	**9**	9x12	26	5.5	17.5	38
58211010	**10**	9x12	26	5.5	17.5	42
58211011	**11**	9x12	26	5.5	17.5	41
58211012	**12** [1]	9x12	30	7	17.5	43
58211013	**13**	9x12	30	7	17.5	45
58211014	**14**	9x12	35	8	17.5	52
58211015	**15**	9x12	35	8	17.5	51
58211016	**16**	9x12	38	8.5	17.5	58
58211017	**17**	9x12	38	8.5	17.5	60
58211018	**18**	9x12	42	9	20*	71
58211019	**19**	9x12	42	9	20*	74

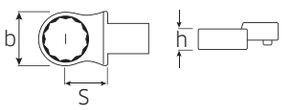
[1]) for flare nuts of hydraulic pipes on French vehicles
* Caution! Modified settings on torque wrench (refer to note on p. 201)

731a/10 Open ended insert tools

Code	"	mm	b mm	h mm	S mm	g
58611016	1/4	9x12	22	5	17.5	36
58611020	5/16	9x12	22	5	17.5	53
58611024	3/8	9x12	26	5.5	17.5	38
58611028	7/16	9x12	26	5.5	17.5	37
58611032	1/2	9x12	30	7	17.5	44
58611034	9/16	9x12	35	8	17.5	49
58611036	5/8	9x12	38	8.5	17.5	64
58611038	11/16	9x12	42	9	20*	76
58611040	3/4	9x12	42	9	20*	73

* Caution! Modified settings on torque wrench (refer to note on p. 201)

732/10 Ring insert tools



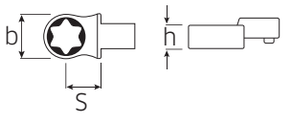
Code	mm	mm	b mm	h mm	S mm	g
58221007	**7**	9x12	13	8	17.5	37
58221008	**8**	9x12	14.2	8	17.5	40
58221010	**10**	9x12	17.2	9	17.5	44
58221011	**11**	9x12	18.5	9	17.5	41
58221012	**12**	9x12	20.5	11	17.5	49
58221013	**13**	9x12	21.5	11	17.5	55
58221014	**14**	9x12	22.5	11	17.5	52
58221015	**15**	9x12	24.5	12	17.5	52
58221016	**16**	9x12	26	12	17.5	54
58221017	**17**	9x12	27	13	17.5	59
58221018	**18**	9x12	28	13	17.5	56
58221019	**19**	9x12	30.5	13	17.5	65
58221021	**21**	9x12	33	15	17.5	71
58221022	**22**	9x12	34.5	15	17.5	74

732a/10 Ring insert tools

Code	"	mm	b mm	h mm	S mm	g
58621016	1/4	9x12	13	8	17.5	36
58621020	5/16	9x12	14.2	8	17.5	37
58621024	3/8 [1]	9x12	17.2	9	17.5	37
58621028	7/16	9x12	18.5	9	17.5	40
58621032	1/2	9x12	21.5	11	17.5	53
58621034	9/16	9x12	22.5	11	17.5	52
58621036	5/8	9x12	26	12	17.5	54
58621038	11/16	9x12	28	13	17.5	58
58621040	3/4	9x12	30.5	13	17.5	58
58621042	13/16	9x12	33	15	17.5	68
58621044	7/8	9x12	34.5	15	17.5	69

[1]) for Volvo aero-engines. types "JAS"

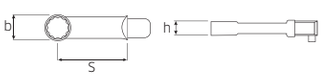
732TX/10 TORX® insert tools



Code	size	mm	b mm	h mm	S mm	g
58291006	**E6**	9x12	13	8	17.5	40
58291008	**E8**	9x12	14.2	8	17.5	45
58291010	**E10**	9x12	17.2	9	17.5	45
58291012	**E12**	9x12	18.5	9	17.5	50
58291014	**E14**	9x12	21.5	11	17.5	60

732G/10 Ring insert tools

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



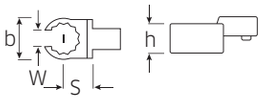
Code	mm	mm	b mm	h mm	S mm	g
58620007	**7**	9x12	11.5	6	45	31
58620008	**8**	9x12	12.4	6	45	33
58620009	**9**	9x12	14	8	45	44
58620010	**10**	9x12	15.6	8	45	45
58620013	**13**	9x12	19.3	9.2	45	60

732aG/10 Ring insert tools

- for assembling and dismantling aero-engines
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)

Code	"	mm	b mm	h mm	S mm	g
58621216	**1/4**	9x12	10.4	6	45	28
58621220	**5/16**	9x12	12.4	6	45	31
58621224	**3/8**	9x12	14.9	8	45	42
58621228	**7/16**	9x12	17	8	45	43
58621232	**1/2**	9x12	19	9.2	45	58
58621234	**9/16**	9x12	21	9.2	45	58
58621236	**5/8**	9x12	23	12	45	74

733/10 Open ring insert tools



Code	mm	mm	b mm	h mm	S mm	W mm	g
58231010	**10**	9x12	21.5	11	17.5	7.1	57
58231011	**11**	9x12	22.5	11	17.5	8.6	55
58231012	**12**	9x12	24.5	12	17.5	9	59
58231013	**13**	9x12	26	12	17.5	10	55
58231014	**14**	9x12	27	13	17.5	11	60
58231016	**16**	9x12	30.5	13	17.5	13	65
58231017	**17**	9x12	31.5	13	17.5	14	64
58231018	**18**	9x12	33	15	17.5	14.8	74
58231019	**19**	9x12	34	15	17.5	15.8	70
58231021	**21**	9x12	38.5	15	20*	16.2	88
58231022	**22**	9x12	39.5	15	20*	17	92
58231024	**24**	9x12	40	15	20*	18	75

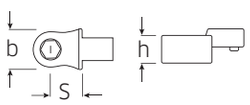
* Caution! Modified settings on torque wrench (refer to note on p. 201)

733a/10 Open ring insert tools

Code	"	mm	b mm	h mm	S mm	W mm	g
58631024	**3/8**	9x12	21.5	11	17.5	7.1	55
58631028	**7/16**	9x12	22.5	11	17.5	8.6	56
58631032	**1/2**	9x12	26	12	17.5	9.5	58
58631034	**9/16**	9x12	27.5	13	17.5	11	59
58631036	**5/8**	9x12	30.5	13	17.5	12.7	61
58631038	**11/16**	9x12	33	15	17.5	14	48
58631040	**3/4**	9x12	34	15	17.5	15.8	76

736 Bit holder insert tools

- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ ISO 1173)

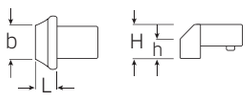


Code	size	○	"	mm	b mm	h mm	S mm	g
58261010	**10**	D 8	5/16	9x12	16	12.5	17.5	47
58262610	**10-1**	D 6.3	1/4	9x12	14	10	17.5	45

inside ○ DIN 3126/ISO 1173

737/10 Blank end insert tool

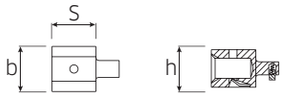
- gunmetal finish
- to prevent damage from excessive temperatures, the locking pin, spring and washer are not fitted until the welding work has been completed
- instructions are supplied
- material: 1.2208 - 31CRV3



Code	Welding surface h x b mm	mm	H mm	L mm	g
58270010	8 x 14	9x12	14.5	8	35

7370/10 Adaptor

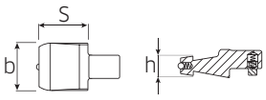
- for using insert tools with an outer square drive of 14 x 18 mm on torque wrenches with an internal square drive of 9 x 12 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	■ mm	○ mm	b mm	h mm	S mm	g
58290010	9x12	14x18	31	26	30.5	118

7370/10-2 Adaptor

- for use with insert tools with a lateral dovetail profile in torque wrenches with 9 x 12 mm internal square drives
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	■ mm	b mm	h mm	S mm	g
58290012	9x12	23.5	9.5	24	51

1820 Tool holder

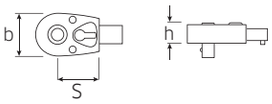
- with tool carrier to receive insert/shell tools (without torque function)

Code	mm	L mm	g
18200001	9x12	382.5	490

725QR/20 QuickRelease ratchet insert tool

QR

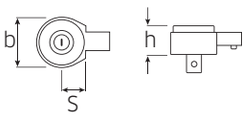
- reversible
- with QuickRelease safety lock
- 36 teeth
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	size	■ "	mm	b mm	h mm	S mm	max. N·m	g
58253020	**20**	1/2	14x18	41	22.3	38.5	200	325

735 Ratchet insert tools, fine tooth

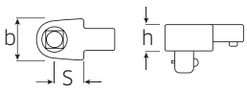
- reversible
- 60 teeth



Code	size	■ "	mm	b mm	h mm	S mm	max. N·m	g
58250020	**20**	1/2	14x18	43	26	25	300	302
58250040	**40**	3/4	14x18	50	31.5	25	400	515
58250065	**40HD**	3/4	14x18	58	36	30 *	650	725

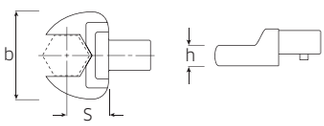
on request also available as a clockwise-only ratchet
* Caution! Modified settings on torque wrench (refer to note on p. 210)

734 Square drive insert tools



Code	size	■ "	mm	b mm	h mm	S mm	max. N·m	g
58240020	**20**	1/2	14x18	27	18	25	300	205
58240040	**40**	3/4	14x18	40	25	25	650	396

731/40 Open ended insert tools



Code	mm	mm	b mm	h mm	S mm	g
58214013	**13**	14x18	30	7	25	128
58214014	**14**	14x18	35	8	25	129
58214015	**15**	14x18	35	8	25	132
58214016	**16**	14x18	38	9	25	140
58214017	**17**	14x18	38	9	25	130
58214018	**18**	14x18	42	10	25	147
58214019	**19**	14x18	42	10	25	140
58214021	**21**	14x18	50	11	25	171
58214022	**22**	14x18	50	11	25	165
58214024	**24**	14x18	53	12	25	167
58214025	**25**	14x18	53	12	25	170
58214027	**27**	14x18	60	13	30 *	219
58214030	**30**	14x18	66	14	30 *	275
58214032	**32**	14x18	66	14	32.5 *	246
58214034	**34**	14x18	66	14	32.5 *	239
58214036	**36**	14x18	74	15	32.5 *	275
58214038	**38**	14x18	74	15	32.5 *	265
58214041	**41**	14x18	82	15	36.5 *	307

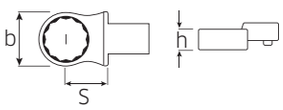
* Caution! Modified settings on torque wrench (refer to note on p. 201)

731a/40 Open ended insert tools

Code	"	mm	b mm	h mm	S mm	g
58614028	**7/16**	14x18	30	7	25	127
58614032	**1/2**	14x18	30	7	25	125
58614034	**9/16**	14x18	35	8	25	129
58614036	**5/8**	14x18	38	9	25	136
58614038	**11/16**	14x18	42	10	25	148
58614040	**3/4**	14x18	42	10	25	144
58614042	**13/16**	14x18	50	11	25	171
58614044	**7/8**	14x18	50	11	25	165
58614046	**15/16**	14x18	53	12	25	177
58614048	**1**	14x18	60	13	30 *	224
58614052	**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



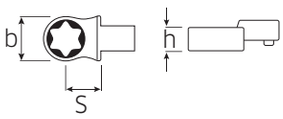
Code	mm	mm	b mm	h mm	S mm	g
58 22 40 13	**13**	14x18	22.5	11	25	130
58 22 40 14	**14**	14x18	23	11	25	123
58 22 40 15	**15**	14x18	24	11	25	128
58 22 40 16	**16**	14x18	25.5	12	25	133
58 22 40 17	**17**	14x18	27	12	25	135
58 22 40 18	**18**	14x18	29	13	25	134
58 22 40 19	**19**	14x18	30.5	13	25	145
58 22 40 21	**21**	14x18	33	15	25	144
58 22 40 22	**22**	14x18	34.5	15	25	145
58 22 40 24	**24**	14x18	37.5	15	25	153
58 22 40 27	**27**	14x18	42.5	17	25	162
58 22 40 28	**28**	14x18	45.5	19	25	175
58 22 40 30	**30**	14x18	46	19	25	182
58 22 40 32	**32**	14x18	47.5	19	25	181
58 22 40 34	**34**	14x18	52	19	28 *	210
58 22 40 36	**36**	14x18	54	19	28 *	203
58 22 40 41	**41**	14x18	60	20	30 *	240

* Caution! Modified settings on torque wrench (refer to note on p. 201)

732a/40 Ring insert tools

Code	"	mm	b mm	h mm	S mm	g
58 62 40 32	**1/2**	14x18	22.5	11	25	122
58 62 40 34	**9/16**	14x18	23	11	25	122
58 62 40 36	**5/8**	14x18	25.5	12	25	134
58 62 40 38	**11/16**	14x18	29	13	25	132
58 62 40 40	**3/4**	14x18	30.5	13	25	138
58 62 40 42	**13/16**	14x18	33	15	25	142
58 62 40 44	**7/8**	14x18	34.5	15	25	147
58 62 40 46	**15/16**	14x18	37.5	15	25	151
58 62 40 48	**1**	14x18	41	17	25	160

732TX/40 TORX® insert tools



Code	size	mm	b mm	h mm	S mm	g
58 29 40 14	**E14**	14x18	22.5	11	25	130
58 29 40 18	**E18**	14x18	24	11	25	135
58 29 40 20	**E20**	14x18	29	13	25	150
58 29 40 24	**E24**	14x18	30.5	13	25	150

736/40 Bit holder insert tool

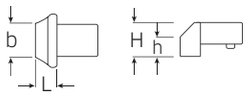
- internal hex drive with a collar-thrust spring
- bits are easy to insert, lock securely in position and can be removed just as easily; even hex bits with a wide groove (Type E, DIN 3126/ISO 1173)

code	○	○ "	mm	b mm	h mm	S mm	g
58 26 10 40	D 8	5/16	14x18	16	12.5	25	114

inside ○ DIN 3126/ISO 1173

737/40 Blank end insert tool

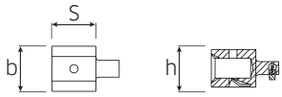
- gunmetal finish
- to prevent damage from excessive temperatures, the locking pin, spring and washer are not fitted until the welding work has been completed
- instructions are supplied
- material: 1.2208 - 31CRV3



Code	Welding surface h x b mm	mm	H mm	L mm	g
58 27 00 40	11 x 25	14x18	21.5	12	98

7370/40 Adaptor

- for using insert tools with an outer square drive of 9 x 12 mm on torque wrenches with an internal square drive of 14 x 18 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)



code	■ mm	○ mm	b mm	h mm	S mm	g
58 29 00 40	14x18	9x12	28	21	21.5	117

7370/40-1 Adaptor

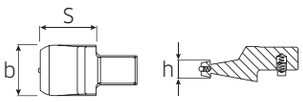
- for using shell tools with an internal square drive of 24.5 x 28 mm on torque wrenches with an internal square drive of 14 x 18 mm
- Caution! Modified settings on torque wrench (refer to note on p. 201)

Code	■ mm	■ mm	L mm	g
58 29 00 41	14x18	24,5x28	66	251

5

7370/40-2 Adaptor

- for use with insert tools with a lateral dovetail profile in torque wrenches with 14 x 18 mm internal square drives
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	■ mm	b mm	h mm	S mm	g
58290042	14x18	31.5	9.5	34.6	138

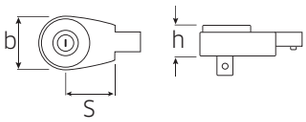
1821 Tool holder

- with tool carrier to receive insert/shell tools (without torque function)

Code	mm	L mm	g
18210001	14x18	575	720

735/65 Ratchet insert tool, fine tooth

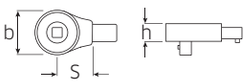
- reversible
- 60 teeth
- load capacity up to 650 N·m
- for size 65 torque wrenches



Code	■ "	mm	b mm	h mm	S mm	g
58251065	3/4	22x28	61	35	55	1115

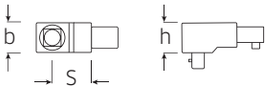
735/100 Ratchet insert tool

- with push through square drive
- 30 teeth



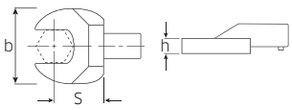
Code	■ "	mm	b mm	h mm	S mm	g
58250100	3/4	22x28	76	42	55	1893

734/100 Square drive insert tool



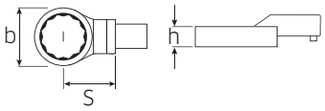
Code	■ "	mm	b mm	h mm	S mm	g
58240100	3/4	22x28	43	42	55	1175

731/100 Open ended insert tools



Code	mm	mm	b mm	h mm	S mm	g
58211024	**24**	22x28	50	13	55	618
58211027	**27**	22x28	56	14	55	640
58211030	**30**	22x28	63	15	55	690
58211032	**32**	22x28	67	15	55	705
58211034	**34**	22x28	72	15	55	731
58211036	**36**	22x28	74	15	55	713
58211041	**41**	22x28	84	16	55	894
58211046	**46**	22x28	94	17	55	934
58211050	**50**	22x28	104	18	55	1073
58211055	**55**	22x28	114	19	55	1172
58211060	**60**	22x28	124	20	55	1241

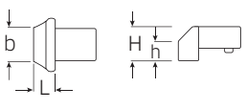
732/100 Ring insert tools



Code	mm	mm	b mm	h mm	S mm	g
58221024	**24**	22x28	43	15	55	616
58221027	**27**	22x28	43	15	55	609
58221030	**30**	22x28	46	16	55	617
58221032	**32**	22x28	49	16	55	611
58221034	**34**	22x28	52	17	55	627
58221036	**36**	22x28	54	17	55	620
58221041	**41**	22x28	61	18	55	630
58221046	**46**	22x28	66	19	55	628
58221050	**50**	22x28	75	20	55	701
58221055	**55**	22x28	84	21	55	776
58221060	**60**	22x28	93	22	55	867

737/100 Blank end insert tool

- gunmetal finish
- to prevent damage from excessive temperatures, the locking pin, spring and washer are not fitted until the welding work has been completed
- instructions are supplied
- material: 1.2208 - 31CRV3



Code	Welding surface h x b mm	mm	H mm	L mm	g
58270100	15 x 50	22x28	32	24	483

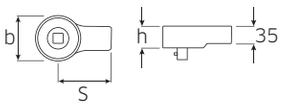
7370/100 Adaptor

- for using shell tools with an internal square drive of 24.5 x 28 mm on torque wrenches with an internal square drive of 22 x 28 mm
- Caution! Modified settings on torque wrench
  (refer to note on p. 201)

Code	■ mm	■ mm	L mm	S mm	g
58291100	22x28	24,5x28	85	100	421

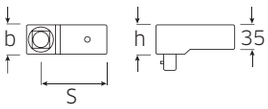
735/80 Ratchet shell tool

- with push through square drive
- 30 teeth



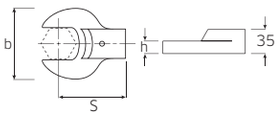
Code	■ "	mm	b mm	h mm	S mm	g
58250080	3/4	24,5x28	76	43	95	1930

734/80 Square drive shell tool



Code	■ "	mm	h mm	S mm	g
58240080	3/4	24,5x28	42	95	1200

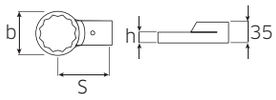
731/80 Open ended shell tools



Code	mm	mm	b mm	h mm	S mm	g
58218024	**24**	24,5x28	50	13	95	601
58218027	**27**	24,5x28	56	14	95	620
58218030	**30**	24,5x28	63	15	95	655
58218032	**32**	24,5x28	67	15	95	670
58218034	**34**	24,5x28	72	15	95	699
58218036	**36**	24,5x28	74	15	95	620
58218041	**41**	24,5x28	84	16	95	810
58218046	**46**	24,5x28	94	17	95	867
58218050	**50**	24,5x28	104	18	95	1010
58218055	**55**	24,5x28	114	19	95	1150
58218060	**60**	24,5x28	124	20	95	1325

732/80 Ring shell tools

AS DRIVE



Code	mm	mm	b mm	h mm	S mm	g
58228024	**24**	24,5x28	36	15	95	605
58228027	**27**	24,5x28	40.5	15	95	610
58228030	**30**	24,5x28	46	16	95	630
58228032	**32**	24,5x28	49	16	95	635
58228034	**34**	24,5x28	52	17	95	650
58228036	**36**	24,5x28	54	17	95	650
58228041	**41**	24,5x28	61	18	95	675
58228046	**46**	24,5x28	66	19	95	700
58228050	**50**	24,5x28	75	20	95	750
58228055	**55**	24,5x28	84	21	95	800
58228060	**60**	24,5x28	93	22	95	850

732a/80 Ring shell tools

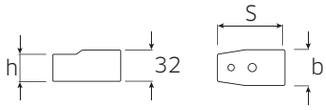
AS DRIVE

Code	"	mm	b mm	h mm	S mm	g
58628046	**15/16** [1]	24,5x28	36	14	95	604
58628050	**1 1/16** [1]	24,5x28	40.5	14	95	608

[1]) for jet engine pins (Airbus A320/A321)

7370/80 Shell adaptor

- for attaching 14 x 18 mm insert tools
- Caution! Modified settings on torque wrench
  (refer to note on p. 201)



Code	○ mm	○ mm	b mm	h mm	S mm	g
58290080	24,5x28	14x18	36	26	70	300

1822 Tool holder

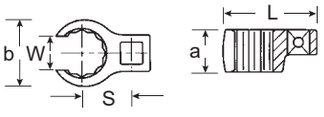
- with tool carrier to receive insert/shell tools (without torque function)

Code	mm	L mm	g
18220003	24,5x28	1000	2057

5

440 CROW-RING spanners

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



Code	mm	"	L mm	b mm	a mm	S mm	W mm	g	
01190008	**8**	1/4	23.8	12.7	8	12.3	6.3	11	1
01190009	**9**	1/4	28.5	18.2	13.5	14	6.7	21	1
01190010	**10** [1]	1/4	28.4	18.2	13.5	14	7.1	16	1
01190011	**11**	1/4	28	18.2	13.5	14	8.6	17	1
01190012	**12** [1]	1/4	30.8	20.6	14	15.7	9	20	1
01190013	**13**	1/4	32	22.2	14	16.4	10	30	1
01190014	**14** [1]	1/4	31.7	22.2	14	16.4	11.1	20	1
02190015	**15**	3/8	36.5	24.6	17.5	19.1	11.9	34	1
02190016	**16**	3/8	36.1	24.6	17.5	19.1	13	27	1
02190017	**17** [2]	3/8	39.2	27.3	17.5	20.5	14	40	1
02190018	**18**	3/8	40.8	29	18.5	21.3	14.8	45	1
02190019	**19** [2]	3/8	40.5	29	18.5	21.3	15.8	40	1
02190020	**20**	3/8	42.9	31.3	18.5	22.5	15.8	54	1
02190021	**21**	3/8	42.8	31.3	18.5	22.5	16.2	45	1
02190022	**22** [2]	3/8	45.3	33.5	19	23.6	17	57	1
02190023	**23**	3/8	47.5	35.7	19.5	24.6	17.5	71	1
02190024	**24** [2]	3/8	47.3	35.7	19.5	24.6	18	57	1
02190025	**25**	3/8	49.3	37.7	20	25.7	19	80	1
02190026	**26**	3/8	49.3	37.7	20	25.7	19	63	1
02190027	**27**	3/8	52.8	40	21.4	28.2	20	100	1
02191027	**27MB** [3]	3/8	57.1	42.1	15	29.3	20	92	1
03190028	**28**	1/2	56.8	42.1	22.5	29.3	21	120	1
03190030	**30**	1/2	63	48	22.5	32.5	22	155	1
03190032	**32**	1/2	62.5	48	22.5	32.5	24	145	1
03190034	**34**	1/2	64.2	50	24	33.5	27	146	1
03190036	**36**	1/2	66.5	51.9	24	34.6	27	150	1
03190038	**38**	1/2	68.1	53.9	24	35.6	28.6	147	1
03190040	**40**	1/2	71.8	57.9	24.5	37.7	31	160	1
03190041	**41**	1/2	71.8	57.9	24.5	37.7	31	169	1
03190042	**42**	1/2	71	57.9	24.5	37.7	33.2	189	1
03190046	**46**	1/2	77.7	64.2	26	40.9	34.1	215	1
03190050	**50**	1/2	83.2	70.5	27.5	44.1	39.7	295	1

[1]) for union nuts on fuel injection leads on 4-cylinder Mercedes-Benz diesel engines
[2]) for use on suction or pressure lines within expansion valve of air conditioning unit (Mercedes-Benz)
[3]) slim-line version for setting of electronic injection on 440-HP-engines Mercedes-Benz series OM 442

440a CROW-RING spanners

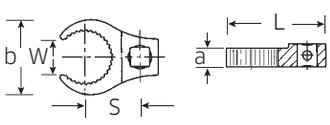
- Chrome Alloy Steel, chrome plated
- Caution! Modified settings on torque wrench

Code	"	"	L mm	b mm	a mm	S mm	W mm	g	
01490024	**3/8** [1]	1/4	28.4	18.2	13.5	14	7.1	16	1
01490028	**7/16**	1/4	28	18.2	13.5	14	8.6	14	1
01490032	**1/2**	1/4	30.5	20.6	14	15.7	10	19	1
01490034	**9/16**	1/4	31.7	22.2	14	16.4	11.1	23	1
02490036	**5/8**	3/8	36.5	24.6	17.5	19.1	11.9	33	1
02490038	**11/16**	3/8	39.2	27.3	17.5	20.5	14	36	1
02490040	**3/4**	3/8	40.9	29	18.5	21.3	14.2	44	1
02490042	**13/16**	3/8	42.9	31.3	18.5	22.5	15.8	51	1
02490044	**7/8**	3/8	45.2	33.5	19	23.6	17.5	62	1
02490046	**15/16**	3/8	47.2	35.7	19.5	24.6	18.3	63	1
02490048	**1**	3/8	49.3	37.7	20	25.7	19	71	1
02490050	**1 1/16**	3/8	52.8	40	21.4	28.2	20	84	1
03490052	**1 1/8**	1/2	56.8	42.1	22.5	29.3	21	110	1
03490056	**1 1/4**	1/2	62.5	48	22.5	32.5	23.8	137	1
03490058	**1 5/16**	1/2	62.3	48	22.5	32.5	24.6	130	1
03490060	**1 3/8**	1/2	64.2	50	24	33.5	27	138	1
03490062	**1 7/16**	1/2	66.5	51.9	24	34.6	27	143	1
03490064	**1 1/2**	1/2	68.1	53.9	24	35.6	28.6	152	1
03490065	**1 9/16**	1/2	70.1	55.9	24	36.7	29.4	172	1
03490066	**1 5/8**	1/2	71.8	57.9	24.5	37.7	31	169	1
03490068	**1 3/4**	1/2	75.6	62	25.5	39.8	33.2	199	1
03490069	**1 13/16**	1/2	77.7	64.2	26	40.9	34.1	229	1
03490072	**2**	1/2	83.2	70.5	27.5	44.1	39.7	277	1
03490076	**2 1/4**	1/2	91.2	78.7	29.5	48.2	42.8	337	1
03490077	**2 5/16**	1/2	93.3	80.9	30	49.2	43.6	309	1
03490078	**2 3/8**	1/2	95.2	83	30.5	50.2	46	385	1

[1]) for Volvo aero-engines, types "JAS"

440S MJ CROW-RING spanners

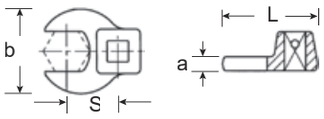
- HPQ® high performance steel, chrome plated
- supersedes No 440 MJ
- EN 4108
- for pipe unions with straight cylindrical involute toothing
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	Threaded nut	mm	"	L mm	b mm	a mm	S mm	W mm	g	
01211010	**MJ10**	DN04	1/4	31.9	22	8	17	6.5	54	1
01211014	**MJ14**	DN06	1/4	36.5	27	8	19.5	8.5	29	1
02211016	**MJ16**	DN08	3/8	43.8	31	8	24	10.5	46	1
02211018	**MJ18**	DN10	3/8	45.2	33	8	25	13	47	1
02211020	**MJ20**	DN12	3/8	46.2	35	8	26	15	49	1
02211022	**MJ22**	DN14	3/8	48.4	37	9	27	17.5	54	1
02211024	**MJ24**	DN16	3/8	49.5	39	9	28	19.7	56	1
02211027	**MJ27**	DN18	3/8	54.4	44	10	31	21.5	70	1
02211030	**MJ30**	DN20	3/8	60.8	50	10	36	23.7	93	1

540 CROW-FOOT spanners

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



Code	mm	"	L mm	b mm	a mm	S mm	g	
01200008	**8**	1/4	25.5	19.8	6.3	14.6	19	1
01200009	**9**	1/4	25.5	19.8	6.3	14.6	21	1
01200010	**10**	1/4	25.5	19.8	6.3	14.6	20	1
02200011	**11**	3/8	32	22.2	6.3	17.4	36	1
02200012	**12**	3/8	34.3	25.4	6.3	18.2	37	1
02200013	**13**	3/8	34.3	25.4	6.3	17.8	36	1
02200014	**14**	3/8	37.7	30	6.3	20.8	46	1
02200015	**15**	3/8	37.7	30	6.3	20.4	45	1
02200016	**16**	3/8	37.7	30	6.3	19.9	45	1
02200017	**17**	3/8	42.5	38	6.3	23.8	62	1
02200018	**18**	3/8	42.5	38	6.3	22.9	61	1
02200019	**19**	3/8	42.5	38	6.3	22.4	64	1
02200020	**20**	3/8	42.4	38	6.3	25	55	1
02200021	**21**	3/8	44.5	41	6.3	23.6	59	1
02200022	**22**	3/8	44.5	41	6.3	24.2	64	1
02200023	**23**	3/8	44.5	41	6.3	25.8	64	1
02200024	**24**	3/8	44.4	41	6.3	26.3	60	1
02200025	**25**	3/8	47	45	8	26.4	75	1
02200026	**26**	3/8	47	45	8	27.6	80	1
02200027	**27**	3/8	47	45	8	27.6	76	1
02200028	**28**	3/8	50	50	8	29.2	78	1
02200030	**30**	3/8	50	50	8	29.3	84	1
02200032	**32**	3/8	53	57	8	30.5	95	1
02200034	**34**	3/8	54.5	60	8	31.6	107	1
02200036	**36**	3/8	56.5	62	8	32.8	100	1
02200040	**40**	3/8	63	70	8	37.6	130	1
02200041	**41**	3/8	63	70	8	37.2	130	1
02200042	**42**	3/8	63	70	8	37.7	125	1
02200046	**46**	3/8	72	82	8	43.1	191	1
02200050	**50**	3/8	75	88	8	45.4	217	1

1225 Special extension

- 3/8" ■
- offset

code	L mm	d mm	g	
12250001	150	17	128	5

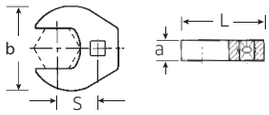
540a CROW-FOOT spanners

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

Code	"	"	L mm	b mm	a mm	S mm	g	
01500024	**3/8**	1/4	25.5	19.8	6.3	14.6	17	1
02500028	**7/16**	3/8	32	22.2	6.3	17.2	34	1
02500032	**1/2**	3/8	34.3	25.4	6.3	18.1	37	1
02500034	**9/16**	3/8	37.7	30	6.3	20.9	40	1
02500036	**5/8**	3/8	37.7	30	6.3	20.4	44	1
02500038	**11/16**	3/8	42.5	38	6.3	24.1	62	1
02500040	**3/4**	3/8	42.5	38	6.3	24	66	1
02500042	**13/16**	3/8	42.3	38	6.3	24	59	1
02500044	**7/8**	3/8	44.5	41	6.3	25.8	65	1
02500048	**1**	3/8	47	45	8	26.7	78	1
02500050	**1 1/16**	3/8	47	45	8	27.2	78	1
02500052	**1 1/8**	3/8	50	50	8	28.5	84	1
02500054	**1 3/16**	3/8	50	50	8	29.2	83	1
02500056	**1 1/4**	3/8	53	57	8	30.3	101	1
02500058	**1 5/16**	3/8	53	57	8	31.2	101	1
02500060	**1 3/8**	3/8	54.5	60	8	32.3	105	1
02500062	**1 7/16**	3/8	56.5	62	8	33.1	107	1
02500064	**1 1/2**	3/8	58	65	8	34.5	118	1
02500065	**1 9/16**	3/8	59.5	68	8	35.7	126	1
02500066	**1 5/8**	3/8	63	70	8	37.3	140	1
02500067	**1 11/16**	3/8	63	70	8	37.7	126	1
02500068	**1 3/4**	3/8	68	76	8	40.4	161	1
02500070	**1 7/8**	3/8	72	82	8	42	205	1
02500072	**2**	3/8	75	88	8	44.8	214	1
02500074	**2 1/8**	3/8	75.6	91	10	46	265	1
02500076	**2 1/4**	3/8	80.5	96	10	49.5	297	1
03500078	**2 3/8**	1/2	81.5	96	8	51.3	214	1

540a HD CROW-FOOT spanners heavy-duty

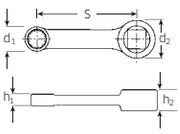
- for particularly high loadings, e.g. stainless steel screw fittings
- full use of jaws in conjunction with standard ratchets
- chrome plated
- supplied without ratchet
- Caution! Modified settings on torque wrench (refer to note on p. 201)



Code	"	"	L mm	b mm	a mm	S mm	g	
02501034	**9/16**	3/8	43.4	32	11	26.8	52	1
02501036	**5/8**	3/8	45	34.8	11	27.7	58	1
02501038	**11/16**	3/8	47.2	38	11	28.6	69	1
02501042	**13/16**	3/8	51	46.4	11	30.5	113	1
02501044	**7/8**	3/8	52	48	11	31.3	99	1
02501046	**15/16**	3/8	54	51.2	11	32.3	129	1
02501048	**1**	3/8	56	53.4	11	33.2	133	1
02501050	**1 1/16**	3/8	57	53.8	11	34.1	124	1
02501052	**1 1/8**	3/8	59	53.8	11	35	128	1
02501056	**1 1/4**	3/8	62	60	11	36.8	153	1
02501062	**1 7/16**	3/8	66.5	66	11	39.6	172	1
03501064	**1 1/2**	1/2	76	70	16	45	310	1
03501069	**1 13/16**	1/2	85	84	16	49.6	400	1
03501072	**2**	1/2	89	90	16	52.3	451	1
03501074	**2 1/8**	1/2	91.5	92.8	16	54.2	460	1
03501075	**2 3/16**	1/2	93	96	16	55.1	480	1
03501076	**2 1/4**	1/2	95	99	16	56	500	1

447 Adaptor

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



Code	mm	"	d_1 mm	d_2 mm	h_1 mm	h_2 mm	S mm	g	
02181007	**7**	3/8	11.5	19	6	11	50.8	30	1
02181008	**8**	3/8	12.4	19	6	11	50.8	30	1
02181009	**9**	3/8	14	19	8	11	50.8	40	1
02181010	**10**	3/8	15.6	19	8	11	50.8	40	1
02181013	**13**	3/8	19.3	19	9.2	11	50.8	55	1

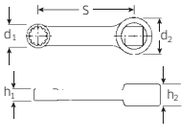
447a Adaptor

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

Code	"	"	d_1 mm	d_2 mm	h_1 mm	h_2 mm	S mm	g	
02470016	**1/4**	3/8	10.4	19	6	11	50.8	27	1
02470020	**5/16**	3/8	12.4	19	6	11	50.8	29	1
02470024	**3/8**	3/8	14.9	19	8	11	50.8	41	1
02470028	**7/16**	3/8	17	19	8	11	50.8	40	1
02470032	**1/2**	3/8	19	19	9.2	11	50.8	56	1
02470034	**9/16**	3/8	21	19	9.2	11	50.8	61	1
02470036	**5/8**	3/8	23	19	12	11	50.8	73	1

447aSP Spline-Drive adaptor

- MS-33787, MIL-W-8982
- HPQ® high performance steel, gunmetal finish
- Caution! Modified settings on torque wrench (refer to note on p. 201)



code	Spline size	"	"	d_1 mm	d_2 mm	h_1 mm	h_2 mm	S mm	g	
02480014	**7**	**7/32**	3/8	9.4	19	6	11	50.8	28	1
02480016	**8**	**1/4**	3/8	10.4	19	6	11	50.8	27	1
02480018	**9**	**9/32**	3/8	11.5	19	6	11	50.8	29	1
02480020	**10**	**5/16**	3/8	12.4	19	6	11	50.8	29	1
02480024	**12**	**3/8**	3/8	14.9	19	8	11	50.8	38	1
02480028	**14**	**7/16**	3/8	17	19	9.2	11	50.8	39	1
02480032	**16**	**1/2**	3/8	19	19	9.2	11	50.8	59	1
02480034	**18**	**9/16**	3/8	21	19	9.2	11	50.8	55	1
02480036	**20**	**5/8**	3/8	23	19	12	11	50.8	74	1

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 [1]	ft·lb [1]	N·m [2]	ft·lb [2]	Gear ratio	Torque ratio	"	b mm	h mm	L mm	g	g with box
96531500	1500	1106	300	221	5.62 : 1	1 : 5	1/2	105	30	165	1890	3630

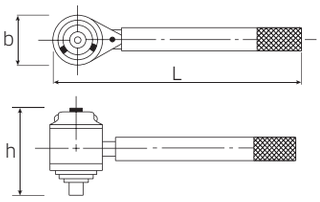
[1]) max. output
[2]) max. input

MULTIPOWER MP300

Makes child's play of the largest torques.
MULTIPOWER or really "toughwork".
STAHLWILLE MULTIPOWER torque multipliers with planetary gears take the fatigue out of tightening or loosening stiff or large bolt connections. A long lever is not necessary.
STAHLWILLE MULTIPOWER multiplies human strength; steady torque transfer is easy on nuts and bolts.
Even the largest torques are transferred with ease and precision over long periods.
Accordingly, construction materials and workmanship are extremely robust.
When combined with STAHLWILLE torque wrenches, MULTIPOWER really shows its strength.
The MULTIPOWER range extends to 5000 N·m/3687 ft·lb.
MULTIPOWER tools are also available on request up to 12000 N·m/8850 ft·lb.
The MULTIPOWER from 2000 N·m are fitted with an anti-backlash device.

MP300 MULTIPOWER

- with overload protection and planetary gears
- in carrying box
- with one spare sun wheel (overload cut-out)
- **deviation of indication ± 5%**




MP300-800


MP300-2000


MP300-5000

code	size	N·m [1]	ft·lb [1]	N·m [2]	ft·lb [2]	Gear ratio	Torque ratio	○ "	■ "	b mm	h mm	L mm	g	g with box
53030800	**800**	800	590	229	169	4 : 1	1 : 3.5	1/2	3/4	66	85	215	2000	5838
53031350	**1350**	1350	996	375	277	4 : 1	1 : 3.6	3/4	3/4	90	106	265	3400	7500
53032000	**2000 *)**	2000	1475	160	118	16 : 1	1 : 12.5	1/2	1	95	161	330	7000	11000
53033000	**3000 *)**	3000	2212	240	177	16 : 1	1 : 12.5	3/4	1	95	161	330	7000	10805
53035000	**5000 *)**	5000	3687	294	217	20 : 1	1 : 17.0	3/4	1 1/2	120	180	400	10400	14000

MULTIPOWER tools are also available on request up to 12000 N·m/8850 ft·lb.
*) with anti-backlash device
[1]) max. output
[2]) max. input

Spares for MULTIPOWER

SR290-393 Sun wheel with overload cutout

Code	No	for No	g
59030800	**SR300-800**	MP300-800	45
59031350	**SR300-1350**	MP300-1350	106
59032000	**SR300-2000**	MP300-2000	120
59033000	**SR300-3000**	MP300-3000	130
59035000	**SR300-5000**	MP300-5000	127
59300039	**SR290N**	STW 290N	18
59300067	**SR295N**	STW 295N	95
59300068	**SR391N**	STW 391N	95
59300069	**SR392N**	STW 392N	95
59300070	**SR393N**	STW 393N	105

Sets of spare parts for ratchet insert tools

4150QR Spare parts set

QR

Content 11 pieces:
1 pinion; 1 pawl; 2 levers with pin; 1 ball; 2 compression springs; 2 screws M 1.7 x 8; 2 cover plates

code	for No	g
19011020	725QR/4	24

4350QR Spare parts set

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

code	for No	g
19020020	725QR/5	51

7250QR/10 Spare parts set

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

code	for No	g
19041020	725QR/10	64

5120QR Spare parts set

QR

Content 8 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws

code	for No	g
19040020	725QR/20	118

7250B Spare parts sets

Content 9 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws; 1 cover plate

code	size	for No	g
19012022	**4**	725B/4	21
19012023	**5**	725B/5	48

7250L/5 Spare parts set

Content 9 pieces:
1 pinion; 1 pawl; 1 change-over button with pin; 1 ball; 2 compression springs; 2 screws; 1 cover plate

code	for No	g
19021000	725L/5	70

7250/4 Spare parts set

Content 9 pieces:
1 pinion; 1 pawl; 1 lever with pin; 1 ball; 2 compression springs; 2 screws; 1 cover plate

code	for No	g
19012021	725/4	26

7350/5 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

code	for No	g
59251005	735/5	85
for ratchets from 12/97		

7350/10 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

code	for No	g
59251010	735/10	96
for ratchets from 12/97		

7350/20 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

code	for No	g
59251020	735/20	140
for ratchets from 4/96		

7350/40 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

code	for No	g
59251040	735/40	219
for ratchets from 5/97		

7350/40HD-65 Spare parts set

Content 7 pieces:
1 pinion; 1 pawl; 1 switching disk; 1 spring; 3 screws

code	for No	g
59251065	735/40HD; 735/65	429

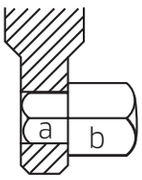
7210 Ratchet spare parts sets for torque wrenches No 721

code	No	Content	g
59191005	**7210/5**	For ratchet/torque wrench No 721/5, 721/5 Quick: 1 pinion, 1 pawl, 1 switch-over button and pin, 1 ball, 2 compression springs, 2 screws	53
19040000	**5120 + 7210/15**	For ratchet/torque wrench No 721/15, 721/15 Quick, 721/20, 721/20 Quick: 1 pinion, 1 pawl, 1 lever, 1 lever pin, 1 ball, 2 compression springs, 2 screws	127
59191030	**7210/30**	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
59191080	**7210/80**	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 ½



70V 16

code	size	for No	a "	b "	L mm	g	
59010001	**1**	71...V/1	1/4	1/4	17.5	5	5
59010014	**11**	734/4	3/8	1/4	22	12	5
59010003	**3**	734/5	3/8	3/8	25.8	17	5
59010005	**5**	734/10	3/8	1/2	30	28	5
59010011	**502 ½**	720/30; 734/20	1/2	1/2	33.5	40	5
59010007	**7**	721/30, 721/30 Quick	1/2	1/2	44.3	52	5
59010008	**8**	734/40	3/4	3/4	52.2	138	5
59010015	**12**	720Nf/80; 721Nf/80+100; 734/80; 734/100; 735/80; 735/100	3/4	3/4	65	179	1
59010016	**16 ***	720Nf/80; 721Nf/80+100; 734/40; 734/80; 734/100; 735/80; 735/100	3/4	3/4	88	240	1

* extra-long, firmly locked, so usable from both sides

Accredited by the highest authority.
STAHLWILLE's calibration laboratory.

Controlled tightening of fasteners is becoming increasingly important and is a must for safety and quality assurance. As clear confirmation of its expertise in the field of controlled tightening, STAHLWILLE is accredited by the DAkkS accreditation authority (Deutsche Akkreditierungsstelle) as an approved calibration laboratory for »torque«.

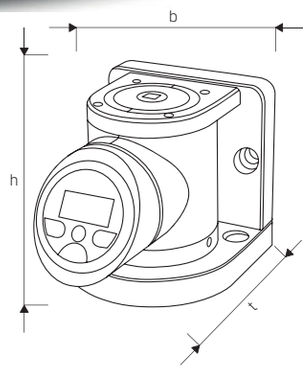
The STAHLWILLE calibration service offers both works calibration certificates and DAkkS calibration certificates.

SmartCheck

Tester for torque wrenches and torque screwdrivers

- compact construction
- for horizontal or vertical mounting
- display, display mount and base body can be rotated through 180°
- three operating modes (track, first peak, peak hold)
- three measuring units (N·m, ft·lb, in·lb)
- the target torque and tolerances can be set individually to evaluate the readings
- operating mode using a mains adapter or battery (4 x AAA or 1 x 9 V block, adapter included)
- with integrated visual and audible overload protection mechanism
- the display and keypad are splash-proof, and the housing is made of impact-resistant plastic
- with certificate
- supplied in sturdy plastic box
- **display deviation value ± 1%**

SmartCheck **Torque Tester**



code	No	capacity N·m	capacity ft·lb	capacity in·lb	▢ "	b mm	h mm	t mm	g
96521201	**SmartCheck 10S ***	1-10	0.74-7.4	8.9-88.5	1/4	120	124	167	5210
96521202	**SmartCheck 10**	1-10	0.74-7.4	8.9-88.5	1/4	120	124	167	5210
96521203	**SmartCheck 100**	10-100	7-74	89-885	3/8	120	124	167	5310
96521204	**SmartCheck 400**	40-400	30-295	354-3540	3/4	120	124	167	5690
96521205	**SmartCheck 800**	80-800	59-590	708-7081	3/4	120	124	167	5690

*) for checking torque screwdrivers

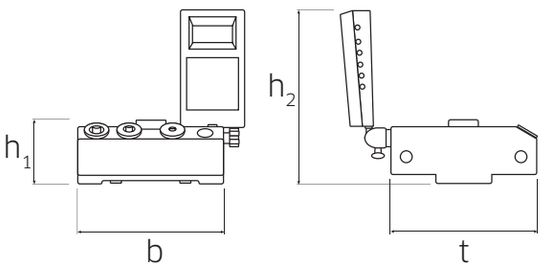
Electronic torque tester for torque wrenches SENSOTORK® 7707 W (For complete calibration systems see p. 241, 245)

- 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



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.

QR **QuickRelease** Rapid change and firm locking of the transducers thanks to the QuickRelease safety lock.

Code	No	Capacity N·m	Capacity ft·lb	Capacity in·lb	□ "	b mm	h_1 mm	h_2 mm	t mm	g	g with box
96521086	**7707-1-3W [1]**	0.2–10	0.15–7.4	1.8–88.5	1/4	180	79	215	180	6255	9500
96521085	**7707-1-2W**	0.2–10	0.15–7.4	1.8–88.5	1/4	180	79	215	180	6255	9500
96521080	**7707-1W**	0.4–20	0.3–15	3.5–177	1/4	180	79	215	180	6255	9500
96521072	**7707-2W [2]**	2–100	1.5–74	18–885	3/8	180	79	215	180	7025	10300
96521083	**7707-2-1W [3]**	4–200	3–148	35–1770	1/2	180	79	215	180	7511	10975
96521084	**7707-2-2W [4]**	8–400	6–295	71–3540	3/4	180	79	215	180	7654	11100
96521082	**7707-3W [4]**	25–1100	18–812	221–9736	3/4	180	79	215	180	7495	11000

[1]) for calibrating torque screwdrivers
[2]) with square drive adaptor No 409M (1/4" □ x 3/8" ■)
[3]) with square drive adaptors No 7789-4 (1/4" □ x 1/2" ■). No 7789-5 (3/8" □ x 1/2" ■)
[4]) with square drive adaptors No 7787 (1/4" □ x 3/4" ■). No 7788 (3/8" □ x 3/4" ■). No 7789 (1/2" □ x 3/4" ■)

Which transducer is for which torque tool?

(for manually operated testing, calibration technology on page 238-247)

	7721	7721-0	7721-1	7722	7723-1	7723-2	7723-3	7724-1
760	○							
775	○							
TORSIOTRONIC	○							
71/80							○	○
71aR/80							○	○
73Nm/15			○	○				
755R/1			○					
755/4				○	○			
755/10					○	○		
755/20					○	○	○	
755/30						○	○	
730/5				○	○			
730/10					○	○		
730/12					○	○	○	
730/20					○	○	○	
730/40						○	○	
730/65							○	
730II/65							○	
730a/5				○	○			
730a/10					○	○		
730a/12					○	○	○	
730a/20					○	○	○	
730/2			○	○				
730/4				○	○	○		
730a/2-1		○	○					

	7721	7721-0	7721-1	7722	7723-1	7723-2	7723-3	7724-1
730a/2			○	○				
730a/4				○	○			
730/80							○	○
721/5				○	○			
721/15					○	○	○	
721/20					○	○	○	
721/30						○	○	
721QR/15					○	○	○	
721QR/20					○	○	○	
720Nf/80							○	○
721Nf/80							○	○
721Nf/100							○	○
730N/2			○	○				
730N/5				○	○	○		
730N/10					○	○		
730N/12					○	○	○	
730N/20					○	○		
730N/40						○	○	
730N/65							○	
730NII/65							○	
730N/80							○	○
730N/100							○	○
730Na/2			○	○				
730Na/5				○	○	○		
730Na/10					○	○		

	7721	7721-0	7721-1	7722	7723-1	7723-2	7723-3	7724-1
730Na/20					○	○		
730Na/40						○	○	
701/2			○					
730D/10				○	○	○		
730D/20					○	○		
730D/40						○	○	
730D/65							○	
730DII/65							○	
730D/80							○	
730D/100							○	
714/ 1		○	○					
714/ 2			○	○				
714/ 4				○	○			
714/ 6				○	○			
714/10				○	○	○		
714/20					○	○		
714/40						○	○	
714/65							○	
714/80							○	
714/100							○	
713R/6				○				
713R/20					○	○		
713R/40						○		
712R/6				○				

5

7721-7724 Transducers

QR

- patent
- for calibration of torque wrenches and torque screwdrivers
- high degree of accuracy thanks to conversion and digitization of readings within the transducer itself
- not susceptible to lateral forces due to low-profile construction
- can also be used as part of a calibration system (see p. 241, 245)
- with certificate
- supplied in sturdy plastic box
- measuring ranges by deviation of indication

Measuring ranges by deviation of indication

Code	No	Display deviation value ± 1% of the reading N·m	ft·lb	in·lb	Display deviation value ± 0.5% of the reading N·m	ft·lb	in·lb	Display deviation value ± 0.25% of the reading N·m	ft·lb	in·lb	∅ mm	□ "	g	g with box
96521021	**7721** [1]	0,2-10	0,15-7,4	1,8-88,5	1-10	0,74-7,4	8,9-88,5	2-10	1,5-7,4	17,7-88,5	120	1/4	1735	2411
96521000	**7721-0**	0,2-10	0,15-7,4	1,8-88,5	1-10	0,74-7,4	8,9-88,5	2-10	1,5-7,4	17,7-88,5	120	1/4	1735	2411
96521026	**7721-1**	0,4-20	0,3-15	3,5-177	2-20	1,5-15	18-177	4-20	3-15	35-177	120	1/4	1735	2411
96521022	**7722**	2-100	1,5-74	18-885	10-100	7-74	89-885	12-100	9-74	106-885	120	3/8	2486	3223
96521023	**7723-1**	40-200	3-148	35-1770	20-200	15-148	177-1770	40-200	30-148	354-1770	120	1/2	2983	3605
96522023	**7723-2**	8-400	6-295	71-3540	40-400	30-295	354-3540	80-400	59-295	708-3540	120	3/4	3134	3745
96521028	**7723-3**	25-1100	18-812	221-9736	110-1100	81-812	974-9736	220-1100	162-812	1947-9736	120	3/4	2998	3761
96521029	**7724-1** [2]	150-3000	111-2214	1328-26553	300-3000	221-2214	2655-26553	600-3000	443-2214	5311-26553	195	1 1/2	10500	12000

[1]) for calibrating torque screwdrivers
[2]) for use with mechanical loader No 7792 and 7792-1 (S. 243)

Note!

Torque testers are measuring instruments! They have to be regularly calibrated and, where necessary, adjusted, using suitable calibration equipment. We recommend recalibrating every 12 months. DAkkS certificates must be ordered separately see p. 236

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.

5

Coordinated – down to the last detail.
STAHLWILLE calibration systems.

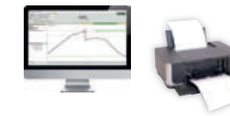
Mechanical loader

Laboratory transducers

Cable No 7751-1

7757-1 USB adaptor

USB cable



PC/printer not included

	No for full system	**7706-8 PC**	**7706-9 PC**	**7706-10 PC**	**7706-11 PC**
	Code	**96 52 10 68**	**96 52 10 69**	**96 52 10 70**	**96 52 10 74**
	Weight in kg	14.2	67.6	70.6	108.4
	Range N·m	1–10	2–100	2–1000	20–3000
	Mechanical loader	–	No 7791	No 7791	No 7792
	»Stand alone« test attachment for torque screwdrivers	No 7790	–	–	–
	Extension	–	–	No 7791-1	No 7792-1
	Laboratory transducers	No 7728-1S (1–10 N·m)	No 7728-2 (2–20 N·m) 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" O x 1/4" ■)	No 431 (3/8" O x 1/4" ■) No 409M (1/4" O x 3/8" ■)	No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 409M (1/4" O x 3/8" ■)	No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 7789-2 (3/4" O x 1½" ■) No 7789-3 (1" O x 1½" ■) No 7789-4 (1/4" O x 1/2" ■) No 7789-5 (3/8" O 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

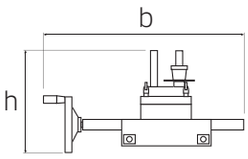
/M/a/n/u/t/o/r/k/®

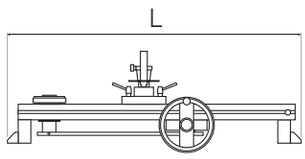
Mechanical loaders for torque wrenches and torque screwdrivers

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

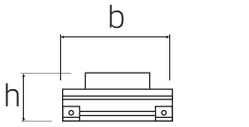


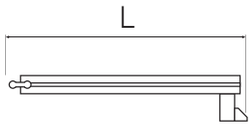


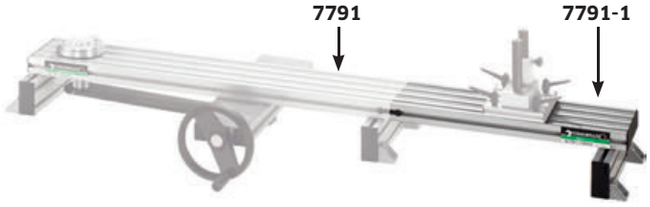
Code	Capacity N·m	for transducer	for torque wrenches with functional length (L_F) max. mm	Profile width mm	b mm	h mm	L mm	kg
52110091	–400	sizes 1-100	815	180	704	323	1069	44.8

7791-1 Extension unit for No 7791, 7794-1 and 7794-2 up to 1000 N·m

- with one pair of adapter plates No 7770-3 for height compensation between extension unit No 7791-1 and perfectControl® calibrating units No 7794-1 and No 7794-2





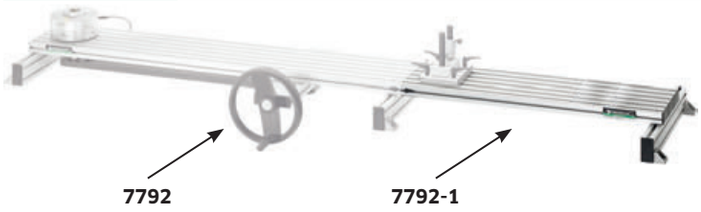


Code	Capacity N·m	for torque wrenches with functional length (L_F) max. mm	Profile width mm	b mm	h mm	L mm	kg
52110191	–1000	1390 (7791 + 7791-1)	180	308	135	673	8

7792 Mechanical loaders unit to 1000 N·m

Code	Capacity N·m	for transducer	for torque wrenches with functional length (L_F) max. mm	Profile width mm	b mm	h mm	L mm	kg
52110092	–1000	sizes 20; 100; 300	1390	270	722	323	1668.5	58

7792-1 Extension unit for No 7792 up to 3000 N·m

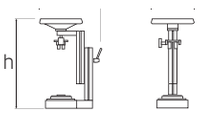


Code	Capacity N·m	for torque wrenches with functional length (L_F) max. mm	Profile width mm	b mm	h mm	L mm	kg
52110192	–3000	2390 (7792 + 7792-1)	270	558	135	1073	18.5

Test attachments for torque screwdrivers

7790 Mechanical loaders for torque screwdrivers

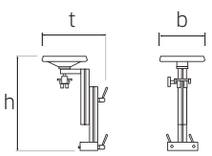
- can be bolted to mechanical loader No 7792
- the torque screwdriver to be calibrated is inserted in the square mount of the transducer and fixed using the universal central clamp
- the handwheel ensures that the required force is applied in a controlled manner to the torque screwdriver
- supplied without transducer or torque screwdriver



Code	Capacity N·m	for transducer	b mm	h mm	t mm	kg
58521090	–10	7728-1S	250	442–593	351	9

7791-2 Test attachment for torque screwdrivers

- can be bolted onto mechanical loader No 7791
- the torque screwdriver to be calibrated is inserted in the square mount of the transducer and fixed using the universal central clamp
- the handwheel ensures that the required force is applied in a controlled manner to the torque screwdriver



Code	Capacity N·m	b mm	h mm	t mm	kg
52110291	–10	250	442–593	351	3.7

Accessory

7750-1 Holder

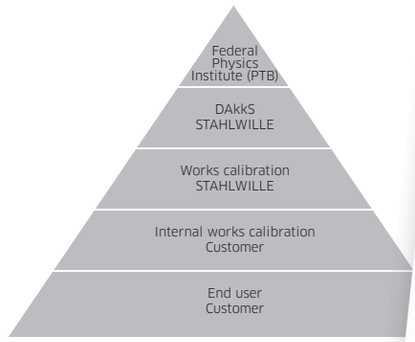
- for display unit No 7750
- can be bolted to test attachments

code	g
52101050	165

Audited. Documented. Certified.
STAHLWILLE DAkkS calibration laboratory.

STAHLWILLE's DAkkS calibration laboratory for torque is accredited by the German Accreditation Service (DAkkS) in accordance with DIN EN ISO/IEC 17025:2005. The transfer torque wrenches and torque transducers in use in the calibration laboratory are subject to regular examination by the German Federal Physics Institute (PTB) in Braunschweig.

The accuracy of the torque wrenches must be proved in a series of steps and these must be traceable. Only in this way can the reliability of the readings be guaranteed. During the first stage, the end-user checks the accuracy of the torque tools in-house using suitable calibrated testing equipment. At the next stage, this test equipment is checked in STAHLWILLE's DAkkS calibrating laboratory. This accreditation by the German Calibration Service (DKD) in accordance with DIN EN ISO/IEC 17025:2005 guarantees the direct link between the measuring equipment and the national standard as laid down in DIN EN ISO 9001:2008.



Relationship between the national standard and the equipment

CONFORMS TO STANDARDS.

The accreditation means the specific requirements listed in Technical Specification ISO/TS 16949 relating to testing laboratories are fulfilled. This is absolutely essential for all suppliers in the automotive sector.

Precisely matched products.
perfectControl calibration systems.

Motor driven calibrating unit No. 7794-2

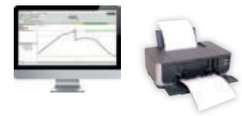
Manual calibrating unit No 7794-1

Laboratory transducers

Cable No 7751-1

7757-1 USB adaptor

USB cable



PC/printer not included

	No for full system	**7794-2/400**	**7794-2/1000**	**7794-1/400**	**7794-1/1000**
	Code	**96 52 10 78**	**96 52 10 79**	**96 52 10 76**	**96 52 10 77**
	Weight in kg	62.1	69.8	53.2	60.9
	Range N·m	1–400	1–1000	1–400	1–1000
	Motor driven calibrating unit	No 7794-2	No 7794-2	–	–
	Manual calibrating unit	–	–	No 7794-1	No 7794-1
	Extension	–	No 7791-1	–	No 7791-1
	Laboratory transducers	No 7728-1 (1–10 N·m) 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" O x 3/8" ■) No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 7789-4 (1/4" O x 1/2" ■) No 7789-5 (3/8" O x 1/2" ■)	No 409M (1/4" O x 3/8" ■) No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 7789-4 (1/4" O x 1/2" ■) No 7789-5 (3/8" O x 1/2" ■)	No 409M (1/4" O x 3/8" ■) No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 7789-4 (1/4" O x 1/2" ■) No 7789-5 (3/8" O x 1/2" ■)	No 409M (1/4" O x 3/8" ■) No 7787 (1/4" O x 3/4" ■) No 7788 (3/8" O x 3/4" ■) No 7789 (1/2" O x 3/4" ■) No 7789-4 (1/4" O x 1/2" ■) No 7789-5 (3/8" O x 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_F) max. mm	Profile width mm	b mm	h mm	L mm	kg
96521093	1-400	7728 (sizes 1-100)	815	180	640	328	1060	58.1

Made in Germany

7794-1 Manual calibrating unit from 1 to 400 N·m

- as for perfectControl® No 7794-2, but the drive is via an ergonomically designed handwheel
- **calibration up to 1000 N·m is possible using the easily attached extension unit No 7791-1 (see p. 242)**
- protected by national and international patents
- supplied without torque wrench, transducer or notebook
- **transducers laboratory No 7728 (see p. 248)**

Content:
6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100)
6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5)
1 USB adaptor No 7757-1
1 software Torkmaster 7731-1
1 jack cable No 7751
1 spiral cable No 7752
1 spiral cable No 7751-2 with jack plug and self-locking precision plug
1 low-temperature cable connector
1 hexagon key wrench No 10760CV 2 mm are included



Code	Capacity N·m	for transducer	for torque wrenches with functional length (L_F) max. mm	Profile width mm	b mm	h mm	L mm	kg
96521092	1-400	7728 (sizes 1-100)	815	180	705	355	1060	47

7794-3 Automated calibrating and adjusting unit from 1 to 400 N·m

- **automatically calibrates electronic torque and angle-controlled wrenches made by STAHLWILLE**
- design patent
- protected by national and international patents
- model is the same as perfectControl® No 7794-2, except it is additionally suited to calibrating angle-controlled wrenches. Optimum adaptation to working height with motorised height adjustment
- calibration up to 1000 N·m is possible using the easily attached expansion unit No 7791-1 (see p. 242) and set of adapter plates No 7791-4, Code 52110491
- supplied without torque wrench, transducer or notebook

Content:
6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100)
6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5)
1 USB adaptor No 7757-1
1 software Torkmaster 7731-1
1 jack cable No 7751
1 spiral cable No 7752
1 spiral cable No 7751-2 with jack plug and self-locking precision plug
1 low-temperature cable connector
1 hexagon key wrench No 10760CV 2 mm are included



Code	Capacity N·m	for transducer	for torque wrenches with functional length (L_F) max. mm	Profile width mm	b mm	h mm	L mm	kg
96521094	1-400	7728 (sizes 1-100)	815	180	640	884-1134	1060	230

7728 Transducers laboratory

QR

- patented
- for laboratory environments
- with optimised measuring range
- for calibrating torque wrenches and torque screwdrivers
- for use together with perfectControl® calibrating unit No 7794 or calibration system No 7706
- high degree of accuracy thanks to conversion and digitization of readings within the transducer itself
- with high-grade self-locking precision plug
- not susceptible to lateral forces due to low-profile construction
- with DAkkS calibration certificate
- **max. display deviation value ± 0.5% of the reading**
- further details on request
- supplied in sturdy plastic box
- measuring ranges by deviation of indication

Code	size	Display deviation value ± 0.5% of the reading N·m	in·lb	ft·lb	Display deviation value ± 0.25% of the reading N·m	ft·lb	in·lb	∅ mm	"	g	g with box
96524011	**1S [1]**	1-10	8,9-88,5	0,74-7,4	2-10	1,5-7,4	18-88,5	120	1/4	1735	2415
96524001	**1**	1-10	8,9-88,5	0,74-7,4	2-10	1,5-7,4	18-88,5	120	1/4	1735	2415
96524002	**2**	2-20	18-177	1,5-15	4-20	3-15	35-177	120	1/4	1735	2415
96524004	**4**	4-40	35-354	3-30	8-40	6-30	71-354	120	3/8	2486	3136
96524006	**6**	6-60	53-531	4,5-45	12-60	9-45	106-531	120	3/8	2486	3136
96524010	**10**	10-100	89-885	7-74	20-100	14-74	177-885	120	3/8	2486	3136
96524020	**20**	20-200	177-1770	15-148	40-200	30-148	354-1770	120	1/2	2983	3170
96524040	**40**	40-400	354-3540	30-295	80-400	60-295	708-3540	156	3/4	4846	5507
96524065	**65**	65-650	575-5753	48-479	130-650	96-479	1151-5753	156	3/4	4846	5507
96524080	**80**	80-800	708-7081	59-590	160-800	118-590	1416-7081	156	3/4	4846	5507
96524100	**100**	100-1000	885-8851	74-738	200-1000	148-738	1770-8851	156	3/4	4846	5507
96524300	**300 [2]**	300-3000	2655-26553	221-2214	600-3000	443-2214	5310-26553	195	1 1/2	10500	12000

[1]) for calibrating torque screwdrivers
[2]) for use with mechanical loader No 7792 and 7792-1 (S. 243)

5

TORKMASTER.
Simple, professional calibration.

Need to adjust torque wrenches and torque screwdrivers and calibrate them in compliance with the standards, generate Declarations of Conformance and calibration certificates to DIN EN ISO 6789? This is exactly what the STAHLWILLE TORKMASTER software is for. At the highest standard of safety and with minimum effort for the user.

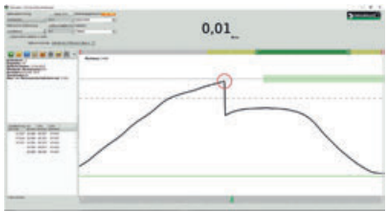
The **optional CAQ interface** enables connection to the superordinate CAQ system, which in this way has access to all inspection data at all times. The user is not required to do anything – all the data and logs of the calibration process are securely transmitted.

Accessories for workshop torque tester and calibration systems

7759-4 USB adaptor, jack cable and software Torkmaster

Link between perfectControl® or transducer (7721-7724) and PC. For adjusting and calibrating torque wrenches and torque screwdrivers. Produces calibration certificates in accordance with DIN EN ISO 6789, which can be printed out or saved as PDF files.

- as found / as left calibrations can be documented
- graphical representation of the torque progression
- user management
- 17 languages
- equipment testing system



System requirements:

- PC
- Microsoft Windows XP SP3 or later operating system
- USB connection

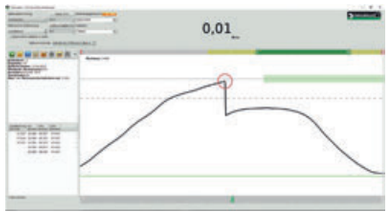
Code	L m	g
96583629	1.5	65

7759-6 USB adaptor, cable and software Torkmaster

NEW

Link between perfectControl® or transducer (7728) and PC. For adjusting and calibrating torque wrenches and torque screwdrivers. Produces calibration certificates in accordance with DIN EN ISO 6789, which can be printed out or saved as PDF files.

- as found / as left calibrations can be documented
- graphical representation of the torque progression
- user management
- 17 languages
- equipment testing system



System requirements:

- PC
- Microsoft Windows XP SP3 or later operating system
- USB connection

Code	L m	g
96583631	1.5	72

7751 Jack cable

- connection between transducers 7721-7724 and USB adaptor or display unit
- with jacks at both ends, 90° angled

Code	L m	g
52110051	1.5	50

7751-1 Cable for No 7728

- for connecting laboratory transducers 7728 to a USB hub or display unit
- with jack plug, 90° angled, and self-locking precision plug

Code	L m	g
52110054	1.5	38

7752 Spiral cable

- connection between transducer and display unit or USB adaptor
- with jacks at both ends, 90° angled

Code	L max. mm	g
52110052	500	35

7751-2 Spiral cable for No 7728

- for connecting laboratory transducers 7728 to a USB hub or display unit
- with jack plug, 90° angled, and self-locking precision plug

Code	L max. mm	g
52110057	500	32

7750 Display unit

- registered design
- for displaying the actual torque as measured
- units of measurement: N·m, ft·lb, in·lb
- modes of operation: track, peak hold, first peak (only with manual operation)
- additional display of actual torque applied with clicking torque wrenches
- swivels to any desired position thanks to universal ball-joint

Code	g
52100050	182

7760 Mains adaptor

- Input:
  110 V-230 V AC
- Output:
  9 V DC, with interchangeable socket adaptors

Code	g
52110056	201

7761 Interface adaptor

- required for automated calibration and adjustment of angle-controlled torque wrenches No 714 using calibrating and adjusting units perfectControl® No 7794-2 and 7794-3

Code	g
52110061	26

7761/3 Interface adaptor set

Contents:
- No 7761 interface adaptor
- No 7752 spiral cable
- No 7760 mains adaptor

Code	g
96521161	255

7311/7312 Plastic box, empty

- for safe storage and transport of transducers (please order inlays separately)

Code	No	for transducer	g
81500003	**7311**	7721; 7722; 7723; 7728 1-20	554
81500004	**7312**	7724-1; 7728 40-100	1346

7313/7314 Inlays for plastic box

Code	No	for transducer	g
83071030	**7313**	7721; 7722; 7723; 7728 1-20	77
83071031	**7314**	7724-1; 7728 40-100	242

409M Adaptor

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

code	L mm	∅ mm	g
11030010	13	28	14

7787 Square drive adaptor

- 1/4" socket x 3/4" plug (6.3 x 20)

Code	L mm	∅ mm	g
58521087	15.5	29	41

7788 Square drive adaptor

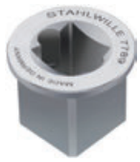
- 3/8" socket x 3/4" plug (10 x 20)

Code	L mm	∅ mm	g
58521088	23.5	29	50

5

7789 Square drive adaptor

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



Code	L mm	∅ mm	g
58521089	23.5	29	40

7789-2 Square drive adaptor

- 3/4" socket x 1 1/2" plug (20 x 40)

Code	L mm	∅ mm	g
58523089	44	60	380

7789-3 Square drive adaptor

- 1" socket x 1 1/2" plug (25 x 40)

Code	L mm	∅ mm	g
58524089	44	60	280

7789-4 Square drive adaptor

- 1/4" socket x 1/2" plug (6.3 x 12.5)

Code	L mm	∅ mm	g
58524090	15.5	29	25

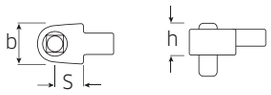
7789-5 Square drive adaptor

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

Code	L mm	∅ mm	g
58524091	15.5	29	28

734K Calibrating square drive insert tools

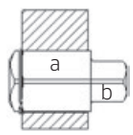
- without a ball or pin (so not suitable for bolt tightening)
- optimum measuring results during calibration thanks to reduced lateral forces



Code	size	■ "	⌀ mm	b mm	h mm	S mm	g
58243004	**4**	1/4	9x12	20	16.7	17.5	76
58243005	**5**	3/8	9x12	20	16.7	17.5	76
58243012	**12**	3/8	14x18	27	21.5	25	199
58243020	**20**	1/2	14x18	27	21.5	25	218
58243040	**40**	3/4	14x18	40	29.3	25	410
58241100	**100**	3/4	22x28	43	29.3	55	907

70VK Calibrating square drive units

- without a ball or pin (so not suitable for bolt tightening)
- optimum measuring results during calibration thanks to reduced lateral forces



Code	size	for No	a "	b "	L mm	g
59011014	**11**	734/4	3/8	1/4	24.7	12
59011003	**3**	735/5	3/8	3/8	27.6	17
59011012	**12**	734/10; 734/20	1/2	3/8	32.5	34
59011011	**502 1/2**	734/20	1/2	1/2	36.9	60
59011008	**8**	734/40; 734/80; 734/100	3/4	3/4	52.2	138

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