

QUALITY ASSURANCE AND MANUAL FASTENING

Atlas Copco



Introduction – Quality Assurance and Manual Fastening

Quality assurance that gives peace of mind

Problems related to tightening account for a growing percentage of total warranty costs. A loose or improperly tightened joint in any assembly operation can cause serious problems and have serious consequences for end-users and result in damaged brand image for the manufacturer. Atlas Copco has developed a comprehensive quality assurance system designed to eliminate these problems.

Atlas Copco's tightening quality assurance system meets torque, angle and pulse measurement requirements for all types of fastening tools and joint verification through the residual torque check process.

In this range there are products that enable you to:

- Test the tool capability in the crib or along the line.
- Calibrate the tool in the fastest, most convenient way.
- Perform statistical process control of the performance of the tool along the line to prevent possible tool errors.
- Check the residual torque in an already tightened joint with an advanced algorithm to avoid operator errors and influence.

DATA ANALYSER PLUS ROTARY AND STATIC TRANSDUCER

The STa 6000 provides a complete range of systems for checking the tool in the tool crib or along the line. When connected with the MRTT-C wrench the STa 6000 is able to detect the residual torque on an already tightened joint using our patented algorithm used also in the STwrench.

STWRENCH

State-of-the-art, four-patent wrench that employs the modularity concept to check the residual torque on an already tightened joint. It can also be used to tighten a bolt with the most advanced torque or torque/angle strategies with complete traceability and error-proofing functionalities.



BENCHES

A full range of Joint Simulator Benches with a patented system for testing tools in real production conditions, or Static transducer benches as an all-in-one mobile system.

SOFTWARE

Torque Supervisor is Quality Management software to manage your Tool/Joint test and your maintenance activity. It can be used with benches, wrenches and data analyser.

NOTE: The accuracy of SRTT-B, IRTT-B, QRTT-B and smarHEAD transducers is 0.5 % of the readout ± 1 digit for the torque range indicated in the tables.

STa 6000

In assembly operations worldwide there is an increasing focus on quality. Using sophisticated tools to tighten bolts is simply not enough. It's also important to monitor tool performance, and to test joints after they have been tightened. This is where the Atlas Copco STa 6000 come in. The portable STa 6000 can be used to check tool performance, repeatability and accuracy for all types of power tools and torque wrenches. Test your tools in the tool crib following service and continuously on the line to monitor performance or test your joint by checking the residual torque using our unique residual torque check function.



STa 6000

Improve everyday tasks for Quality supervisors and operators. Reduced weight and compact design makes the STa 6000 easy to carry along the line. Checking tools in the Tool Crib and on the line and checking tightened joints means quality guaranteed.

PORTABLE AND ERGONOMIC

The compact STa 6000 with long-life battery weighs less than 500 g. No special device is required to carry the system it can be conveniently hung on a strap from the operator's belt.

The STa 6000 small size and features make it easy to use in the production line.

QUICK PROGRAMMING

The STa 6000 is designed for easy connection to Atlas Copco IRTT-B in-line transducers, SRTT-B static transducers and MRTT-C wrenches. It is also easy to connect the STa 6000 to SRTT-L by specific cradle in order to have a compact complete solution.

It provides automatic recognition and calibration and allows the operator to start a test with a few clicks: just selecting the tool type to be checked. The test setup is automatically created by STa 6000.

MODULARITY – YOU BUY WHAT YOU NEED

The STa 6000 is easy to upgrade. You don't need to buy a complete new model. Simply add modules and accessories that expand the functionalities and create your customized torque analyzer system.

COMMONALITY CUTS COSTS

The STa 6000 utilizes the same modules and software as the STanalyser and STwrench, thus saving you money.

CLEAR OPERATOR FEEDBACK

STa 6000 color screen features intuitive icon menus.

Feedback is clearly displayed thanks to the green or red screen, with the possibility to add a gauge indicator and fully customize information.

STa 6000 BASIC

The ideal solution for simple and quick tests.

Quick programming

- The quick tool or joint check test can be launched with STa 6000 basic version. Up to 50000 results are stored in the device memory, traces can be seen with TT BLM if the software is purchased.

- No PC is required
- Test conditions can be set up right on the device for each test
- Color screen
- The green/red color screen guides the operator for the tests

STa 6000 QC

The ideal solution for operators requiring a complete testing solution.

This version includes all the features listed for the Basic one, and additional others:

• Tools and Psets database

This is a list of tools you want to test (max. 1,000). It contains all information related to the tool, such as type, model, min. and max. torque, etc. The PSet defines how the test has to be performed with acceptance limits. A maximum of 1,000 PSets can be stored and 5 max. per tool can be assigned.

• Traces on display

Traces can be seen directly on the STa 6000 screen.

• Customized screen

The measure screen can be customized with all the important information to have them displayed during the test. It is possible to have on the measure screen information as Cm/Cmk values, sigma, last results also a graphical gauge indicator can be added.

Analyser

- **Full text notes**

Text notes can be added to the results to keep the full traceability of the tests.

- **PF and PM Calibration**

STa 6000 allows to complete calibrations simply connect the STa 6000 to an Atlas Copco controller with either a Ethernet cable or with the small USB to serial adapter. All other operations are done by the STa 6000 as the Pset is automatically read from the controller. The readings are also acquired and the new calibration value is stored in the controller. Calibration made easy, fast and completely error-proofed.

- Reports can be printed on a network printer.

STa 6000 AA

The recommended solution for Advanced Analysys.

- **The STa 6000 ultimate solution**

All the features are included in this version, statistics CM/Cmk graphs and X/R charts can be visualized right on the STa 6000 screen.

TT BLM

With TT BLM software, it's possible to manage programs, settings, results and traces of the STa 6000 remotely via the network from the office PC.

A smart Excel database for the STa 6000 results is featured by TT BLM software.

NOTE: software license is necessary for the above features

TORQUE SUPERVISOR

STa 6000 is fully integrated with Torque Supervisor software.

It's possible to take advantage of all the advanced features of Atlas Copco Quality data management software with STa 6000, programming the tool check and joint check routes to be executed.

ACCESSORIES

With the Barcode Module it is possible to automatically start a tool or a joint test, and it is possible store further scanned information on their results. In addition a work order can be defined to set the scanning order of different identifiers.

With IRC-W Radio Module you can wirelessly communicate to software.

With the USB/Serial converter, it is possible to synchronize to Power Focus, Power MACS and PST for their calibration.

STa 6000

Model	Ordering No.
STa 6000 analyser (device)	8059 0956 60
STa 6000 battery	8059 0955 61
STa 6000 power supply ^a	4612 0300 21
Battery charger	8059 0930 88
STa 6000 battery charger adapter	8059 0955 75
STa 6000 stand	8059 0956 73
STa 6000 USB/Serial adapter	8059 0956 74
STa 6000 rubber protection	8059 0956 76
RBU QC for STa 6000	8059 0956 62
RBU AA for STa 6000	8059 0956 63
IRC-B Module	8059 0920 10
IRC-W Module	8059 0920 15
Bar Code Module	8059 0920 12
ACTA RS232 cable 3 m	4222 0546 03
ACTA RS232 cable 5 m	4222 0546 05

^a STa 6000 is provided with the power supply in the box. Battery has to be ordered separately.

STa 6000



Functionality Overview STa 6000

STa 6000 BASIC

BASIC is the perfect solution for simple and quick tests.

STa 6000 QC

QC version for operators requiring a complete testing solution.

STa 6000 AA

AA version is the recommended solution for Advanced Analysis.

	BASIC	QC	AA RBU
HARDWARE CAPABILITY			
Number of Channel	1	1	1
Torque	yes	yes	yes
Angle (Encoder or Gyroscope)	yes	yes	yes
MRTT-C connection for joint checks	yes	yes	yes
Size in mm	110x200x45	110x200x45	110x200x45
Weight [grams]	<= 500	<= 500	<= 500
Color Display	yes	yes	yes
Keyboard	yes	yes	yes
Results Storage	50000	50000	50000
Traces storage	50000	50000	50000
RBU - Rapid Backup Unit	no	yes	yes
Direct Power Supply (slow charger 6H)	yes	yes	yes
RJ45 (Ethernet)	yes	yes	yes
USB	yes	yes	yes
Non Atlas Copco analog transducer connection	yes	yes	yes
SOFTWARE CAPABILITY - ONBOARD			
Languages	yes	yes	yes
Multi-units	yes	yes	yes
Pset	1 (not saved)	1000	1000
Batch Count	yes	yes	yes
CW/CCW	yes	yes	yes
Database - Tool	no	1000	1000
Quick Programming	yes	yes	yes
Power Focus and Power Macs calibration	no	yes	yes
Traces on display	no	yes	yes
Advanced analysis graphs on display	no	no	yes
Custom measurement screen	no	yes	yes
Wi-Fi print	yes (with IRC-W module)	yes (with IRC-W module)	yes (with IRC-W module)
Ethernet print	yes	yes	yes
SOFTWARE FUNCTIONALTIES - ONBOARD			
Tool Check			
Wrench testing	yes	yes	yes
Power tool testing	yes	yes	yes
Pulse Tool testing	yes	yes	yes
Min, Max, Med, Sigma statistics	yes	yes	yes
Cm/Cmk	no	yes	yes
SPC	no	yes	yes
Joint Check			
Yield point	yes	yes	yes
Residual Torque/Time	yes	yes	yes
Residual Torque/Angle	yes	yes	yes
Residual Torque/Peak	yes	yes	yes
Loose and Tight	yes	yes	yes
SOFTWARE CAPABILITY - CONNECTIVITY			
ToolsTalk BLM to view/export results and traces via Wi-Fi (with IRC-W), USB/RJ45	yes	yes	yes
ToolsTalk BLM to program test strategies via Wi-Fi (with IRC-W), USB/RJ45	no	yes	yes
Torque Supervisor via Wi-Fi (with IRC-W), USB/RJ45	no	yes	yes
API via Wi-Fi (with IRC-W), USB/RJ45	no	yes (with API RBU)	yes (with API RBU)

SRTT-L Transducers

SRTT-L

SRTT-L is a family of transducers for the STAnalyser. It is designed for lower torque assembly tools. Both transducers and test joints are exchangeable and can be used with any STAnalyser. The modular design allows the user to scale his system as his needs evolve. The same SRTT-L plate can be used with any transducer in the SRTT-L family.



Model	Ordering No.
SRTT-L main plate	8059 0955 85

SRTT-L TRANSDUCERS

Model	Rated capacity		Ordering No.
	Nm	ft lb	
SRTT-L 1 Nm	1	0.73	8059 0955 86
SRTT-L 4 Nm	4	2.95	8059 0955 87
SRTT-L 12 Nm	12	8.85	8059 0955 88
SRTT-L 30 Nm	30	22.12	8059 0955 89

TEST JOINT FOR SRTT-L

Model	Screw size	Rated capacity		Ordering No.
		Nm	ft lb	
TJ SRTT-L M4 S -1	M4	1	0.73	4145 0984 80
TJ SRTT-L M4 H -1	M4	1	0.73	4145 0984 83
TJ SRTT-L M6 S -4	M6	4	2.95	4145 0984 82
TJ SRTT-L M6 H -4	M6	4	2.95	4145 0984 85
TJ SRTT-L M6 S -12	M6	12	8.85	4145 0985 80
TJ SRTT-L M6 H -12	M6	12	8.85	4145 0985 82
TJ SRTT-L M8 S -12	M8	12	8.85	4145 0985 81
TJ SRTT-L M8 H -12	M8	12	8.85	4145 0985 83
TJ SRTT-L M8 S -30	M8	30	22.12	4145 0986 80
TJ SRTT-L M8 H -30	M8	30	22.12	4145 0986 82
TJ SRTT-L M10 S -30	M10	30	22.12	4145 0986 81
TJ SRTT-L M10 H -30	M10	30	22.12	4145 0986 83

QRTT/IRTT-B Transducers

QRTT

Transducers used for QST, QMX and ETX nutrunner as well as for fixtured Tensor tool calibration. This transducer enables fast, easy set-up with highest system accuracy. By using the QRTT, no special test adaptation device between the spindle and the product itself is needed.

QRTT



Model	Drive square in	For QMX spindle	Torque range		Ordering No.
			Nm	ft lb	
QRTT 20 Nm kit	3/8	42	4-20	3-15	8092 1164 13
QRTT 75 Nm kit	3/8	42	15-75	11-55	8092 1164 18
QRTT 200 Nm kit	1/2	50	40-200	30-150	8092 1164 23
QRTT 500 Nm kit	3/4	62	100-500	74-369	8092 1164 28
QRTT 1000 Nm kit	1	80, 90	200-1000	148-737	8092 1164 33

IRTT-B

IRTT-B is the new generation of Atlas Copco torque and torque/angle in-line rotary transducers incorporating significant improvements in durability and accuracy. They can also work with pulse tools thanks to their revolutionary and unique solution for the slip ring and brush block. Also new is the angle reading system that uses a patent solution which gives better resolution and longer life. The mechanics have also been completely reviewed to achieve a higher level of durability.

IRTT-B is equipped by a memory chip that is read by the Atlas Copco data analyser. In this way the Data analyser is automatically calibrated to the transducer sensitivity and avoid any possible set up errors.



IRTT-B

Model	Drive		Torque range		Ordering No.	Model	Drive		Torque range		Ordering No.
	Hex in	Square in	Nm	ft lb			Hex in	Square in	Nm	ft lb	
Torque models						Torque/angle models					
IRTT-B 5-I06	1/4		1-5	0.8-3.6	8059 0942 05	IRTT-B 1A-I06	1/4		0.2-1	0.14-0.73	8059 0943 96
IRTT-B 5-06		1/4	1-5	0.8-3.6	8059 0942 07	IRTT-B-2A-I06	1/4		0.4-2	0.3-1.47	8059 0943 01
IRTT-B 20-I06	1/4		4-20	3-15	8059 0942 10	IRTT-B 5A-I06	1/4		1-5	0.8-3.6	8059 0943 06
IRTT-B 20-06		1/4	4-20	3-15	8059 0942 15	IRTT-B 5A-06		1/4	1-5	0.8-3.6	8059 0943 08
IRTT-B 25 -10		3/8	5-25	3.7-18.4	8059 0942 20	IRTT-B 20A-I06	1/4		4-20	3-15	8059 0943 11
IRTT-B 75-10		3/8	15-75	11-55	8059 0942 25	IRTT-B 20A-06		1/4	4-20	3-15	8059 0943 16
IRTT-B 180-13		1/2	36-180	27-133	8059 0942 30	IRTT-B 25A-10		3/8	5-25	3.7-18.4	8059 0943 21
IRTT-B 500-20		3/4	100-500	74-369	8059 0942 35	IRTT-B 75A-10		3/8	15-75	11-55	8059 0943 26
IRTT-B 750-25		1	150-750	111-553	8059 0942 40	IRTT-B 180A-13		1/2	36-180	27-133	8059 0943 31
IRTT-B 1400-25		1	280-1400	206.6-1033	8059 0942 45	IRTT-B 500A-20		3/4	100-500	74-369	8059 0943 36
IRTT-B 3000-38		1 1/2	600-3000	440-2200	8059 0942 52	IRTT-B 750A-25		1	150-750	111-553	8059 0943 41
IRTT-B 5000-38		1 1/2	1000-5000	737-3685	8059 0942 56	IRTT-B 1400A-25		1	280-1400	206.6-1033	8059 0943 46
						IRTT-B 3000A-38		1 1/2	600-3000	440-2200	8059 0943 52
						IRTT-B 5000A-38		1 1/2	1000-5000	737-3685	8059 0943 56
						IRTT-B 10000A-38		1 1/2	2000-10000	1474-7370	8059 0943 60

NOTE: All IRTT are equipped with 19-pin connector.

SRTT-B Transducers

SRTT-B

STATIONARY REACTION TORQUE TRANSDUCER

Stationary reaction torque transducers are designed for testing wrenches, click wrenches or for tightening tools where rotary action is not desired during measurement. When testing a shut-off tool, a joint simulator is required as an accessory.

The SRTT-B is the new generation of Atlas Copco stationary reaction torque transducers with improved durability thanks to their new mechanical design. The new patented system of fixing the joint simulator on top avoids any possible errors due to the play between the two devices.

A complete range of accessories and a mechanical joint simulator enables you to test shut-off tools or wrenches with square drive output.

SRTT-B



Model	Drive		Torque range		Ordering No.
	Hex mm	Square in	Nm	ft lb	
SRTT-B 0.5-13		1/2	0.1-0.5	0.08-0.37	8059 0946 03
SRTT-B 2-13		1/2	0.4-2	0.3-1.47	8059 0946 09
SRTT-B 5-13		1/2	1-5	0.8-3.6	8059 0946 15
SRTT-B 10-13		1/2	2-10	1.5-7.3	8059 0946 21
SRTT-B 25-36	36		5-25	3.7-18.4	8059 0946 28
SRTT-B 50-36	36		10-50	7.4-36	8059 0946 36
SRTT-B 100-36	36		20-100	14.8-73	8059 0946 45
SRTT-B 250-36	36		50-250	37-184	8059 0946 54
SRTT-B 500-50	50		100-500	74-368	8059 0946 63
SRTT-B 1000-50	50		200-1000	148-737	8059 0946 75
SRTT-B 2000-50	50		400-2000	295-1475	8059 0946 84

TEST JOINT FOR SRTT-B



Test joint for SRTT-B

Model	SRTT-B Drive		Tool drive		Rated capacity		Ordering No.
	Hex mm	Square in	Hex mm	Square in	Nm	ft lb	
TJ SRTT-B S -0.5		1/2	1/4		0.5	0.37	8059 0940 01
TJ SRTT-B H -0.5		1/2	1/4		0.5	0.37	8059 0940 02
TJ SRTT-B S -2		1/2	1/4		2	1.47	8059 0940 03
TJ SRTT-B H -2		1/2	1/4		2	1.47	8059 0940 04
TJ SRTT-B S -5		1/2	1/4		5	3.69	8059 0940 05
TJ SRTT-B S -5		1/2	1/4		5	3.69	8059 0940 06
TJ SRTT-B S -10		1/2	1/4		10	7.36	8059 0940 20
TJ SRTT-B H -10		1/2	1/4		10	7.36	8059 0940 21
TJ SRTT-B S -25	36			3/8	25	18.40	8059 0940 07
TJ SRTT-B H -25	36			3/8	25	18.40	8059 0940 08
TJ SRTT-B S -50	36			1/2	50	36.88	8059 0940 09
TJ SRTT-B H -50	36			1/2	50	36.88	8059 0940 10
TJ SRTT-B S -100	36			1/2	100	73.76	8059 0940 11
TJ SRTT-B H -100	36			1/2	100	73.76	8059 0940 12
TJ SRTT-B S -250	36			1/2	250	184.40	8059 0940 13
TJ SRTT-B H -250	36			1/2	250	184.40	8059 0940 14
TJ SRTT-B S -500	50			3/4	500	368.78	8059 0940 15
TJ SRTT-B H -500	50			3/4	500	368.78	8059 0940 16
TJ SRTT-B 1000-50	50			1	1000	737.60	8059 0940 17

Optional Accessories

Adapter



Square socket



ADAPTERS

Adapter	Drive		Ordering No.
	Hex mm	Square in	
1/2" to 1/4"		1/2	8059 0978 63
1/2" to 3/8"		1/2	8059 0978 64
3/8" to 36	36		8059 0978 65
1/2" to 36	36		8059 0978 66
1/2" to 50	50		8059 0978 67
3/4" to 50	50		8059 0978 68
1" to 50	50		8059 0978 69

SQUARE SOCKETS

Adapter	Ordering No.
1/4" - 1/4"	8059 0977 64
3/8" - 3/8"	8059 0977 65
1/2" - 1/2"	8059 0977 66
3/4" - 3/4"	8059 0977 67
1" - 1"	8059 0978 52
1/4" - 3/8"	8059 0977 68
3/8" - 1/2"	8059 0977 69
1/2" - 3/4"	8059 0977 70
3/4" - 1"	8059 0978 53

MRTT-B Transducers

MRTT-B SCREWDRIVER

MRTT-B is available in a screwdriver version for low torque applications from 0.1 to 15 Nm. The 15 Nm model has a precision reversible 1/4" drive ratchet consisting of two needle clutches. Sliding bush to convert left and right tightening. The very low friction avoids dragging the screws on the return motion.



MRTT-B

Model	Torque capacity		Square drive in	Weight		Length mm	Ordering No.
	Nm	ft lb		kg	lb		
MRTT-B 1-06	0.1-1	0.07-0.74	1/4	0.3	0.66	169	8059 0931 06
MRTT-B 5-06	0.5-5	0.36-3.67	1/4	0.3	0.66	169	8059 0931 15
MRTT-B 15-06	1.5-15	1.1-11.1	1/4	0.4	0.88	223	8059 0931 24

Optional Accessories

TRANSDUCER CABLE

The cable needed for all transducers and MRTT-B.

CABLES

Length	Ordering No.
1 m	4145 0982 01
3 m	4145 0982 03
5 m	4145 0982 05
3 m curled cable	4145 0971 03

If non Atlas Copco transducers are used one of the following cables are required.

Model	Ordering No.
Industrial style Transducer cable 3 m 19 - 4	4145 0965 03
Industrial style Transducer cable 3 m 19 - 6	4145 0968 03
Industrial style Transducer cable 3 m 19 - 10	4145 0967 03

MRTT-C Transducers

MRTT-C

The MRTT-C is a revolutionary way to think about a manual wrench. The MRTT-C is an advanced handle that can be connected to the standard smartHEAD used for the STwrench to create a wrench that can be connected to the STanalyser using a standard Atlas Copco cable.

The MRTT-C connected to the STanalyser with Residual or Production RBU can be used to detect the residual torque using the advanced Torque/Angle algorithm, same as the STwrench, or to tight a bolt for production applications.

- Torque or Torque/Angle reading depending to the smartHEAD
- Led ring like STwrench
- Vibrating handle
- Buzzer
- TAG recognition
- Light in front

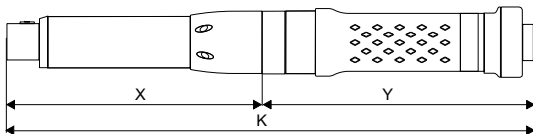


MRTT-C

Model	Ordering No.
MRTT-C	8059 0930 10

Model	Capacity		Drive mm	Weight		Length mm	Ordering No.
	Nm	ft lb		kg	lb		
smartHEAD only Torque							
smartHEAD 30	6-30	4.5-22	9x12	0.20	0.44	167.5	8059 0920 31
smartHEAD 80	16-80	12-59	9x12	0.22	0.48	167.5	8059 0920 43
smartHEAD 150	30-150	23-111	14x18	0.55	1.21	271.0	8059 0920 48
smartHEAD 250	50-250	37-184	14x18	0.78	1.72	417.0	8059 0920 54
smartHEAD 400	80-400	59-295	14x18	0.93	2.05	584.0	8059 0920 60
smartHEAD 600	120-600	89-443	21x26	1.70	3.75	1048.5	8059 0920 66
smartHEAD 1000	300-1000	148-737	28	1.90	4.19	1344	8059 0920 80
smartHEAD A Torque + Angle							
smartHEAD A15	3-15	2.2-11	9x12	0.19	0.42	147.5	8059 0930 24
smartHEAD A30	6-30	4.5-22	9x12	0.19	0.42	147.5	8059 0930 31
smartHEAD A80	16-80	12-59	9x12	0.20	0.44	147.5	8059 0930 43
smartHEAD A150	30-150	23-111	14x18	0.57	1.25	271.0	8059 0930 48
smartHEAD A250	50-250	37-184	14x18	0.80	1.76	417.0	8059 0930 54
smartHEAD A400	80-400	59-295	14x18	0.95	2.09	584.0	8059 0930 60
smartHEAD A600	120-600	89-443	21x26	1.72	3.79	1048.5	8059 0930 66
smartHEAD A800	160-800	118-590	21x26	1.70	3.75	1048.5	8059 0988 26
smartHEAD A1000	300-1000	148-737	28	1.90	4.19	1344	8059 0930 80
smartHEAD A Torque + Angle sq							
smartHEAD Asq15	3-15	2.2-11	9x12	0.19	0.42	147.5	8059 0930 28
smartHEAD Asq30	6-30	4.5-22	9x12	0.19	0.42	147.5	8059 0930 32
smartHEAD Asq80	16-80	12-59	9x12	0.20	0.44	147.5	8059 0930 44
smartHEAD Asq150	30-150	23-111	14x18	0.55	1.21	271.0	8059 0930 50
smartHEAD Asq250	50-250	37-184	14x18	0.78	1.72	417.0	8059 0930 56
smartHEAD Asq400	80-400	59-295	14x18	0.93	2.05	584.0	8059 0930 62

Dimensions



Model	X mm	Length		Total weight	
		Y mm	K mm	kg	lb
MRTT-C 15 Nm	139	166	325	0.60	1.29
MRTT-C 30 Nm	139	166	325	0.62	1.36
MRTT-C 80 Nm	139	166	325	0.64	1.41
MRTT-C 150 Nm	262	166	428	0.97	2.13
MRTT-C 250 Nm	408	166	574	1.20	2.64
MRTT-C 400 Nm	575	166	741	1.35	2.97
MRTT-C 600 Nm	1040	166	1206	2.12	4.67
MRTT-C 800 Nm	1040	166	1206	2.12	4.67
MRTT-C 1000 Nm	1270	166	1436	2.97	6.54

Optional Accessories

TRANSDUCER CABLE

The cable needed for all transducers and MRTT-C.

CABLES

Length	Ordering No.
1 m	4145 0982 01
3 m	4145 0982 03
5 m	4145 0982 05
3 m curled cable	4145 0971 03

If non Atlas Copco transducers are used one of the following cables are required.

Model	Ordering No.
Industrial style Transducer cable 3 m 19 - 4	4145 0965 03
Industrial style Transducer cable 3 m 19 - 6	4145 0968 03
Industrial style Transducer cable 3 m 19 - 10	4145 0967 03

Transducers and Analyzer MicroTorque

QUALITY ASSURANCE SYSTEM – SHARPENING YOUR COMPETITIVE EDGE

To ensure the highest quality of your fastening – and ultimately your company's products – Atlas Copco has developed a comprehensive quality assurance system for micro torques. The ACTA MT4 system provides fast, accurate and reliable measurement of critical parameters.

ACTA MT4 – SMART FEATURES

- Connect to PC via USB/RS232/Ethernet.
- 6 different engineering units to choose from.
- Colour configurable display (Torque/Angle/Status/Trace).
- Battery for portable usage.
- Programmable via keypad or software "ToolsTalk ACTA MT".
- Dual transducer inputs.
- High resolution OLED colour display.
- Audio signal for operator feedback.
- Digital I/O signals for communication with external devices such as PLC.
- Tool speed measurement function possible when using MT TRA transducers.
- Store and export tightening data to excel with ToolsTalk ACTA MT PC software.
- Calculate average torque directly on the display.



MT TRA 500



MT TH



ACTA MT 4



MT TS

Model	Capacity		Drive	Overall length mm	Ordering No.
	cNm	in lb			
Torque Analyzer					
ACTA MT 4 ^a					8432 0820 04
Manual screwdriver torque transducer					
MT TH 1	1.0	0.09	Ø 3 mm	115	8432 0820 10
MT TH 2	2.0	0.18	Ø 3 mm	115	8432 0820 11
MT TH 5	5.0	0.44	Ø 3 mm	115	8432 0820 12
MT TH 10	10.0	0.88	Ø 3 mm	115	8432 0820 13
MT TH 20	20.0	1.77	Ø 3 mm	115	8432 0820 14
MT TH 50	50.0	4.42	1/4"	124	8432 0820 15
MT TH 100	100.0	8.85	1/4"	124	8432 0820 16
MT TH 200	200.0	17.70	1/4"	124	8432 0820 17
Stationary reaction torque transducer					
MT TS 5	5.0	0.44	Ø 3 mm	81	8432 0820 20
MT TS 10	10.0	0.88	Ø 3 mm	81	8432 0820 21
MT TS 20	20.0	1.77	Ø 3 mm	81	8432 0820 22
MT TS 50	50.0	4.42	1/4"	98	8432 0820 23
MT TS 100	100.0	8.85	1/4"	98	8432 0820 24
MT TS 200	200.0	17.70	1/4"	98	8432 0820 25
MT TS 500	500.0	44.25	1/4"	111	8432 0820 52
In-line rotary torque and angle transducer					
MT TRA 5	5.0	0.44	Ø 3 mm	76	8432 0820 42
MT TRA 10	10.0	0.88	Ø 5 mm	76	8432 0820 43
MT TRA 20	20.0	1.77	Ø 5 mm	76	8432 0820 44
MT TRA 50	50.0	4.42	1/4"	105	8432 0820 45
MT TRA 100	100.0	8.85	1/4"	105	8432 0820 46
MT TRA 200	200.0	17.70	1/4"	105	8432 0820 47
MT TRA 500	500.0	44.25	1/4"	105	8432 0820 48

^a ToolsTalk ACTA MT (programming software) included.

MicroTorque Accessories

CABLES

Model	Ordering No.
Transducer cable	8432 0830 35
RS232 cable ACTA MT	8432 0831 39

TEST JOINTS FOR CALIBRATION WITH MT TS

Model	Designation	Range cNm	Drive	Screw head profile	Ordering No.
Test joint	M6 Soft joint	500 - 1000	1/4" HEX	HEX 5 mm	8432 0833 62
	M6 Soft joint	200 - 500	1/4" HEX	HEX 5 mm	8432 0833 61
	M4 Soft joint	27 - 200	1/4" HEX	HEX 3 mm	8432 0833 60
	M3 Soft joint	5 - 27	1/4" HEX	HEX 3 mm	8432 0833 59
	M3 Soft joint	5 - 27	Ø 3 mm	HEX 3 mm	8432 0833 58
	M2 Soft joint	0 - 10	1/4" HEX	HEX 1.5 mm	8432 0833 57
	M2 Soft joint	0 - 10	Ø 3 mm	HEX 1.5 mm	8432 0833 56
	M6 Hard joint	200 - 1000	1/4" HEX	HEX 5 mm	8432 0833 55
	M4 Hard joint	27 - 200	1/4" HEX	HEX 3 mm	8432 0833 54
	M3 Hard joint	5 - 27	1/4" HEX	HEX 3 mm	8432 0833 53
	M3 Hard joint	5 - 27	Ø 3 mm	HEX 3 mm	8432 0833 52
	M2 Hard joint	0 - 10	1/4" HEX	HEX 1.5 mm	8432 0833 51
	M2 Hard joint	0 - 10	Ø 3 mm	HEX 1.5 mm	8432 0833 50

Mechanical wrench series

The mechanical wrenches in the new Atlas Copco Saltus product line form the basis for manual tightening. They enable you to find the optimal solution for your individual tightening situation regardless whether you are working in assembly lines, rework or repair and maintenance, and even when limited operating space is available.

The wrenches are also the perfect back-up strategy for your controlled assembly technology.

With regard to workplace equipment and costs, manual tightening wrenches are often more efficient and increase your productivity. The easy handling has earned wide acceptance among operators.

Our different wrench types offer the right strategy for nearly any application.

Optional setting keys are available for adjustments of the pre-set value for all wrenches.

CWR 'CLICK' WRENCH SERIES

The torque wrenches in our CWR series provide the distinctive "Click" which is a very clear feedback when reaching the pre-set torque value. The repeatability of $\pm 4\%$ makes them perfect for use in assembly lines.

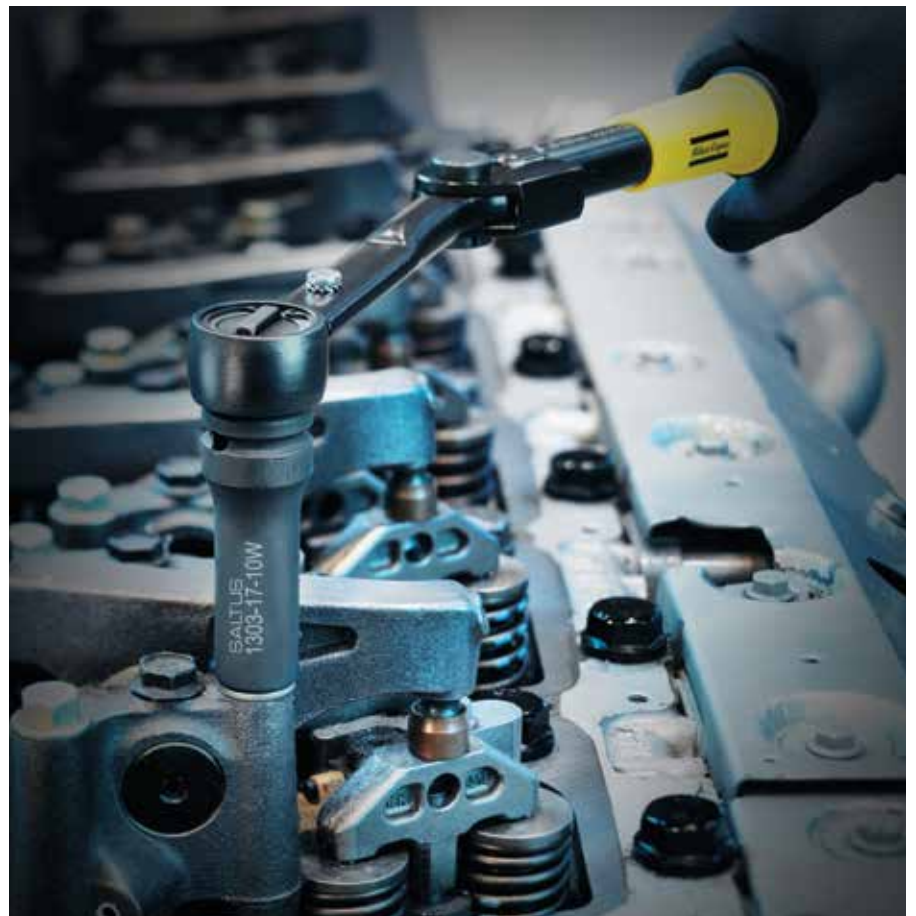
BWR 'BREAKING' WRENCH SERIES

The torque wrenches in our BWR series are primarily used in professional industrial environments. The possibility of over-tightening is significantly reduced due to a 22° breaking-angle of the unique BWR mechanism. Therefore, the BWR wrenches are very well-suited for use in assembly lines as well as for repair and maintenance.

You can profit from a wide range of end fittings which are quickly changed. Coupled with our Atlas Copco end fittings for the BWR series, you will obtain a high degree of accuracy in your tightening process.

SWR 'SLIPPING' WRENCH SERIES

The torque wrenches in the SWR series are "automatically triggered" once the pre-set torque value is reached. The Camover-technology completely avoids over-tightening. After triggering, the SWR wrench is again ready to use. The integrated ratchet



function ensures you controlled clockwise tightening. The high repeating accuracy with a tolerance of $\pm 4\%$ makes the SWR wrenches ideal for assembly lines for extreme continuous operation.

Mechanical Wrenches

CWR 'CLICK' WRENCH SERIES

- Wide range from 2 Nm up to 300 Nm.
- Reversible version "R" for tightening in both directions.
- Very small sizes ideal for tightening in limited space.
- Repeatability of $\pm 4\%$.
- Easy and safe adjusting and handling.
- Standard drive (9x12 or 14x18) for a wide range of suitable end fittings.



Model	Torque range		Length mm	Weight g	Ø mm	Drive	Ordering No.
	Nm	ft lb					
CWR-20	3-20	2.2-14.8	129	248	21	9x12	8439 0041 00
CWR-25	2-25	1.5-18.4	174	288	21	9x12	8439 0041 01
CWR-50	5-50	3.7-37	236	466	21	9x12	8439 0041 02
CWR-85	15-85	11-62.7	305	576	21	9x12	8439 0041 03
CWR-120	50-120	37-88.5	349	666	24	9x12	8439 0041 04
CWR-200	50-200	37-148	419	916	30x26	14x18	8439 0041 05
CWR-300	60-300	44.2-221	685	1366	32x28	14x18	8439 0041 06
Reversible wrench type							
CWR-20 R	3-20	2.2-14.8	129	248	21	9x12	8439 0041 10
CWR-25 R	2-25	1.5-18.4	174	288	21	9x12	8439 0041 11
CWR-50 R	5-50	3.7-37	236	466	21	9x12	8439 0041 12
CWR-85 R	15-85	11-62.7	305	576	21	9x12	8439 0041 13
CWR-120 R	50-120	37-88.5	349	666	24	9x12	8439 0041 14

BWR – 'BREAKING' WRENCH SERIES

- High process reliability as over-tightening is significantly reduced due to the 22° breaking angle.
- Wide range of wrenches from 2 Nm up to 2000 Nm.
- Extremely high durability and high repeatability of $\pm 4\%$.
- Robust construction.
- Easy and safe adjusting.



Model	Torque range		Length mm	Weight g	Ø mm	Drive	Ordering No.
	Nm	ft lb					
BWR-20	2-20	1.5-14.8	213	250	8x16	BWR-20/35	8439 0042 00
BWR-35	5-35	3.7-25.8	288	550	8x16	BWR-20/35	8439 0042 01
BWR-100	20-100	14.8-74	410	950	10x20	BWR-100	8439 0042 02
BWR-240	80-240	59-177	677	2700	14x30	BWR-240	8439 0042 03
BWR-440	140-440	103-324.5	857	4300	16x34	BWR-440	8439 0042 04
BWR-750	300-750	221-553	961	6400	20x41	BWR-750	8439 0042 05
BWR-1300	500-1300	369-959	1256	8140	21x45	BWR-1300	8439 0042 06
BWR-2000	800-2000	590-1475	1982	13450	21x45	BWR-2000	8439 0042 07

SWR 'SLIPPING' WRENCH SERIES

- Torque range from 5 Nm up to 110 Nm.
- High process reliability as camover mechanism avoids over-tightening.
- Overloading of the wrench itself is impossible.
- Repeatability of $\pm 4\%$.
- Robust construction.
- Easy and safe adjusting.
- 3/8" (SWR-30 / SWR-60) respectively 1/2" (SWR-110) ratchet drive allows use of standard sockets.

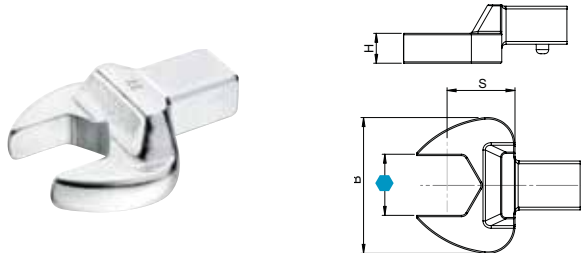


Model	Torque range		Length mm	Weight g	Drive	Ordering No.
	Nm	ft lb				
SWR-30	5-30	3.7-22	269	640	3/8"	8439 0043 00
SWR-60	15-60	11-44	354	1050	3/8"	8439 0043 01
SWR-110	40-110	29.5-96	453	1900	1/2"	8439 0043 02

Mechanical Wrenches

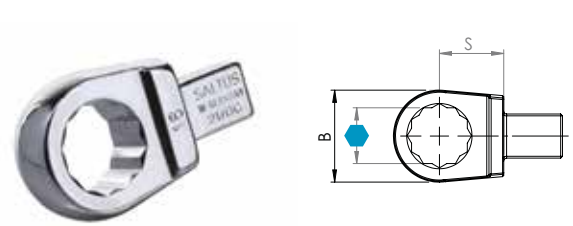
End Fittings CWR

Open End



		B mm/in	H mm	S mm	g	Max Nm	Ordering No.
9 x 12							
	7	22	5	17.5	40	7	4027 5011 00
	8	22	5	17.5	39	10	4027 5011 01
	9	26	5.5	17.5	38	14	4027 5011 02
	10	26	5.5	17.5	42	20	4027 5011 03
	11	26	5.5	17.5	41	25	4027 5011 04
	12	30	7	17.5	43	32	4027 5011 05
	13	30	7	17.5	48	40	4027 5011 06
	14	35	8	17.5	52	50	4027 5011 07
	15	35	8	17.5	51	60	4027 5011 08
	16	38	8.5	17.5	58	70	4027 5011 09
	17	38	8.5	17.5	60	80	4027 5011 10
	18	42	9	20	71	100	4027 5011 11
	19	42	9	20	74	115	4027 5011 12
	20	42	9	20	76	115	4027 5011 13
	21	46	11	22	95	115	4027 5011 14
	22	46	11	22	95	115	4027 5011 15
	24	48	11	25	106	130	4027 5011 16
	27	58	13	30	235	150	4027 5011 17
	32	64	15	40	267	190	4027 5011 18
	1/4	22	5	17.5	37	7	4027 5010 00
	5/16	22	5	17.5	36	10	4027 5010 01
	3/8	26	5.5	17.5	38	20	4027 5010 02
	7/16	26	5.5	17.5	38	25	4027 5010 03
	1/2	30	7	17.5	47	32	4027 5010 04
	9/16	34	8	17.5	50	50	4027 5010 05
	5/8	38	8.5	17.5	56	70	4027 5010 06
	11/16	38	8.5	17.5	57	80	4027 5010 07
	3/4	42	9	20	71	115	4027 5010 08
14 x 18							
	13	30	7	25	128	40	4027 5011 21
	14	35	8	25	129	50	4027 5011 22
	15	35	8	25	132	60	4027 5011 23
	16	38	9	25	140	70	4027 5011 24
	17	38	9	25	136	80	4027 5011 25
	18	42	10	25	147	90	4027 5011 26
	19	42	10	25	145	95	4027 5011 27
	20	42	10	25	155	100	4027 5011 28
	21	50	11	25	171	30	4027 5011 29
	22	50	11	25	165	150	4027 5011 30
	24	53	12	25	167	180	4027 5011 31
	27	60	13	30	219	220	4027 5011 32
	28	60	13	30	222	250	4027 5011 33
	29	60	13	30	222	270	4027 5011 34
	30	66	14	30	245	300	4027 5011 35
	32	66	14	32.5	246	300	4027 5011 36
	34	66	14	32.5	239	300	4027 5011 37
	36	66	14	32.5	275	300	4027 5011 38
	7/16	30	7	25	127	40	4027 5010 50
	1/2	30	7	25	127	40	4027 5010 51
	9/16	35	8	25	132	50	4027 5010 52
	5/8	38	9	25	141	70	4027 5010 53
	11/16	38	9	25	136	80	4027 5010 54
	3/4	42	10	25	144	95	4027 5010 55
	13/16	50	11	25	160	150	4027 5010 56
	7/8	50	11	25	158	150	4027 5010 57
	15/16	53	12	25	176	180	4027 5010 58
	1	53	12	25	172	180	4027 5010 59
	1.1/8	60	13	30	223	220	4027 5010 60

Box End

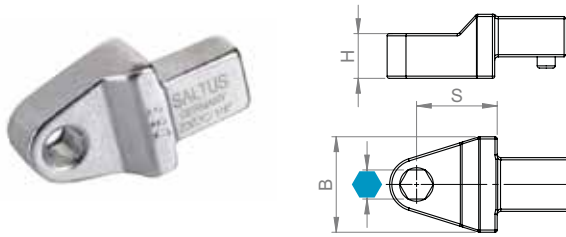


		B mm/in	H mm	S mm	g	Max Nm	Ordering No.
9 x 12							
	7	13	8	17.5	38	25	4027 5011 50
	8	13.5	8	17.5	37	35	4027 5011 51
	9	16	8	17.5	35	40	4027 5011 52
	10	18	9	17.5	40	55	4027 5011 53
	11	18.5	9	17.5	44	70	4027 5011 54
	12	20.5	11	17.5	41	85	4027 5011 55
	13	21.5	11	17.5	49	100	4027 5011 56
	14	25	12	17.5	55	115	4027 5011 57
	15	25	12	17.5	52	120	4027 5011 58
	16	26	12	17.5	54	120	4027 5011 59
	17	27	13	17.5	59	120	4027 5011 60
	18	28	13	17.5	56	120	4027 5011 61
	19	30.5	13	17.5	65	120	4027 5011 62
	21	33	15	17.5	71	120	4027 5011 63
	22	34.5	15	17.5	74	120	4027 5011 64
	1/4	13.5	8	17.5	39	25	4027 5010 13
	5/16	13.5	8	17.5	38	35	4027 5010 14
	3/8	18	8	17.5	41	55	4027 5010 15
	7/16	18	9	17.5	41	70	4027 5010 16
	1/2	22	12	17.5	51	100	4027 5010 17
	9/16	25	12	17.5	57	115	4027 5010 18
	5/8	27	13	17.5	61	120	4027 5010 19
	11/16	27	13	17.5	57	120	4027 5010 20
	3/4	30	13	17.5	62	120	4027 5010 21
	13/16	34	14.5	17.5	75	120	4027 5010 22
	7/8	34	15	20	77	120	4027 5010 23
14 x 18							
	13	22.5	11	25	130	100	4027 5011 67
	14	23	11	25	123	110	4027 5011 68
	15	24	11	25	128	120	4027 5011 69
	16	25.5	12	25	133	140	4027 5011 70
	17	27	12	25	135	160	4027 5011 71
	18	29	13	25	134	185	4027 5011 72
	19	30.5	13	25	138	210	4027 5011 73
	20	33	13	25	140	230	4027 5011 74
	21	33	15	25	144	260	4027 5011 75
	22	34.5	15	25	145	300	4027 5011 76
	24	37.5	15	25	153	350	4027 5011 77
	27	42.5	17	25	162	450	4027 5011 78
	30	46	19	25	182	550	4027 5011 79
	32	47.5	19	25	181	650	4027 5011 80
	34	52	19	28	210	650	4027 5011 81
	36	54	19	28	203	700	4027 5011 82
	41	60	20	30	240	750	4027 5011 83
	1/2	30	11	25	134	100	4027 5010 70
	9/16	30	11	25	133	110	4027 5010 71
	5/8	30	12	25	135	140	4027 5010 72
	11/16	30	12	25	136	160	4027 5010 73
	3/4	31	12	25	145	210	4027 5010 74
	13/16	34	15	25	159	260	4027 5010 75
	7/8	35	15	25	156	300	4027 5010 76

Mechanical Wrenches

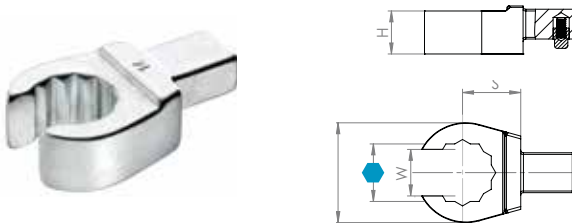
End Fittings CWR

Bits Holders



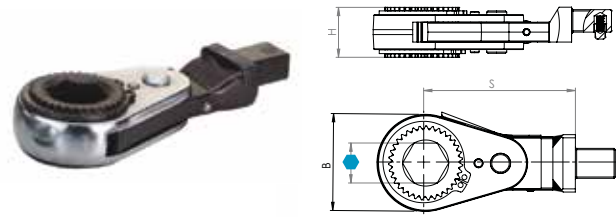
		B	H	S		Ordering No.
	in	mm	mm	mm	g	
9 x 12	5/16	14	10	17.5	45	4027 5012 10
	1/4	16	12.5	17.5	47	4027 5012 11
14 x 18	5/16	16	12.5	25	112	4027 5012 13

Flared End



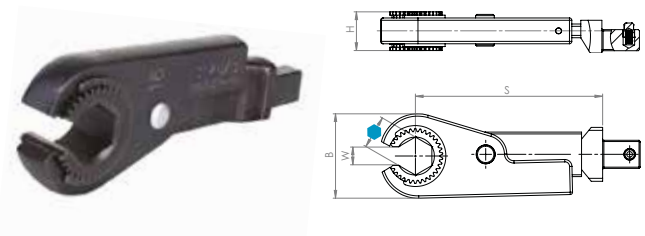
		B	H	S	W		Max	Ordering No.
	mm/in	mm	mm	mm	mm	g	Nm	
9 x 12	10	21.5	11	17.5	7.1	57	20	4027 5011 90
	11	22.5	11	17.5	8.6	55	25	4027 5011 91
	12	24.5	12	17.5	9	59	32	4027 5011 92
	13	26	13	17.5	10	55	40	4027 5011 93
	14	27	13	17.5	11	60	50	4027 5011 94
	15	27	13	17.5	12	60	50	4027 5011 95
	16	30.5	13	17.5	13	65	80	4027 5011 96
	17	31.5	13	17.5	14	64	82	4027 5011 97
	18	33	15	17.5	15	74	100	4027 5011 98
	19	34	15	17.5	16	80	115	4027 5011 99
	21	38.5	15	20	17	88	120	4027 5012 00
	22	39.5	15	20	17	92	120	4027 5012 01
	24	40	15	20	18	75	120	4027 5012 02
	27	45	17	25	20	120	140	4027 5012 03
	3/8	18	8	17.5	7.1	39	20	4027 5010 30
	7/16	21	12	17.5	8.6	50	25	4027 5010 31
	1/2	26	13	17.5	10	61	32	4027 5010 32
	9/16	27	13	17.5	11	58	50	4027 5010 33
	5/8	30	13	17.5	14	62	80	4027 5010 34
	11/16	30	13	17.5	14	58	82	4027 5010 35
	3/4	34	15	17.5	15.8	71	115	4027 5010 36

Hexagon Ratchet



		B	H	S		Max	Ordering No.
	mm/in	mm	mm	mm	g	Nm	
9 x 12	10	28	13.5	51	95	25	4027 5012 30
	11	28	13.5	51	95	25	4027 5012 31
	12	28	13.5	51	95	25	4027 5012 32
	13	28	13.5	51	95	25	4027 5012 33
	14	32	16	56	140	35	4027 5012 34
	15	32	16	56	140	35	4027 5012 35
	16	39	20	61	205	70	4027 5012 36
	17	39	20	61	205	70	4027 5012 37
	18	39	20	61	205	70	4027 5012 38
	19	39	20	61	205	70	4027 5012 39
	21	45	23	61	290	85	4027 5012 40
	22	45	23	61	290	85	4027 5012 41
	24	45	23	61	290	85	4027 5012 42

Open Hexagon Ratchet

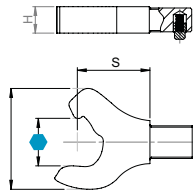


		B	H	S	W		Max	
	mm/in	mm	mm	mm	mm	g	Nm	Ordering No.
9 x 12	8	30	16.5	48	5.1	90	15	4027 5012 50
	9	30	16.5	48	6.3	90	15	4027 5012 51
	10	30	16.5	48	6.3	89	15	4027 5012 52
	11	30	16.5	48	6.3	89	15	4027 5012 53
	12	36	16.5	81	7.1	200	18	4027 5012 54
	13	36	16.5	81	7.6	200	18	4027 5012 55
	14	36	16.5	81	8	200	18	4027 5012 56
	15	44	20.5	83	9.1	280	45	4027 5012 57
	16	44	20.5	83	9.6	280	45	4027 5012 58
	17	44	20.5	83	10	280	45	4027 5012 59
	18	44	20.5	83	10.5	280	45	4027 5012 60
	19	44	20.5	83	10.5	280	45	4027 5012 61
With reinforced bottom 9 x 12								
10	30	16.5	48		6.3	91	15	4027 5012 63
11	30	16.5	48		6.3	91	15	4027 5012 64
12	30	16.5	48		7.1	91	15	4027 5012 65
13	30	20.5	48		7.6	91	15	4027 5012 66

Mechanical Wrenches

End Fittings CWR

Open End with Ratchet Function



	mm/in	B mm	H mm	S mm	g	Ordering No.
9 x 12	10	22.5	10	17.5	34	4027 5012 80
	11	24.5	10	21	39	4027 5012 81
	12	26.7	10	21	42	4027 5012 82
	13	30	10	23	49	4027 5012 83
	14	30.5	10	25.5	55	4027 5012 84
	15	32	10	27	60	4027 5012 85
	16	35	10	28	65	4027 5012 86
	17	37	10	29	68	4027 5012 87
	18	38	10	32.5	78	4027 5012 88
	19	41	10	33	90	4027 5012 89
	21	46.5	10	35	100	4027 5012 90
	22	46.5	10	35	97	4027 5012 91
	24	50	10	37.5	115	4027 5012 92
	27	57	10	47.5	156	4027 5012 93
	30	62	10	52.5	182	4027 5012 94
	32	67	12	52.5	234	4027 5012 95
14 x 18	17	37	16	28	125	4027 5012 98
	18	41	16	32	12	4027 5012 99
	19	41	16	32.5	130	4027 5013 00
	21	46.5	16	35	150	4027 5013 01
	27	46.5	16	40	198	4027 5013 02
	15	50	16	41	220	4027 5013 03
	16	58	16	43.5	270	4027 5013 04
	17	63	16	52	310	4027 5013 05
	24	66	16	59	336	4027 5013 06
	32	75	16	55	388	4027 5013 07

Setting Key



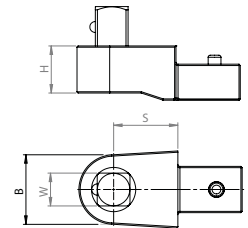
	g	Ordering No.
Setting key	169	4027 5014 00

Blank End



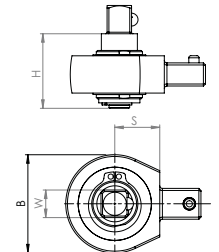
	B mm	H mm	S mm	g	Ordering No.
9 x 12	23	14	9	30	4027 5012 20
	Assembled	23	14	9	4027 5012 21
14 x 18	30	21	13	98	4027 5012 23
	Assembled	30	21	13	4027 5012 24

Fixed Square



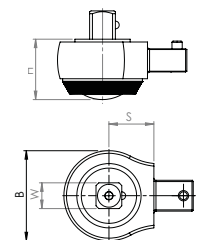
	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12	1/4	20	14	17.5	76	40	4027 5013 20
	3/8	20	14	17.5	82	80	4027 5013 21
	1/2	20	14	17.5	71	100	4027 5013 22
14 x 18	1/2	27	18	25	203	300	4027 5013 24
	3/4	40	25	25	396	650	4027 5013 25

Non-Reversible Ratchet End



	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12	3/8	38	29.5	17.5	140	80	4027 5013 30
	1/2	38	29.5	17.5	180	100	4027 5013 31
14 x 18	1/2	44	29.5	25	230	300	4027 5013 33

Reversible Ratchet End

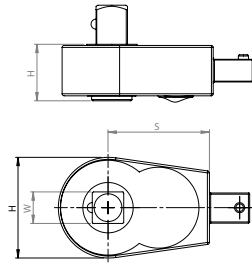


	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12	1/4	27	27	17.5	68	50	4027 5013 40
	3/8	36.5	25	17.5	140	100	4027 5013 41
	1/2	33.5	37	17.5	150	120	4027 5013 42
14 x 18	1/2	41	26	25	320	300	4027 5013 44
	3/4	62	32	46	865	800	4027 5013 45

Mechanical Wrenches

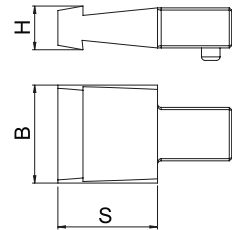
End Fittings CWR

Reversible Ratchet End



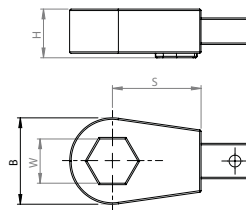
	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12	1/4	25	13.5	21.5	77	49	4027 5013 60
	3/8	33.5	17.5	30.5	160	100	4027 5013 61
	1/2	41.5	20.5	37.5	291	120	4027 5013 62
14 x 18	1/2	41.5	20.5	37.5	339	300	4027 5013 64
	3/4	63.5	31	70	1155	650	4027 5013 65

Connectors for Dovetails Inserts



	B mm	H mm	S mm	g	Ordering No.
9 x 12	22	10	21.5	39	4027 5013 90
14 x 18	29	10	26.5	92	4027 5013 91

Ratchet Reversible with Hexagonal Output



	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12	1/4	22	14	17.5	60	40	4027 5013 80
	5/16	29	14.5	28	117	80	4027 5013 81

Belknap Adapter

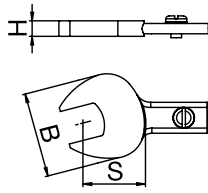


	Type	S mm	g	Ordering No.
9 x 12	J-Shank	24	68	4027 5016 90
	Y-Shank	29	71	4027 5016 91
	X-Shank	31	86	4027 5016 92
	Z- Shank	56	314	4027 5016 93
14 x 18	J-Shank	24	105	4027 5017 00
	Y-Shank	29	104	4027 5017 01
	X-Shank	31	121	4027 5017 02
	Z- Shank	56	349	4027 5017 03

Mechanical Wrenches

End Fittings BWR

Open End



	mm/in	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35							
	7	24	5.5	17.5	23	13	4027 5000 00
	8	24	5.5	17.5	25	13	4027 5000 01
	9	24	5.5	17.5	25	13	4027 5000 02
	10	30	6	24	31	20	4027 5000 03
	11	30	6	24	31	24	4027 5000 04
	12	33	6	25	31	29	4027 5000 05
	13	33	6	25	34	40	4027 5000 06
	14	33	6	25	34	45	4027 5000 07
	15	35	6	28	34	45	4027 5000 08
	16	35	7	28	50	50	4027 5000 09
	17	38	7	30	60	60	4027 5000 10
	18	38	7	31	60	65	4027 5000 11
	19	38	7	31	60	70	4027 5000 12
	21	43	7	35	61	95	4027 5000 13
	22	43	7	35	61	95	4027 5000 14
	24	46	10	35	61	95	4027 5000 15
	27	46	10	40	61	95	4027 5000 16
	1/4	24	5.5	17.5	23	13	4027 5006 50
	5/16	24	5.5	17.5	25	13	4027 5006 51
	3/8	24	5.5	17.5	25	13	4027 5006 52
	7/16	30	6	24	31	24	4027 5006 53
	1/2	33	6	25	34	40	4027 5006 54
	9/16	35	6	28	34	45	4027 5006 55
	5/8	35	7	28	50	50	4027 5006 56
	11/16	38	7	31	60	65	4027 5006 57
	3/4	38	7	31	60	70	4027 5006 58
BWR 100							
	13	40	7.5	25	75	45	4027 5000 30
	14	40	7.5	25	75	45	4027 5000 31
	15	40	7.5	25	75	50	4027 5000 32
	16	45	10	28	90	55	4027 5000 33
	17	45	10	28	110	65	4027 5000 34
	18	45	10	28	110	65	4027 5000 35
	19	45	10	28	115	75	4027 5000 36
	21	46	10	32	115	75	4027 5000 37
	22	46	10	32	115	80	4027 5000 38
	24	46	10	32	120	100	4027 5000 39
	27	55	10	36	120	100	4027 5000 40
	1/2	40	7.5	25	75	45	4027 5006 70
	9/16	40	7.5	25	75	50	4027 5006 71
	5/8	45	10	28	90	55	4027 5006 72
	11/16	45	10	28	110	65	4027 5006 73
	3/4	45	10	28	115	75	4027 5006 74
	13/16	46	10	32	115	75	4027 5006 75
	7/8	46	10	32	115	80	4027 5006 76
	15/16	46	10	32	120	100	4027 5006 77
	1	55	10	36	120	100	4027 5006 78
	1 1/8	61	12	43	227	130	4027 5006 79

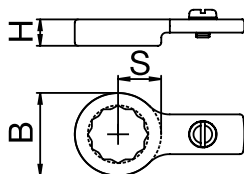
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	mm/in	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 240							
	16	53	10	34	210	85	4027 5000 60
	17	53	10	44	210	85	4027 5000 61
	18	53	10	44	210	85	4027 5000 62
	19	53	10	44	210	85	4027 5000 63
	21	60	10	46	210	85	4027 5000 64
	22	60	13	48	290	170	4027 5000 65
	24	61	13	41	350	175	4027 5000 66
	27	64	15	50	360	180	4027 5000 67
	5/8	53	10	34	210	85	4027 5006 90
	11/16	53	10	44	210	85	4027 5006 91
	3/4	53	10	44	210	85	4027 5006 92
	13/16	60	10	46	210	85	4027 5006 93
	7/8	60	13	48	290	170	4027 5006 94
	15/16	63	14	59	480	360	4027 5006 95
	1	72	15	60	580	440	4027 5006 96
	1 1/8	75	15	60	595	440	4027 5006 97
BWR 440							
	17	55	12	58	375	190	4027 5000 90
	18	55	12	58	375	190	4027 5000 91
	19	55	12	58	375	190	4027 5000 92
	21	62	12	59	440	280	4027 5000 93
	22	62	12	59	440	280	4027 5000 94
	24	63	14	59	480	360	4027 5000 95
	27	72	15	60	580	440	4027 5000 96
	30	75	15	60	595	440	4027 5000 97
	32	78	15	60	650	440	4027 5000 98
	34	82	17	60	670	440	4027 5000 99
	36	82	17	62	670	440	4027 5001 00
	41	87	20	62	685	440	4027 5001 01
	5/8	55	12	58	375	190	4027 5007 10
	11/16	55	12	58	375	190	4027 5007 11
	3/4	55	12	58	375	190	4027 5007 12
	13/16	62	12	59	440	280	4027 5007 13
	7/8	62	12	59	440	280	4027 5007 14
	15/16	63	14	59	480	360	4027 5007 15
	1	72	15	60	580	440	4027 5007 16
BWR 750							
	21	62	12	58	600	300	4027 5001 20
	22	62	12	58	600	300	4027 5001 21
	24	70	14	58	620	320	4027 5001 22
	27	75	15	58	700	360	4027 5001 23
	30	80	15	58	820	420	4027 5001 24
	32	82	17	58	850	490	4027 5001 25
	34	86	17	62	860	570	4027 5001 26
	36	86	17	62	860	570	4027 5001 27
	41	92	20	64	950	620	4027 5001 28
	46	97	22	66	980	630	4027 5001 29
	13/16	62	12	58	600	300	4027 5007 30
	7/8	62	12	58	600	300	4027 5007 31
	15/16	70	14	58	620	320	4027 5007 32
	1	75	15	58	700	360	4027 5007 33
	1 1/8	80	15	58	820	420	4027 5007 34
BWR 1300/2000							
	24	70	14	53	950	350	4027 5001 50
	27	75	15	53	960	480	4027 5001 51
	30	82	17	53	1050	600	4027 5001 52
	32	82	17	61	1150	750	4027 5001 53
	34	86	18	64	1200	890	4027 5001 54
	36	86	18	65	1200	890	4027 5001 55
	41	92	20	77	1650	1150	4027 5001 56
	46	97	22	80	1800	1450	4027 5001 57
	50	104	22	82	1900	1750	4027 5001 58
	55	110	22	83	1985	1800	4027 5001 59
	60	115	22	86	2000	1850	4027 5001 60
	75	170	25	113	3500	2000	4027 5001 61
	15/16	70	14	53	950	350	4027 5007 40
	1	75	15	53	960	480	4027 5007 41
	1 1/8	82	17	53	1050	600	4027 5007 42

Mechanical Wrenches

End Fittings BWR

Box End



mm/in	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35						
7	16	6	8	20	25	4027 5001 80
8	16	6	8	20	25	4027 5001 81
9	18	6	9	20	32	4027 5001 82
10	19	7	9.5	22	38	4027 5001 83
11	20	7	10	25	50	4027 5001 84
12	21	7	10.5	25	60	4027 5001 85
13	22	8	11	28	75	4027 5001 86
14	23	8	11.5	30	85	4027 5001 87
15	25	8	12.5	32	85	4027 5001 88
16	27	8	13.5	35	85	4027 5001 89
17	27	8	13.5	35	85	4027 5001 90
18	29	8	14.5	36	85	4027 5001 91
19	29	8	14.5	36	85	4027 5001 92
21	34	10	16	40	85	4027 5001 93
22	34	10	17	40	85	4027 5001 94
24	37	10	18.5	40	85	4027 5001 95
1/4	16	6	8	20	25	4027 5007 50
5/16	16	6	8	20	25	4027 5007 51
3/8	18	6	9	20	32	4027 5007 52
7/16	20	7	10	25	50	4027 5007 53
1/2	22	8	11	28	75	4027 5007 54
9/16	25	8	12.5	32	85	4027 5007 55
5/8	27	8	13.5	35	85	4027 5007 56
11/16	29	8	14.5	36	85	4027 5007 57
3/4	29	8	14.5	36	85	4027 5007 58
BWR 100						
13	23	10	11.5	55	75	4027 5002 10
14	25	10	12.5	58	85	4027 5002 11
15	26	10	13	60	100	4027 5002 12
16	28	12	14	62	100	4027 5002 13
17	28	12	14	65	100	4027 5002 14
18	30	12	15	68	100	4027 5002 15
19	30	12	15	70	100	4027 5002 16
21	32	12	16	70	100	4027 5002 17
22	34	12	17	72	100	4027 5002 18
24	37	14	18.5	90	100	4027 5002 19
1/2	23	10	11.5	55	75	4027 5007 70
9/16	26	10	13	60	100	4027 5007 71
5/8	28	12	14	62	100	4027 5007 72
11/16	30	12	15	68	100	4027 5007 73
3/4	30	12	15	70	100	4027 5007 74
13/16	32	12	16	70	100	4027 5007 75
7/8	34	12	17	72	100	4027 5007 76
15/16	37	14	18.5	90	100	4027 5007 77
1	40	12	24.5	100	100	4027 5007 78

Continued....

mm/in	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 240						
16	33	12	31	190	135	4027 5002 40
17	33	12	31	190	135	4027 5002 41
18	33	12	31	195	150	4027 5002 42
19	33	12	31	195	150	4027 5002 43
21	38	12	31	210	200	4027 5002 44
22	38	12	31	210	200	4027 5002 45
24	40	14	31	210	240	4027 5002 46
27	44	14	31	225	240	4027 5002 47
5/8	33	12	31	190	135	4027 5007 90
11/16	33	12	31	195	150	4027 5007 91
3/4	33	12	31	195	150	4027 5007 92
13/16	38	12	31	210	200	4027 5007 93
7/8	38	12	31	210	200	4027 5007 94
15/16	40	14	31	210	240	4027 5007 95
1	44	14	31	225	240	4027 5007 96
BWR 440						
17	36	12	56	300	190	4027 5002 70
18	36	12	56	300	190	4027 5002 71
19	40	12	56	300	190	4027 5002 72
21	40	14	56	315	280	4027 5002 73
22	40	14	56	315	280	4027 5002 74
24	43	14	56	320	420	4027 5002 75
27	47	14	56	335	440	4027 5002 76
30	52	14	56	335	440	4027 5002 77
32	54	14	56	365	440	4027 5002 78
34	58	15	56	375	440	4027 5002 79
36	60	15	56	385	440	4027 5002 80
41	62	15	56	395	440	4027 5002 81
44	72	16	56	483	460	4027 5002 82
5/8	36	12	56	300	190	4027 5008 10
11/16	36	12	56	300	190	4027 5008 11
3/4	40	12	56	300	190	4027 5008 12
13/16	40	14	56	315	280	4027 5008 13
7/8	40	14	56	315	280	4027 5008 14
15/16	43	14	56	320	420	4027 5008 15
1	47	14	56	335	440	4027 5008 16
BWR 750						
21	40	14	58	450	320	4027 5003 00
22	40	14	58	470	320	4027 5003 01
24	43	14	58	500	480	4027 5003 02
27	47	16	58	520	480	4027 5003 03
30	54	16	58	535	700	4027 5003 04
32	56	16	58	565	750	4027 5003 05
34	60	19	58	575	750	4027 5003 06
36	60	19	58	575	750	4027 5003 07
38	60	19	58	565	750	4027 5003 08
41	65	19	58	585	750	4027 5003 09
46	69	19	58	600	750	4027 5003 10
13/16	40	14	58	450	320	4027 5008 30
7/8	40	14	58	470	320	4027 5008 31
15/16	43	14	58	500	480	4027 5008 32
1	47	16	58	520	480	4027 5008 33
BWR 1300/2000						
24	52	18	58	750	520	4027 5003 30
27	56	18	58	760	560	4027 5003 31
30	60	18	58	800	740	4027 5003 32
32	62	18	58	820	950	4027 5003 33
34	62	18	58	850	1200	4027 5003 34
36	70	18	58	850	1200	4027 5003 35
41	70	18	58	940	1800	4027 5003 36
46	78	20	58	1080	2000	4027 5003 37
50	85	22	58	1180	2000	4027 5003 38
55	90	22	58	1250	2000	4027 5003 39
60	95	22	58	1300	2000	4027 5003 40
15/16	52	18	58	750	520	4027 5008 40
1	56	18	58	760	560	4027 5008 41

Mechanical Wrenches

End Fittings BWR

Flared End



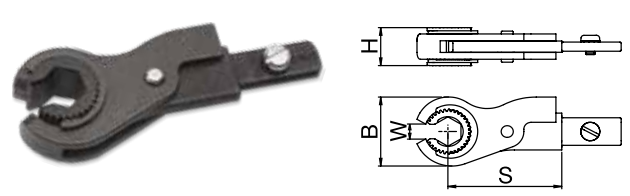
	mm/in	B mm	H mm	S mm	W mm	g	Max Nm	Ordering No.
BWR 20/35								
8	18	6	9	6	20	16	4027 5003 60	
10	21	7	10.5	7	25	16	4027 5003 61	
11	21	7	10.5	8.5	25	20	4027 5003 62	
12	25	9	12.5	9	32	25	4027 5003 63	
13	25	8	12.5	10	32	25	4027 5003 64	
14	25	8	12.5	11	32	25	4027 5003 65	
15	29	8	14.5	11	35	25	4027 5003 66	
17	31.5	10	15.75	14	35	50	4027 5003 67	
19	34	10	17	15.8	40	50	4027 5003 68	
21	34	10	17	17	42	50	4027 5003 69	
22	34	10	17	17	45	50	4027 5003 70	
24	38	14	20	18	60	60	4027 5003 71	
3/8	21	7	12	8	25	16	4027 5008 50	
7/16	21	7	12	8.5	25	20	4027 5008 51	
1/2	25	8	14	10	32	25	4027 5008 52	
9/16	29	8	14	11	35	25	4027 5008 53	
5/8	31.5	10	16	14	35	50	4027 5008 54	
11/16	34	10	17.5	15.8	40	50	4027 5008 55	
3/4	34	10	18	17	40	50	4027 5008 56	
BWR 100								
15/8	32	10	18.5	12	75	50	4027 5008 72	
11/16	32	12	18.5	14	78	50	4027 5008 73	
3/4	36	12	19.5	16	90	50	4027 5008 74	

Hexagon Ratchet



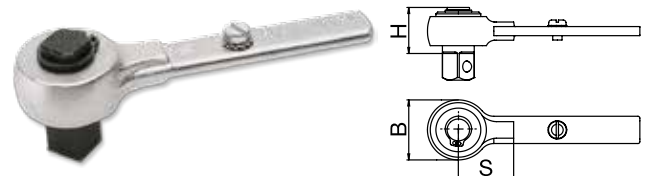
	mm	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35							
8		28	13.5	44	80	25	4027 5003 90
10		28	13.5	44	80	25	4027 5003 91
11		28	13.5	44	80	25	4027 5003 92
12		28	13.5	44	80	25	4027 5003 93
13		28	13.5	44	80	25	4027 5003 94
14		32	16	47	120	35	4027 5003 95
15		32	16	47	120	35	4027 5003 96
16		39	20	51	180	85	4027 5003 97
17		39	20	51	180	85	4027 5003 98
18		39	20	51	180	85	4027 5003 99
19		39	20	51	180	85	4027 5004 00
21		45	23	57	257	85	4027 5004 01
22		45	23	57	257	85	4027 5004 02
BWR 100							
15		39	20	51	200	70	4027 5004 20
16		39	20	51	200	70	4027 5004 21
17		39	20	51	200	70	4027 5004 22
18		39	20	51	200	100	4027 5004 23
19		39	20	51	200	100	4027 5004 24

Open Hexagon Ratchet



	B	H	S	W		Max	
mm/in	mm	mm	mm	mm	g	Nm	Ordering No.
BWR 20/35							
8	30	16.5	48	5.1	85	15	4027 5004 50
9	30	16.5	48	5.6	85	15	4027 5004 51
10	30	16.5	48	6.3	85	15	4027 5004 52
11	30	16.5	48	6.3	85	15	4027 5004 53
12	36	16.5	81	7.1	190	18	4027 5004 54
13	36	16.5	81	7.6	190	18	4027 5004 55
14	36	16.5	81	8	190	18	4027 5004 56
17	42	20.5	73.5	10	260	18	4027 5004 57

Fixed Square End

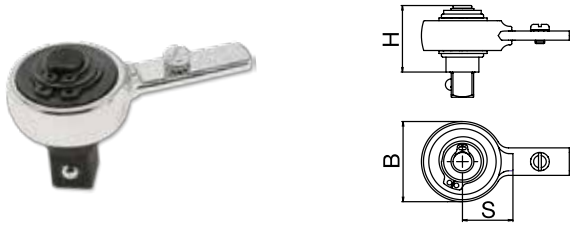


	in x mm	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35							
1/4 x 30	24	30	21	65	25	4027 5004 80	
1/4 x 70	24	70	21	115	25	4027 5004 81	
3/8 x 30	24	30	21	65	85	4027 5004 82	
3/8 x 70	27	70	21	120	85	4027 5004 83	
1/2 x 35	24	35	21	75	85	4027 5004 84	
1/2 x 70	24	70	21	145	85	4027 5004 85	
BWR 100							
3/8 x 40	32	40	30	75	100	4027 5004 90	
3/8 x 70	32	70	30	240	100	4027 5004 91	
1/2 x 40	32	40	30	175	100	4027 5004 92	
1/2 x 70	32	70	30	245	100	4027 5004 93	
BWR 240							
1/2 x 40	34	40	31	300	240	4027 5004 98	
1/2 x 70	34	70	31	330	240	4027 5004 99	
BWR 440							
1/2 x 40	48	40	58	600	440	4027 5005 04	
1/2 x 70	48	70	58	630	440	4027 5005 05	
3/4 x 70	48	70	58	689	440	4027 5005 06	
BWR 750							
3/4 x 70	48	70	58	775	750	4027 5005 11	
BWR 1300/2000							
3/4 x 70	73	70	58	1400	1000	4027 5005 16	
1 x 70	73	70	58	1700	2000	4027 5005 17	

Mechanical Wrenches

End Fittings BWR

Ratchet End



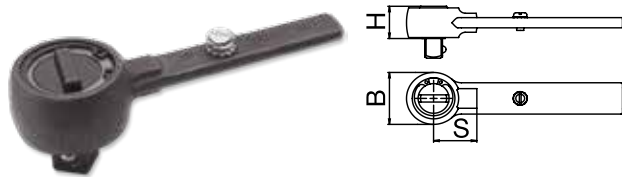
in x mm	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35						
1/4 x 40	36	40	21	145	25	4027 5005 25
1/4 x 70	38	70	21	165	25	4027 5005 26
3/8 x 40	36	40	21	145	85	4027 5005 27
3/8 x 70	36	70	21	170	85	4027 5005 28
1/2 x 45	36	45	21	150	85	4027 5005 29
1/2 x 70	36	70	21	195	85	4027 5005 30
BWR 100						
3/8 x 40	48	40	30	270	100	4027 5005 36
3/8 x 70	48	70	30	31	100	4027 5005 37
1/2 x 45	48	40	30	285	100	4027 5005 38
1/2 x 70	48	70	30	320	100	4027 5005 39
BWR 240						
1/2 x 45	48	45	31	300	240	4027 5005 44
1/2 x 70	48	70	31	330	240	4027 5005 45
BWR 440						
3/4 x 70	72	70	58	1100	440	4027 5005 50
BWR 750						
3/4 x 70	72	70	58	1250	750	4027 5005 55
BWR 1300/2000						
3/4 x 70	85	70	58	1700	1000	4027 5005 60
1 x 80	85	80	58	2000	2000	4027 5005 61

Belknap Adapter



Type	S mm	g	Ordering No.
BWR 20/35			
J-Shank	24	68	4027 5009 50
Y-Shank	29	65	4027 5009 60
BWR 100			
J-Shank	24	85	4027 5009 51
Y-Shank	29	82	4027 5009 61
X-Shank	31	100	4027 5009 70
Z-Shank	56	327	4027 5009 80
BWR 240			
Y-Shank	29	193	4027 5009 62
X-Shank	31	211	4027 5009 71
Z-Shank	56	438	4027 5009 81
BWR 440			
Y-Shank	29	279	4027 5009 63
X-Shank	31	297	4027 5009 72
Z-Shank	56	524	4027 5009 82
BWR 750			
X-Shank	31	455	4027 5009 73
Z-Shank	56	686	4027 5009 83
BWR 1300/2000			
Z-Shank	56	924	4027 5009 84

Reversible Ratchet End



in	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35						
1/4	25	26	21	55	25	4027 5005 70
3/8	36	35	21	130	85	4027 5005 71
1/2	36	40	21	135	85	4027 5005 72
BWR 100						
3/8	36	35	30	165	100	4027 5005 77
1/2	36	40	30	175	100	4027 5005 78
BWR 240						
1/2	36	40	31	285	240	4027 5005 83
BWR 440						
3/4	68	56	58	1100	440	4027 5005 88
BWR 750						
3/4	68	70	58	1250	750	4027 5005 93
BWR 1300/2000						
3/4	68	70	58	1500	1000	4027 5005 98
1	68	70	58	1500	1000	4027 5005 99

Setting Key BWR



	g	Ordering No.
Setting key BWR 20 up to 100	97	4027 5006 10
Setting key BWR 240	164	4027 5006 11
Setting key BWR 440	428	4027 5006 12
Setting key BWR 750 up to 2000	603	4027 5006 13

Setting Key SWR



	g	Ordering No.
Setting-Key-Set SWR-30	94	4027 5030 00
Setting-Key-Set SWR-60	171	4027 5030 01
Setting-Key-Set SWR-110	429	4027 5030 02

Where the joints are critical

Critical fastening duties are among the most essential tightening operations within industry today. So whether you're in the business of assembling cars or trucks, tractors or harvesters, trains or planes, you need to be in control when it comes to production and quality assurance.

STWRENCH

The Atlas Copco STwrench is much more than a standard transducerized hand-held nutrunner. Due to its modular design, you can build the STwrench to meet your exact requirements and create a tool that perfectly matches your applications.

Use the STwrench for production to get full traceability of the entire tightening operation, including torque control, angle control and yield control. Or build your wrench to just tighten your joint with high torque accuracy. Or use it for quality control to check residual torque, to perform joint analysis, including joint behaviour and stiffness, to set the correct tightening parameters for production and to test the reproducibility of joint stiffness on the benches.

THE ULTIMATE WRENCH FOR PRODUCTION AND QUALITY ASSURANCE

With the STwrench you can build the functionality you need into your own tool. Choose three patented components – smartHEAD, RBU and the power supply-solution to suit your exact requirements. Then add a fourth: the patented controller that is standard for all STwrenches. Due to the modular design of the STwrench, you can mix and match components to suit all types of applications.

Use it as a basic stand-alone system or integrate it with Atlas Copco hardware and software. The STwrench is versatile enough to tighten hard-to-reach bolts using a variety of torque and angle strategies while providing complete traceability. Yet it handles quality control of residual torque just as easily as it does comprehensive joint analysis.

SMARTHEAD

The smartHEAD has a built-in memory chip to store calibration values that are automatically recognized by the STwrench controller. Choose from six different sizes ranging from 30 to 600

Nm, which is connected to the controller by a patented system allowing a fast connection. It can be with or without Gyroscope and the torque transducer is made to guarantee length-independent reading. TAG recognition patented solution is used to assure Poka-Yoke operations. It includes at front a Led bright light to improve visibility in dark bolt area.

STWRENCH CONTROLLER

This is the brain of the wrench. It has a clear and visible display, LED ring, vibrating handle and buzzer for immediate feedback to the operator. It has dedicated slots where you can insert the RBU, one wireless module and the Bar Code Module (see Optional Accessories).

The STwrench Controller can be powered by a patented bi-energy solution such as the long life STwrench Battery or by Tensor SL connected to the Power Focus via the STwrench Cable Box.

STWRENCH RBU

Atlas Copco's patented Rapid Backup Unit (RBU) concept transfers functionality to a non-configured hardware unit, ensuring that hardware can easily be upgraded. The RBU also acts as back-up for programming and configuration. If a change of hardware is required, just fit the RBU to the new hardware, switch on the unit and you're ready. All programming and network configurations are transferred in seconds. The RBU cuts downtime to a minimum.

BLM API

The BLM API is a software tool that makes possible for a programmer to integrate in his own code the function to manage one or more STwrenches via cable or WiFi. Only STwrenches with API RBU can be connected.



Functionality Overview STwrench

FUNCTIONALITY	QUALITY		PRODUCTION	
	SmartHEAD	smartHEAD A	smartHEAD	smartHEAD A
Controller				
360° LED lights on board for operator feedback	x	x	x	x
Keyboard	x	x	x	x
Graphic Display	x	x	x	x
USB mini to connect ToolsTalk BLM	x	x	x	x
Infrared communication	x	x	x	x
Buzzer	x	x	x	x
Rapid Back Up Unit (RBU)	x	x	x	x
Vibration	x	x	x	x
Shock detector	x	x	x	x
smartHEAD				
Interchangeable head – Tag recognition	x	x	x	x
Light in front of smartHEAD	x	x	x	x
Gyroscope for angle measurement		x		x
Length-independent torque transducer	x	x	x	x
Free mode – programs				
Track torque	x	x	x	x
Peak torque	x	x	x	x
Residual check torque/time	x	x	x	x
Residual check torque/angle		x		x
Tightening torque with angle monitoring		x		x
Quality audit				
Peak	x	x	x	x
Residual Check Torque/Time	x	x	x	x
Residual Check Torque/Angle		x		x
Loosen And Retighten		x		x
Loosen		x		x
Joint Analysis				
Torque/angle graphing		x		x
Yield point detection		x		x
Tightening				
Torque with time monitoring			x	x
Torque with angle monitoring				x
Torque plus angle				x
Yield				x
Yield plus angle				x

FUNCTIONALITY	QUALITY		PRODUCTION	
	SmartHEAD	smarthead A	smarthead	smarthead A
PSET				
Number of Psets	200	200	200	200
Batch count	x	x	x	x
Number of job	100	100	100	100
Number of multistage	200	200	200	200
CW/CCW operation	x	x	x	x
Bending correction		x		x
Extension torque correction	x	x	x	x
Extension angle correction		x		x
General				
Transducer torque traceability	x	x	x	x
Result data storage	5000	5000	5000	5000
Trace storage	10	10	10	10
SPC	x	x	x	x
Multi units (Nm, Kg/m)	x	x	x	x
Multi language menu	x	x	x	x
Interchangeable head –	x	x	x	x
Tag recognition writing function				
Connectivity				
PF connectivity for I/O or any type of fieldBus	x	x	x	x
ToolsNet	x	x	x	x
QATnode	x	x	x	x
Optional				
Barcode Reader	x	x	x	x
IRC-W	x	x	x	x
IRC-B for Power Focus connectivity	x	x	x	x
QATnode	x	x	x	x
ToolsTalk BLM				
USB Connection	x	x	x	x
Off Line programming	x	x	x	x
Tightening Database to PC (Excel)	x	x	x	x
View trace	x	x	x	x
Export trace in several formats	x	x	x	x
Overlay Traces	x	x	x	x
Trace zoom	x	x	x	x
Statistical analysis	x	x	x	x
Bar code reader configuration	x	x	x	x

Quality and Production Wrenches STwrench

SMARTHEADS AND CONTROLLER

Square connection smartHEAD have been added to the range of smartHEADs. The square connection smartHEADs allow customers to use any square end fitting, losing thought the poka yoke system offered by end fittings in this catalogue.

BI controller is the new controller with the battery inserted in the STwrench handle. New batteries are to be used only in this controller. Recharge these batteries using standard battery charger with BI battery charger adapter.

HOW TO ORDER YOUR STWRENCH

1. Take the STwrench Controller
2. Select your smartHEAD
3. Select your End fitting tool
4. Select your RBU
5. Select the Battery
6. Select if you want optional modules



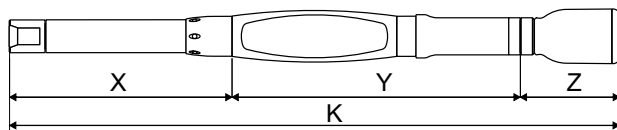
STwrench

Model	Torque range		Drive mm	Weight		Length mm	Ordering No.
	Nm	ft lb		kg	lb		
Controller							
STwrench Controller				0.48	1.08	313	8059 0930 00
STwrench Controller BI				0.46	1.01	333	8059 0930 01
smartHEAD only Torque							
smartHEAD 30	6-30	4.5-22	9x12	0.20	0.44	167.5	8059 0920 31
smartHEAD 80	16-80	12-59	9x12	0.22	0.48	167.5	8059 0920 43
smartHEAD 150	30-150	23-111	14x18	0.55	1.21	271.0	8059 0920 48
smartHEAD 250	50-250	37-184	14x18	0.78	1.72	417.0	8059 0920 54
smartHEAD 400	80-400	59-295	14x18	0.93	2.05	584.0	8059 0920 60
smartHEAD 600	120-600	89-443	21x26	1.70	3.75	1048.5	8059 0920 66
smartHEAD 1000	300-1000	148-737	28	1.90	4.19	1344	8059 0920 80
smartHEAD A Torque + Angle							
smartHEAD A15	3-15	2.2-11	9x12	0.19	0.42	147.5	8059 0930 24
smartHEAD A30	6-30	4.5-22	9x12	0.19	0.42	147.5	8059 0930 31
smartHEAD A80	16-80	12-59	9x12	0.20	0.44	147.5	8059 0930 43
smartHEAD A150	30-150	23-111	14x18	0.57	1.25	271.0	8059 0930 48
smartHEAD A250	50-250	37-184	14x18	0.80	1.76	417.0	8059 0930 54
smartHEAD A400	80-400	59-295	14x18	0.95	2.09	584.0	8059 0930 60
smartHEAD A600	120-600	89-443	21x26	1.72	3.79	1048.5	8059 0930 66
smartHEAD A800	160-800	118-590	21x26	1.70	3.75	1048.5	8059 0988 26
smartHEAD A1000	300-1000	148-737	28	1.90	4.19	1344	8059 0930 80
smartHEAD A Torque + Angle sq							
smartHEAD Asq15	3-15	2.2-11	9x12	0.19	0.42	147.5	8059 0930 28
smartHEAD Asq30	6-30	4.5-22	9x12	0.19	0.42	147.5	8059 0930 32
smartHEAD Asq80	16-80	12-59	9x12	0.20	0.44	147.5	8059 0930 44
smartHEAD Asq150	30-150	23-111	14x18	0.55	1.21	271.0	8059 0930 50
smartHEAD Asq250	50-250	37-184	14x18	0.78	1.72	417.0	8059 0930 56
smartHEAD Asq400	80-400	59-295	14x18	0.93	2.05	584.0	8059 0930 62
RBU Rapid Backup unit							
STwrench RBU Quality							8059 0930 90
STwrench RBU Production							8059 0930 91
STwrench RBU Quality API							8059 0930 93
STwrench RBU Production API							8059 0930 92
Battery							
STwrench battery							8059 0930 86
STwrench battery BI							8059 0930 85
STwrench battery HD							8059 0930 83

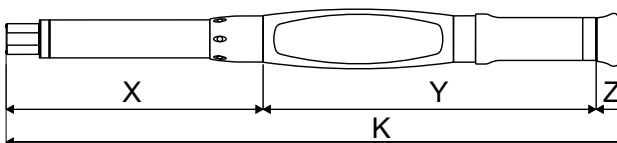
SOFTWARE TT BLM W09

	Ordering No.
1 user license	8059 0981 10
5 user license	8059 0981 11
10 user license	8059 0981 12
Plant license	8059 0981 13

Dimensions



STwrench



STwrench BI

Model	Length				Total weight	
	X mm	Y mm	Z mm	K mm	kg	lb
STwrench 15 Nm	139	280	96	515	1.00	2.20
STwrench 30 Nm	139	280	96	515	1.03	2.27
STwrench 80 Nm	139	280	96	515	1.06	2.34
STwrench 150 Nm	262	280	96	638	1.28	2.82
STwrench 250 Nm	408	280	96	784	1.51	2.33
STwrench 400 Nm	575	280	96	951	1.71	2.77
STwrench 600 Nm	1040	280	96	1416	2.87	6.33
STwrench 800 Nm	1040	280	96	1416	2.87	6.33
STwrench 1000 Nm	1270	280	96	1646	3.72	8.20
STwrench BI 15 Nm	139	280	32	441	0.80	1.76
STwrench BI 30 Nm	139	280	32	441	0.83	1.83
STwrench BI 80 Nm	139	280	32	441	0.86	1.89
STwrench BI 150 Nm	262	280	32	564	1.08	2.38
STwrench BI 250 Nm	408	280	32	710	1.31	2.89
STwrench BI 400 Nm	576	280	32	877	1.51	3.33
STwrench BI 600 Nm	1040	280	32	1341	2.67	5.89
STwrench BI 800 Nm	1040	280	32	1341	2.67	5.89
STwrench BI 1000 Nm	1270	280	32	1571	3.52	7.76

X. – smartHEAD, Y. – STwrench Controller, Z. – Battery, K. – Total length

Accessories STwrench

IRC MODULES

Two different IRC modules each with different wireless technology. No extra special software is needed, it is necessary only to plug in the new module to activate the communication. The communication can be to the Power Focus, to the QAT node, to the STwrench cradles or to different systems on the net.

BAR CODE MODULE

Enables the Bar Code to be read. STwrench is able to handle four different Bar Codes that can be used to activate or control the process and for traceability purposes. It is only necessary to plug in the module to activate the function.

STWRENCH BATTERY

All batteries are lithium ion ones. The standard battery gives up to 16 h of working time (10 h if wireless communication is used). BI and HD batteries have a working time of 6 h (4 h with wireless communication). Use the standard or the HD battery with the standard controller. BI batteries are only for BI controllers.

STWRENCH CABLE BOX

Wired to connect the STwrench to the Power Focus using a standard Tensor SL cable. The STwrench cable box supplies power to the wrench and handles the communication between the wrench and the Power Focus.

STWRENCH BATTERY CHARGER

To recharge the battery, it can be mounted in a horizontal or vertical position. It takes 4 hours to completely recharge the STwrench battery.

QATNODE

Three different models of QATnode enable the solution to be customized to specific needs. The QATnode can be connected to the STwrench in WiFi via access point, in real time connection, or via IrDa with wrench locked on the QATnode, in non real time connection when wireless is not possible.

QATNODE P

Used to print out a ticket result on a 40 column serial printer. The layout of the ticket is fully configurable via TT BLM.

QATNODE I/O

In addition to QATnode P functionality it has 6 digital inputs and 5 digital outputs. All of them are fully configurable and it is possible to enable/disable the wrench, select a PSet or JOB and send out an OK or NOK.

QATNODE T

In addition to STwrench PokaYoke functionality it makes it possible to send data to the ToolsNet server.

	Ordering No.
IRC-B Module	8059 0920 10
IRC-W Module	8059 0920 15
Bar Code	8059 0920 12
Battery	8059 0930 86
Battery BI	8059 0930 85
Battery HD	8059 0930 83
Battery charger	8059 0930 88
Battery charger adapter BI	8059 0930 89
Cable box	8059 0920 24
QATnode P	8059 0920 25
QATnode I/O	8059 0920 26
QATnode T	8059 0920 27
Tool holder	8059 0930 70
Controller rubber protection	8059 0930 72
Standard Battery rubber protection	8059 0930 73
30/80 Nm smarHEAD rubber protection	8059 0930 74
150 Nm smarHEAD rubber protection	8059 0930 75
250 Nm smarHEAD rubber protection	8059 0930 76
400 Nm smarHEAD rubber protection	8059 0930 79



IRC-module



Battery



Bar Code



Tool holder



Battery charger



QATnode

PF, IRC FOCUS & QIF ACCESSORIES

For fieldbus connectivity and additional I/O port, or for backup station, the STwrench can be connected in wireless with PF or IRC Focus. It allows also the possibility to connect all QIF accessories such as stack light etc ...

TOOL HOLDER

The tool holder is a cradle for the STwrench that can be mounted either

on a table or on a wall, providing a safe housing for the wrench.

RUBBER PROTECTION

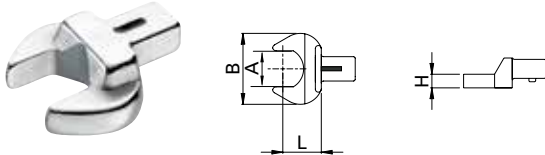
Rubber protections for the STwrench provide both a protection for surfaces that come in contact with the wrench and a better grip for the user. Choose a rubber protection for each of the sections of the STwrench.

Wrenches

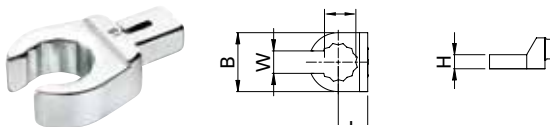
END FITTING TOOLS FOR WRENCHES

The end fitting tools are the tool that can be attached in front of the wrench. There are two types of models, without and with TAG. TAG is a patented solution used by the STwrench to check the process. In the TAG the STwrench can write a number that can be used for socket recognition and the Torque/Angle calibration factor of the extension for automatic calibration. Both types are also compatible with LABwrench.

STANDARD END FITTING TOOLS WITH TAG

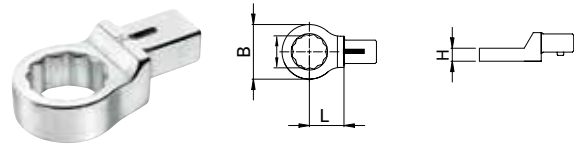


Type	A mm	B mm	H mm	L mm	g	Ordering No.
Open end 9 x 12	7	22	5	17.5	40	4620 0001 00
	8	22	5	17.5	39	4620 0002 00
	9	26	5.5	17.5	38	4620 0003 00
	10	26	5.5	17.5	42	4620 0004 00
	11	26	5.5	17.5	41	4620 0005 00
	12	30	7	17.5	43	4620 0006 00
	13	30	7	17.5	48	4620 0007 00
	14	35	8	17.5	52	4620 0008 00
	15	35	8	17.5	51	4620 0009 00
	16	38	8.5	17.5	58	4620 0010 00
	17	38	8.5	17.5	60	4620 0011 00
	18	42	9	20	71	4620 0012 00
	19	42	9	20	74	4620 0013 00
14 x 18	13	30	7	25	128	4620 0049 00
	14	35	8	25	129	4620 0050 00
	15	35	8	25	132	4620 0051 00
	16	38	9	25	140	4620 0052 00
	17	38	9	25	136	4620 0053 00
	18	42	10	25	147	4620 0054 00
	19	42	10	25	147	4620 0055 00
	21	50	11	25	171	4620 0056 00
	22	50	11	25	165	4620 0057 00
	24	53	12	25	167	4620 0058 00
	27	60	13	30	219	4620 0059 00
	30	66	14	30	245	4620 0060 00
	32	66	14	32.5	246	4620 0061 00
	34	66	14	32.5	239	4620 0062 00

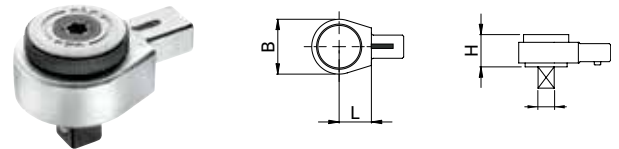


Type	Hex mm	B mm	H mm	W mm	L mm	g	Ordering No.
Flared end 9 x 12	10	22	12	7.1	17.5	57	4620 0028 00
	11	22.5	12	8.6	17.5	55	4620 0029 00
	12	23.5	12	9	17.5	59	4620 0030 00
	13	25.2	12	10	17.5	55	4620 0031 00
	14	27	13	11	17.5	60	4620 0032 00
	16	30	13	13	17.5	65	4620 0033 00
	17	31.5	13	14	17.5	65	4620 0034 00
	18	33	15	14.8	17.5	74	4620 0035 00
	19	34.5	15	15.8	19	80	4620 0036 00
	21	37.5	15	16.2	19	88	4620 0037 00
	22	39	15	17	19	92	4620 0038 00
	24	42	15	18	19	75	4620 0039 00

End Fittings STwrench



Type	Hex mm	B mm	H mm	L mm	g	Ordering No.
Ring end 9 x 12	7	13	8	17.5	37	4620 0014 00
	8	14.2	8	17.5	40	4620 0015 00
	10	17.2	9	17.5	44	4620 0016 00
	11	18.5	9	17.5	41	4620 0017 00
	12	20	12	17.5	49	4620 0018 00
	13	21.5	12	17.5	56	4620 0019 00
	14	23	12	17.5	52	4620 0020 00
	15	24.2	12	17.5	52	4620 0021 00
	16	25.7	13	17.5	54	4620 0022 00
	17	27.2	13	17.5	59	4620 0023 00
	18	28.5	13	17.5	56	4620 0024 00
	21	33	15	17.5	71	4620 0026 00
	22	34.5	15	17.5	74	4620 0027 00
14 x 18	13	21.5	11	25	127	4620 0063 00
	14	23	11	25	123	4620 0064 00
	15	24.2	11	25	128	4620 0065 00
	16	25.7	12	25	133	4620 0066 00
	17	27.2	12	25	135	4620 0067 00
	18	28.5	12	25	134	4620 0068 00
	19	30.5	12	25	138	4620 0069 00
	21	33	15	25	144	4620 0070 00
	22	34.5	15	25	145	4620 0071 00
	24	37.5	15	25	153	4620 0072 00
	27	41.5	17	25	162	4620 0073 00
	30	45	19	25	182	4620 0074 00
	32	47.5	19	25	181	4620 0075 00
	34	50.5	19	28	210	4620 0076 00
	36	53	19	28	203	4620 0077 00
	41	59	20	30	240	4620 0078 00

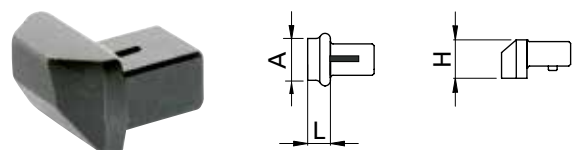


Type	Hex in	B mm	H mm	L mm	g	Ordering No.
Reversible ratchet 9 x 12	1/4	22	14.5	17.5	62	4620 0043 00
	3/8	33	24	17.5	136	4620 0044 00
	1/2	33	28.3	17.5	147	4620 0045 00
14 x 18	1/2	43	26.2	25	302	4620 0081 00 ^a
21 x 26	3/4	50	30.7	25	467	4620 0082 00
	3/4	69	30	62.5	1350	4620 0086 00

The TAG placed on the ratchet defines the Pset.

^a **NOTE:** The maximum torque which can be applied with 4620 0081 00 is 300 Nm.

NOTE: Since several sockets could be used, it is recommended to hold the socket in such a way that it is not possible to remove it (e.g. using a pin).

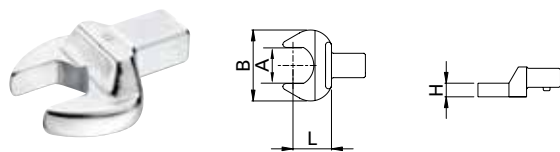


Type	A mm	H mm	L mm	g	Ordering No.
Blank end 9 x12 for making up specials	8 x 14	14.5	8	30	4620 0048 00
Blank end 14 x18 21 x26	11 x 25	21.5	21	98	4620 0084 00
	13 x 30	30	13	220	4620 0085 00

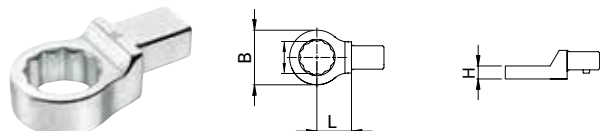
Wrenches

End Fittings STwrench

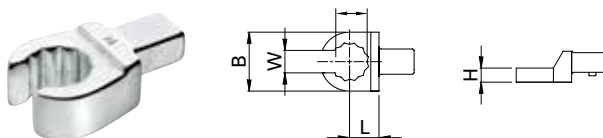
STANDARD END FITTING TOOLS WITHOUT TAG



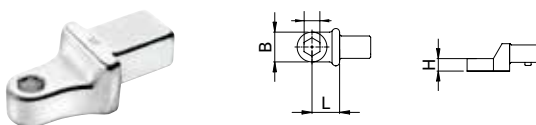
Type	A mm	B mm	H mm	L mm	g	Ordering No.
Open end 9 x 12	7	22	5	17.5	40	8059 0975 00
	8	22	5	17.5	39	8059 0975 01
	9	26	5.5	17.5	38	8059 0975 02
	10	26	5.5	17.5	42	8059 0975 03
	11	26	5.5	17.5	41	8059 0975 04
	12	30	7	17.5	43	8059 0975 05
	13	30	7	17.5	48	8059 0975 06
	14	35	8	17.5	52	8059 0975 07
	15	35	8	17.5	51	8059 0975 08
	16	38	8.5	17.5	58	8059 0975 09
	17	38	8.5	17.5	60	8059 0975 10
	18	42	9	20	71	8059 0975 11
	19	42	9	20	74	8059 0975 12
14 x 18	13	30	7	25	128	8059 0976 00
	14	35	8	25	129	8059 0976 01
	15	35	8	25	132	8059 0976 02
	16	38	9	25	140	8059 0976 03
	17	38	9	25	136	8059 0976 04
	18	42	10	25	147	8059 0976 05
	19	42	10	25	147	8059 0976 06
	21	50	11	25	171	8059 0976 07
	22	50	11	25	165	8059 0976 08
	24	53	12	25	167	8059 0976 09
	27	60	13	30	219	8059 0976 10
	30	66	14	30	245	8059 0976 11
	32	66	14	32.5	246	8059 0976 12
	34	66	14	32.5	239	8059 0976 13



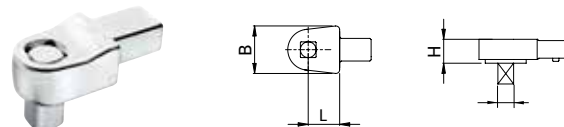
Type	Hex mm	B mm	H mm	L mm	g	Ordering No.
Ring end 9 x 12	7	13	8	17.5	37	8059 0975 13
	8	14.2	8	17.5	40	8059 0975 14
	10	17.2	9	17.5	44	8059 0975 15
	11	18.5	9	17.5	41	8059 0975 16
	12	20	12	17.5	49	8059 0975 17
	13	21.5	12	17.5	56	8059 0975 18
	14	23	12	17.5	52	8059 0975 19
	15	24.2	12	17.5	52	8059 0975 20
	16	25.7	13	17.5	54	8059 0975 21
	17	27.2	13	17.5	59	8059 0975 22
	18	28.5	13	17.5	56	8059 0975 23
	19	30.3	13	17.5	65	8059 0975 24
	21	33	15	17.5	71	8059 0975 25
	22	34.5	15	17.5	74	8059 0975 26
14 x 18	13	21.5	11	25	127	8059 0976 14
	14	23	11	25	123	8059 0976 15
	15	24.2	11	25	128	8059 0976 16
	16	25.7	12	25	133	8059 0976 17
	17	27.2	12	25	135	8059 0976 18
	18	28.5	12	25	134	8059 0976 19
	19	30.5	12	25	138	8059 0976 20
	21	33	15	25	144	8059 0976 21
	22	34.5	15	25	145	8059 0976 22
	24	37.5	15	25	153	8059 0976 23
	27	41.5	17	25	162	8059 0976 24
	30	45	19	25	182	8059 0976 25
	32	47.5	19	25	181	8059 0976 26
	34	50.5	19	28	210	8059 0976 27
	36	53	19	28	203	8059 0976 28
	41	59	20	30	240	8059 0976 29



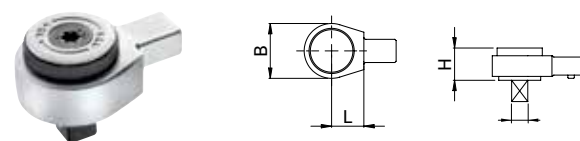
Type	Hex mm	B mm	H mm	W mm	L mm	g	Ordering No.
Flared end 9 x 12	10	22	12	7.1	17.5	57	8059 0975 27
	11	22.5	12	8.6	17.5	55	8059 0975 28
	12	23.5	12	9	17.5	59	8059 0975 29
	13	25.2	12	10	17.5	55	8059 0975 30
	14	27	13	11	17.5	60	8059 0975 31
	16	30	13	13	17.5	65	8059 0975 32
	17	31.5	13	14	17.5	65	8059 0975 33
	18	33	15	14.8	17.5	74	8059 0975 34
	19	34.5	15	15.8	19	80	8059 0975 35
	21	37.5	15	16.2	19	88	8059 0975 36
	22	39	15	17	19	92	8059 0975 37
	24	42	15	18	19	75	8059 0975 38



Type	Hex in	B mm	H mm	L mm	g	Ordering No.
Bits holder 9 x 12	1/4	14	10	17.5	50	8059 0975 45
	5/16	16	12.5	17.5	47	8059 0975 46
	14 x 18	5/16	16	12.5	25	112 8059 0976 34

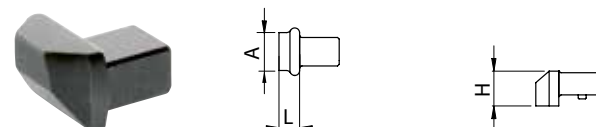


Type	Hex in	B mm	H mm	L mm	g	Ordering No.
Fixed square 9 x 12	1/4	22	14	17.5	71	8059 0975 39
	3/8	22	14	17.5	76	8059 0975 40
	1/2	22	14	17.5	82	8059 0975 41
	14 x 18	1/2	30	18	25	203 8059 0976 30
	3/4	40	25	25	396	8059 0976 31



Type	Hex in	B mm	H mm	L mm	g	Ordering No.
Reversible ratchet 9 x 12	1/4	22	14.5	17.5	62	8059 0975 42
	3/8	33	24	17.5	136	8059 0975 43
	1/2	33	28.3	17.5	147	8059 0975 44
	14 x 18	1/2	43	26.2	25	302 8059 0976 32 ^a
	3/4	50	30.7	25	467	8059 0976 33
	21 x 26	3/4	69	30	62.5	1350 8059 0976 38

^a NOTE: The maximum torque which can be applied with 4620 0081 00 is 300 Nm.



Type	A mm	H mm	L mm	g mm	Ordering No.
Blank end 9 x 12	8 x 14	14.5	8	30	8059 0975 47
Blank end 14 x 18	11 x 25	21.5	21	98	8059 0976 35
21 x 26	13 x 30	30	13	220	8059 0976 36

JOINT SIMULATOR BENCH AD

The Joint Simulator Bench AD provides maximum tool evaluation flexibility. DC electric, clutch, impulse and battery tools as well as torque wrenches can be evaluated.

The hydraulic brakes simulate the behaviour of a real joint, reproducing the stiffness from hard to soft.

This allows the tool to be tested in accordance with VDI/VDE 2647. Machine capability (Cm, Cmk) can be tested quickly and easily under real shop floor conditions without the need to run tests on the product on the line that would interfere with production.

- Large LCD touch screen, intuitive and easy to use.
- Efficient hydraulic pump fills the pressure accumulator in just 15 seconds reducing battery drain.
- Connector panel manages all operator connections such as external in-line torque transducers, printers, Ethernet, USB and serial.



Model	Hydraulic brakes, range		SRTT-B transducers range		ISO rig	Ordering No.
	Nm	lb ft	Nm	lb ft		
Mobile benches						
JSB AD 250	2-10	1.6-185	50-250	37-184	—	8059 0962 00
	10-50	7.4-36				
	50-250	37-184				
JSB AD 250 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 30
	10-50	7.4-36				
	50-250	37-184				
JSB AD 500 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 35
	10-50	7.4-36				
	50-250	37-184				
JSB AD 1000 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 40
	10-50	7.4-36				
	50-250	37-184				
JSB AD 2000 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 50
	10-50	7.4-36				
	50-250	37-184				
	400-2000	295-1475				

Dimensions

JSB AD

Model	L mm	W mm	H mm
JSB AD 250	1164	546	940
JSB AD 250 ISO	1346	707	940
JSB AD 500 ISO	1566	767	940
JSB AD 1000 ISO	1566	767	940
JSB AD 2000 ISO	1566	767	940

Test Benches STB AD

ATLAS COPCO STATIC TRANSDUCER BENCH

The Atlas Copco Static Transducer Bench is a mobile bench as it is equipped by a battery pack that makes possible to operate for up to 16 hours without to be connected to the power supply plug.

On the top plate of the bench there are several static torque transducers. The static torque transducers are the new SRTT-B.

The New SRTT-B is equipped by the new patented system to hold the mechanical Test Joint. The mechanical Test Joint is to test direct driven tool or shut off pulse tools.

The SRTT-B has a special bearing on the shaft to absorb and eliminate the axial force during the test, this is to have the best possible accuracy during the test.

By using a special included adapter on the SRTT-B it is possible to test the click wrenches, wrenches and non shut off pulse tools.



Model	SRTT-B range		Spindle fixture ISO rig	Dimensions holder	Ordering No.
	Nm	lb ft			
STB AD 500	10-500	8-365	yes	no	8059 0961 00
STB AD 1000	10-1000	8-735	yes	no	8059 0961 50
STB AD 2000	10-2000	8-1470	yes	no	8059 0961 75

Dimensions

STB AD

Model	L mm	W mm	H mm
STB AD 500	1346	707	940
STB AD 1000	1346	707	940
STB AD 2000	1346	767	940

Test Benches JSB 3840

JOINT SIMULATOR BENCH 3840

JSB 3840 is an ergonomic solution, which provides in a single mobile unit, all necessary equipment needed for measuring, such as all transducers, adapters, cables, reaction bar, battery and an industrial PC. The alternative is to carry and connect/disconnect constantly all these equipment together, so the JSB 3840 represents a cost effective & ergonomic solution.

JSB 3840 includes:

- A 12" touch screen color display, and heavy duty industrial PC.
- Port: RS232 for printing certificates, USB for RBU automatic back-up function and Ethernet for server option.
- Slim frame of 40 cm wide, to easily move across narrow production lines.
- 16 hours of battery life & embedded battery charger, to be used in 2 shift.
- 1 set of accessories adapter, located in a lock drawer, to allow the tool connection
- 1 reaction bar & adapted accessories, to ensure a safety measurement for the operator.
- Torque Supervisor software, with up to 2000 tools Database, Easy SPC analysis, Cm/Cmk graphs and certificates plus excel export.



Model	Hydraulic brakes, range		SRTT-B transducers range		Ordering No.
	Nm	lb ft	Nm	lb ft	
JSB 3840	5-85	3.69-62.69	25-250	18.44-184.4	8059 0967 10
JSB 3840	25-250	18.44-184.4	50-500	36.88-368.8	8059 0967 20

Dimensions

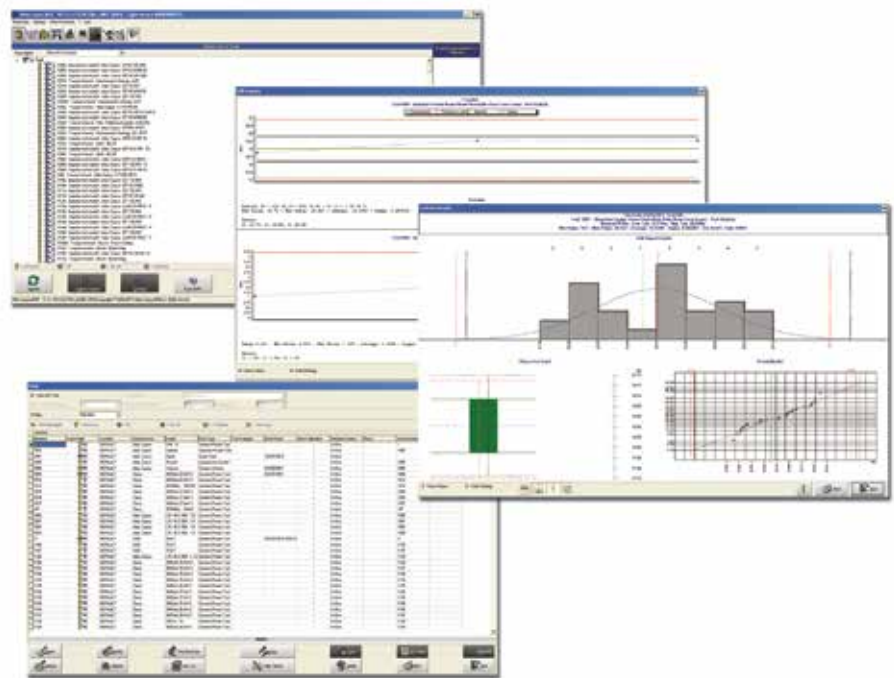
JSB 3840

Model	L mm	W mm	H mm
JSB 3840	1034	416	935
JSB 3840	1034	416	935

Quality Assurance in Tightening Management Software

BLM TORQUE SUPERVISOR

The software BLM Torque Supervisor is the ideal program for handling tools, tightening and joint analysis. It automatically keeps track of calibration due date schedules for power tools and torque wrenches, as well as supervising the complete tool stock within the factory. It manages and collects data from residual torque checks done on the assembly line as well as tool checks done at the tool crib, and supervises statistics for each tool and application. The software can be installed either on a single pc station or on multi factory stations in the factory network.



TORQUE SUPERVISOR

Version	Ordering No.
Full version 1 user	8059 0981 00
Full version 5 users	8059 0981 09
Full version 10 users	8059 0981 30
Tool Crib version	8059 0981 25
Tool Crib version 5 users	8060 0981 26
Tool Crib version 10 users	8061 0981 27
Residual version	8062 0981 32
Residual version 5 users	8063 0981 33
Residual version 10 users	8064 0981 34
Advanced version	8065 0981 36
Advanced version 5 users	8066 0981 37
Advanced version 10 users	8059 0981 38
Light version	8059 0981 01
Client version, installed on bench	8059 0981 03
Upgrade from Light to Full version	8059 0981 06

VERSION OVERVIEW

	Full	Light	Tool Crib	Residual	Advanced
JSB bench	x	x			
Tool check route	x		x		x
Joint check route	x			x	x