

K15



KS TOOLS®



Innovation is
our mission!



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TORQUE

The importance of torque control



Fastening a threaded fastener in a controlled manner is essential for operational safety and the long service life of screws and bolts. Manual fastening without any torque control is a safety risk. Depending on personal constitution, the screwed fitting can be over-tightened and there is the risk of breakage or the screwed fitting can become loose and open with very low application of force. A torque wrench that has been calibrated regularly helps to achieve the specified fastening torques or avoids over-tightening.



**Confidence is good -
torque control
is better!**

KS TOOLS



Competence and service

Our competence is expressed by the measuring instruments and test equipment used by us, which are monitored continuously and, if required, adjusted, by a laboratory that is accredited by the DKD (German Calibration Service). They are calibrated by comparing them with standard reference units, which are traceable to the national standards. This ensures our competency in the field of controlled fastening of screws and, in the long term, the quality of our torque wrenches and equipment.

Torque wrenches and torque test instruments are measuring tools; just as any other measuring tool, they must also be serviced regularly and calibrated with suitable measuring instruments and, if required, adjusted. The test interval periods depend on the frequency of use.

Our service includes the affordable requirement of both the normal calibration certificate in accordance with DIN EN ISO 6789 and on request, the calibration certificate in accordance with DKD (German Calibration Service) guidelines. We maintain, calibrate and adjust those of our own manufacture within 5 working days after goods are received in accordance with the DIN EN ISO 6789 standards including the factory test certificate and the control sticker.



Torque tools

Indicative torque wrench according to DIN6789 typ I

Torque screwdrivers



- ESD torque screwdriver
- For controlled display in a clockwise and counter clockwise direction
 - Torque screwdriver with a helical pressure spring
 - Electro static discharge - electrostatically protected
 - Range 20 - 500 c•N

Torque wrenches



- Type torque wrench with dial indicator and drag indicator
- For controlled display in a clockwise and counter clockwise direction
 - Display type torque wrench with dial indicator and drag indicator
 - Using the torsion bar principle, and in contrast to conventional torque wrenches, it is possible to grip the torque wrench in any position
 - Range 0,7 - 2.800 N•m

Triggering torque wrench according to DIN6789 typ II

Torque screwdrivers



- ESD torque screwdriver
- For controlled fastening in clockwise and counter clockwise directions
 - Clearly palpable release signal when the desired torque is achieved
 - Electro static discharge - electrostatically protected
 - Range 1 - 1.000 c•N



- Mini torque wrenches
- For controlled fastening in a clockwise direction
 - Can untighten without any torque restraint thanks to the anticlockwise latch
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Range 3 - 15 N•m



- Torque screwdriver
- For controlled fastening in clockwise and counter clockwise directions
 - Clearly palpable release signal when the desired torque is achieved
 - Range 0,1 - 6,0 N•m

Torque wrenches



- Torque wrench with quick-set feature
- With idle condition, resetting to the minimum value (0) is not necessary
 - For controlled fastening in a clockwise direction
 - Can untighten without any torque restraint thanks to the anticlockwise latch
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Torque setting is simple and quick by sliding the scale using the knurled-head screw
 - Range 10 - 1.000 N•m



- Torque wrench with close-gap release
- For controlled fastening in clockwise and counter clockwise directions
 - The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Range 2,5 - 2.000 N•m



- KS Ergotorque®basic
- For controlled fastening in clockwise and counter clockwise directions
 - The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Range 10 - 320 N•m



- KS Ergotorque®precision
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Range 1 - 1.000 N•m



- KS Ultimateprecision
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Range 1 - 1.000 N•m



- Preset ratcheting torque wrench
- For controlled fastening in a clockwise direction
 - Clearly palpable release signal when the desired torque is achieved
 - It is not possible to over tighten the set value
 - Range 1 - 125 N•m



- ALUTORQUEprecision torque wrench
- Single or double square for controlled fastening in clockwise and counter clockwise directions
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Light, robust and very workshop-friendly
 - Range 6 - 2.000 N•m



- Industrial torque wrench
- For controlled fastening in clockwise and counter clockwise directions
 - Torque setting is easy using the locking knob in the handle end
 - Clearly palpable release signal when the desired torque is achieved via close gap release
 - Range 1 - 1.500 N•m

Torque testing



- Type torque wrench with dial indicator and drag indicator
- For controlled display in a clockwise and counter clockwise direction
 - Display type torque wrench with dial indicator and drag indicator
 - Tool mounting using a three jaw chuck
 - Range 1 - c•N - 9 N•m



- Electronic torque wrench workshop tool
- High accuracy: +1 % tolerance for values within their range,
 - For testing and adjusting torque wrenches and torque screwdrivers
 - For controlled display in a clockwise and counter clockwise direction
 - With autoreset and automatic switch-off
 - Range 1 - 1.000 N•m



- Universal torque converter
- For controlled fastening in clockwise and counter clockwise directions
 - Device for angle-regulated fastening with a torque wrench
 - With single-stage precision planetary gear for both directions
 - Range up to 2.700 N•m

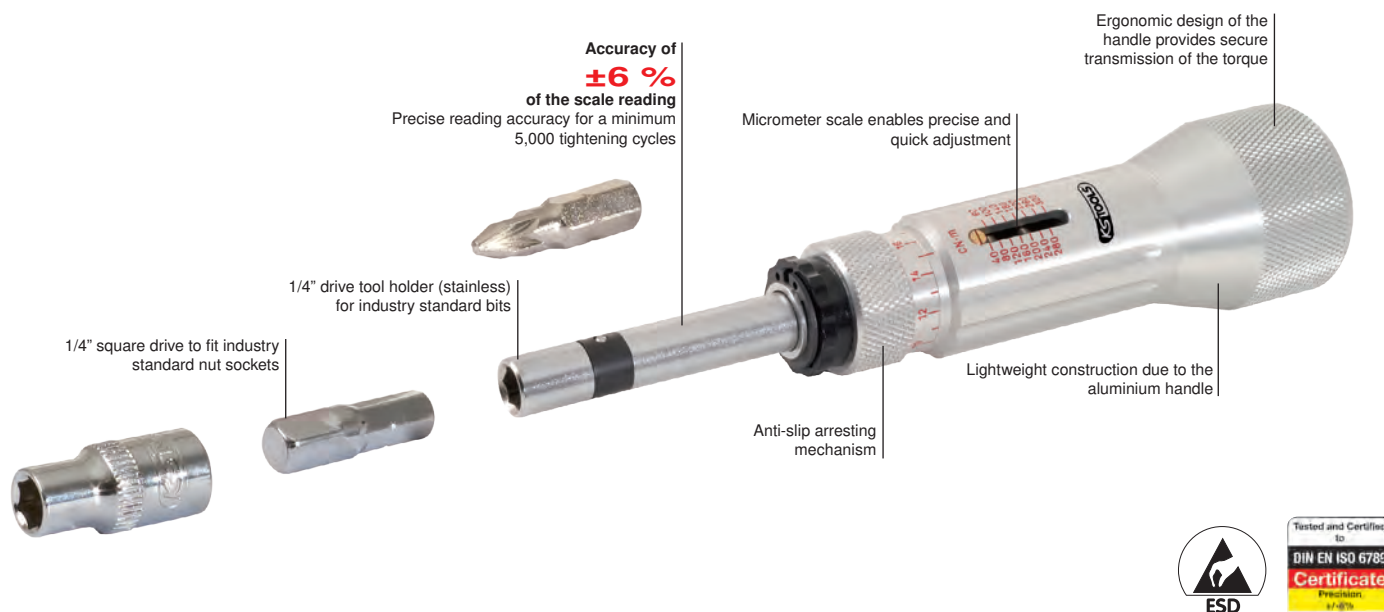


- Universal torque converter
- For controlled fastening in clockwise and counter clockwise directions
 - Device for angle-regulated fastening with a torque wrench
 - With anti-backlash mechanism
 - Range up to 9.500 N•m

Torque convertor

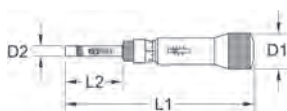
TORQUE SCREWDRIVERS

This torque screwdriver is fitted with a friction clutch. This enables it to ratchet when the set value is achieved. As a result, it is not possible to over-tighten the screw. The torque screwdriver has fastening function in clockwise and counter clockwise directions and is adjusted with the help of a micrometer scale.



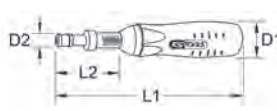
ESD Torque screwdriver with micrometer scale

- Actuation accuracy: $\pm 6\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- With precision helical pressure spring
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Micrometer scale in N·m divisions for precise and fine adjustment
- Ergonomic designed handle provides secure transmission of the torque
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Electro static discharge - electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



Torque screwdriver with micrometer scale

- Actuation accuracy: $\pm 6\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- With precision helical pressure spring
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Including a micrometre scale in N·m divisions for precise and fine adjustment
- Ergonomic designed rubber handle provides secure torque transmission
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individual serial number for clear product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standards

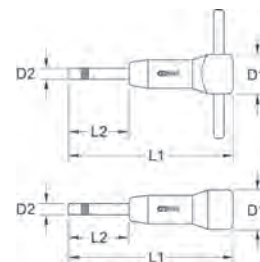


	Measuring range N·m	Division cN·m	L mm	L2 mm	D1 mm	D2 mm	Weight g
516.3250	0,1 - 1,2	0,1	180,0	28,0	30,0	11,0	230
516.3255	1 - 6	0,1	200,0	30,0	35,0	11,0	445



ESD Fixed adjustable torque screwdriver with colour coding

- Actuation accuracy: $\pm 6\%$ tolerance from the set value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- With precision helical pressure spring
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fixed adjustable value
- Ergonomic designed handle provides secure transmission of the torque
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Electro static discharge - electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



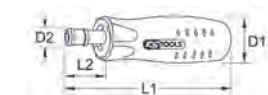
	Measuring range cN·m	L1 mm	L2 mm	D1 mm	D2 mm	Colour code	Weight g
516.3910	1 - 15	92,0	22,0	16,0	8,0	-	45
516.3915	5 - 60	102,0	40,0	25,0	10,0	-	94
516.3920	40 - 200	111,0	49,0	30,0	10,0	green	170
516.3925	100 - 500	126,0	56,0	35,0	10,0	red	220



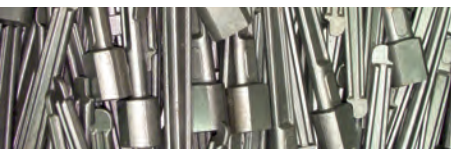
	Measuring range cN·m	Division cN·m	Division N·m	L1 mm	L2 mm	D1 mm	D2 mm	Weight g
516.3210	1-15	0.1		111.0	26.0	16.0	10.0	60
516.3215	2-30	0.2		111.0	26.0	16.0	10.0	60
516.3220	5-60	0.5		111.0	26.0	25.0	10.0	99
516.3225	20-120	1.0		157.0	51.0	30.0	10.0	192
516.3235	40-300	1.0		157.0	51.0	34.0	10.0	214
516.3240	100-500	2.5		200.0	63.0	40.0	10.0	436
516.3245	400-1000		0.05	235.0	100.0	45.0	11.0	762

Pre-set torque screwdriver

- Actuation accuracy: $\pm 6\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Ergonomic designed handle provides secure torque transmission
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Includes test certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standards



	Measuring range N·m	L mm	L2 mm	D1 mm	D2 mm	⚙
516.3930	0,2 - 1,2	132,0	25,0	30,0	11,0	183
516.3935	1 - 1,8	132,0	25,0	30,0	11,0	183
516.3940	1 - 6	200,0	25,0	30,0	11,0	445



ESD Dial indicating torque screwdriver with a drag indicator

- Display accuracy: $\pm 6\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- Torque screwdriver with a helical pressure spring
- Ergonomic designed handle provides secure transmission of the torque
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Electro static discharge - electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



	Measuring range cNm	Division cNm	L1 mm	L2 mm	D1 mm	D2 mm	⚙
516.3260	20 - 100	2,0	222,0	130,0	48,0	12,0	290
516.3265	50 - 200	5,0	242,0	130,0	48,0	12,0	320
516.3270	100 - 500	20,0	300,0	188,0	48,0	14,0	420

Stubby torque wrench with exact gearing reversible ratchet head

- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



					
		Measuring range Nm	Division N·m	D mm	
516.3280	1/4"	3 - 15	0.50	18.0	190

ROTARY ANGLE DISCS

Rotary angle disc

- For fastening screws at an angle
- Device for angle regulated fastening with a torque wrench
- Flexible arm
- Range 0° - 360°
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Optionally with a magnetic arm or claw arm



				Arm	Pitch	D mm	H mm	L mm	
516.1195	1/2"	1/2"	magnet	2°	67.0	63.0	480.0	170	
516.1196	1/2"	1/2"	claw	2°	67.0	63.0	538.0	60	
516.1197	3/4"	3/4"	magnet	2°	87.0	87.0	624.0	170	
516.1198	3/4"	3/4"	claw	2°	87.0	87.0	698.0	60	



TORQUE LIMITERS

Torque limiter for spark plugs

- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock



			N·m	D mm	L mm	
516.1501	3/8"	3/8"	18	28.0	51.5	165
516.1502	3/8"	3/8"	24	28.0	52.0	166

Pre-set torque limiter with ball lock

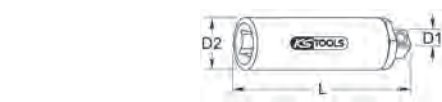
- High accuracy
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Easy to operate
- For application with low torque
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Square drive in accordance with DIN 3120 - ISO 1174



			Measuring range N·m	D1 mm	D2 mm	L mm		
516.1503	1/4"	3/8	0,5-5	22.0	11.0	75.0	91	
516.1504	1/4"	3/8	5-10	22.0	11.0	75.0	91	

Pre-set torque limiter with ball lock

- High accuracy
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Easy to operate
- For application with low torque
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock



			Measuring range N·m	D1 mm	D2 mm	L mm	 9	
516.1507	3/8"	3/8"	0,5-5	22.0	10.0	75.0	93	
516.1508	3/8"	3/8"	5-10	22.0	10.0	75.0	93	

TORQUE WRENCH



+/-3%



Ratchet head:

A highly robust ratchet mechanism for clockwise and counter-clockwise movement is integrated in the polished ratchet head.

The direction of rotation can be changed by simply rotating the square drive. A sliding roller bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

Accuracy of

±3 %

of the scale reading

Precise reading accuracy for a minimum 5,000 tightening cycles



Corrosion:

The robust steel pipe body is coated with a powder coating protection in order to ensure durable corrosion-proof properties.



KS Ergotorque Basic

- Push through square (no mushroom heads)
- Large scale (no micro scale)
- Accuracy +/- 3%



KS Ultimate precision

- as for KS ERGOTORQUE®precision - only with a 2% triggering accuracy

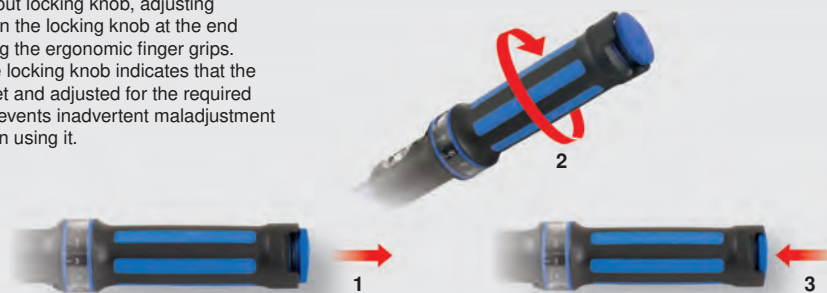


Reversible ratchet head

1/4" - 1"

TECHNOLOGY

The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic finger grips. A black ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.



RATCHET HEADS



Scale with magnifying glass:

A double scale having N•m and Lbf•ft divisions that can be read easily, is concealed under a large sized vision panel, which enables particularly accurate adjustment of the desired torque value. In order to be able to read off the scale in an optimal and simple manner, a strong magnifying glass is integrated in the vision panel.

Serial number:

A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.



Two-component handle:

The new durable and ergonomic two-component handle ensures safe and effortless working, whereby the softer component prevents the hand from slipping and provides maximum safety.

Handle end:

The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic finger grips. A black ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.

Micrometer scale:

Even fine adjustments can be made with the help of the white micrometer scale. The vision panel has been sized liberally and ensures that the micrometer value can be read off the scale in an optimal and simple manner using the magnifying glass. Thus, depending on the model, divisions of 1/ 0,5/ 0,1 or 0,025 N•m can be adjusted accurately.



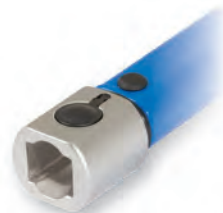
Rotating ratchet head

1/4" - 1/2"



Quick change tool system

9 x 12 mm



Quick change tool system

14 x 18 mm

PUSH BUTTON RELEASE

MUSHROOM HEAD WITH SQUARE

QUICK CHANGE TOOL SYSTEM



The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece. The torque wrenches can be upgraded to another drive size with the the range of accessories available.



CLOCK-WISE FASTENING
COUNTER CLOCK-WISE FASTENING

The quick-change tool system has diverse drive options for various applications for clockwise and counter clockwise fastening with a safety connector for standard sizes of 9 x 12 or 14 x 18 mm push-fit tools provides the solution for all areas of industrial manufacturing.



ERGOTORQUE® basic TORQUE WRENCH

T-handle box wrench

- Enables quick pre-fastening of the screw connections
- Especially for using in confined spaces
- Especially suitable for rapid screw tightening with the T-handle
- It is simply to be used in place of the standard box wrench
- Ergonomically shaped T-handle
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock



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

			B mm	L mm	g
516.1404	3/8"	1/4"	83.0	72.0	51
516.1414	3/8"	3/8"	83.0	72.0	51
516.1424	1/2"	3/8"	100.0	83.0	97
516.1444	1/2"	1/2"	100.0	83.0	107

Rotary square box wrench

- Enables quick pre-fastening of the screw connections, especially in constrained spaces
- Simple to be used in place of the standard box wrench
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



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

			D mm	L mm	g
516.1403	3/8"	1/4"	31.0	33.0	21
516.1413	3/8"	3/8"	31.0	33.0	21
516.1423	1/2"	3/8"	39.0	52.0	65
516.1443	1/2"	1/2"	39.0	52.0	65
516.1494	3/4"	3/4"	63.0	73.0	180
516.1491	1"	3/4"	83.0	78.0	380
516.1496	1"	1"	83.0	78.0	380

Insert type box wrench

- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock



3/8" 1/2"

			L mm	g
516.1933	1/2"	1/2"	43.0	49
516.1943	1/2"	3/8"	43.0	48

ERGOTORQUE® basic torque wrench with insert type ratchet head

- Actuation accuracy: $\pm 3\%$ tolerance from the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Double scale in N·m and lbf·ft divisions for precise adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 72 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



1/2"

		N·m	lbf·ft	Division N·m	L mm	D mm	H mm	g
516.1932	1/2"	10-100	8 - 75	5.00	395.0	43.0	27.0	0.91
516.1942	1/2"	20-200	15 - 150	10.00	485.0	43.0	27.0	1.30
516.1972	1/2"	60-320	45 - 236	10.00	585.0	43.0	27.0	1.45

ERGOTORQUE® precision TORQUE WRENCH

ERGOTORQUE® precision torque wrench with rotary mushroom ratchet head

- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Torque setting by pulling out and pushing in the slide in knob at the end of the handle
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Double scale in N·m and lbf·ft divisions for precise adjustment
- Includes micrometer scale in N·m divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 72 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



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

		N·m	Division N·m	lbf·ft	L mm	D mm	H mm	g
516.1412	1/4"	1-25	0.10	0.8 - 18	289.0	35.0	18.0	0.46
516.1422	3/8"	5-50	0.25	4 - 37	350.0	45.0	23.0	0.61
516.1432	1/2"	10-100	0.50	8 - 75	412.0	45.0	23.0	0.91
516.1442	1/2"	20-200	1.00	15 - 150	500.0	45.0	23.0	1.30
516.1472	1/2"	60-320	1.00	45 - 236	585.0	45.0	23.0	1.45
516.1482	1/2"	80-420	1.00	60 - 310	678.0	45.0	23.0	2.10
516.1490	3/4"	100-550	1.00	75 - 405	960.0	69.0	33.0	3.80
516.1493	3/4"	200-750	10.00	150 - 550	1250.0	69.0	33.0	4.80
516.1495	1"	300-1000	20.00	220 - 730	1500.0	90.0	36.0	5.80

ERGOTORQUE® precision torque wrench with reversible ratchet head

- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Double scale in N·m and lbf·ft divisions for precise adjustment
- Includes micrometer scale in N·m divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 36 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



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

		N·m	lbf·ft	Division N·m	L mm	D mm	H mm	g
516.1512	1/4"	1-25	0.8 - 18	0.10	289.0	35.0	18.0	0.46
516.1522	3/8"	5-50	4 - 37	0.25	350.0	45.0	23.0	0.61
516.1532	1/2"	10-100	8 - 75	0.50	412.0	45.0	23.0	0.91
516.1542	1/2"	20-200	15 - 150	1.00	500.0	45.0	23.0	1.30
516.1572	1/2"	60-320	45 - 236	1.00	585.0	45.0	23.0	1.45
516.1582	1/2"	80-420	60 - 310	1.00	678.0	45.0	23.0	2.10

ERGOTORQUE® precision fine adjustment torque wrench with rectangular tool holder

- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Easy to adjust from clockwise to counter clockwise by turning the torque wrench 180°
- Double scale in N·m and lbf·ft divisions for precise adjustment
- With additional micrometer scale in N·m divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



9x12 14x18

		N·m	lbf·ft	Division N·m	L mm	L mm	S mm	g
516.1612	9x12	1-25	0.8 - 18	0.10	280.0	245.0	17.5	0.30
516.1622	9x12	5-50	4 - 37	0.25	335.0	295.0	17.5	0.45
516.1632	9x12	10-100	8 - 75	0.50	375.0	335.0	17.5	0.60
516.1633	14x18	10-100	8 - 75	0.50	375.0	335.0	17.5	1.02
516.1642	9x12	20-200	15 - 150	1.00	465.0	425.0	17.5	0.85
516.1652	14x18	20-200	15 - 150	1.00	470.0	435.0	25.0	0.90
516.1672	14x18	60-320	45 - 236	1.00	565.0	530.0	25.0	1.20
516.1682	14x18	80-420	60 - 310	1.00	650.0	435.0	25.0	1.60

ERGOTORQUE® precision fine adjustment torque wrench with rectangular tool holder

- Actuation accuracy: $\pm 3\%$ tolerance from the set value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Without scale - With a fixed adjustable value
- An audible and palpable signal when the desired torque value is achieved
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



1/4" 3/8"

		N·m	lbf·ft	L mm	L mm	S mm	kg
516.1810	9x12	1-25	0,8 - 18	190,0	155,0	17,5	230
516.1820	9x12	5-50	4 - 37	250,0	210,0	17,5	300
516.1830	9x12	15-85	12 - 64	330,0	280,0	17,5	370
516.1840	14x18	20-200	15 - 150	410,0	370,0	25,0	780

ERGOTORQUE® precision torque wrench toolkit 1-25 N·m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/4"

			kg
516.1515	31 pcs	ERGOTORQUE® precision torque wrench toolkit 1-25 N·m	4.99
1 x		1 - 25 N·m	
4 x		50 - 75 - 100 - 150 mm	
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	

ERGOTORQUE® precision torque wrench toolkit 5-50 N·m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



3/8"

			kg
516.1525	40 pcs	ERGOTORQUE® precision torque wrench toolkit 5-50 N·m	6.62
1 x		5 - 50 N·m	
3 x		75 - 150 - 250 mm	
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm	
11 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60	

ERGOTORQUE® precision TORQUE WRENCH TOOLKIT

ERGOTORQUE® precision torque wrench toolkit 1 - 25 N·m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/4"

			kg
516.1415	35 pcs	ERGOTORQUE® precision torque wrench toolkit 1 - 25 N·m	4.73
1 x		1 - 25 N·m	
4 x		50 - 75 - 100 - 150 mm	
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
2 x		3/8" x 1/4" ; 3/8"	
2 x		3/8" x 1/4" ; 3/8"	

ERGOTORQUE® precision torque wrench toolkit 5 - 50 N·m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



3/8"

			kg
516.1425	44 pcs	ERGOTORQUE® precision torque wrench toolkit 5 - 50 N·m	10.32
1 x		5 - 50 N·m	
3 x		75 - 150 - 250 mm	
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm	
11 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60	
2 x		3/8" x 1/4" ; 3/8"	
2 x		3/8" x 1/4" ; 3/8"	

ERGOTORQUE® precision torque wrench toolkit 10-100 N·m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

			kg
516.1435	52 pcs	ERGOTORQUE® precision torque wrench toolkit 10-100 N·m	13.48
1 x		10 - 100 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2"	
2 x		1/2" x 3/8" ; 1/2"	

ERGOTORQUE® precision torque wrench toolkit 1-25 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm

		kg	
516.1615	33 pcs	ERGOTORQUE® precision torque wrench toolkit 1-25 N·m	8.47
1 x		1 - 25 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12	
2 x		1/4" - 3/8"	

ERGOTORQUE® precision torque wrench toolkit 5-50 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm

		kg	
516.1625	33 pcs	ERGOTORQUE® precision torque wrench toolkit 5-50 N·m	8.56
1 x		5 - 50 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12	
2 x		1/4" - 3/8"	

ERGOTORQUE® precision torque wrench toolkit 10-100 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm

		kg	
516.1635	33 pcs	ERGOTORQUE® precision torque wrench toolkit 10-100 N·m	8.92
1 x		10 - 100 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12	
2 x		1/4" - 3/8"	

ERGOTORQUE® precision torque wrench toolkit 20-200 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm

		kg	
516.1645	32 pcs	ERGOTORQUE® precision torque wrench toolkit 20-200 N·m	9.12
1 x		20 - 200 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12	
1 x		1/2"	

ERGOTORQUE® precision torque wrench toolkit 60-320 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



1x10 mm

		kg	
516.1675	39 pcs	ERGOTORQUE® precision torque wrench toolkit 60-320 N·m	15.25
1 x		60 - 320 N·m	
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm	
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm	
1 x		5/16"	
1 x		14 x 18	
1 x		1/2"	

ERGOTORQUE® precision torque wrench toolkit 80-420 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



1x10 mm

		kg	
516.1685	39 pcs	ERGOTORQUE® precision torque wrench toolkit 80-420 N·m	15.65
1 x		80 - 420 N·m	
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm	
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm	
1 x		5/16"	
1 x		14 x 18	
1 x		1/2"	

ULTIMATE^{precision} TORQUE WRENCH

- Accuracy of $\pm 2\%$ of the scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- Tested with certification in accordance to DIN EN 6789
- Durable and ergonomic two-component handle
- Secure and clearly visible indentations in the handle
- Easily readable double scale with fine torque adjustment
- Individually marked with serial number - unique product identification
- Diverse drive options for different types of applications
- Clearly audible and palpable release signal when the desired torque value has been achieved
- Durable corrosion-proof construction due to the robust and powder-coated steel pipe
- Overload guarantee of $\pm 125\%$ of the maximum scale or torque value



Serial number:

A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

Ratchet head:

A highly robust ratchet mechanism 72 teeth for clockwise and counter clockwise movement is integrated in the polished ratchet head. The direction of rotation can be changed by simply rotating the square drive. A sliding roller bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

Accuracy of

$\pm 2\%$

of the scale reading

Precise reading accuracy for a minimum 10.000 tightening cycles

Corrosion:

The robust steel pipe body is coated with a powder coating protection in order to ensure durable corrosion-proof properties.



TECHNOLOGY

The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic finger grips. A red ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.



RATCHET HEAD



ULTIMATE^{precision} TORQUE WRENCH

T-handle box wrench

- Enables quick pre-fastening of the screw connections
- Especially for using in confined spaces
- Especially suitable for rapid screw tightening with the T-handle
- It is simply to be used in place of the standard box wrench
- Ergonomically shaped T-handle
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock



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

			B mm	L mm	
516.1404	3/8"	1/4"	83.0	72.0	51
516.1414	3/8"	3/8"	83.0	72.0	51
516.1424	1/2"	3/8"	100.0	83.0	97
516.1444	1/2"	1/2"	100.0	83.0	107



Rotary square box wrench

- Enables quick pre-fastening of the screw connections, especially in constrained spaces
- Simple to be used in place of the standard box wrench
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



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

			D mm	L mm	
516.1403	3/8"	1/4"	31.0	33.0	21
516.1413	3/8"	3/8"	31.0	33.0	21
516.1423	1/2"	3/8"	39.0	52.0	65
516.1443	1/2"	1/2"	39.0	52.0	65
516.1494	3/4"	3/4"	63.0	73.0	180
516.1491	1"	3/4"	83.0	78.0	380
516.1496	1"	1"	83.0	78.0	380

ULTIMATE^{precision} torque wrench with rotary mushroom ratchet head

- Actuation accuracy: $\pm 2\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Torque setting by pulling out and pushing in the slide-in knob at the end of the handle
- For controlled fastening in both directions.
- Double scale in N·m and lbf·ft divisions for precise adjustment
- With additional micrometer scale in N·m divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 72 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



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

		N·m	Division N·m	lbf·ft	L mm	D mm	H mm	
516.4012	1/4"	1-25	0.10	0.8 - 18	289.0	35.0	18.0	0.46
516.4022	3/8"	5-50	0.25	4 - 37	350.0	45.0	23.0	0.61
516.4032	1/2"	10-100	0.50	8 - 75	412.0	45.0	23.0	0.91
516.4042	1/2"	20-200	1.00	15 - 150	500.0	45.0	23.0	1.30
516.4072	1/2"	60-320	1.00	45 - 236	585.0	45.0	23.0	1.45
516.4082	1/2"	80-420	1.00	60 - 310	678.0	45.0	23.0	2.10
516.4090	3/4"	100-550	1.00	75 - 405	960.0	69.0	33.0	3.80
516.4093	3/4"	140-750	1.00	100 - 550	1250.0	69.0	33.0	4.80
516.4095	1"	300-1000	20.00	220 - 730	1500.0	90.0	36.0	5.80

ULTIMATE^{precision} torque wrench with rotary mushroom ratchet head

- Actuation accuracy: $\pm 2\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Double scale in N·m and lbf·ft divisions for precise adjustment
- With additional micrometer scale in N·m divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 36 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



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

		N·m	lbf·ft	Division N·m	L mm	D mm	H mm	
516.4912	1/4"	1-25	0.8 - 18	0.10	289.0	35.0	18.0	0.46
516.4922	3/8"	5-50	4 - 37	0.25	350.0	45.0	23.0	0.61
516.4932	1/2"	10-100	8 - 75	0.50	412.0	45.0	23.0	0.91
516.4942	1/2"	20-200	15 - 150	1.00	500.0	45.0	23.0	1.30
516.4972	1/2"	60-320	45 - 236	1.00	585.0	45.0	23.0	1.45
516.4982	1/2"	80-420	60 - 310	1.00	678.0	45.0	23.0	2.10

ULTIMATE^{precision} torque wrench with rectangular tool holder

- Actuation accuracy: $\pm 2\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- Easy to adjust from clockwise to counter clockwise by turning the torque wrench 180°
- Double scale in N·m and lbf·ft divisions for precise adjustment
- With additional micrometer scale in N·m divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



9x12 mm 14x18 mm

		N·m	Division N·m	lbf·ft	L mm	L mm	S mm	
516.4212	9x12	1-25	0.10	0.8 - 18	280.0	245.0	17.5	0.30
516.4222	9x12	5-50	0.25	4.0 - 37	335.0	295.0	17.5	0.45
516.4232	9x12	10-100	0.50	8.0 - 75	375.0	335.0	17.5	0.60
516.4242	9x12	20-200	1.00	15.0 - 150	465.0	425.0	17.5	0.85
516.4252	14x18	20-200	1.00	15.0 - 150	470.0	435.0	25.0	0.90
516.4272	14x18	60-320	1.00	45.0 - 236	565.0	530.0	25.0	1.20
516.4282	14x18	80-420	1.00	60.0 - 310	650.0	435.0	25.0	1.60
516.4290	14x18	100-550	1.00	74.0 - 405	920.0	875.0	25.0	3.75
516.4293	14x18	200-750	1.00	148 - 553	1120.0	1155.0	25.0	5.27

ULTIMATE^{precision} fine adjustment torque wrench with rectangular tool holder

- Actuation accuracy: $\pm 2\%$ tolerance from the set value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Without scale - With a fixed adjustable value
- An audible and palpable signal when the desired torque value is achieved
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- With snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



9x12 mm 14x18 mm

		N·m	lbf·ft	L mm	L mm	S mm	
516.4810	9x12	1-25	0.8 - 18	190.0	155.0	17.5	230
516.4820	9x12	5-50	4 - 37	250.0	210.0	17.5	300
516.4830	9x12	15-85	12 - 64	330.0	280.0	17.5	370
516.4840	14x18	20-200	15 - 180	410.0	370.0	25.0	780



ULTIMATEprecision TORQUE WRENCH TOOLKIT
ULTIMATEprecision torque wrench toolkit 1-25 N·m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/4"

1/4"			
516.4015	35 pcs	ULTIMATEprecision torque wrench toolkit 1-25 N·m	4.74
1 x		1 - 25 N·m	
4 x		50 - 75 - 100 - 150 mm	
13 x		4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
2 x		3/8" x 1/4" ; 3/8" x 3/8"	
2 x		3/8" x 1/4" ; 3/8" x 3/8"	

ULTIMATEprecision torque wrench toolkit 1-25 N·m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/4"

1/4"			
516.4915	31 pcs	ULTIMATEprecision torque wrench toolkit 1-25 N·m	4.60
1 x		1 - 25 N·m	
4 x		50 - 75 - 100 - 150 mm	
13 x		4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

ULTIMATEprecision torque wrench toolkit 5-50 N·m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



3/8"

3/8"			
516.4025	42 pcs	ULTIMATEprecision torque wrench toolkit 5-50 N·m	10.33
1 x		5 - 50 N·m	
3 x		75 - 150 - 250 mm	
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm	
11 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	
1 x		3/8" x 1/2"	

ULTIMATEprecision torque wrench toolkit 5-50 N·m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



3/8"

3/8"			
516.4925	40 pcs	ULTIMATEprecision torque wrench toolkit 5-50 N·m	6.29
1 x		5 - 50 N·m	
3 x		75 - 150 - 250 mm	
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm	
11 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	

ULTIMATEprecision torque wrench toolkit 10-100 N·m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

1/2"			
516.4035	52 pcs	ULTIMATEprecision torque wrench toolkit 10-100 N·m	13.49
1 x		1 - 100 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2" x 1/2"	
2 x		3/8" x 1/4" ; 3/8" x 3/8"	

ULTIMATEprecision torque wrench toolkit 20-200 N·m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

1/2"			
516.4045	52 pcs	ULTIMATEprecision torque wrench toolkit 20-200 N·m	13.88
1 x		20 - 200 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2" x 1/2"	
2 x		1/2" x 3/8" ; 1/2" x 1/2"	

ULTIMATEprecision torque wrench toolkit 60-320 N·m

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

		kg	
516.4075	52 pcs	ULTIMATEprecision torque wrench toolkit 60-320 N·m	14.03
1 x		60 - 320 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2"	
2 x		1/2" x 3/8" ; 1/2"	

ULTIMATEprecision torque wrench toolkit 80-420 N·m

- Set contents for universal applications
- Includes torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

		kg	
516.4085	52 pcs	ULTIMATEprecision torque wrench toolkit 80-420 N·m	14.68
1 x		80 - 420 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	
2 x		1/2" x 3/8" ; 1/2"	
2 x		1/2" x 3/8" ; 1/2"	

ULTIMATEprecision torque wrench toolkit 10-100 N·m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

		kg	
516.4935	48 pcs	ULTIMATEprecision torque wrench toolkit 10-100 N·m	13.22
1 x		10 - 100 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATEprecision torque wrench toolkit 20-200 N·m

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

		kg	
516.4945	48 pcs	ULTIMATEprecision torque wrench toolkit 20-200 N·m	13.61
1 x		60 - 320 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATEprecision torque wrench toolkit 60-320 N·m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

		kg	
516.4975	48 pcs	ULTIMATEprecision torque wrench toolkit 60-320 N·m	13.76
1 x		60 - 320 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATEprecision torque wrench toolkit 80-420 N·m

- Set contents for universal applications
- Includes Torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/2"

		kg	
516.4985	48 pcs	ULTIMATEprecision torque wrench toolkit 80-420 N·m	14.41
1 x		80 - 420 N·m	
3 x		75 - 125 - 250 mm	
21 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	
12 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	

ULTIMATEprecision torque wrench toolkit 1-25 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm		kg	
516.4215	33 pcs	ULTIMATEprecision torque wrench toolkit 1-25 N·m	7.92
1 x		1 - 25 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12 mm	
2 x		1/4" - 3/8"	

ULTIMATEprecision torque wrench toolkit 10-100 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm		kg	
516.4235	33 pcs	ULTIMATEprecision torque wrench toolkit 10-100 N·m	8.22
1 x		10 - 100 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12 mm	
2 x		1/4" - 3/8"	

ULTIMATEprecision torque wrench toolkit 60-320 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



15x18 mm		kg	
516.4275	39 pcs	ULTIMATEprecision torque wrench toolkit 60-320 N·m	14.65
1 x		60 - 320 N·m	
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm	
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm	
1 x		5/16"	
1 x		14 x 18 mm	
1 x		1/2"	

ULTIMATEprecision torque wrench toolkit 5-50 N·m

- Set contents for universal applications
- Includes Torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm		kg	
516.4225	33 pcs	ULTIMATEprecision torque wrench toolkit 5-50 N·m	8.07
1 x		5 - 50 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12 mm	
2 x		1/4" - 3/8"	

ULTIMATEprecision torque wrench toolkit 20-200 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm		kg	
516.4245	33 pcs	ULTIMATEprecision torque wrench toolkit 20-200 N·m	8.47
1 x		20 - 200 N·m	
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4" - 5/16"	
1 x		9 x 12 mm	
2 x		1/4" - 3/8"	

ULTIMATEprecision torque wrench toolkit 80-420 N·m

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



15x18 mm		kg	
516.4285	39 pcs	ULTIMATEprecision torque wrench toolkit 80-420 N·m	15.05
1 x		80 - 420 N·m	
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm	
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm	
1 x		5/16"	
1 x		14 x 18 mm	
1 x		1/2"	

ALUTORQUEprecision



Torque wrench made from high-strength aluminium alloy



Ratchet head:
A robust mechanism, optionally with a square drive for controlled fastening or with a double square for controlled clockwise and counter clockwise fastening is integrated into the head.

The ALUTORQUEprecision torque wrench is also available with a rectangular reception and guarantees flexible working through this.

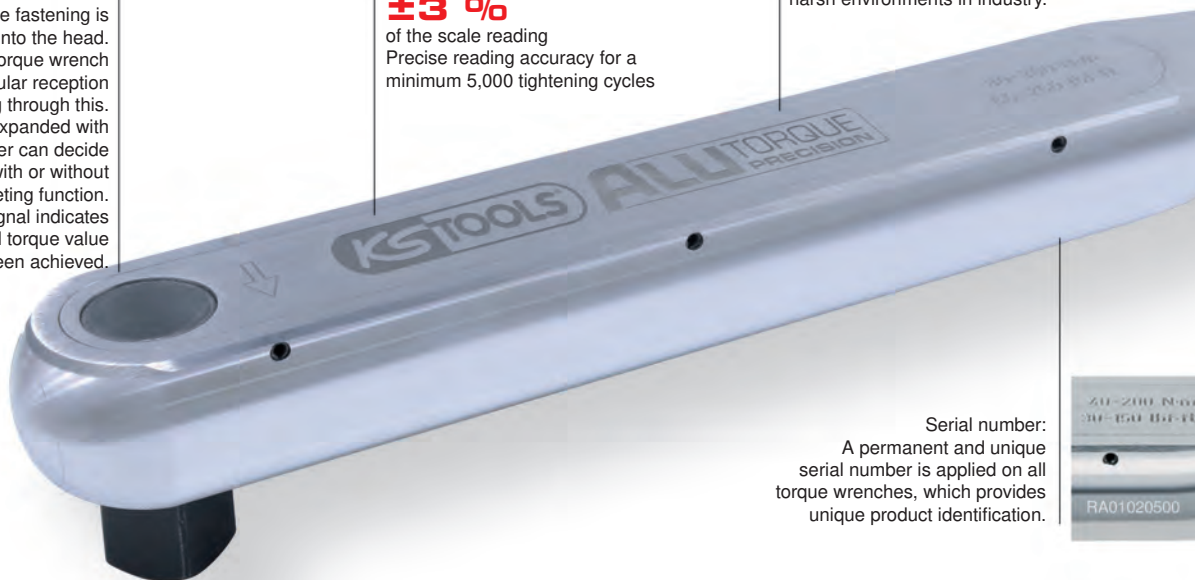
The square drives can be expanded with pin ratchets so that the user can decide himself whether he wants to work with or without the ratcheting function.

An audible and palpable signal indicates automatically that the desired torque value has been achieved.



Accuracy of
±3 %
of the scale reading
Precise reading accuracy for a minimum 5,000 tightening cycles

The robust and durable body is ideal for use in harsh environments in industry.



Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

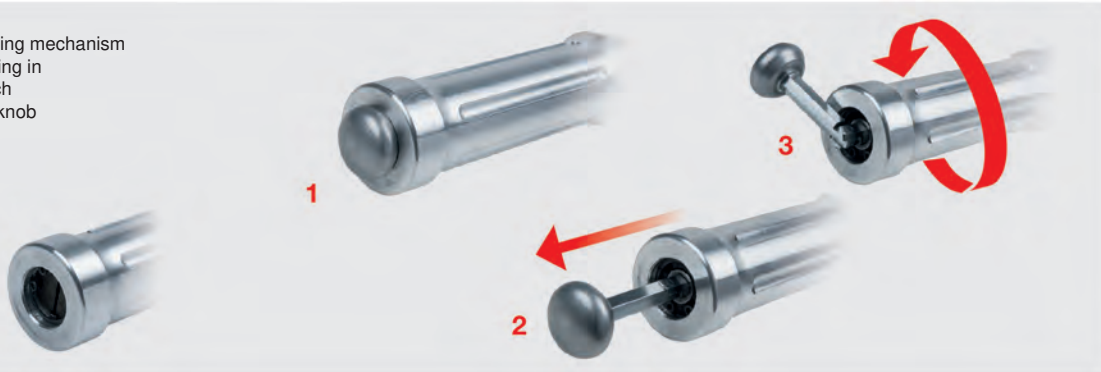


TECHNOLOGY

The desired torque can be adjusted and set using the folding mechanism by simply pulling out and pushing in the captive hexagon key wrench in connection with the locking knob at the end of the handle.



All ALUTORQUEprecision torque wrenches can be used permanently with safety.



Scale:
A double scale having N.m and lbf.in/lbf.ft divisions that can be read easily, is concealed under a large sized vision panel, which enables particularly accurate adjustment of the desired torque value.

Aluminium handle:
The new light, durable and ergonomic aluminium handle ensures simple and secure operation.

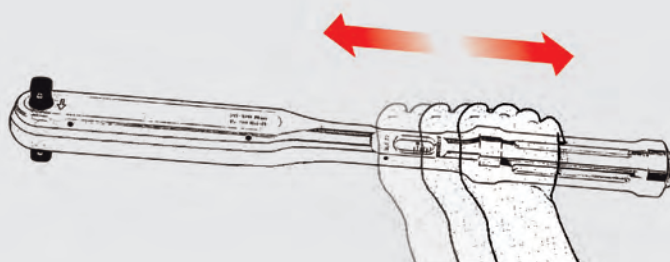
+/-3%

The desired torque can be adjusted and set using the folding mechanism by simply pulling out and pushing in the captive hexagon key wrench in connection with the locking knob at the end of the handle.



Error-free operation:

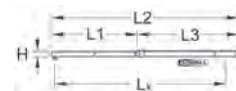
The pivot of the drive lever and the drive square lie on one axis, meaning that in contrast to conventional torque wrenches, it is possible to grip the torque wrench in any position, either using both hands or with an extension bar. Thanks to the lever chain a shift in the value is ruled out. The absolute accuracy always remains preserved.



ALUTORQUEprecision TORQUE WRENCH

ALUTORQUEprecision torque wrench

- Release accuracy: $\pm 3\%$ tolerance from the set scale value and better
- Use is almost all industrial production areas
- Depending on option with fast release function button
- Depending on option with robust ratchet mechanism
- Simple operation - fast and secure torque tightening
- Simple and/or double square for controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- Clear audible and noticeable torque release signal through close-gap release
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Setting the torque by using the captive crank lever mechanism in the handle
- Comfortable setting through shapely, captive adjustment knob on the end of the handle
- Extendible to reduces the workload of the user
- Extremely low wear through force reductions through lever mechanism
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standards

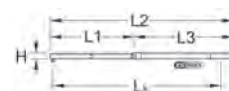


1/4" 3/8" 1/2" 3/4" 1" 1 1/2"

					N-m	Division N-m	lbf-in	lbf-ft	Division lbf-in	Division lbf-ft	L mm	H mm	L1 mm	L2 mm	L3 mm			
516.5030				1/4"	6-30	1.00	50-270		10.0		207	30.0	268.0				0.58	
516.5031				1/4"	6-30	1.00	50-270		10.0		207	30.0	268.0				0.58	
516.5032				3/8"	8-40	5.00	70-350		50.0		263	30.0	338.0				1.00	
516.5033				3/8"	8-40	5.00	70-350		50.0		263	30.0	338.0				1.00	
516.5034		X		1/2"	20-120	5.00		15-90		5.0	374	30.0	462.0				1.50	
516.5035				1/2"	20-120	5.00		15-90		5.0	374	30.0	462.0				1.50	
516.5036		X		1/2"	40-200	5.00		30-150		5.0	463	30.0	551.0				1.40	
516.5037			X	1/2"	40-200	5.00		30-150		5.0	463	30.0	551.0				1.30	
516.5038			X	1/2"	40-200	5.00		30-150		5.0	463	35.0	554.0				1.40	
516.5039		X		1/2"	50-300	5.00		35-220		5.0	529	30.0	617.0				2.00	
516.5040				1/2"	50-300	5.00		35-220		5.0	529	30.0	671.0				2.00	
516.5041				3/4"	80-360	5.00		60-260		5.0	624	30.0	717.0				2.40	
516.5042				3/4"	80-360	5.00		60-260		5.0	624	30.0	717.0				2.40	
516.5043				3/4"	110-550	10.00		80-400		10.0	719	35.0	812.0				2.90	
516.5044				3/4"	110-550	10.00		80-400		10.0	719	35.0	812.0				2.90	
516.5045				3/4"	140-760	10.00		100-560		10.0	719	35.0	812.0				3.20	
516.5046				3/4"	140-760	10.00		100-560		10.0	719	35.0	812.0				3.20	
516.5047				3/4"	140-760	10.00		100-560		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.00	
516.5048				3/4"	140-760	10.00		100-560		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.00	
516.5049				3/4"	520-1000	10.00		380-730		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.60	
516.5050				3/4"	520-1000	10.00		380-730		10.0	1297	35.0	812.0	1413.0	762.0	516.5059	5.60	
516.5051				1"	600-1500	25.00					1473	40.0	932.0	1608.0	925.0	516.5058	10.80	
516.5052				1"	600-1500	25.00					1473	40.0	932.0	1608.0	925.0	516.5058	10.80	
516.5053				1"	750-2000	50.00					2218	40.0	932.0	2353.0	925.0	516.5057+58	11.60	
516.5054				1"	750-2000	50.00					2218	40.0	932.0	2353.0	925.0	516.5057+58	11.60	
516.5055				1 1/2"	1500-3000	50.00					2313	40.0	1025.0	2463.0	925.0	516.5057+58	13.20	

ALUTORQUEprecision Pre-set torque wrench

- Release accuracy: $\pm 3\%$ tolerance from the set scale value and better
- Use is almost all industrial production areas
- Depending on option with fast release function button
- Simple operation - fast and secure torque tightening
- Simple and/or double square for controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- Clear audible and noticeable torque release signal through close-gap release
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Setting the torque by using the captive crank lever mechanism in the handle
- Comfortable setting through shapely, captive adjustment knob on the end of the handle
- Extendable to reduces the workload of the user
- Extremely low wear through force reductions through lever mechanism
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standards



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

			N·m	Division Nm	(inch)	lbf·ft	Division lbf·ft	Division lbf·in	L mm	H mm	L1 mm	L2 mm	L3 mm	
516.5100			1/4"	6-30	1.00	50-270		10.0	207	30.0	268.0			0.58
516.5101			1/4"	6-30	1.00	50-270		10.0	207	30.0	268.0			0.58
516.5102			3/8"	8-40	5.00	70-350		50.0	263	30.0	338.0			1.00
516.5103			3/8"	8-40	5.00	70-350		50.0	263	30.0	338.0			1.00
516.5104		X	1/2"	20-120	5.00		15-90	5.0	374	30.0	462.0			1.50
516.5105			1/2"	20-120	5.00		15-90	5.0	374	30.0	462.0			1.50
516.5106		X	1/2"	40-200	5.00		30-150	5.0	463	30.0	551.0			1.40
516.5107			1/2"	40-200	5.00		30-150	5.0	463	30.0	551.0			1.30
516.5108		X	1/2"	50-300	5.00		35-220	5.0	529	30.0	617.0			2.00
516.5109			1/2"	50-300	5.00		35-220	5.0	529	30.0	617.0			2.00
516.5110			3/4"	80-360	5.00		60-260	5.0	624	30.0	717.0			2.40
516.5111			3/4"	80-360	5.00		60-260	5.0	624	30.0	717.0			2.40
516.5112			3/4"	110-550	10.00		80-400	10.0	719	35.0	812.0			2.90
516.5113			3/4"	110-550	10.00		80-400	10.0	719	35.0	812.0			2.90
516.5114			3/4"	140-760	10.00		100-560	10.0	719	35.0	812.0			3.20
516.5115			3/4"	140-760	10.00		100-560	10.0	719	35.0	812.0			3.20
516.5116			3/4"	140-760	10.00		100-560	10.0	1297	35.0	812.0	1413.0	762.0	5.00
516.5117			3/4"	140-760	10.00		100-560	10.0	1297	35.0	812.0	1413.0	762.0	5.00
516.5118			3/4"	520-1000	10.00		380-730	10.0	1297	35.0	812.0	1413.0	762.0	5.60
516.5119			3/4"	520-1000	10.00		380-730	10.0	1297	35.0	812.0	1413.0	762.0	5.60
516.5120			1"	600-1500	25.00				1473	40.0	932.0	1608.0	925.0	10.80
516.5121			1"	600-1500	25.00				1473	40.0	932.0	1608.0	925.0	10.80
516.5122			1"	750-2000	50.00				2218	40.0	932.0	2353.0	925.0	11.60
516.5123			1"	750-2000	50.00				2218	40.0	932.0	2353.0	925.0	11.60
516.5124			1 1/2"	1500-3000	50.00				2313	40.0	1025.0	2453.0	925.0	13.20

ALUTORQUEprecision Socket pipe for torque wrench

- To reach the high torque values easier with the lever arm extension
- Option and secure connection to the aluminium torque wrench
- To extend the lever arm
- Made of zinc coated steel



	L mm	Suitable for	
516.5056	400.0	516.5053	2.30
516.5057	745.0	516.5053, 516.5055	3.60
516.5058	925.0	516.5047, 516.5049	3.40

ALUTORQUEprecision aluminium extension pipe for torque wrench

- To reach the high torque values easier with the lever arm extension
- Option and secure connection to the aluminium torque wrench
- To extend the lever arm
- With slightly anodised clamping nut
- Made of aluminium



	L mm	Suitable for	
516.5059	925.0	516.5051, 516.5053, 516.5055	0.80

Ratchet adapter for aluminium torque wrench

- Robust ratchet adapter
- To be used in combination with aluminium torque wrench
- For controlled fastening in clockwise and counter clockwise directions
- Internal square in accordance with DIN 3120 / ISO 1174
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



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



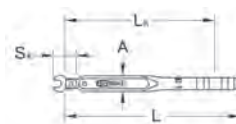
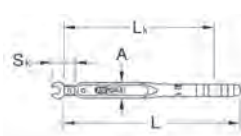
			H mm	D mm	Format	Substitutable for	
516.5020	1/4"	1/4"	21.0	24.0	Right-handed rotation	516.5030	0.05
516.5021	3/8"	3/8"	28.0	35.0	Right-handed rotation	516.5032	0.15
516.5022	1/2"	1/2"	35.0	46.0	Right-handed rotation	516.5034, 516.5036, 516.5039	0.35
516.5023	3/4"	3/4"	53.0	65.0	Right-handed rotation	516.5041, 516.5043, 516.5045, 516.5047, 516.5049	1.00
516.5024	1"	1"	63.0	73.0	Right-handed rotation	516.5051, 516.5053	1.80
516.5025	3/8"	3/8"	28.0	35.0	Left-handed rotation	516.5033	0.15
516.5026	1/2"	1/2"	35.0	46.0	Left-handed rotation	516.5035, 516.5037, 516.5040	0.35
516.5027	3/4"	3/4"	53.0	65.0	Left-handed rotation	516.5042, 516.5044, 516.5046, 516.5048, 516.5050	1.00
516.5028	1"	1"	63.0	73.0	Left-handed rotation	516.5052, 516.5054	1.80

ALUTORQUEprecision Fixed pre-set torque wrench with plug-in tool holder

- Release accuracy: $\pm 3\%$ tolerance from the set value
- Depending on tool use it is possible to work to the front (e.g. open-end wrench) or to the side (e.g. changeover ratchet and socket wrench set)
- Simple operation - fast and secure torque tightening
- Changing the operating direction takes place by turning the torque wrench
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- Clear audible and noticeable torque release signal through close-gap release
- With a fixed adjustable value
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- With lock connector
- Setting the torque by using the captive crank lever mechanism in the handle
- Extremely low wear through force reductions through lever mechanism
- Individual serial number for clear product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standards

ALUTORQUEprecision Fixed pre-set torque wrench with plug-in tool holder

- Release accuracy: $\pm 3\%$ tolerance from the set value
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- Simple operation - fast and secure torque tightening
- Changing the operating direction takes place by turning the torque wrench
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
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9x12 mm 18x18 mm



9x12 mm 18x18 mm

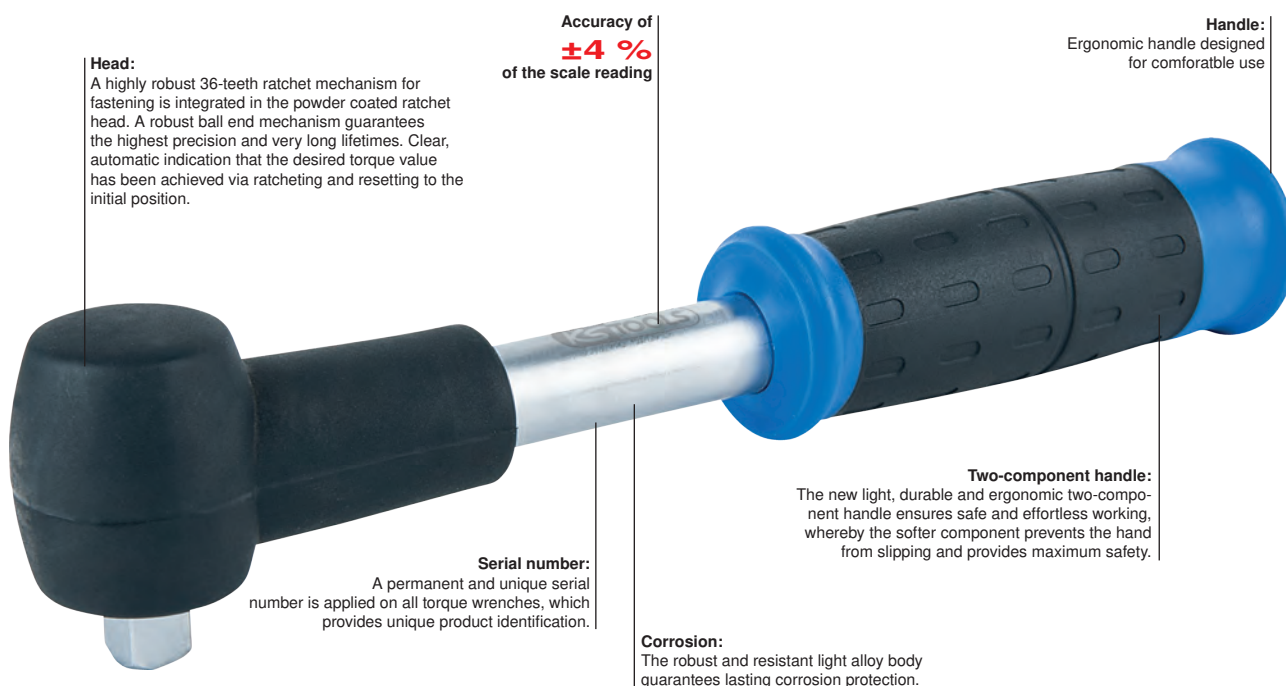


		N-m	Division Nm	lbf-in	lbf-ft	Division lbf-in	Division lbf-ft	L mm	L mm	S mm	H mm	
516.5080	9x12	8-40	5.00	70-350		5.0		350.0	303	17.5	35.0	0.95
516.5081	9x12	20-120	5.00		15-90		5.0	474.0	414	17.5	35.0	1.25
516.5082	14x18	50-400	5.00		35-300		5.0	641.0	532	25.0	35.0	1.70

		N-m	Division Nm	lbf-in	lbf-ft	Division lbf-in	Division lbf-ft	L mm	L mm	S mm	H mm	
516.5085	9x12	8-40	5.00	70-350		5.0		361.0	303	17.5	35.0	0.95
516.5086	9x12	20-120	5.00		15-90		5.0	485.0	414	17.5	35.0	1.25
516.5087	14x18	50-400	5.00		35-300		5.0	653.0	582	25.0	35.0	1.70

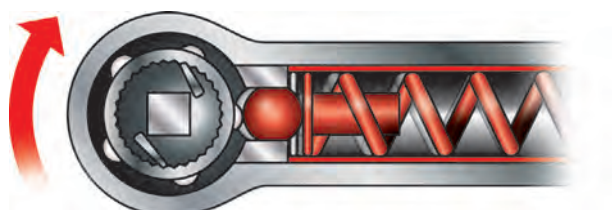
SLIPPER TORQUE WRENCH

Fixed preset ratchet torque wrench without scale with automatic trigger via slipping function – no overtightening possible.



Ratcheting operating principle

When a preset value is achieved the mechanism slips over the ball end (without the possibility of overtightening). The ratcheting torque wrench can then be used immediately again.



TECHNOLOGY



Pre-set Slipper torque wrench

- Release accuracy $\pm 6\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For serial and/or conveyor assembly lines
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Ergonomic and hand-friendly rubber handle
- Square drive in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identification
- Includes test certificate in accordance with DIN / ISO 6789:2003 - traceable to national standards



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

		Measuring range Nm	lbf-ft	L mm	D mm	H mm	
516.5000	1/4"	1-5	0,8-4	182,5	15,5	34,3	0,22
516.5001	1/4"	4-10	3-8	182,5	15,5	34,3	0,23
516.5002	3/8"	5-20	4-19	214,0	35,0	49,5	0,48
516.5003	3/8"	15-55	11-40	323,0	39,0	58,5	1,00
516.5004	1/2"	25-125	19-93	464,0	40,0	67,3	1,85

INDUSTRIAL TORQUE WRENCH

Torque wrench made from fully chromed, slim steel construction for clockwise and counter clockwise movement

Scale:
A double scale having N•m Lbf•in and Lbf•ft divisions that can be read easily, is concealed under the chromed steel pipe which enables particularly accurate adjustment of the desired torque value.



Micrometer scale:
Very precise adjustments can be made with the help of the white micrometer scale. The easily visible micrometer scale ensures optimal and simplified reading of the micrometer value. Thus, depending on the model, divisions of 5/ 1/ 0,5 N•m or lbf•in / lbf•ft can be adjusted accurately.

Handle end:
The desired torque can be adjusted and set by simply pulling out and pushing in the rotating assembly.

Ratchet head:

A highly robust 72-tooth ratchet mechanism for clockwise and counter-clockwise movement is integrated in the polished ratchet head. A robust bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

Accuracy of $\pm 3\%$ of the scale reading
Precise reading accuracy for a minimum 5,000 tightening cycles

$\pm 3\%$

Steel handle:
The new light, durable and ergonomic steel handle ensures simple and secure operation without any wear due to its fluting.

Serial number:

A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

Corrosion:

The slim, robust and resistant fully chromed steel body is ideal for use in industry.



Insulated torque wrench with reversible ratchet head

- Actuation accuracy: $\pm 3\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5,000 tightening cycles
- Use is almost all industrial production areas
- For controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division
- Including a micrometer scale in Nm divisions and lbf-ft and/or lbf-in for precise and fine adjustment
- Clearly audible and noticeable torque release signal
- Setting the torque securely by turning the handle
- Secure locking function within the handle
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Square drive adaptor in accordance with DIN 3120 - ISO 1174 with ball lock
- Individual serial number for clear product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standards



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

	Measuring range Nm	Tooth	Division Nm	lbf-in	lbf-ft	Division lbf-in	Division lbf-ft	D mm	L mm	kg
516.5150	1/4"	1-6	72	0.50	11.1-50.9		0.5	26.0	210.0	0.29
516.5151	1/4"	3-15	72	0.12	31-128		1.0	26.0	210.0	0.29
516.5152	1/4"	5-25	72	0.12	53-212		1.0	26.0	248.0	0.33
516.5153	3/8"	10-60	36	0.70		9.2-42.4	0.5	36.5	433.0	1.02
516.5154	3/8"	20-100	36	1.40		16.6-71.9	1.0	36.5	433.0	1.02
516.5155	1/2"	40-200	36	1.40		33-144	1.0	43.5	530.0	1.64
516.5156	1/2"	60-340	36	1.40		52-243	1.0	43.5	610.0	1.80
516.5157	3/4"	100-600	24	3.40		92-424	5.0	63.5	1050.0	4.98
516.5158	3/4"	150-800	24	6.80		129-572	5.0	63.5	1240.0	6.05
516.5159	3/4"	200-1000	24	6.80		166-719	5.0	63.5	1240.0	6.05
516.5160	1"	300-1500	24	6.80		258-1070	5.0	70.0	1850.0	10.51

Industrial torque wrench with plug-in tool holder

- Actuation accuracy: $\pm 3\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5,000 tightening cycles
- Use is almost all industrial production areas
- For controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division
- Including a micrometer scale in Nm divisions and lbf-ft and/or lbf-in for precise and fine adjustment
- Clearly audible and noticeable torque release sign
- Setting the torque securely by turning the handle
- Secure locking function within the handle
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- With lock connector for 9x12 and/or 14x18 plug-in tools
- Individual serial number for clear product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 - traceable to national standards

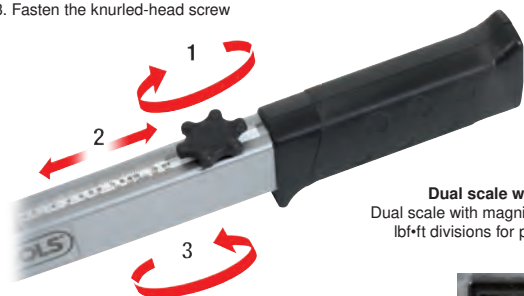


	Measuring range Nm	Division Nm	lbf-in	lbf-ft	Division lbf-in	Division lbf-ft	L mm	L mm	S mm	kg
516.5061	9x12	3-15	0.50	31-128		0.5	197.0	183	17.5	0.26
516.5062	9x12	5-25	0.12	53-212		1.0	227.0	213	17.5	0.30
516.5063	9x12	1-6	0.12	11.1-50.9		1.0	197.0	183	17.5	0.26
516.5064	9x12	10-60	0.70		9.2-42.4	0.5	403.0	373	17.5	1.29
516.5065	9x12	20-100	1.40		16.6-71.9	1.0	403.0	373	17.5	1.29
516.5066	14x18	10-60	0.70		9.2-42.4	0.5	425.0	402.5	25.0	1.29
516.5067	14x18	20-100	1.40		16.6-71.9	1.0	425.0	402.5	25.0	1.29
516.5068	14x18	40-200	1.40		33-144	1.0	503.0	474	25.0	1.46
516.5069	14x18	60-340	1.40		52-243	1.0	583.0	554	25.0	1.60

TORQUE WRENCH WITH QUICK-SET FEATURE

Torque wrench made from chromed rectangular steel tube construction for clockwise fastening and anticlockwise latch with quick scale setting - resetting the scale with idle condition is not necessary

1. Loosen knurled-head screw
2. Slide the scale
3. Fasten the knurled-head screw



Quick setting:
Simple, effortless, quick setting of the torque by sliding the scale using the knurled-head screw

Dual scale with magnifying glass:
Dual scale with magnifying glass in N·m and lbf·ft divisions for precise adjustment and clear selection

Accuracy of $\pm 3\%$ of the scale reading



Ratchet head:
A highly robust 72 teeth ratchet mechanism is integrated in the ratchet head

Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

Long-term accuracy:
Long-term accuracy and long life by means of a wear-free release system

Corrosion:
Durable protection against corrosion using robust steel with a matt finish chrome-plated surface



Adjustment:
Fast adjustment is possible using the integrated opening (hex screw) without dismantling the wrench

Idle condition:
Resetting to the minimum value (0) is not necessary

Handle:
Ergonomic handle designed for comfortable use

Torque wrench with quick set feature, reversible

- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- With idle condition, resetting to the minimum value (0) is not necessary
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Double scale in N·m and lbf·ft divisions for precise adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 72 teeth ratchet mechanism
- Torque setting is simple and quick by sliding the scale using the knurled-head screw
- Secure locking function using the integrated hex screw
- Ergonomic handle designed for comfortable use
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard

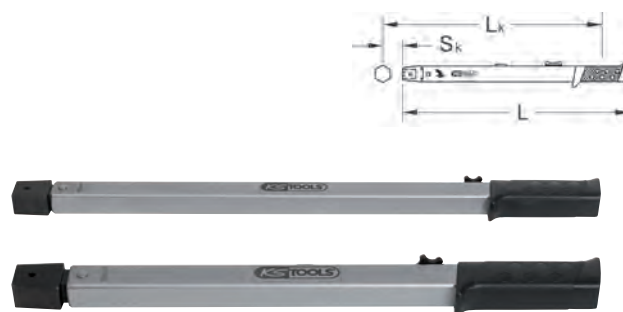
Torque wrench with quick set feature and rectangular tool holder

- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 10.000 tightening cycles
- With idle condition, resetting to the minimum value (0) is not necessary
- For controlled fastening in clockwise and counter clockwise directions
- Easy to adjust from clockwise to counter clockwise by turning the torque wrench 180°
- Double scale in N·m and lbf·ft divisions for precise adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is simple and quick by sliding the scale using the knurled-head screw
- Secure locking function using the integrated hex screw
- Ergonomic handle designed for comfortable use
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



1/2" 3/4"

		N·m	lbf·ft	L mm	D mm	H mm	
516.4522	1/2"	10-60	7,5 - 44	380,0	38,0	24,0	1.00
516.4532	1/2"	20-100	15 - 70	450,0	38,0	24,0	1.20
516.4542	1/2"	40-200	30 - 150	450,0	38,0	24,0	1.20
516.4572	1/2"	60-350	45 - 260	590,0	38,0	24,0	1.45
516.4590	3/4"	160-800	120 - 590	1140,0	70,0	37,0	6.70
516.4595	3/4"	200-1000	150 - 750	1340,0	70,0	37,0	7.40



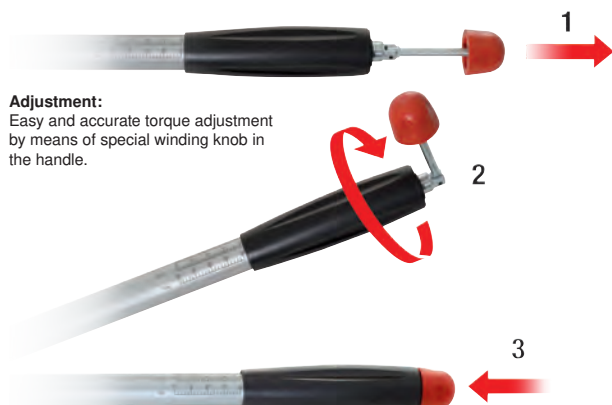
9x12 mm 14x18 mm

		N·m	lbf·ft	L mm	L mm	S mm	
516.4622	9x12	10-60	7,5 - 44	380,0	345,0	17,5	1.00
516.4632	9x12	20-100	15 - 70	445,0	410,0	17,5	1.10
516.4642	14x18	40-200	30 - 150	450,0	425,0	25,0	1.10
516.4672	14x18	60-350	45 - 260	580,0	560,0	25,0	1.40

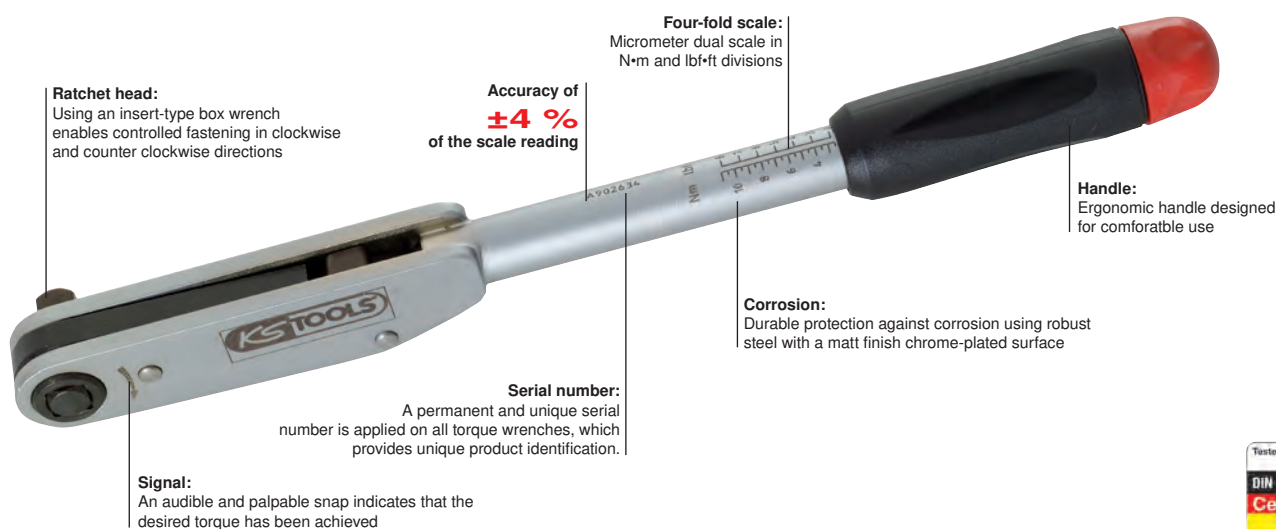
TORQUE WRENCH WITH CLOSE-GAP RELEASE

As a result of the close-gap release, the chance of over-tightening is reduced and, in addition, this mechanism enhances the accuracy when fastening the screw.

A palpable and acoustic snap indicates that the desired torque value has been achieved - in addition the mechanism resets automatically to the initial position.



Adjustment:
Easy and accurate torque adjustment by means of special winding knob in the handle.



Torque wrench with close gap release

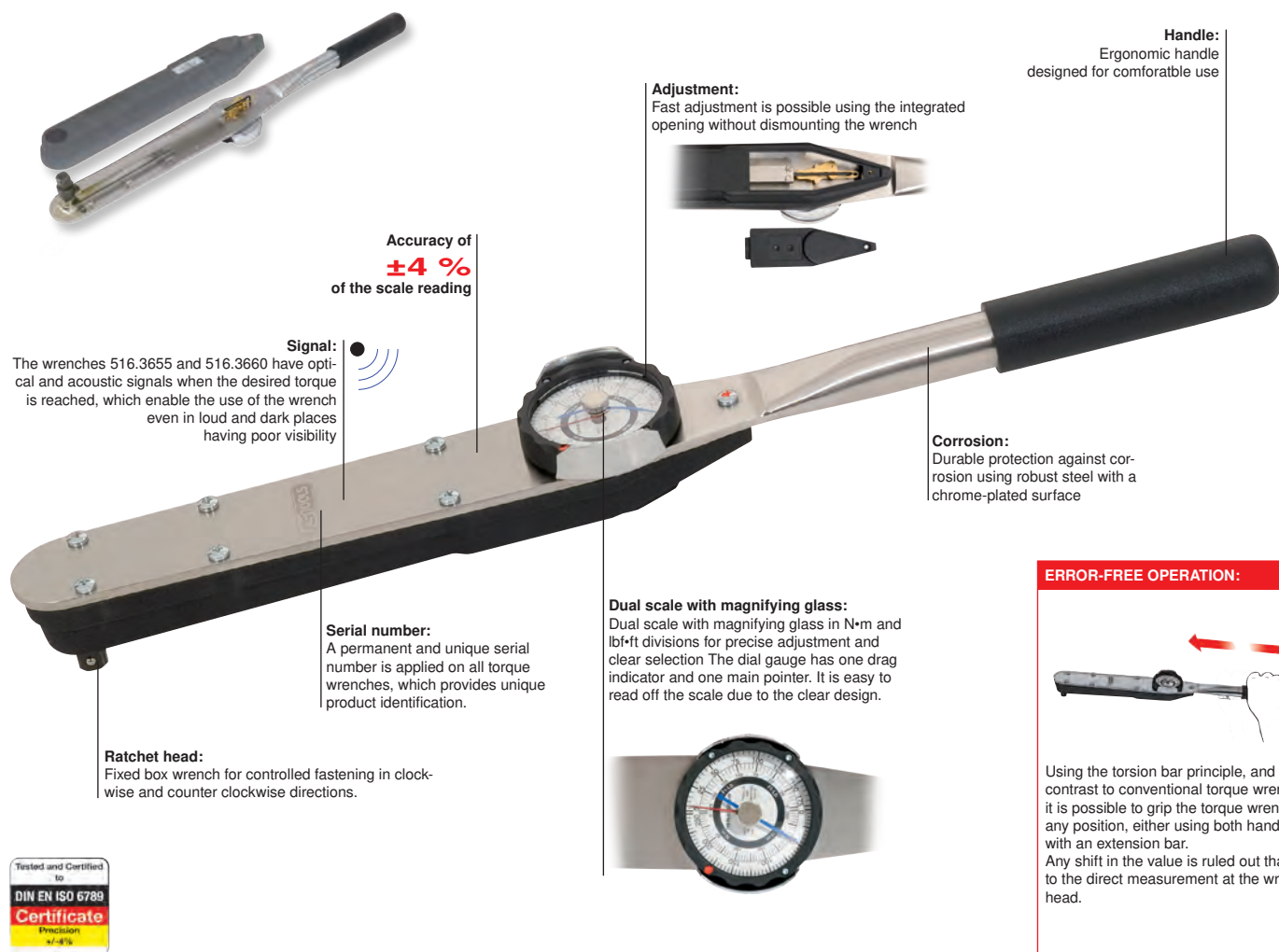
- Actuation accuracy: $\pm 4\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Four fold scale in N·m, Kg·fm, lbf·in und lbf·ft divisions for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is easy by pulling out, adjusting and pushing in the winder in the handle
- Automatic reset in the initial position
- Ergonomic handle designed for comfortable use
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



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

		N·m	lbf·ft	Division N·m	Division lbf·ft	L mm	
516.3510	3/8"	2.5-11	2 - 8	0.50	0.5	300.0	0.56
516.3515	3/8"	5-33	4 - 24	1.00	1.0	405.0	0.69
516.3520	3/8"	12-68	10 - 50	2.00	2.0	480.0	1.00
516.3525	1/2"	12-68	10 - 50	2.00	2.0	480.0	1.00
516.3530	1/2"	25-150	20 - 110	5.00	2.0	575.0	1.70
516.3535	1/2"	50-250	40 - 180	10.00	5.0	605.0	2.30
516.3540	1/2"	70-350	50 - 260	10.00	10.0	815.0	3.00
516.3545	3/4"	140-800	120 - 580	20.00	20.0	935.0	6.50
516.3550	1"	200-1000	150 - 750	25.00	25.0	1030.0	9.70
516.3555	1"	500-2000	350 - 1500	50.00	50.0	1400.0	18.00

PRECISION TORQUE TESTING INSTRUMENT WITH DIAL INDICATOR



Accuracy of $\pm 4\%$ of the scale reading

Signal:
The wrenches 516.3655 and 516.3660 have optical and acoustic signals when the desired torque is reached, which enable the use of the wrench even in loud and dark places having poor visibility

Adjustment:
Fast adjustment is possible using the integrated opening without dismounting the wrench

Handle:
Ergonomic handle designed for comfortable use

Corrosion:
Durable protection against corrosion using robust steel with a chrome-plated surface

Serial number:
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

Ratchet head:
Fixed box wrench for controlled fastening in clockwise and counter clockwise directions.

Dual scale with magnifying glass:
Dual scale with magnifying glass in N·m and lbf·ft divisions for precise adjustment and clear selection. The dial gauge has one drag indicator and one main pointer. It is easy to read off the scale due to the clear design.

ERROR-FREE OPERATION:
Using the torsion bar principle, and in contrast to conventional torque wrenches, it is possible to grip the torque wrench in any position, either using both hands or with an extension bar. Any shift in the value is ruled out thanks to the direct measurement at the wrench head.

Tested and Certified to
DIN EN ISO 6789
Certificate
Precision
 $\pm 4\%$

Dial Torque wrench with a drag indicator

- Display accuracy: $\pm 4\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- Display type torque wrench with dial indicator and drag indicator
- Double scale in N·m and lbf·ft divisions for precise adjustment
- Large vision panel for precise adjustment
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



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

		N·m	In·lb	lbf·ft	Division N·m	Division In·lb	Division lbf·ft	L mm	Signal	kg
516.3610	1/4"	0,7-3,5	6-30		0.10	1.0		270.0	-	0.73
516.3615	1/4"	1,8-9	15-75		0.20	1.0		270.0	-	0.73
516.3620	3/8"	3,6-18	30-150		0.50	2.0		270.0	-	0.73
516.3625	3/8"	6-30	50-250		0.50	5.0		270.0	-	0.73
516.3630	3/8"	14-70		10-50	2.00		1.0	270.0	-	0.73
516.3635	1/2"	50-250		34-170	5.00		5.0	560.0	-	1.40
516.3640	1/2"	70-350		50-250	10.00		5.0	560.0	-	1.40
516.3645	3/4"	96-480		70-350	10.00		10.0	675.0	-	3.20
516.3650	3/4"	160-800		120-600	25.00		10.0	1180.0	-	4.50
516.3655	1"	280-1400		200-1000	25.00		20.0	1970.0	+	9.00
516.3660	1"	560-2800		400-2000	50.00		40.0	3200.0	+	21.00

ACCESSORIES - PLUG-IN TOOLS

We have a diverse range of plug-in tools within our range:

- Open
- Ring
- Ratchet
- Torx®
- Push-fit square mount
- Bit holder

In case our range does not have what you need, we would be pleased to manufacture push-fit tools based on your specifications.



INFO:

In case our range does not have what you need, we would be pleased to manufacture push-fit tools based on your specifications.



CAUTION:
The maximum torque loads of the push-fit tools are in line with DIN 899 and can be less than the maximum torque of the tool used.

CALCULATION OF CORRECTED DISPLAY AND SET VALUES

Push-fit jaw wrench

- With a locking pin
- Chrome-plated



9x12 14x18

Code	□	N·m	lbf·ft	Division N·m	L mm	L mm	S mm	⚙
516.1612	9 x 12	1 - 25	0,8 - 18	0.1	280.0	245.0	17.5	300
516.1622	9 x 12	5 - 50	4 - 37	0.3	335.0	295.0	17.5	450
516.1632	9 x 12	10 - 100	8 - 75	0.5	375.0	335.0	17.5	600
516.1633	14 x 18	10 - 100	8 - 75	0.5	375.0	335.0	17.5	600
516.1642	9 x 12	20 - 200	15 - 150	1.0	465.0	425.0	17.5	850
516.1652	14 x 18	20 - 200	15 - 150	1.0	470.0	435.0	25.0	900
516.1672	14 x 18	60 - 320	45 - 236	1.0	565.0	530.0	25.0	1200
516.1682	14 x 18	80 - 420	60 - 310	1.0	650.0	435.0	25.0	1600

Code	□	S mm	B mm	H mm	⚙
516.2213	14 x 18	13	25.0	30.0	7.0
516.2214	14 x 18	14	25.0	35.0	8.0
516.2215	14 x 18	15	25.0	38.0	9.0
516.2216	14 x 18	16	25.0	42.0	10.0
516.2217	14 x 18	17	25.0	42.0	11.0
516.2218	14 x 18	18	25.0	50.0	11.0
516.2219	14 x 18	19	25.0	50.0	12.0
516.2221	14 x 18	21	25.0	53.0	13.0
516.2222	14 x 18	22	27.5	60.0	13.0
516.2224	14 x 18	24	30.0	60.0	14.0
516.2226	14 x 18	26	30.0	66.0	14.0
516.2227	14 x 18	27	30.0	66.0	14.0
516.2229	14 x 18	29	30.0	66.0	14.0
516.2230	14 x 18	30	30.0	66.0	14.0
516.2232	14 x 18	32	32.5	74.0	15.0
516.2233	14 x 18	34	32.5	74.0	15.0
516.2234	14 x 18	36	32.5	82.0	15.0
516.2238	14 x 18	38	32.5	82.0	15.0
516.2241	14 x 18	41	32.5	82.0	15.0

Example: 516.2232 + 516.1672

Desired torque = 230 N·m

$$X_w = \frac{P_s \cdot L_s}{L_s - S_s + S} = \frac{230 \text{ N·m} \cdot 530 \text{ mm}}{530 \text{ mm} - 25 \text{ mm} + 32.5 \text{ mm}} = \frac{121900}{537.5} = 226,8 \text{ N·m}$$

Corrected set value: **226,8 N·m**

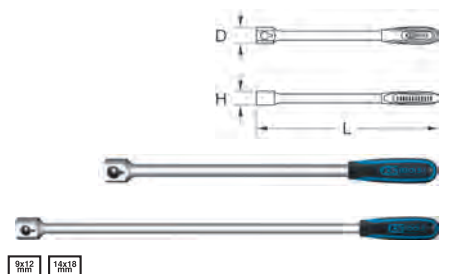
PUSH FIT TOOLS

CAUTION:

The maximum torque loads of the push-fit tools are in line with DIN 899 and can be less than the maximum torque of the tool used.

ERGOTORQUE®plus universal wrench without torque function - with rectangular tool holder

- Ideal for loosening jammed screw connections
- Can untighten without any torque restraint
- Made of solid material
- Two-component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools



		L mm	D mm	H mm	
516.4890	9x12	405.0	26.0	20.0	872
516.4895	14x18	635.0	28.0	26.0	1350

Push fit flared wrench

- With a locking pin
- Chrome plated



		S mm	B mm	H mm	
516.2107	9x12	7	17.5	22.0	35
516.2108	9x12	8	17.5	22.0	35
516.2109	9x12	9	17.5	26.0	35
516.2110	9x12	10	17.5	26.0	35
516.2111	9x12	11	17.5	26.0	35
516.2112	9x12	12	17.5	30.0	35
516.2113	9x12	13	17.5	30.0	35
516.2114	9x12	14	17.5	35.0	40
516.2115	9x12	15	17.5	35.0	40
516.2116	9x12	16	20.0*	38.0	45
516.2117	9x12	17	20.0*	38.0	50
516.2118	9x12	18	20.0*	42.0	60
516.2119	9x12	19	20.0*	42.0	60



Push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated

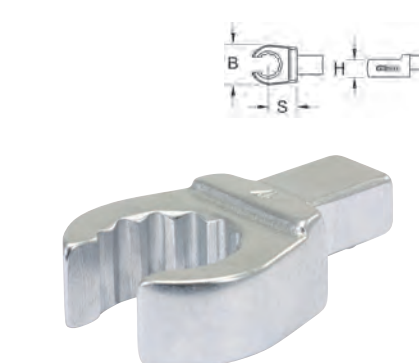


		S mm	B mm	H mm	
516.2307	9x12	7	17.5	13.0	30
516.2308	9x12	8	17.5	14.2	30
516.2310	9x12	10	17.5	17.2	30
516.2311	9x12	11	17.5	18.5	30
516.2312	9x12	12	17.5	20.0	35
516.2313	9x12	13	17.5	21.5	35
516.2314	9x12	14	17.5	23.0	40
516.2315	9x12	15	17.5	24.2	40
516.2316	9x12	16	17.5	25.7	40
516.2317	9x12	17	17.5	27.2	40
516.2318	9x12	18	17.5	28.5	40
516.2319	9x12	19	17.5	30.3	40
516.2321	9x12	21	17.5	33.0	50
516.2322	9x12	22	17.5	34.5	50



Open push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated



		S mm	B mm	
516.2510	9x12	10	17.5	21.0
516.2511	9x12	11	17.5	22.5
516.2512	9x12	12	17.5	23.7
516.2513	9x12	13	17.5	25.2
516.2514	9x12	14	17.5	27.0
516.2517	9x12	17	17.5	31.5
516.2518	9x12	18	17.5	33.0
516.2519	9x12	19	17.5	34.5
516.2522	9x12	22	20.0*	39.0

TX-E push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated



		S mm	B mm	H mm	
516.3006	9x12	E 6	17.5	13.0	40
516.3008	9x12	E 8	17.5	14.2	45
516.3010	9x12	E 10	17.5	17.2	50
516.3012	9x12	E 12	17.5	18.5	50
516.3014	9x12	E 14	17.5	21.5	60

Push fit fine toothed reversible ratchet head

- With a locking pin
- Fine toothed
- With release feature
- Chrome plated



		S mm	B mm	H mm	
516.2614	9x12	1/4"	17.5	27.0	75
516.2638	9x12	3/8"	17.5	35.0	152
516.2612	9x12	1/2"	17.5	43.0	228

Push fit square mount

- With a locking pin
- Chrome plated

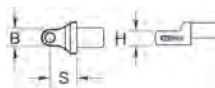


		S mm	B mm	H mm	
516.2814	9x12	1/4"	17.5	20.0	70
516.2838	9x12	3/8"	17.5	20.0	76
516.2812	9x12	1/2"	17.5	20.0	80

* Please note the changed values on the torque wrench!

Push fit bit holder

- With a locking pin
- Chrome plated



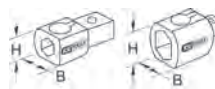
9x12
mm

5/16" 1/4"

			S mm	B mm	H mm	g
516.2005	9x12	1/4"	17,5	14,0	10,0	47
516.2010	9x12	5/16"	17,5	16,0	12,5	47

Push fit jaw wrench

- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- With a locking pin
- Chrome plated



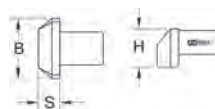
9x12
mm

14x18
mm

			S mm	B mm	H mm	g
516.2040	9x12	14 x 18	30,5"	31,0	26,0	120
516.2050	14x18	9 x 12	27,0"	28,0	21,0	120

Push fit weld on head

- With a locking pin
- Burnished



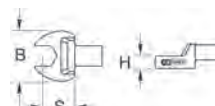
9x12
mm

14x18
mm

		Weld dimension mm	S mm	B mm	H mm	g
516.2060	9x12	8 x 14	14,5"	14,0	14,5	47
516.2070	14x18	11 x 25	12,0"	25,0	21,5	100

Push fit flared wrench

- With a locking pin
- Chrome plated



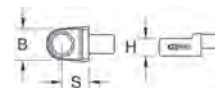
14x18
mm

			S mm	B mm	H mm	g
516.2213	14x18	13	25,0	30,0	7,0	120
516.2214	14x18	14	25,0	35,0	8,0	120
516.2215	14x18	15	25,0	35,0	8,0	120
516.2216	14x18	16	25,0	38,0	9,0	125
516.2217	14x18	17	25,0	38,0	9,0	130
516.2218	14x18	18	25,0	42,0	10,0	130
516.2219	14x18	19	25,0	42,0	10,0	130
516.2221	14x18	21	25,0	50,0	11,0	155
516.2222	14x18	22	25,0	50,0	11,0	160
516.2224	14x18	24	27,5"	53,0	12,0	170
516.2226	14x18	26	30,0"	60,0	13,0	180
516.2227	14x18	27	30,0"	60,0	13,0	185
516.2229	14x18	29	30,0"	66,0	14,0	210
516.2230	14x18	30	30,0"	66,0	14,0	220
516.2232	14x18	32	32,5"	66,0	14,0	239
516.2234	14x18	34	32,5"	66,0	14,0	246
516.2236	14x18	36	32,5"	74,0	15,0	265
516.2238	14x18	38	32,5"	74,0	15,0	275
516.2241	14x18	41	32,5"	82,0	15,0	307



Push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated

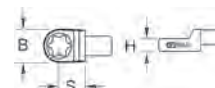


14x18
mm

			S mm	B mm	H mm	g
516.2413	14x18	13	25,0	21,5	11,0	120
516.2414	14x18	14	25,0	23,0	11,0	120
516.2415	14x18	15	25,0	24,2	11,0	115
516.2416	14x18	16	25,0	25,7	12,0	125
516.2417	14x18	17	25,0	27,2	12,0	125
516.2418	14x18	18	25,0	28,5	12,0	125
516.2419	14x18	19	25,0	30,5	12,0	125
516.2421	14x18	21	25,0	33,0	15,0	140
516.2422	14x18	22	25,0	34,5	15,0	140
516.2424	14x18	24	25,0	37,5	15,0	140
516.2427	14x18	27	25,0	41,5	17,0	150
516.2430	14x18	30	25,0	45,0	19,0	160
516.2432	14x18	32	25,0	47,5	19,0	165
516.2434	14x18	34	28,0"	50,5	19,0	195
516.2436	14x18	36	28,0"	53,0	19,0	195
516.2441	14x18	41	30,0"	59,0	20,0	225

TX-E Push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated

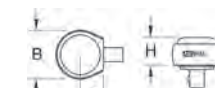


14x18
mm

			S mm	B mm	H mm	g
516.3114	14x18	E 14	25,0	22,5	11,0	130
516.3118	14x18	E 18	25,0	24,0	11,0	135
516.3120	14x18	E 20	25,0	29,0	13,0	150
516.3124	14x18	E 24	25,0	30,5	13,0	150

Push fit fine toothed reversible ratchet head

- With a locking pin
- Fine toothed
- With release feature
- Chrome plated



14x18
mm

1/2" 3/4"

			S mm	B mm	H mm	g
516.2712	14x18	1/2"	25,0	43,0	43,0	260
516.2734	14x18	3/4"	25,0	70,0	60,0	795

Push fit square mount

- With a locking pin
- Chrome plated



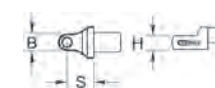
14x18
mm

1/2" 3/4"

			S mm	B mm	H mm	g
516.2912	14x18	1/2"	25,0	27,0	18,0	210
516.2934	14x18	3/4"	25,0	40,0	25,0	400

Push fit bit holder

- With a locking pin
- Chrome plated



14x18
mm

5/16"

			S mm	B mm	H mm	g
516.2020	14x18	5/16"	25,0	16,0	12,5	115

* Please note the changed values on the torque wrench!

PUSH FIT TOOLKIT

Air conditioning toolkit 10-100 N·m

- Set contents ideal for air conditioning and refrigeration engineers
- With snap lock rectangular tool holder for 14x18 range of end tools
- Supplied in a metal carrying case with the tools clearly organised



14x18 mm 1/2"

516.1225			
8 pcs	Air conditioning toolkit 10-100 N·m	3.40	
1 x	10 - 100 N·m		
6 x	17 - 22 - 24 - 26 - 27 - 29 mm		
1 x	1/2"		

Torque tool set with plug in tools

- Set contents for universal applications
- With snap lock rectangular tool holder for 9x12 range of end tool
- Supplied in a metal carrying case with the tools clearly organised



9x12 mm 3/8"

516.1720			
29 pcs	Torque tool set with plug in tools	2.20	
1 x	5 - 50 N·m		
11 x	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm		
10 x	7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm		
6 x	10 - 11 - 12 - 13 - 14 - 17 mm		
1 x	3/8"		

Torque tool set with plug in tools

- Set contents for universal applications
- With snap lock rectangular tool holder for 14x18 range of end tools
- Supplied in a metal carrying case with the tools clearly organised



14x18 mm 1/2"

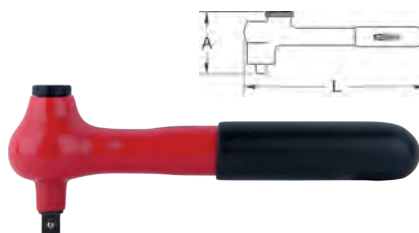
516.1730			
31 pcs	Torque tool set with plug in tools	5.80	
1 x	20 - 200 N·m		
13 x	13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm		
16 x	13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm		
1 x	1/2"		



VDE TORQUE WRENCH

Insulated pre set torque wrench

- Actuation accuracy: $\pm 3\%$ tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fixed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard

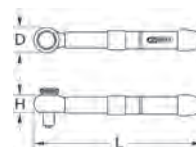


3/8" 1/2"

	N·m	A mm	L mm	⚡	U
117.3922	3/8"	5-35	78.0	210.0	420
117.1001	1/2"	5-35	78.0	250.0	420

Insulated mini torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



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

	N·m	D mm	H mm	L mm	⚡	U
117.1400	1/4"	2-12	40.0	41.0	200.0	400
117.1402	1/4"	5-25	40.0	41.0	200.0	420
117.1184	3/8"	5-25	40.0	42.0	200.0	440
117.1185	1/2"	5-25	40.0	42.0	200.0	440

Insulated torque wrench with reversible ratchet head

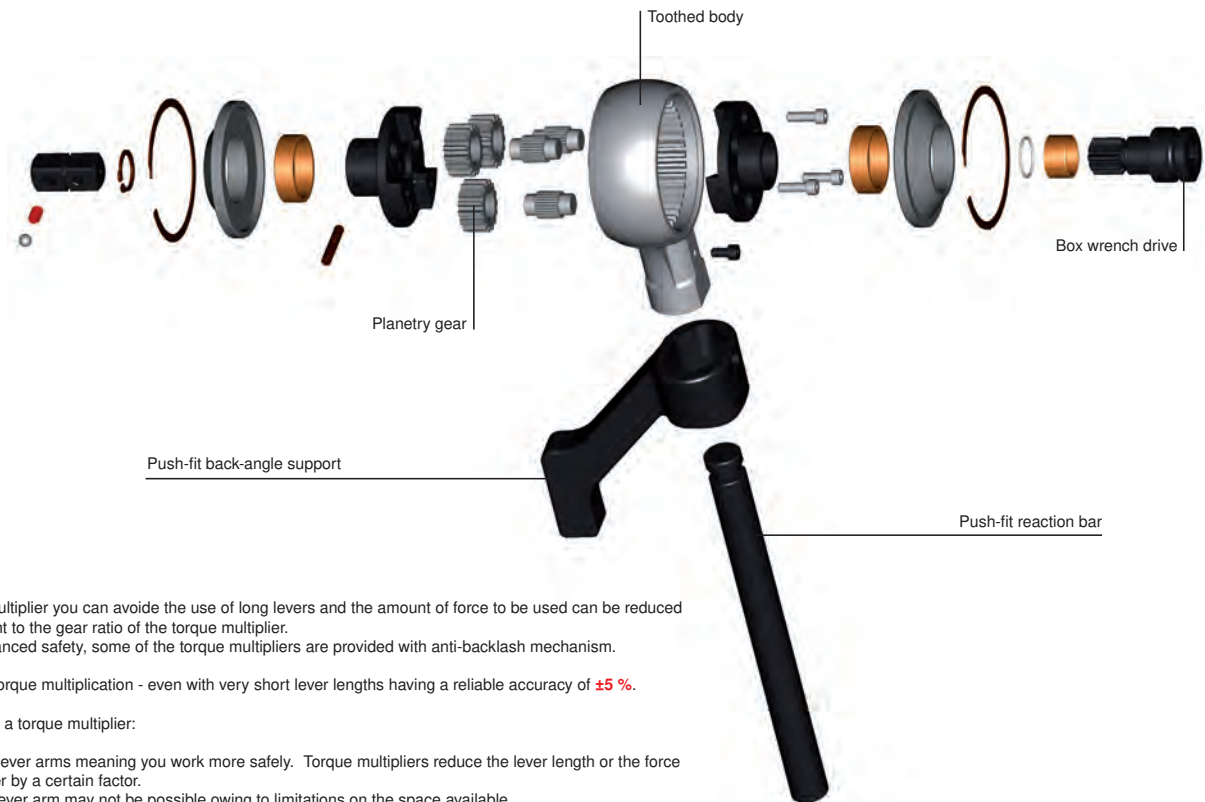
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N·m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



3/8" 1/2"

	N·m	H mm	L mm	⚡	U
117.3805	3/8"	2-27	51.0	280.0	0.92
117.3810	3/8"	5-50	51.0	370.0	1.07
117.1301	1/2"	2-27	61.0	280.0	0.93
117.1300	1/2"	5-50	61.0	370.0	1.10
117.1302	1/2"	20-100	61.0	460.0	1.20
117.1303	1/2"	40-220	61.0	530.0	1.30

TORQUE CONVERTOR



By using a torque multiplier you can avoid the use of long levers and the amount of force to be used can be reduced by a factor equivalent to the gear ratio of the torque multiplier.
For the sake of enhanced safety, some of the torque multipliers are provided with anti-backlash mechanism.

Ideal for controlled torque multiplication - even with very short lever lengths having a reliable accuracy of $\pm 5\%$.

Advantages of using a torque multiplier:

- Avoidance of long lever arms meaning you work more safely. Torque multipliers reduce the lever length or the force required by the user by a certain factor.
- The use of a long lever arm may not be possible owing to limitations on the space available.
- The torque multiplier means the torque is applied more accurately as it is applied continuously and slowly and therefore more accurately.

Torque multiplier set

- Robust tightening and loosening
- Designed for use with the crank handle supplied
- With integrated, adjustable support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 3.800 N·m maximum output torque
- Includes sockets and extension
- Indispensable as essential equipment on service vehicles
- Not suited for use in industry
- Not suited for use with impact wrenches
- In durable plastic storage case



516.1180	7 pcs	Torque multiplier set	8.00

consists of:

516.1181	Toque multiplier, 1:64	5.98	
516.1182	1" socket, hexagonal, SW27	0.55	
516.1184	1" socket, hexagonal, SW30	0.59	
516.1185	1" socket, hexagonal, SW32	0.65	
516.1186	1" socket, hexagonal, SW33	0.65	
516.1187	Extensions	0.30	
516.1188	Adapter nut	0.35	

Torque multiplier set

- Robust tightening and loosening
- Designed for use with the crank handle supplied
- With integrated support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 4,000 N·m maximum output torque
- Including crank handle and one extension
- Indispensable as essential equipment on service vehicles
- Ideal for trucks, construction machines and agricultural machines
- Not suited for use with impact wrenches
- In durable plastic storage case



516.1151	3 pcs	Torque multiplier set	8.54

consists of:

516.1152	Crank handle for Impact torque converter	0.50	
516.1153	Extension for Impact torque converter, 210 mm	0.30	

Universal torque convertor

- Accuracy: $\pm 5\%$ Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- Single stage precision planetary gear for both directions
- Two support devices
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- Not suited for use with impact wrenches
- Supplied in a metal storage case

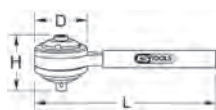


				Nm	Nm	D mm	L mm	H mm	
516.3700	1/2"	5 : 1	3/4"	260	1300	110.0	395.0	127.0	4.20
516.3705	3/4"	5 : 1	1"	540	2700	110.0	395.0	127.0	4.40



Torque convertor, 1680 N-m

- High accuracy: $\pm 5\%$ Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With straight strut
- Housing with angle scale ring
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 3/4"

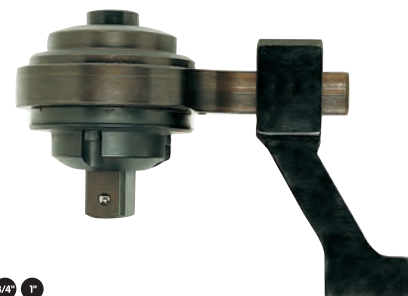
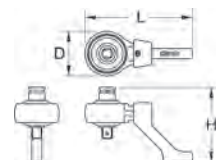
				Nm	Nm	D mm	L mm	H mm	kg
516.3740	1/2"	6:1	3/4"	280	1680	100.0	128.0	106.0	4.90

accessories:

			kg
516.3742	Spare square for 516.3740		0.10
516.3743	Straight strut for 516.3740		1.00
516.3744	Extension for straight strut for 516.3740		1.17

Torque convertor, 2700 N-m

- High accuracy: $\pm 5\%$ Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With adjustable angular strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



3/4" 1"

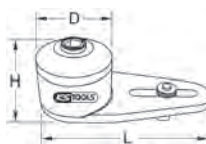
				Nm	Nm	D mm	L mm	H mm	kg
516.3745	3/4"	5.4:1	1"	500	2700	115.0	201.0	126.0	6.34

accessories:

			kg
516.3747	Spare square for 516.3745		0.24
516.3748	Angular strut for 516.3745		1.42

Torque convertor, 3500 N-m

- High accuracy: $\pm 5\%$ Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- Moving strut with 1" socket mounting
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



3/4" 1"

				Nm	Nm	D mm	L mm	H mm	kg
516.3750	3/4"	4.5:1	1"	770	3500	108.0	264.0	130.0	7.30

accessories:

			kg
516.3752	Spare square for 516.3750		280

Torque convertor, 4500 N-m

- High accuracy: $\pm 5\%$ Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With straight strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 1 1/2"

				Nm	Nm	D mm	L mm	H mm	kg
516.3755	1/2"	20:1	1 1/2"	225	4500	120.0	312.0	204.8	8.30

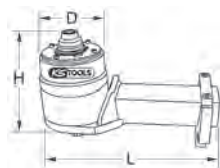


Confidence is good -
torque control
is better!

KS TOOLS

Torque convertor, 6000 N-m

- High accuracy: $\pm 5\%$ Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing with backstop
- With adjustable strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 1/2"

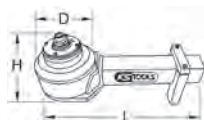
516.3760	1/2"	26:1	1.1/2"	230	6000	130.0	328.0	216.3	15.70

accessories:

516.3762	Replacement shear pin for 516.3760		0.01

Torque convertor, 9500 N-m

- High accuracy: $\pm 5\%$ Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle-regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing with backstop
- With adjustable strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 1/2"

516.3765	1/2"	26:1	1.1/2"	365	9500	184.0	505.0	214.9	30.30

accessories:

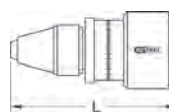
516.3767	Replacement shear pin for 516.3765		0.01



TEST EQUIPMENT

Precision torque testing instrument with dial indicator and drag indicator

- Display accuracy: $\pm 6\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise and counter clockwise direction
- For testing, measuring, checking and making adjustments
- Display torque testing instrument with drag indicator
- Large vision panel for precise adjustment
- Tool mounting using a three jaw chuck
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



	Measuring range mN/m	Measuring range cN/m	Division mN/m	Division cN/m	Tightening chuck Ø mm	L mm	
516.3310	1-9		0,2		1-6,5	83,0	290
516.3315	2-15		0,2		1-6,5	83,0	290
516.3320	4-30		0,5		1-6,5	83,0	290
516.3325	5-60		1		1-6,5	83,0	290
516.3330	10-120		2		1-6,5	83,0	290
516.3335	20-240		5		1-6,5	83,0	290
516.3410		1-15		0,2	1-8,5	102,0	600
516.3415		2-24		0,2	1-8,5	102,0	600
516.3420		4-36		0,5	1-8,5	102,0	600
516.3425		5-60		1,0	1-8,5	102,0	600
516.3430		10-90		2,0	1-8,5	102,0	600
516.3435		10-150		2,0	1-8,5	102,0	600

Electronic workshop tester for torque wrenches

- High display accuracy: $\pm 1\%$ tolerance of the scale values, ± 1 digit
- For checking or adjusting torque wrenches and torque screwdrivers
- For controlled display in a clockwise and counter clockwise direction
- Simple electronic tester with integrated torsion transducer
- Digital scale in N-m divisions for precise adjustment
- Display mode: First Peak (detection of first peak)
- Large LCD display for clear reading of the values
- With automatic reset and automatic shutdown
- Simple and comfortable operating
- Square drive by means of square adaptor
- Individually marked with serial number - unique product identification
- Including test certificate in accordance with DIN EN ISO 6789:2003 national standard
- No main power required – includes 4 x AA 1.5 V LR46 batteries
- Includes reinforcement screw
- In durable plastic storage case



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

	Measuring range Nm	L mm	B mm	H mm	
516.0100	1/4" + 3/8" + 1/2" + 3/4"	5 - 500	180,0	130,0	147,0
516.0200	1/4" + 3/8" + 1/2" + 3/4"	500 - 1000	180,0	130,0	147,0





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our mission!

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**ALU TORQUE
PRECISION**

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