

Bolt tightening solutions

We offer a complete and dynamic range of bolting tools including hydraulic bolt tensioners and hydraulic torque wrenches, as well as pneumatic and electric transducerized nutrunners.

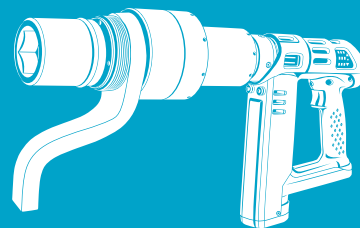
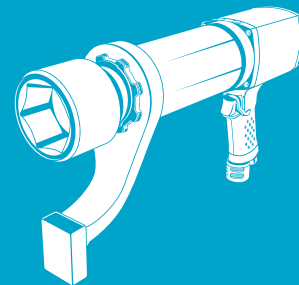
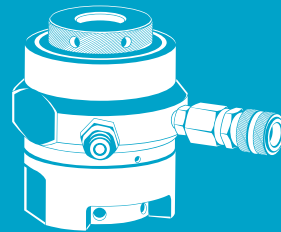
Atlas Copco



Bolting tools

For crucial bolting applications

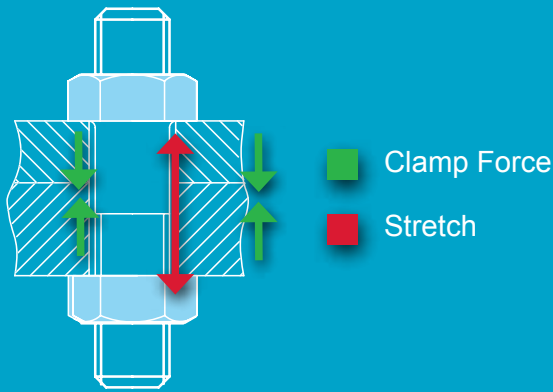
You now have one reliable partner that gives you access to a complete line of bolt tightening tools to boost your productivity and minimize downtime. Whether using our custom-designed hydraulic bolt tensioner, our robust and accurate hydraulic torque wrench, or our industry-leading electric or pneumatic nutrunners, we bring the best product and support available to you.



We are passionate about bringing solutions to our customers' bolt tightening challenges. This is why we are in this business. We do believe in tight connections through technology and people.

Tight connections

For your applications



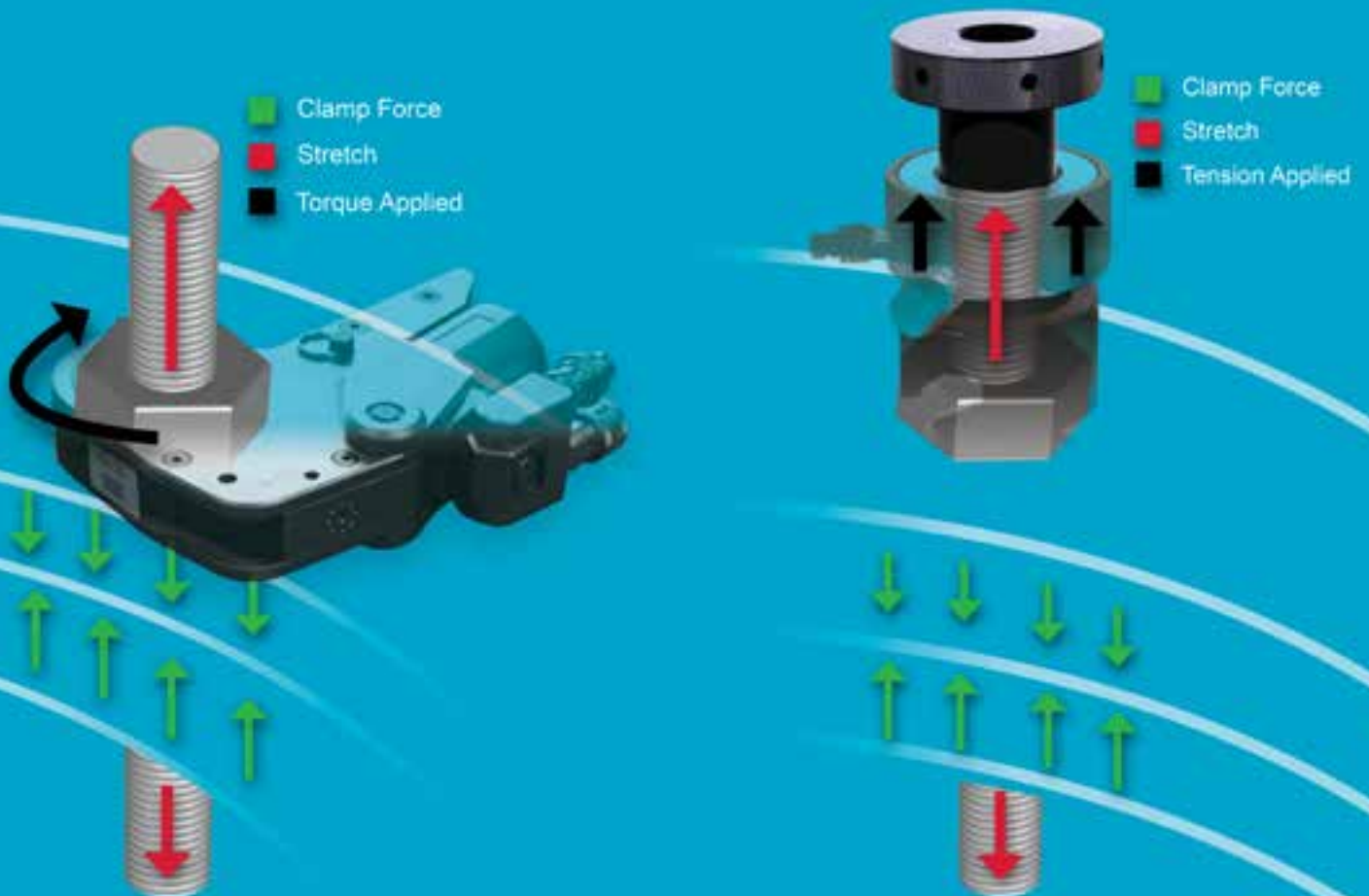
Torque and Tension are two distinct ways to achieve the same result: create the appropriate clamping force for the joint or connection. To do this, the bolt has to stretch, while a nut holds the load and thereby creating the desired clamp force. Atlas Copco offers a comprehensive product range of torque and tension tools, to work on critical bolting applications.

Torque

Using torque tools, such as nutrunners or hydraulic torque wrenches, you turn the nut. As the nut turns, it stretches the stud. The torque setting for the tool translates into load on the connection. When the tools are used following the appropriate specifications for lubrication, coating and other factors, a desired clamp force can be produced.

Tension

With tensioners, the action is not directly on the nut, rather tension is applied directly to the stud in order to produce stretch. Once the prestretch is achieved, the nut can be tightened. Once the pressure is released the nut holds the load on the bolt. This produces the clamp force. Multiple tensioners can be used together to provide even load when tightening. Hydraulic bolt tensioners have a footprint and thread height requirement.



Bolt tightening tool type

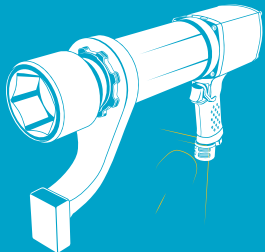
Introduction



Manual Wrench Series

6

Complete range of manual, mechatronic and transducerized hand wrenches.



Pneumatic Nutrunners

18

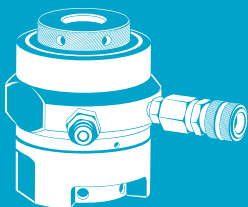
Non-impact torquing power, in a lightweight and ergonomic design. Uses your air line and the Atlas Copco FRL pressure unit.



Hydraulic Torque Wrenches

32

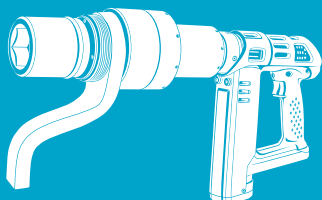
Available in standard or low profile models, this is the cornerstone for high torque applications. Works with 10,000 psi hydraulic pump.



Hydraulic Bolt Tensioning

64

Available in standard or custom models, to suit any application. Works with hand, air or electrical pump types.



Electric Transducerized Nutrunner

100

The Tensor Revo DC nutrunner provides easy positioning and access to the bolt thanks to a 360° gear swivel – unique in a tool with an integrated torque transducer.

Table of Contents

Manual wrench series	6
Mechanical wrench	
Mechatronic wrench	
ST Wrench	
Impact Wrenches	16
Pneumatic nutrunners	18
RTP High torque nutrunners	
LTP and LMP nutrunners	
Hydraulic torque wrenches	32
RT series	
RTX series	
EA Tool	
Backup wrenches	
Hydraulic pumps	
RT Advance	60
Hydraulic bolt tensioning	64
Tentec CTST	
Tentec Airbac	
Tentec Compact 8	
Tentec WTB	
Tentec WTF	
Tentec hydraulic nuts	
Tentec V-Series	
Custom Tensioners	96
Electric transducerized nutrunners	100
Sockets	106
Flange spreaders	112
Nut splitters	114
Software	118
ToolsNet	
Flange Management System - iFMS	
Training - Joint Integrity Training	122
Support - Bolt Tightening APPs	124

The mechanical wrench series

The mechanical wrenches in the 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 backup 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. You will find more details on this product range and the relevant end fittings in the Atlas Copco leaflet PMI 9833 2019 01 or under www.atlascopco.com



CWR 'Click' wrenches



BWR 'Breaking' wrenches



SWR 'Slipping' wrenches



CWR – 'Click' wrench series

Type	Torque Nm	Range ft.lb	Length mm	Weight g	Ø mm	Drive	Ordering No.
CWR-20	03-20	2.2-14.8	129	248	21	9x12	8439 0041 00
CWR-25	02-25	1.5-18.4	174	288	21	9x12	8439 0041 01
CWR-50	05-50	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

BWR – 'Breaking' wrench series

Type	Torque Nm	Range ft.lb	Length mm	Weight g	Ø mm	Drive	Ordering No.
BWR-20	02-20	1.5-14.8	213	250	8x16	BWR-20/35	8439 0042 00
BWR-35	05-35	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	103.0-324.5	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

Type	Torque Nm	Range ft.lb	Length mm	Weight g	Drive	Ordering No.
SWR-30	05-30	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

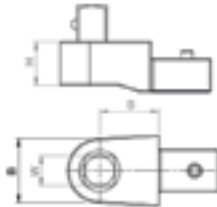
End Fittings CWR

Blank end



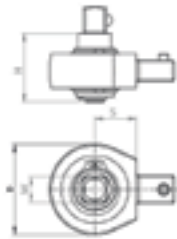
	B mm	H mm	S mm	g	Ordering No.
Blank End 9x12					
	23	14	9	30	4027 5012 20
Assembled	23	14	9	30	4027 5012 21
Blank End 14x18					
	30	21	13	98	4027 5012 23
Assembled	30	21	13	98	4027 5012 24

Fixed square



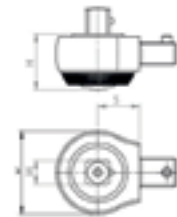
in	B mm	H mm	S mm	g	max Nm	Ordering No.
Fixed Square 9x12						
1/4"	20	14	17.5	76	40	4027 5013 20
3/8"	20	14	17.5	82	80	4027 5013 21
1/2"	20	14	17.5	71	100	4027 5013 22
Fixed Square 14x18						
1/2"	27	18	25	203	300	4027 5013 24
3/4"	40	25	25	396	650	4027 5013 25

Ratchet end



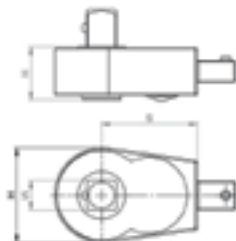
in	B mm	H mm	S mm	g	max Nm	Ordering No.
Ratchet End 9x12						
3/8"	38	29.5	17.5	140	80	4027 5013 30
1/2"	38	29.5	17.5	180	100	4027 5013 31
Ratchet End 14x18						
1/2"	44	29.5	25	230	300	4027 5013 33

Reversible ratchet end



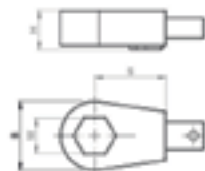
in	B mm	H mm	S mm	g	max Nm	Ordering No.
Reversible Ratchet End 14x18						
1/4"	27	27	17.5	68	50	4027 5013 40
3/8"	36.5	25	17.5	140	100	4027 5013 41
1/2"	33.5	37	17.5	150	120	4027 5013 42
Reversible Ratchet End 14x18						
1/2"	41	26	25	320	300	4027 5013 44
3/4"	62	32	46	865	800	4027 5013 45

Reversible ratchet end



in	B mm	H mm	S mm	g	max Nm	Ordering No.
Reversible Ratchet End 9x12						
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
Reversible Ratchet End 14x18						
1/2"	41.5	20.5	37.5	339	300	4027 5013 64
3/4"	63.5	31	70	1155	650	4027 5013 65

Ratchet reversible, with hexagonal output



in	B mm	H mm	S mm	g	max Nm	Ordering No.
Ratchet Reversible, with Hexagonal Output 9x12						
1/4"	22	14	17.5	60	40	4027 5013 80
5/16"	29	14.5	28	117	80	4027 5013 81

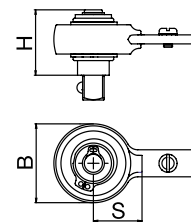
Belknap adapter



9x12 Drive				14x18 Drive			
Type	S mm	g	Order No.	Type	S mm	g	Order No.
J-Shank	24	68	4027 5016 90	J-Shank	24	105	4027 5017 00
Y-Shank	29	71	4027 5016 91	Y-Shank	29	104	4027 5017 01
X-Shank	31	86	4027 5016 92	X-Shank	31	121	4027 5017 02
Z-Shank	56	314	4027 5016 93	Z-Shank	56	349	4027 5017 03

End Fittings BWR

Ratchet end



BWR 20/35						
in x mm	B mm	H mm	S mm	g	max Nm	Ordering No.
1/4x40	36	40	21	145	25	4027 5005 25
1/4x70	38	70	21	165	25	4027 5005 26
3/8x40	36	40	21	145	85	4027 5005 27
3/8x70	36	70	21	170	85	4027 5005 28
1/2x45	36	45	21	150	85	4027 5005 29
1/2x70	36	70	21	195	85	4027 5005 30

BWR 240						
in x mm	B mm	H mm	S mm	g	max Nm	Ordering No.
1/2x45	48	45	31	300	240	4027 5005 44
1/2x70	48	70	31	330	240	4027 5005 45

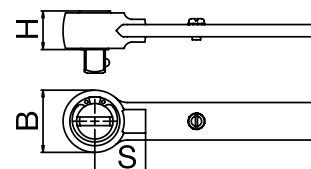
BWR 750						
in x mm	B mm	H mm	S mm	g	max Nm	Ordering No.
3/4x70	72	70	58	1250	750	4027 5005 55

BWR 100						
in x mm	B mm	H mm	S mm	g	max Nm	Ordering No.
3/8x40	48	40	30	270	100	4027 5005 36
3/8x70	48	70	30	31	100	4027 5005 37
1/2x45	48	40	30	285	100	4027 5005 38
1/2x70	48	70	30	320	100	4027 5005 39

BWR 440						
in x mm	B mm	H mm	S mm	g	max Nm	Ordering No.
3/4x70	72	70	58	1100	440	4027 5005 50

BWR 1300/2000						
in x mm	B mm	H mm	S mm	g	max Nm	Ordering No.
3/4x70	85	70	58	1700	1000	4027 5005 60
1x80	85	80	58	2000	2000	4027 5005 61

Reversible ratchet end



BWR 20/35						
in	B mm	H mm	S mm	g	max Nm	Ordering No.
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 240						
in	B mm	H mm	S mm	g	max Nm	Ordering No.
1/2	36	40	31	285	240	4027 5005 83

BWR 750						
in	B mm	H mm	S mm	g	max Nm	Ordering No.
3/4	68	70	58	1250	750	4027 5005 93

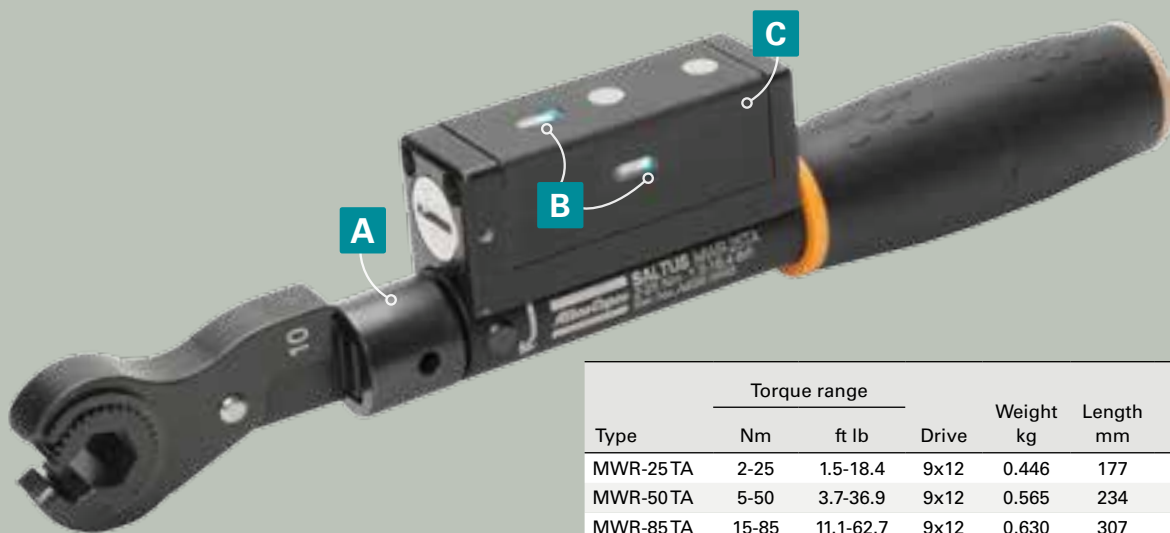
BWR 100						
in	B mm	H mm	S mm	g	max Nm	Ordering No.
3/8	36	35	30	165	100	4027 5005 77
1/2	36	40	30	175	100	4027 5005 78

BWR 440						
in	B mm	H mm	S mm	g	max Nm	Ordering No.
3/4	68	56	58	1100	440	4027 5005 88

BWR 1300/2000						
in	B mm	H mm	S mm	g	max Nm	Ordering No.
3/4	68	70	58	1500	1000	4027 5005 98
1	68	70	58	1500	1000	4027 5005 99

For more options of heads and attachments, check on our website www.atlascopco.com or contact local sales office.

The Mechatronic MWR system - more than a click



Type	Torque range		Drive	Weight kg	Length mm	Ordering No.
	Nm	ft lb				
MWR-25 TA	2-25	1.5-18.4	9x12	0.446	177	8439 0044 20
MWR-50 TA	5-50	3.7-36.9	9x12	0.565	234	8439 0044 21
MWR-85 TA	15-85	11.1-62.7	9x12	0.630	307	8439 0044 22
MWR-200 TA	50-200	36.9-147.5	14x18	0.851	419	8439 0044 23
Accessories						Ordering No.
Charging Cradle MWR						4027 5022 10
Setting key MWR/CWR						4027 5013 96
Recharg. battery NIMH AAA MWR				1.2 V, 1000 mAh	4027 5021 01	



Productivity

Based on the mechanical “click” wrench, the MWR mechatronic wrench is highly productive. The clear physical feedback of the “click” makes it easy to handle even for untrained operators, giving you a very short training period.

Feedback

Feedback of the tightening process is clear with the distinctive “click” of the MWR mechanism in combination with the colored LEDs. If needed the MWR mechatronic system can be completed with the stack lights connected to the Focus controller.

For more information about the new mechatronic system refer to the leaflet ref. 9833 2017 01 available in Atlas Copco's print shop.



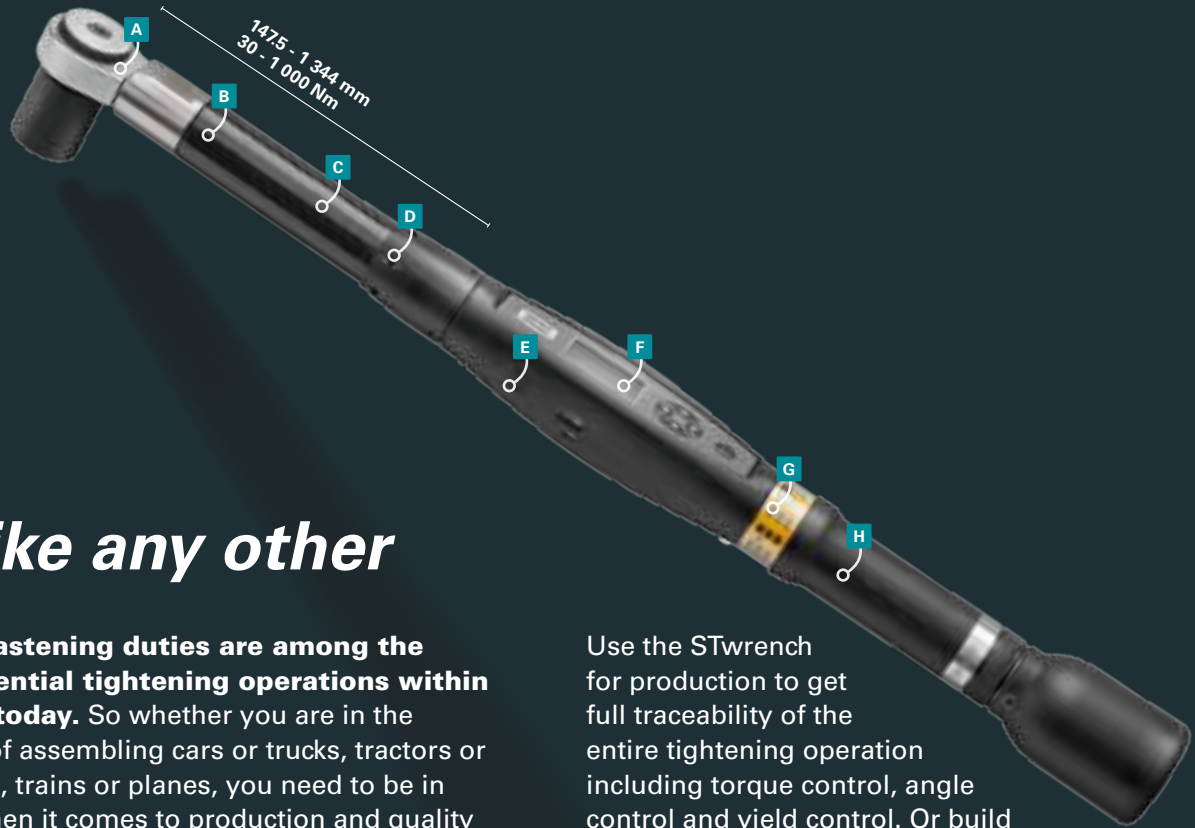
Controller	Focus 60	Focus 61
Ordering No.	8439 0044 30	8439 0044 31
Number of workstations	1	2
Number of administrable MWR	1	10
Wireless wrench communication	•	•
Results storage	25.000	25.000
BNC Antenna	•	•
LAN/Ethernet Interface	1	2
Barcode interface	•	•
Accessory-BUS	•	•
Weight (kg)	2.5	2.5
Dimensions (mm)	147x219x121	147x219x121

- A** Thanks to a standard drive (9x12 and 14x18) , the operator can always find the perfect end fitting for his application.
- B** Operator can always know if a wrench is ready to work, and if the tightening was correct, by looking at the onboard LEDs.
- C** Thanks to the wireless connection the operator is free to move around and to access bolt location.
- D** The charging cradle is a stable holder and a battery charger, making sure that the tools are always ready to perform their tasks. Shift after shift.
- E** Detailed tightening information is immediately available on the Focus 60 and 61 display.
- F** Tightening data from MWR wrenches are easily transferred to production data collection systems like ToolsNet. Communicating either with the simple protocol or with the Atlas Copco Open Protocol.
- G** With a barcode reader connected to the Focus controller, operator scans an ID number and the right job is selected. All tightening data will automatically include the scanned ID number.
- H** Intuitive “just a few clicks away” interface.
- I** Production stations can easily implement a real-time feedback in a Live monitor using TT BLM software.



ST Wrench

The ultimate all purpose wrench



Unlike any other

Critical fastening duties are among the most essential tightening operations within industry today. So whether you are 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.

That is where the Atlas Copco STwrench comes in. The STwrench provides a whole new approach to manual assembly applications. Naturally, it provides the accuracy, durability and ergonomics that are the hallmarks of the Atlas Copco product range. But the construction of the tool itself is entirely different.

This is far from your standard transducerized hand-held nutrunner. Unlike any other Atlas Copco tool, you can build the STwrench to meet your exact requirements. Due to its truly modular design, you have the freedom to create a tool that suits your applications perfectly. So you get outstanding Atlas Copco performance, but with greater flexibility than ever before.

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.

Use the STwrench 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.

Build your own STwrench and create the ultimate wrench for your specific requirements.

Residual Torque/Angle Algorithm

The STwrench implements a patented residual torque/angle measurement algorithm to measure the torque left on the joints by the tools in production. The STwrench residual torque/angle algorithm makes the residual torque check operator independent.

Furthermore, as the residual point is detected in real time, buzzer, LEDs and vibration alert the operator to stop, avoiding overtorquing.



Features

- A** Interchangeable end fittings with patented recognition technology for PSET selection. Full traceability of various applications.
- B** Optional advanced electronic gyroscope for precise angle measurement.
- C** Low clearance compact head to get better accessibility and stability of operation.
- D** Bright LED headlight in front of the smarHEAD to illuminate dark spaces.
- E** The communication interfaces are USB or Wi-Fi thanks to the radio module. It is also possible to have communication with Power Focus via Wi-Fi or Bluetooth. Barcode module can be added to improve traceability and automatically start the tests.
- F** Easy-to-read display that can be read at angles of up to 180°.
- G** Four signal lights for improved operator feedback visible at 360°. Three special LED signals guide the operator for accurate tightening and measuring control.
- H** Ergonomic vibrating handle to ensure precise use.

Functionality overview

	Quality		Production	
	smartHEAD	smartHEAD A	smartHEAD	smartHEAD A
Functionality overview				
Controller				
360° LED lights on board for operator feed back	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
Ligth 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
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

RBU Rapid Backup unit	Ordering No.
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

	Quality		Production	
	smartHEAD	smartHEAD A	smartHEAD	smartHEAD A
Functionality overview				
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 – Tag recognition writing function	x	x	x	x
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
Cable to Power Focus	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
Accessories				
Battery	x	x	x	x
Battery charger	x	x	x	x

Accessories	Ordering No.
IRC-B Module	8059 0920 10
IRC-W Module	8059 0920 15
Bar Code	8059 0920 12
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 smartHEAD rubber protection	8059 0930 74
150 Nm smartHEAD rubber protection	8059 0930 75
250 Nm smartHEAD rubber protection	8059 0930 76
400 Nm smartHEAD rubber protection	8059 0930 79

Model	Capacity		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
STwrench Controller HD				1.0	2.11	313	8059 0930 02
smartHEAD only Torque *							
smartHEAD 30	30	23	9x12	0.20	0.44	167.5	8059 0920 30
smartHEAD 80	80	59	9x12	0.22	0.48	167.5	8059 0920 42
smartHEAD 150	150	111	14x18	0.55	1.21	271.0	8059 0920 48
smartHEAD 250	250	185	14x18	0.78	1.72	417.0	8059 0920 54
smartHEAD 400	400	295	14x18	0.93	2.05	584.0	8059 0920 60
smartHEAD 600	600	443	21x26	1.70	3.75	1048.5	8059 0920 66
smartHEAD 1000	1000	737	28	1.90	4.19	1344.0	8059 0920 80
smartHEAD A Torque + Angle*							
smartHEAD A15	15	11	9x12	0.19	0.42	147.5	8059 0930 24
smartHEAD A30	30	23	9x12	0.19	0.42	147.5	8059 0930 31
smartHEAD A80	80	59	9x12	0.20	0.44	147.5	8059 0930 43
smartHEAD A150	150	111	14x18	0.57	1.25	271.0	8059 0930 48
smartHEAD A250	250	185	14x18	0.80	1.76	417.0	8059 0930 54
smartHEAD A400	400	295	14x18	0.95	2.09	584.0	8059 0930 60
smartHEAD A600	600	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	1000	737	28	1.90	4.19	1344.0	8059 0930 80
smartHEAD A Torque + Angle sq							
smartHEAD Asq15	15	11	9x12	0.19	0.42	147.5	8059 0930 28
smartHEAD Asq30	30	23	9x12	0.19	0.42	147.5	8059 0930 32
smartHEAD Asq80	80	59	9x12	0.44	0.44	147.5	8059 0930 44
smartHEAD Asq150	150	111	14x18	0.55	1.21	271.0	8059 0930 50
smartHEAD Asq250	250	185	14.18	0.78	1.72	417.0	8059 0930 56
smartHEAD Asq400	400	295	14x18	0.93	2.05	584.0	8059 0930 62

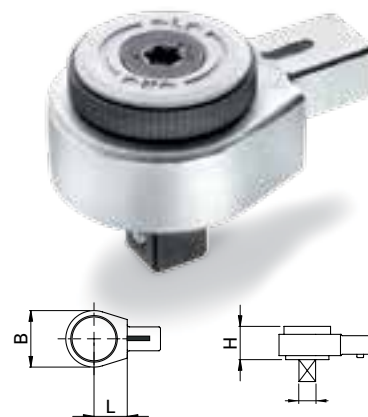
*End fitting has to be ordered separately, please see Industrial Power Tools Catalogue 9837 3000 01

Standard end fitting tools with TAG

Type	Hex	B	H	L	g	Ordering No.
	in	mm	mm	mm		
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
Reversible ratchet 14 x 18	1/2	43	26.2	25	302	4620 0081 00*
	3/4	50	30.7	25	467	4620 0082 00
Reversible ratchet 21 x 26	3/4	69	30	62.5	1350	4620 0086 00

The TAG placed on the ratchet defines the Pset. **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).

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



Standard end fitting tools without TAG

Type	Hex	B	H	L	g	Ordering No.
	in	mm	mm	mm		
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
Reversible ratchet 14 x 18	1/2	43	26.2	25	302	8059 0976 32*
	3/4	50	30.7	25	467	8059 0976 33
Reversible ratchet 21 x 26	3/4	69	30	62.5	1350	8059 0976 38

* The maximum torque which can be applied with 8059 0976 32 is 300 Nm.



Impact Wrenches



LMS58 HR25



LMS18 HR13



LMS38 HR13

LMS pistol grip impact wrenches have a wide operating range. Equipped with an advanced impact mechanism, LMS will give you powerful tightening and disassembly with negligible reaction force.

The high capacity-to-weight ratio and state-of-the-art impact mechanism also help to minimize operator strain and vibration.

The tools have a Grease Retaining System ensuring optimum tool performance with long service intervals.

Model	Bolt size mm	Square drive size in	Torque range Nm	Max torque Nm	Free speed r/min	Weight kg	Length excl anvil mm	Air consumption l/s	Rec. hose size mm	Air inlet thread BSP	Retainer			Ordering No.
											Pin	Ring	Through hole	
LMS08 HR10	M6-8	3/8"	7-45	65	14000	0.90	185	2.5	6.3	1/4"	●	-	-	8434 1080 00
LMS08 HR42	M6-8	1/4" ^a	7-35	60	14000	0.9	186	2.5	6.3	1/4"	-	-	-	8434 1080 05
LMS18 HR13	M10	1/2"	10-110	150	8100	1.45	144	8.5	10	1/4"	●	-	-	8434 1180 00
LMS18 HR10	M10	3/8"	10-90	120	8100	1.45	148	6.5	10	1/4"	●	-	-	8434 1180 01
LMS18 HR13/F	M10	1/2"	10-110	150	8100	1.45	144	8.5	10	1/4"	-	●	-	8434 1180 02
LMS18 HR10/F	M10	3/8"	10-90	120	8100	1.45	148	6.5	10	1/4"	-	●	-	8434 1180 03
LMS28 HR13	M12	1/2"	30-210	390	9500	1.85	146	8.5	10	3/8"	●	-	-	8434 1280 00
LMS28 HR13/F	M12	1/2"	30-210	390	9500	1.85	146	8.5	10	3/8"	-	●	-	8434 1280 01
LMS38 HR13	M14-16	1/2"	40-375	850	8000	2.6	167	10	10	3/8"	●	-	-	8434 1380 00
LMS38 HR13/F	M14-16	1/2"	40-375	850	8000	2.6	167	10	10	3/8"	-	●	-	8434 1380 01
LMS48 HR20	M16-18	3/4"	100-550	1375	6500	3.3	173	12	12.5	3/8"	-	-	●	8434 1480 00
LMS58 HR25	M20-22	1"	300-800	1900	5500	4.8	210	14.5	12.5	3/8"	-	-	●	8434 1580 00
LMS58 HR20	M18-20	3/4"	300-800	1900	5500	4.8	210	14.5	12.5	3/8"	-	-	●	8434 1580 01
LMS68 HR25	M22-30	1"	600-1800	4450	5000	9.8	252	28	16	1/2"	-	-	●	8434 1680 01

^a Female hex quick change chuck

Torque measured from Skidmore with fixed sensors



LMS68 GIR25

LMS straight versions offer superior performance with a maximum torque of 10,000 reaction-free Nm.

The high capacity-to-weight ratio and advanced impact mechanism also help to minimize operator strain and vibration.

The tools have a Grease Retaining System ensuring optimum tool performance with long service intervals.



LMS08 SR10

Model	Bolt size mm	Square drive size in	Torque range Nm	Max torque Nm	Free speed r/min	Weight kg	Length excl anvil mm	Air consumption l/s	Rec. hose size mm	Air inlet thread BSP	Retainer			Ordering No.
											Pin	Ring	Through hole	
LMS08 SR42	M22-30	1/4" ^a	7-35	60	12500	0.85	185	5,5	6.3	1/4"	-	-	-	8434 1081 06
LMS08 SR10	M22-30	3/8"	7-45	65	12500	0.85	184	5,5	6.3	1/4"	•	-	-	8434 1081 11
LMS68 GIR25	M22-30	1"	600-1800	4450	5000	9.6	339	28	16	1/2"	-	-	•	8434 1680 00
LMS68 GOR25	M22-30	1"	600-1800	4450	5000	9.6	339	28	16	1/2"	-	-	•	8434 1680 02
LMS88 GIR38	M30-42	1 1/2"	1000-5500	10000	3800	15.0	381	33	16	1/2"	-	-	•	8434 1880 00
LMS88 GOR38	M30-42	1 1/2"	1000-5500	10000	3800	15.0	381	33	16	1/2"	-	-	•	8434 1880 01

^a Female hex. quick change chuck.
GOR = Outside trigger.

GIR = Inside trigger.
Torque measured from Skidmore with fixed sensors

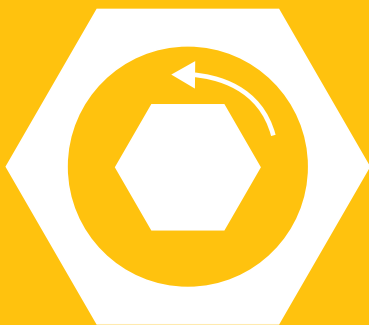
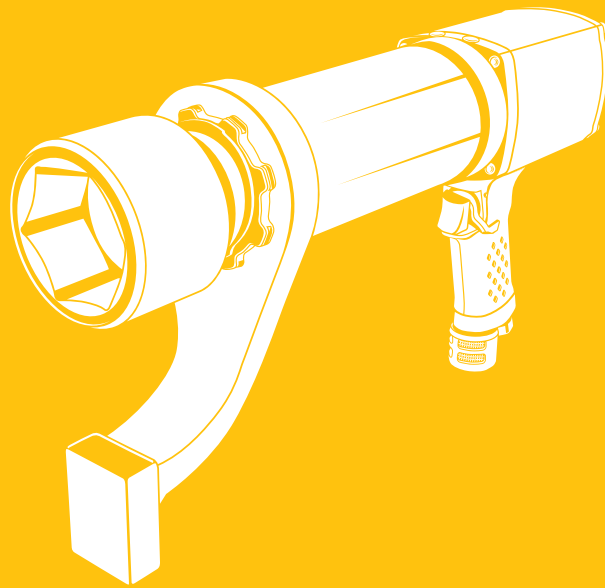
Accessories

Suspension yoke	Ordering No.
LMS18-58	4250 0872 90
LMS68 GIR25/GOR25/HR25	4250 0677 81
LMS88 GIR38/GOR38	0371 1102 00

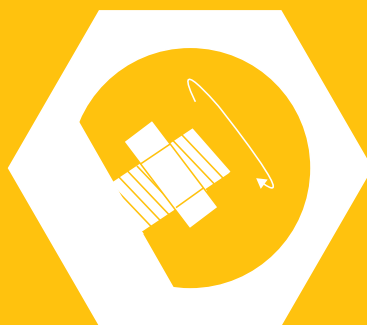
Service Kits

	Ordering No.
LMS08	4081 0465 90
LMS18	4081 0466 90
LMS28	4081 0467 90
LMS38	4081 0468 90
LMS48	4081 0461 90
LMS58	4081 0445 90
LMS68	4081 0442 90
LMS88	4081 0443 90

Pneumatic nutrunners



LOOSENING



FAST NUT RUNDOWN



TIME-SAVINGS



Milwaukee
RTP 4100 HNZ8
No. A6511002
Max Torque 4100 Nm
Free Speed 10 rpm
Pmax 6.0 bar / 87 psi

RTP

High torque pneumatic nutrunner



Whatever your industry, if your operations include loosening or tightening heavy duty bolts, Atlas Copco's slim, lightweight RTP pneumatic nutrunner can help increase your productivity.

Fast and accurate

Well proven Atlas Copco air motor.

Swiveling gear pack

The light weight of the RTP nutrunner will surprise you, yet its high speed motor has the power you need to tighten big bolts.

Excellent accessibility, high accuracy

Among the smallest on the market, the RTP's slim gearpack gives you effortless access to bolts in cramped spaces. Tightening accuracy and repeatability are high.

Reaction Bars

Absorbs reaction force. Different bars are available.

RTP Pneumatic nutrunners



The light weight of the RTP NUTRUNNER will surprise you, yet its high speed motor has the power you need to tighten big bolts. A robust, lightweight reaction bar absorbs the torque. Noise and vibration levels are lower than in traditional impact wrenches.

Among the smallest on the market, the RTP's slim gearpack gives you effortless access to bolts in cramped spaces. Tightening accuracy and repeatability are high.

Plug & play! Simply connect the RTP to your air line and start working with it. The torque output of the RTP is adjusted with an Atlas Copco FRL air pressure unit, helping to prolong the lifetime and torque accuracy of the tool. The tool's exchangeable drive simplifies maintenance and cuts repair costs.

RTP Nutrunner kit

Model	Bolt size mm	Square drive in	Min torque at 1.5 bar Nm	Max torque at 6.3 bar Nm	Free speed r/min	Weight ^a kg	Length mm	CS distance mm	Air consumption at free speed l/s	Rec. hose size mm	Air inlet thread in	Ordering No.
RTP1300-HR20	20-27	3/4	320	1300	20	3.7	248	32	23	13	3/8	8431 1013 10
RTP2600-HR25	20-36	1	700	2600	10	5	300	34	23	13	3/8	8431 1026 10
RTP4100-HR25	30-45	1	1000	4100	10	8.7	335	41	31	13	3/8	8431 1040 10
RTP8100-GIR38	33-52	1 1/2	2200	8100	10	13.5	444	51	50	13	1/2	8431 1081 10

^aWeight excluding reaction bar.

RTP accessories

Accessories included

Model	Description	Ordering No.
RTP1300	Reaction bar, S-type	4210 4480 90
RTP2600	Reaction bar, S-type	4210 4480 94
RTP4100	Reaction bar, S-type	4210 4480 93
RTP8100	Reaction bar, S-type	4210 4480 92
RTP1300 / 2600 / 4100	Hose kit, Turbo 13 M10, BSP	8202 1182 07
RTP8100	Hose kit, Turbo 13 M15, BSP	8202 1181 81
RTP1300 / 2600 / 4100	Productivity kit FRL stand, BSP ^b	9090 3030 06
RTP8100	Productivity kit FRL stand, BSP ^b	9090 3030 04

^b Hose not included



Optional accessories

Model	Description	Ordering No.
RTP1300 / 2600 / 4100	MultiFlex swivel 3/8 BSP	8202 1350 22
RTP8100	MultiFlex swivel 1/2 BSP	8202 1350 24
RTP1300 / 2600 / 4100	Trigger guard	4210 4759 90
RTP1300	Suspension yoke	4210 3088 83
RTP2600	Suspension yoke	4210 3088 82
RTP4100	Suspension yoke	4210 3088 81
RTP8100	Suspension yoke	4210 4780 90
RTP1300	Reaction bar, sliding-drive	4210 4752 90
RTP1300	Reaction bar, steel bar	4210 4757 90
RTP1300	Reaction bar, square bracket	4210 4758 90
RTP2600	Reaction bar, sliding-drive	4210 4752 93
RTP2600	Reaction bar, steel bar	4210 4757 93
RTP2600	Reaction bar, square bracket	4210 4758 93
RTP4100	Reaction bar, sliding-drive	4210 4752 91
RTP4100	Reaction bar, steel bar	4210 4757 91
RTP4100	Reaction bar, square bracket	4210 4758 91
RTP8100	Reaction bar, sliding-drive	4210 4752 92
RTP8100	Reaction bar, steel bar	4210 4757 92
RTP8100	Reaction bar, square bracket	4210 4758 92

NOTE: All reaction bars includes a snap ring



Service kits

Model	Description	Ordering No.
RTP1300	Small parts kit	4082 0125 90
RTP2600	Small parts kit	4082 0148 90
RTP4100	Small parts kit	4082 0116 91
RTP8100	Small parts kit	4082 0126 90
RTP1300	Service kit	4081 0510 90
RTP2600	Service kit	4081 0510 90
RTP4100	Service kit	4081 0504 90
RTP8100	Service kit	4081 0511 90



LTP and LMP

Pneumatic nutrunner



With the Atlas Copco LMP/LTP61 range of twin-motor pistol grip nutrunners you get the highest possible torque and speed in relation to the weight of the tool. Fast, accurate and highly user-friendly, the tools are available in reversible versions for maximum flexibility.

Fast and accurate

In LTP/LMP61 tools the twin motor concept provides extremely fast rundown with good torque accuracy, even on soft joints.

Reversible for maximum flexibility

Being able to loosen fasteners without changing tools saves time and effort and raises productivity.

Operator friendly

Our pistol grip nutrunners are comfortable to operate. The reaction bar eliminates reaction forces and the exhaust through the handle arrangement keeps noise levels low.

LTP Shut-off



Model	Bolt Size mm	Square Drive In	Torque Range At 6.3 Bar		Min Torque At 3 Bar		Free Speed R/Min	Weight ^a		Length mm	Cs Distance mm	Consumption At Free Speed		Inlet Thread In	Spline Type	Ordering No.
			Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm			
LTP61 H100-13	M12	1/2	55-100	40-75	45	35	1800	3	6.6	223	29	20	42	3/8	3	8431 0800 07
LTP61 H170-13	M14	1/2	95-170	70-125	70	50	1100	3	6.6	223	29	20	42	3/8	3	8431 0800 14
LTP61 H230-19	M16	3/4	125-230	90-170	85	60	820	3	6.6	223	29	20	42	3/8	3	8431 0800 21
LTP61 H350-20	M18	3/4	190-350	140-255	145	105	520	3.9	8.6	260	31	20	42	3/8	4	8431 0800 28
LTP61 H500-20	M20	3/4	275-500	200-370	220	160	360	3.9	8.6	260	31	20	42	3/8	4	8431 0800 35
LTP61 H700-25	M22	1	360-650	265-480	280	207	280	4.5	9.9	305	34	20	42	3/8	5	8431 0800 42
LTP61 H900-25	M24	1	480-870	350-640	300	220	210	4.5	9.9	282	32	20	42	3/8	5	8431 0800 49
LTP61 H1500-25	M30	1	850-1500	625-1100	700	516	115	6.8	14.5	323	42	20	42	3/8	9	8431 0800 56
Reversible																
LTP61 HR100-13	M12	1/2	55-100	40-75	45	35	1800	3	6.6	235	30	20	42	3/8	3	8431 0801 08
LTP61 HR170-13	M14	1/2	95-170	70-125	70	50	1100	3	6.6	238	30	20	42	3/8	3	8431 0801 15
LTP61 HR230-19	M16	3/4	125-230	90-170	85	60	820	3	6.6	275	34	20	42	3/8	3	8431 0801 22
LTP61 HR350-20	M18	3/4	190-350	140-255	145	105	520	3.9	8.6	275	34	20	42	3/8	4	8431 0801 29
LTP61 HR500-20	M20	3/4	275-500	200-370	220	160	360	3.9	8.6	275	34	20	42	3/8	4	8431 0801 36
LTP61 HR700-25	M22	1	360-650	265-480	280	207	280	4.5	9.9	305	34	20	42	3/8	5	8431 0801 43
LTP61 HR900-25	M24	1	480-870	350-640	300	220	210	4.5	9.9	305	34	20	42	3/8	5	8431 0801 50
LTP61 HR1500-25	M30	1	850-1500	625-1100	700	516	115	6.8	14.5	345	42	20	42	3/8	9	8431 0801 57
LTP61 HR1900-38	M30	1 1/2	1050-1900	770-1400	800	590	90	14.1	31	380	68	20	42	3/8	8	8431 0801 64

Model	Bolt Size mm	Square Drive In	Torque Range At 6.3 Bar		Min Torque At 3 Bar		Free Speed R/Min	Weight A		Length mm	Cs Distance mm	Consumption At Free Speed		Inlet Thread In	Spline Type	Ordering No.
			Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm			
LTP61 HR100-13-MT	M12	1/2	55-100	40-75	45	35	1800	3.3	7.3	288	30	20	42	3/8	3	8431 0806 02
LTP61 HR170-13-MT	M14	1/2	95-170	70-125	70	50	1100	3.3	7.3	288	30	20	42	3/8	3	8431 0806 09
LTP61 HR230-19-MT	M16	3/4	125-230	90-170	85	60	820	3.3	7.3	288	34	20	42	3/8	3	8431 0806 16
LTP61 HR350-20-MT	M18	3/4	190-350	140-255	145	105	520	4.2	9.2	325	34	20	42	3/8	4	8431 0806 23
LTP61 HR500-20-MT	M20	3/4	275-500	200-370	220	160	360	4.2	9.2	325	34	20	42	3/8	4	8431 0806 30
LTP61 HR700-25-MT	M22	1	360-650	265-480	280	207	280	4.8	10.6	355	34	20	42	3/8	5	8431 0806 33
LTP61 HR900-25-MT	M24	1	480-870	350-640	300	220	210	4.8	10.6	355	34	20	42	3/8	5	8431 0806 37
LTP61 HR1500-25-MT	M30	1	850-1500	625-1100	700	516	115	7.1	15.6	395	42	20	42	3/8	9	8431 0806 44
LTP61 PH100-13	M12	1/2	60-110	45-80	45	33	700	3	6.6	223	34	20	42	3/8	3	8431 0807 04
LTP61 PH170-13	M14	1/2	100-180	75-135	70	52	440	3	6.6	223	34	20	42	3/8	3	8431 0807 12
LTP61 PH230-19	M16	3/4	130-240	95-180	90	66	320	3	6.6	223	34	20	42	3/8	3	8431 0807 17
LTP61 PH350-20	M18	3/4	210-370	155-275	150	110	200	3.9	8.6	260	34	20	42	3/8	4	8431 0807 24
LTP61 PH500-20	M20	3/4	300-520	220-380	200	150	140	3.9	8.6	260	34	20	42	3/8	4	8431 0807 31
LTP61 PH700-25	M22	1	400-680	295-500	280	205	100	4.5	9.9	305	34	20	42	3/8	5	8431 0807 38
LTP61 PH900-25	M24	1	500-900	370-665	350	260	80	4.5	9.9	282	34	20	42	3/8	5	8431 0807 41
LTP61 PH1500-25	M30	1	900-1600	665-1180	650	480	45	6.8	14.9	323	42	20	42	3/8	9	8431 0807 52
Reversible																
LTP61 PHR700-25	M22	1	400-680	295-500	280	205	100	4.5	9.9	305	34	20	42	3/8	5	8431 0807 55
LTP61 PHR900-25	M24	1	500-900	370-665	350	260	80	4.5	9.9	305	34	20	42	3/8	5	8431 0807 62
LTP61 PHR1500-25	M30	1	900-1600	665-1180	650	480	45	6.8	14.9	345	42	20	42	3/8	9	8431 0807 68
Reversible with Multi Torque unit																
LTP61 PHR900-25-MT	M24	1	500-900	370-665	350	260	80	4.8	10.6	305	34	20	42	3/8	5	8431 0807 81

^aWithout reaction bar.
Recommended hose size: 13 mm.

NOTE: Change over torque is around 4% of maximum torque on a given air pressure.

LMP Non-shutoff



Model	Bolt Size mm	Square Drive in	Max Torque At 6.3 Bar		Min Torque At 3 Bar		Free Speed r/min	Weight ^a		Length mm	CS Distance mm	Air Consumption at Free Speed		Air inlet thread in	Spline Type	Ordering No.
			Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm			
Non-reversible																
LMP61 H100-13	M12	1/2	100	75	60	45	2200	3.0	6.6	223	29	20	42	3/8	3	8431 0803 05
LMP61 H170-13	M14	1/2	170	125	100	75	1400	3.0	6.6	223	29	20	42	3/8	3	8431 0803 12
LMP61 H230-19	M16	3/4	230	170	130	95	1000	3.0	6.6	223	29	20	42	3/8	3	8431 0803 19
LMP61 H350-20	M18	3/4	350	260	200	145	650	3.9	8.6	260	31	20	42	3/8	4	8431 0803 26
LMP61 H500-20	M20	3/4	500	370	300	220	450	3.9	8.6	260	31	20	42	3/8	4	8431 0803 33
LMP61 H700-25	M22	1	700	520	400	295	350	4.5	9.9	305	34	20	42	3/8	5	8431 0803 40
LMP61 H900-25	M24	1	900	665	500	365	260	4.5	9.9	282	34	20	42	3/8	5	8431 0803 47
Reversible																
LMP61 HR100-13	M12	1/2	100	75	60	45	2200	3.0	6.6	235	30	20	42	3/8	3	8431 0804 04
LMP61 HR170-13	M14	1/2	170	125	100	75	1400	3.0	6.6	238	30	20	42	3/8	3	8431 0804 11
LMP61 HR230-19	M16	3/4	230	170	130	95	1000	3.0	6.6	275	34	20	42	3/8	3	8431 0804 18
LMP61 HR350-20	M18	3/4	350	260	200	145	650	3.9	8.6	275	34	20	42	3/8	4	8431 0804 25
LMP61 HR500-20	M20	3/4	500	370	300	220	450	3.9	8.6	320	35	21	42	3/8	4	8431 0804 32
LMP61 HR700-25	M22	1	700	520	400	295	350	4.5	9.9	305	34	20	42	3/8	5	8431 0804 39
LMP61 HR900-25	M24	1	900	665	500	365	260	4.5	9.9	305	34	20	42	3/8	5	8431 0804 46
LMP61 HR1500-25	M30	1	1600	1180	900	660	140	6.8	14.9	345	42	20	42	3/8	9	8431 0804 53

^a Weight excluding reaction bar.
Recommended hose size 13 mm for hose length up to 5 m.

NOTE: Change over torque is around 4% of maximum torque on a given air pressure.

LMP and LTP Productivity kits

Model	Max air flow	Hose, 5 m	Coupling	Lubrication	Ordering No.
For small nutrunners with 3/8" BSP air inlet					
MIDI Optimizer F/RD EQ08-C10	16 l/s	Cablair 10 mm	ErgoQIC 08	Yes	8202 0850 07
For small nutrunners with 1/4" BSP air inlet					
MIDI Optimizer F/RD EQ08-C10	16 l/s	Cablair 10 mm	ErgoQIC 08	Yes	8202 0850 03
MIDI Optimizer F/RD EQ10-R10	16 l/s	Rubair 10 mm	ErgoQIC 10	Yes	8202 0850 16
For nutrunners with 3/8" BSP air inlet					
MIDI Optimizer F/RD EQ10-C13	23 l/s	Cablair 13 mm	ErgoQIC 10	Yes	8202 0850 02
For nutrunners with 1/4" BSP air inlet					
MIDI Optimizer F/RD EQ10-C13-1/4	23 l/s	Cablair 13 mm	ErgoQIC 10	Yes	8202 0850 11
For nutrunners with 3/8" BSP air inlet					
MIDI Optimizer F/RD EQ10-T13	35 l/s	Turbo 13 mm	ErgoQIC 10	Yes	8202 0850 17
For nutrunners with 1/2" BSP air inlet					
MIDI Optimizer F/R EQ10-T13	35 l/s	Turbo 13 mm	ErgoQIC 10	No	8202 0850 04
MIDI Optimizer F/RD EQ10-T13	35 l/s	Turbo 13 mm	ErgoQIC 10	Yes	8202 0850 13

LMP and LTP Accessories

For LMP/LTP61

Model	Ordering No.
Hose nipple	9000 0242 00
Exhaust hose	4210 2201 00
Protective cover	
Standard LTP61	4210 4672 00
LTP 61 with MT unit	4210 4672 01
Multi torque selector LTP61	4210 4636 95
Quick change retainer	
– 1/2" square models	4250 1190 00
– 3/4" square models	4210 3476 80
– 1" square models	4210 3524 80
Shut-off override for LTP61	4210 3545 80
Swivelling type MultiFlex connector 3/8" (BSP)	8202 1350 22
Swivelling type MultiFlex connector 3/8" (NPT)	8202 1350 28



Multi torque selector LTP61



Protective cover

Swivelling suspension yoke LMP/LTP61

Model	Ordering No.
Mounting dia Ø 54 mm	
PH/H 100-13	4210 3088 80
PH/H 170-13	
PH/H 230-19	
PH/H 350-20	
PH/H 500-20	
PH/H 700-25	
PH/H 900-25	
Mounting dia Ø 60 mm	
HR 100-13	4210 3088 84
HR 170-13	
HR 230-19	

Model	Ordering No.
Mounting dia Ø 63.5 mm	
H 1900-38	4210 3088 83
H 2800-38	
H 3800-38	
Mounting dia Ø 67 mm	
HR 350-20	4210 3088 82
HR 500-20	
PHR/HR 700-25	
PHR/HR 900-25	
HR 1900-38	4210 3088 85
HR 2800-38	
HR 3800-38	

Model	Ordering No.
Mounting dia Ø 83.5 mm	
PH/H 1500-25	4210 3088 81
PHR/HR 1500-25	

LMP and LTP Reaction arms

Spline Diameter mm	L/W/H	CC Distance mm	Ordering No.
Steel bar			
Spline 1	268/36/18		4210 1798 01
Spline 2	270/35/10		4220 1903 00
Spline 3	400/56/12		4210 2219 80
Spline 4	500/62/15		4210 2183 80
Spline 5	500/62/15		4210 2726 80
Spline 6	560/80/15		4220 1200 01
Spline 7	500/100/20		4210 3899 02
Spline 8	500/150/20		4210 3899 03
Spline 9	500/85/20		4210 3899 80
Ø 26 mm	270/34/8		4220 3491 00
Square steel bracket			
Spline 3	100/50/12		4210 2219 03
Spline 4	125/65/16		4210 2183 01
Spline 5	125/65/16		4210 2726 01
Spline 6	200/100/15		4220 1200 00
Spline 7	250/150/20		4220 1445 00
Spline 8	250/160/20		4220 1972 91
Spline 9	150/85/20		4210 3899 01
Ø 24 mm	100/60/8		4220 1029 00
Ø 26 mm	100/60/8		4220 1029 02
Ø 28 mm	100/60/8		4220 1029 01
Triangular steel bracket			
Spline 2	73/72/14		4220 2137 02
Spline 3	82/80/15		4220 2137 03
Spline 6	112/109/15		4220 2137 06
Spline 6	150/145/20		4220 2137 16
S-Type reaction bar			
Spline 3	110/18/12		4210 4480 03
Spline 4	120/22/15		4210 4480 04
Spline 5	130/25/15		4210 4480 05
Spline 6	125/25/15		4210 4480 06
Spline 7	170/40/20		4210 4480 07
Spline 8	200/65/20		4210 4480 08
Spline 9	160/40/20		4210 4480 09
L-Type aluminum bar			
Spline 3	266x300/29/15		4210 2219 08
Spline 4	144x150/42/15		4210 2183 08
Bracket stepped			
Spline 1	70/36/13		4210 1798 02
Spline 2	70/41/14		4210 2134 02
Straight aluminum bar			
Spline 3	L = 400		4210 2219 01

Spline Diameter mm	Square Drive Size (in)	CC Distance mm	Ordering No.
Sliding drive reaction bar			
Spline 3	1/2	70-120	4210 4481 83
Spline 3	3/4	70-120	4210 4481 63
Spline 4	3/4	76-126	4210 4481 84
Spline 4	3/4	82-218	4210 4616 84
Spline 5	1	80-125	4210 4481 85
Spline 5	1	82-218	4210 4616 85
Spline 9	1	80-130	4210 4481 89
Spline 9	1	80-280	4210 4616 89

Steel bar



Square steel bracket



Triangular steel bracket



Sliding drive reaction bar



S-Type reaction bar



L-Type aluminum bar



Straight aluminum bar



Extended sliding drive reaction bar



Extended sliding tube reaction bar



Bracket stepped



Airline Accessories

Ensure that your tools achieve their full potential

To ensure that you benefit from the full potential power from your tools, Atlas Copco has developed a full range of air line accessories for use with Atlas Copco tools and air motors. All accessories can be used for other applications and pneumatic equipment.

Air preparation units



Quick Couplings



Swivel connectors



Hose reels



Balancers



Air net - quality piping solution



For more info about Airline Accessories please see Atlas Copco main catalogue or contact Atlas Copco local sales representative.

Hose Reels



HM Flex I



HM Light



HM Open XL

Model	Hose length mm	Hose type	Hose inside diameter		Connection inlet hose inside dia (cut of hose) mm	Connection distribution hose BSP	Economical air flow (at 0.2 bar pressure drop) l/s	Max air flow capacity (at 0.5 bar pressure drop) l/s	Weight kg	Ordering No.
			mm	in						
HM Light 8-8	8	PVC/PUR	8	5/16	10	1/4	4	7	3	8202 1183 30
HM Light 8-12	12	PVC/PUR	8	5/16	10	1/4	3	5	5	8202 1183 31
HM Light 10-10	10	PVC/PUR	10	3/8	10	3/8	6	10	5	8202 1183 32
HM Open 10-15	15	Rubber	10	3/8	12.5	3/8	5	9	11	8202 1183 33
HM Open 10-20	20	Rubber	10	3/8	12.5	3/8	5	7	14	8202 1183 34
HM Open 12-10	10	Rubber	12.5	1/2	12.5	1/2	13	22	12	8202 1183 35
HM Open 12-15	10	Rubber	12.5	1/2	12.5	1/2	11	17	13	8202 1183 36
HM Open XL 12-20	20	Rubber	12.5	1/2	12.5	1/2	8	14	27	8202 1183 37
HM Open XL 12-20	30	Rubber	12.5	1/2	12.5	1/2	8	12	28	8202 1183 38
HM Open XL 19-15	15	Rubber	19	3/4	19	3/4	27	44	28	8202 1183 39
HM Open XL 25-10	10	Rubber	25	1	25	1	60	95	30	8202 1183 40

Model	Hose length mm	Hose type	Hose inside dia		Connection inlet BSP male	Connection distribution hose BSP male	Air flow l/s	Weight kg	Ordering No.
			mm	in					
HM Flex L	10	Rubber	12,5	1/2	1/2	1/2	22	16	8202 1181 56

Max working pressure 15 bar on all models.

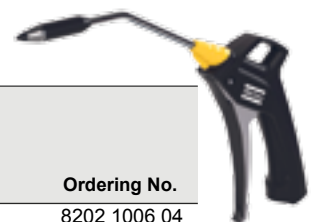
Pivoting brackets for HM OPEN and HM OPEN XL models needs to be ordered separately



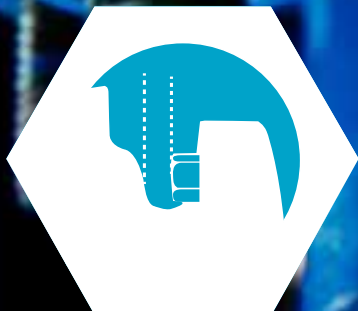
HM Open

Blow guns BG-series

Model	Version	Working pressure bar	Air flow l/s	Weight		Air inlet thread BSP	Ordering No.
				kg	lb		
BG 2603-HF	Long tube, high flow	6.3	7.5	0.13	0.29	1/4	8202 1006 04
BG 2604-SHF	Short tube	6.3	4.3	0.12	0.26	1/4	8202 1006 05
BG 2605-STSS	Short tube, star tip	6.3	6.6	0.12	0.26	1/4	8202 1006 06
BG 2606-ST	Long tube, star tip, silencer	6.3	6.3	0.14	0.31	1/4	8202 1006 07



Hydraulic torque wrenches



*Low
clearance*



*Leak free
joints*



*Safety
pawl*



Atlas Copco

Atlas Copco

24

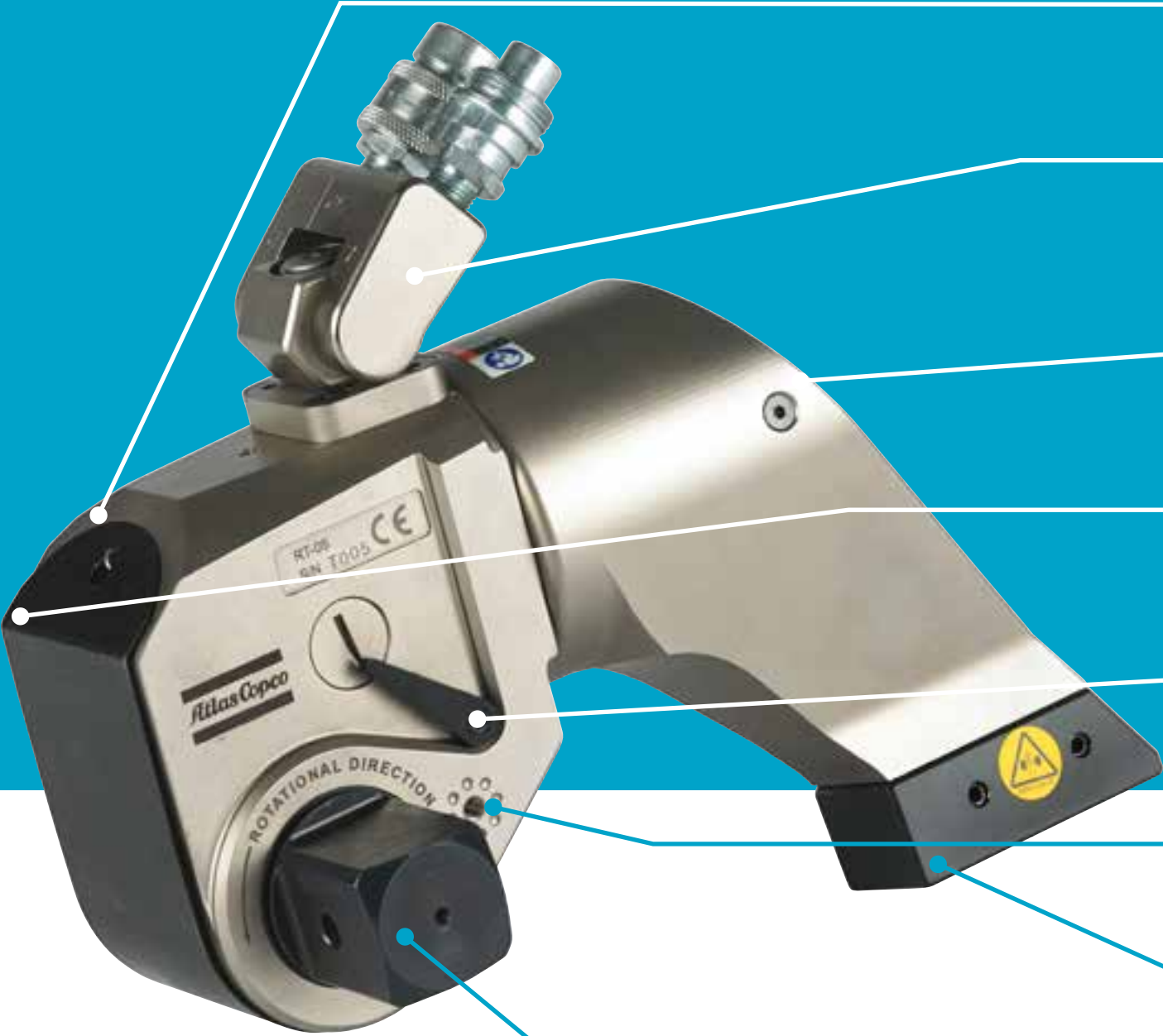
6

14115

6

RT Series

Square drive
hydraulic torque wrench



Atlas Copco RT Series standard hydraulic wrenches offer extremely high torquing power. There are nine models to choose from.

Monobloc aluminium housing

A single block of aircraft quality aluminum alloy is used to produce the RT Series housing. This allows the tool to produce massive amounts of torque, while having an amazing power-to-weight ratio.

Multi-axis swivel

Greater range of movement on multiple axis allows the hose to move easier compared to single axis swivels.

Splined reaction arm

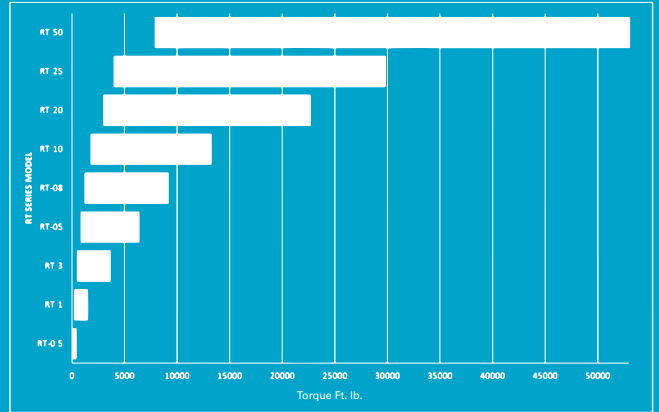
Splined reaction arm makes the tool more compact and allows the reaction arm to be adjusted for maximum safety.

Spring-loaded shroud

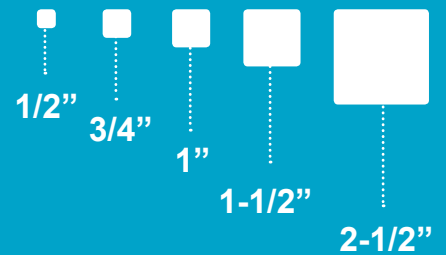
Spring loaded shroud absorbs energy during operation.

Safety pawl

Increases speed and reduces operator intervention.



Square Drive Sizes



Tapped handle security point

High strength steel boot

The reaction arm boot comes standard. Copper boot also available.

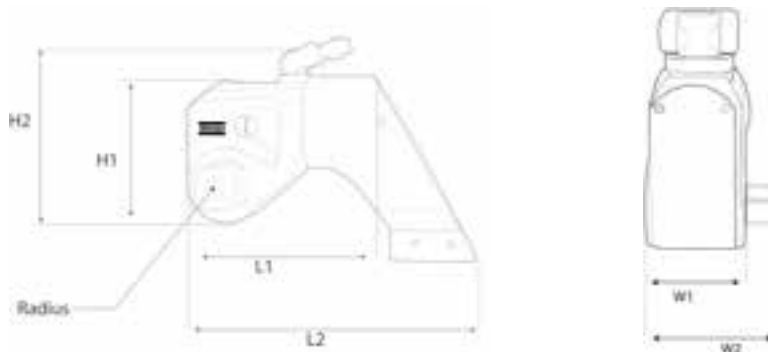
Splined square drive

The RT Series splined square drive distributes load evenly through the drive components, providing full heavy-duty transmission of force. Direct Hex Drives and Hex Adapters are available.

RT Series technical information



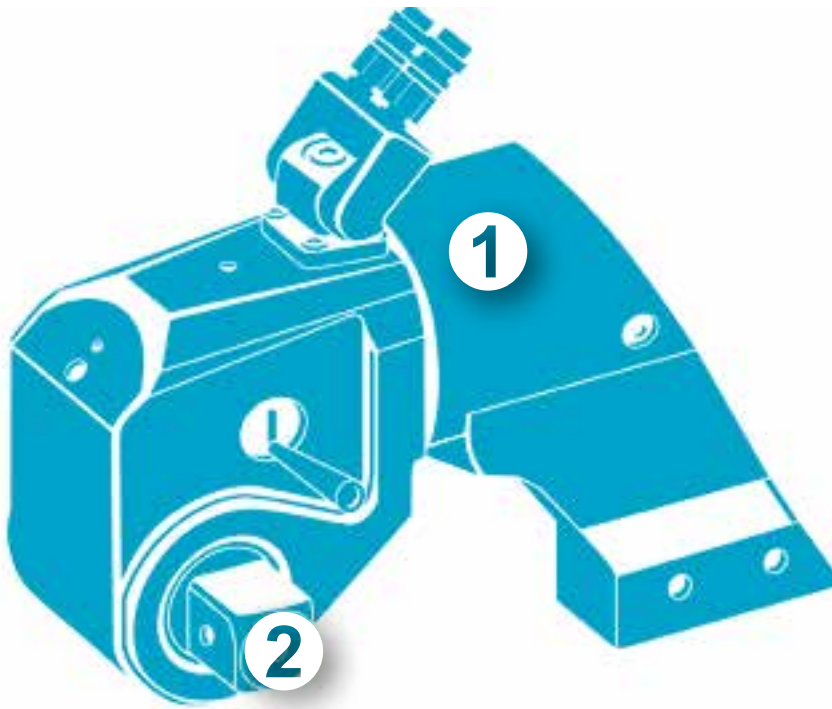
Model	Square Drive in	Torque				Weight		Ordering No.
		ft. lb.		Nm		lb	kg	
		min	max	min	max			
RT-0.5	1/2	60	397	81	538	0.8	0.4	8434 2010 00
RT-01	3/4	209	1390	283	1885	3.8	1.9	8434 2010 02
RT-03	1	485	3230	657	4379	7.8	3.9	8434 2010 05
RT-05	1-1/2	839	5590	1137	7579	15	7.5	8434 2010 09
RT-08	1-1/2	1200	8000	1627	10846	23	11.5	8434 2010 13
RT-10	1-1/2	1728	11520	2343	15619	26.8	13.4	8434 2010 16
RT-20	2-1/2	2964	19760	4019	26791	36	18	8434 2010 20
RT-25	2-1/2	3884	25890	5266	35102	62	31	8434 2010 25
RT-50	2-1/2	7875	52500	10677	71180	96	48	8434 2010 29



Model	Dimensions													
	L1		L2		H1		H2		Radius		W1		W2	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
RT-0.5	3.15	81	4.87	125	2.35	60.5	3.62	93	0.52	13.5	1.3	33.5	1.97	50.5
RT-01	4.68	120	7.13	183	3.52	90.5	4.75	122	0.9	23	1.95	50	2.76	71
RT-03	6.04	155	9.24	237	4.68	120	6.08	156	1.28	33	2.59	66.5	3.72	95.5
RT-05	7.21	185	11.23	288	5.63	144.5	7.05	181	1.44	37	3.12	80	4.9	126
RT-08	7.85	202	12.49	321	6.42	164.6	8.4	213.36	1.62	41	3.48	88	4.95	126
RT-10	9	232	13.9	357	7.2	186	9.3	239	1.87	48	3.9	100	5.5	142.5
RT-20	10.2	259	16.55	420	8.5	216	9.9	251	2.17	55.1	4.7	119	6.7	170
RT-25	12	310	18.4	473	9.1	234	11	282	2.37	61	5.2	134	7.4	191
RT-50	15.2	390	23.9	615	11.4	294	13.4	344	30.8	79	6.5	167	8.9	228

Designs and specifications are subject to change without notice or obligation. Read all safety instructions in the manual before usage.

RT Series standard setup



1 The RT comes with the standard reaction arm, great for many common applications.

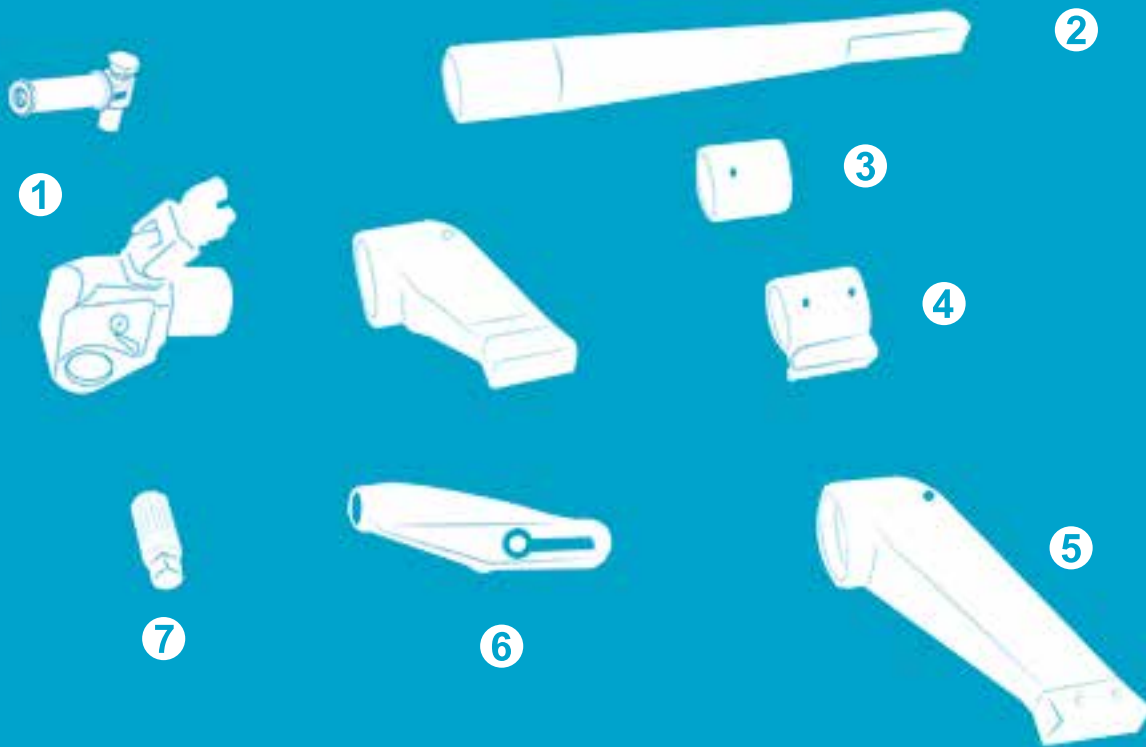
2 The RT Series comes standard with a square drive, use with a socket.

Use high quality impact sockets

See page 108 for impact socket selection.

Hydraulic wrenches in RT Series offer extremely high torquing power. Excellent power to weight ratio and range of 9 models covering torque from 81 – 71180 Nm (60 - 52500 Ft. lb.) makes it the most preferred wrench in the market.

Square drive hydraulic torque wrench accessories



1 RT safety handle

2 Alco reaction arm

3 Steel sleeve

4 Steel sleeve with foot

5 Extended reaction arm

6 Sliding reaction arm

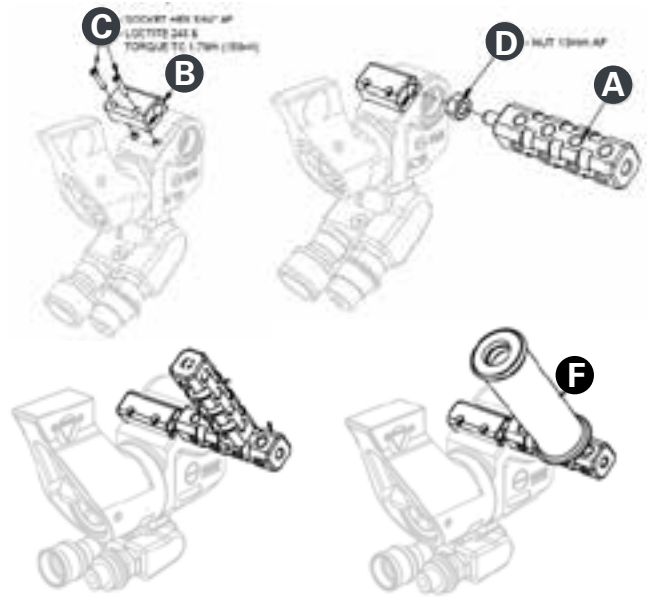
7 Direct hex drive

1 Support safety handle



Description	Ordering No.
Handle for RT3, RT5, RT8, RT10	8434 2170 31

Tool Model	RT-0.5	RT-01
Handle Block Incl Screws (B & C)	8434 2170 41	8434 2170 42
Fixture Handle Incl Lock Nut (A & D)	8434 2170 43	8434 2170 43
Support Handle (F)	4175 0868 80	4175 0868 80



2 Alco arm



Description	Ordering No.
RT0.5-ALC	4222 2126 76
RT01-ALC	4222 2102 64
RT03-ALC	8434 2057 10
RT05-ALC	8434 2139 88
RT08-ALC	8434 2140 36
RT10-ALC	8434 2140 60

3 Steel sleeve



Description	Ordering No.
RT0.5-SSLV	4222 2126 88
RT01-SSLV	8434 2057 08
RT03-SSLV	8434 2057 32
RT05-SSLV	8434 2140 30
RT08-SSLV	8434 2140 51
RT10-SSLV	8434 2140 90

4 Steel sleeve with foot



Description	Ordering No.
RT01-SSLVF	8434 2057 09
RT03-SSLVF	8434 2139 79
RT05-SSLVF	8434 2139 80

5 Ext arm



Description	Ordering No.
RT0.5-EXT	4222 2126 82
RT01-EXT	8434 2056 92
RT03-EXT	8434 2057 12
RT05-EXT	8434 2057 34
RT08-EXT	8434 2140 42
RT10-EXT	8434 2140 66

6 Sliding reaction arm



Description	Ordering No.
RT-01 Sliding Ext	8434 2057 33
RT-01 Sliding Std	8434 2150 95
RT-03 Sliding Ext	8434 2150 37
RT-03 Sliding Std	8434 2150 30
RT-05 Sliding Ext	8434 2150 36
RT-05 Sliding Std	8434 2150 35
RT-08 Sliding Ext	8434 2150 32
RT-08 Sliding Std	8434 2150 31
RT-10 Sliding Ext	8434 2150 34
RT-10 Sliding Std	8434 2150 33

STD= Standard EXT=Extended

RT Series accessories

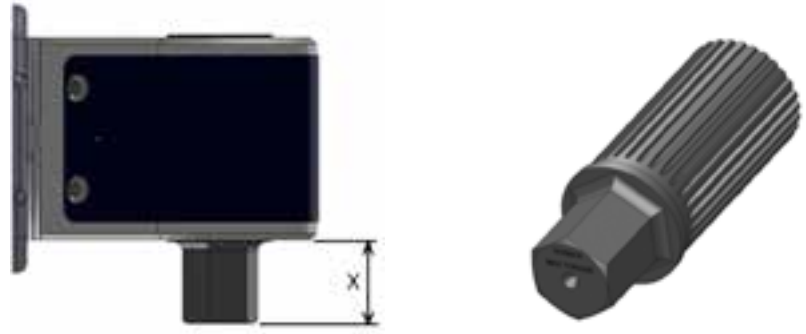
7 Direct hex drive



Ordering No	Size	Description
8434 2101 72	1/2"	RT0.5-HX-008
8434 2138 44	10mm	RT0.5-HX-10MM
8434 2138 47	12mm	RT0.5-HX-12MM
8434 2138 50	14mm	RT0.5-HX-14MM
8434 2138 53	16mm	RT0.5-HX-16MM
8434 2138 56	17mm	RT0.5-HX-17MM
8434 2138 59	18mm	RT0.5-HX-18MM
8434 2138 62	19mm	RT0.5-HX-19MM
8434 2138 65	20mm	RT0.5-HX-20MM
8434 2138 68	22mm	RT0.5-HX-22MM
8434 2101 71	24mm	RT0.5-HX-24MM
8434 2138 71	5/8"	RT01-HX-010
8434 2138 74	3/4"	RT01-HX-012
8434 2138 77	7/8"	RT01-HX-014
8434 2056 94	1"	RT01-HX-100
8434 2138 83	10mm	RT01-HX-10MM
8434 2138 86	14mm	RT01-HX-14MM
8434 2138 89	16mm	RT01-HX-16MM
8434 2056 96	17mm	RT01-HX-17MM
8434 2138 92	18mm	RT01-HX-18MM
8434 2056 98	19mm	RT01-HX-19MM
8434 2057 00	20mm	RT01-HX-20MM
8434 2057 02	22mm	RT01-HX-22MM
8434 2057 04	24mm	RT01-HX-24MM
8434 2138 98	25mm	RT01-HX-25MM
8434 2138 95	26mm	RT01-HX-26MM
8434 2057 06	27mm	RT01-HX-27MM
8434 2057 14	5/8"	RT03-HX-010
8434 2057 16	3/4"	RT03-HX-012
8434 2057 18	7/8"	RT03-HX-014
8434 2057 20	1"	RT03-HX-100
8434 2139 28	1 1/8"	RT03-HX-102
8434 2139 31	1 1/4"	RT03-HX-104
8434 2139 34	1 1/2"	RT03-HX-108
8434 2139 35	15mm	RT03-HX-15MM
8434 2139 36	16mm	RT03-HX-16MM
8434 2139 37	17mm	RT03-HX-17MM
8434 2057 22	19mm	RT03-HX-19MM
8434 2057 24	22mm	RT03-HX-22MM
8434 2057 26	24mm	RT03-HX-24MM
8434 2139 43	26mm	RT03-HX-26MM
8434 2057 28	27mm	RT03-HX-27MM
8434 2139 46	30mm	RT03-HX-30MM
8434 2057 30	32mm	RT03-HX-32MM
8434 2139 49	36mm	RT03-HX-36MM
8434 2139 55	38mm	RT03-HX-38MM

Ordering No	Size	Description
8434 2139 58	41mm	RT03-HX-41MM
8434 2139 61	46mm	RT03-HX-46MM
8434 2139 64	55mm	RT03-HX-55MM
8434 2140 04	1"	RT-05
8434 2140 13	1 1/4"	RT05-HX-104
8434 2139 97	19mm	RT05-HX-19MM
8434 2140 00	22mm	RT05-HX-22MM
8434 2140 03	24mm	RT05-HX-24MM
8434 2140 06	26mm	RT05-HX-26MM
8434 2057 36	27mm	RT05-HX-27MM
8434 2140 10	30mm	RT05-HX-30MM
8434 2140 12	32mm	RT05-HX-32MM
8434 2057 38	36mm	RT05-HX-36MM
8434 2057 39	38mm	RT05-HX-38
8434 2057 40	41mm	RT05-HX-41MM
8434 2057 42	46mm	RT05-HX-46MM
8434 2140 20	50mm	RT05-HX-50MM
8434 2140 21	55mm	RT05-HX-55MM
8434 2140 45	24mm	RT08-HX-24MM
8434 2140 48	27mm	RT08-HX-27MM
8434 2140 69	1"	RT10-HX-100
8434 2140 72	1 1/2"	RT10-HX-108
8434 2140 75	32mm	RT10-HX-32MM
8434 2057 46	36mm	RT10-HX-36MM
8434 2057 48	41mm	RT10-HX-41MM
8434 2057 50	46mm	RT10-HX-46MM
8434 2057 52	50mm	RT10-HX-50MM
8434 2140 81	55mm	RT10-HX-55MM

Hex drive dimensions



RT Hex Drives - Inch Series

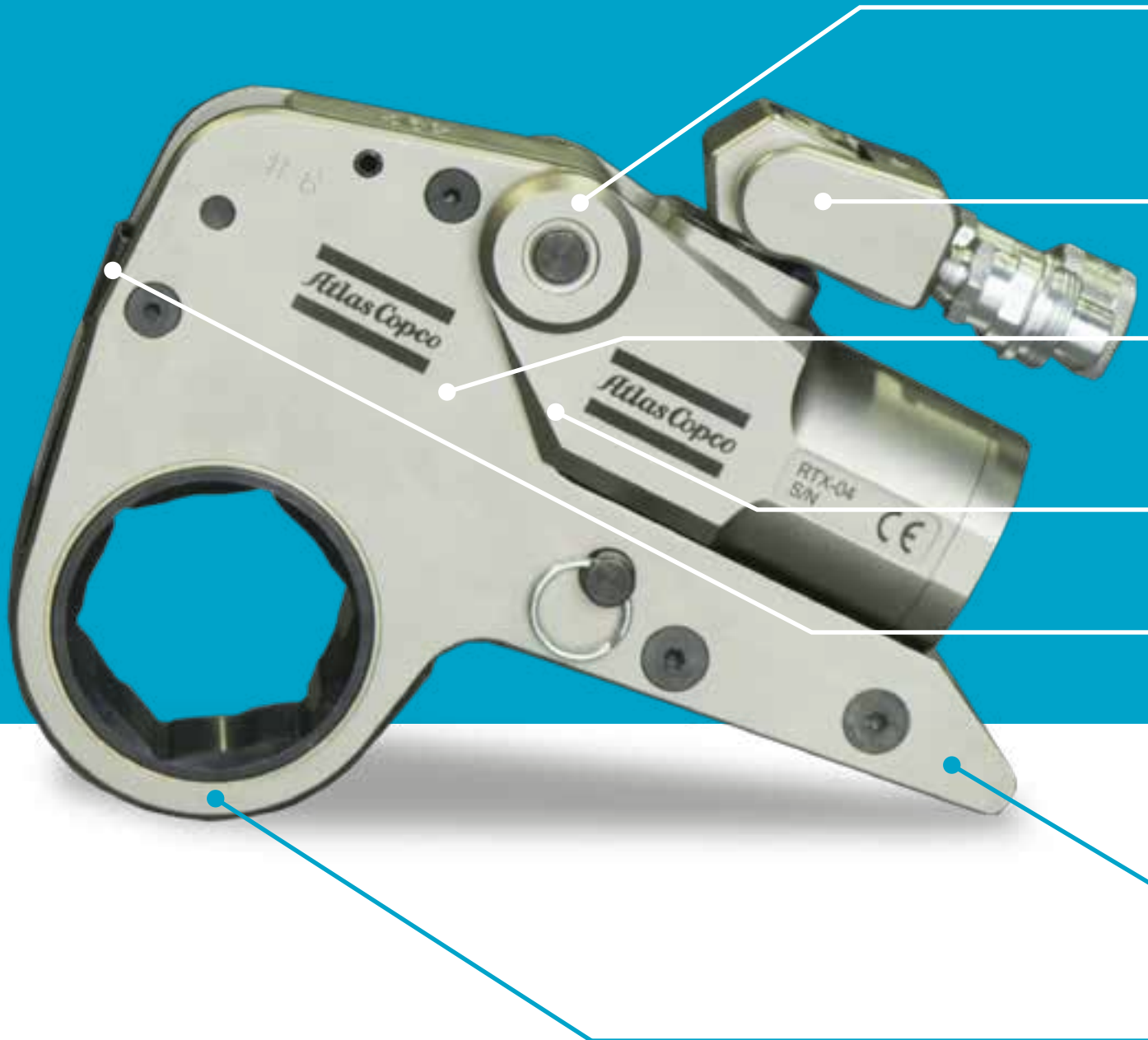
Wrench Ref	Hex AF inch	X inch	Max Torque lbf.ft
RT-0.5	3/8	0.472	149
RT-0.5	7/16	0.512	236
RT-0.5	1/2	0.551	353
RT-0.5	5/8	0.591	689
RT-01	5/8	0.709	689
RT-01	3/4	0.827	1191
RT-01	7/8	0.945	1892
RT-01	1	1.063	2824
RT-03	3/4	0.906	1191
RT-03	7/8	1.024	1892
RT-03	1	1.142	2824
RT-03	1 1/4	1.299	5516
RT-05	1	1.142	2824
RT-05	1 1/4	1.299	5516
RT-05	1 1/2	1.417	9531
RT-05	1 3/4	1.614	15135
RT-08	1	1.142	2824
RT-08	1 1/4	1.299	5516
RT-08	1 1/2	1.417	9531
RT-08	1 3/4	1.614	15135
RT-10	1 1/4	1.339	5516
RT-10	1 1/2	1.457	9531
RT-10	1 3/4	1.654	15135
RT-10	2	1.850	22593

RT Hex Drives - Metric Series

Wrench Ref	Hex AF mm	X mm	Max Torque Nm
RT-0.5	10	12	234
RT-0.5	12	13	404
RT-0.5	14	14.5	641
RT-0.5	17	16	1147
RT-01	17	19	1147
RT-01	19	21	1602
RT-01	22	24.5	2486
RT-01	27	28	4596
RT-03	19	23	1602
RT-03	22	26.5	2486
RT-03	27	30	4596
RT-03	32	35	7652
RT-05	27	30	4596
RT-05	32	35	7652
RT-05	36	39	10895
RT-05	41	45	16094
RT-08	27	30	4596
RT-08	32	35	7652
RT-08	36	39	10895
RT-08	41	45	16094
RT-10	32	36	7652
RT-10	36	40	10895
RT-10	41	46	16094
RT-10	46	50	22730
RT-10	50	52	29190

RTX Series

Low profile hydraulic torque wrench



Atlas Copco RTX Series Low Profile Hydraulic Torque Wrenches eliminate problems with tight clearances.

Aircraft aluminium alloy

Most of the exterior is made up of aircraft-quality aluminum alloy, which provides amazing strength while keeping weight to a minimum.

Multi-axis swivel

Greater range of movement on multiple axis allows the hose to move easier compared to single axis swivels.

High strength steel alloy

Heavy duty contact points ensure long tool life.

Automatic engagement

The powerhead engages the direct fit ratchet link automatically.

Safety pawl

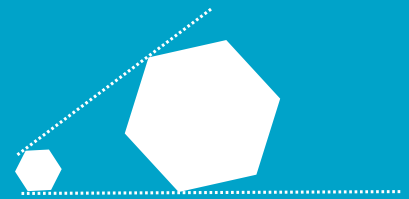
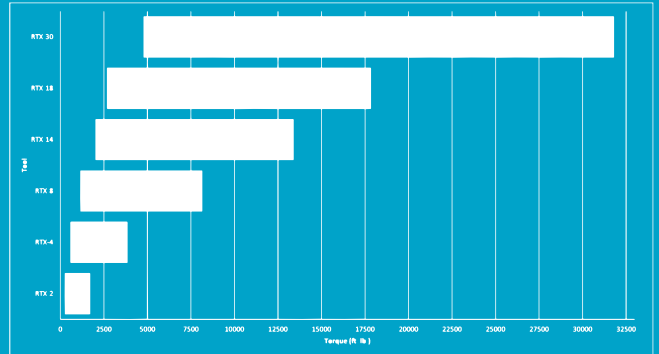
Increases speed and reduces operator intervention.

Reaction options available

The in-line reaction pad works beautifully on most applications. For special applications, Atlas Copco offers onside reaction arms and Alco arms to increase reaction points.

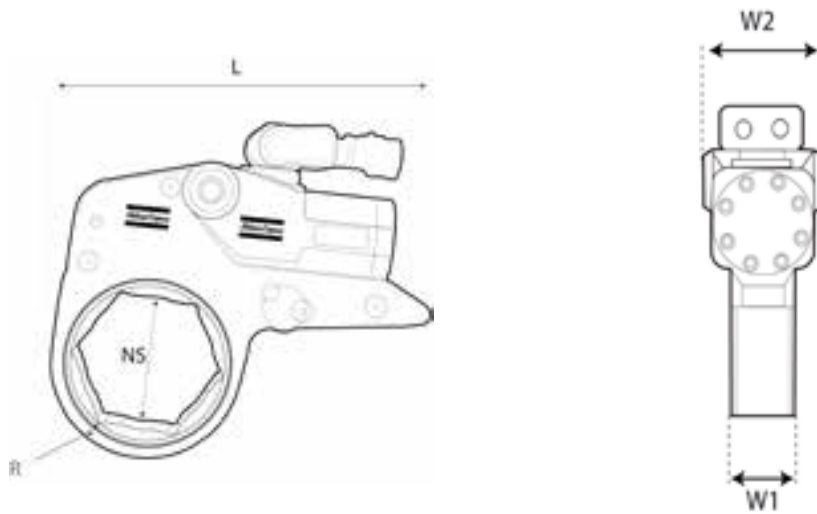
Largest hex range

Largest range of hex sizes available. Torque output is consistent for any link size.



Ranges from 3/4" to 6 1/2"

RTX Series technical information



Model	Dimensions									
	L		NS (based on ratchet link size)		R		W1		W2	
	in	mm	in	mm	in	mm	in	mm	in	mm
RTX-02	7.2	183	3/4 – 2-9/16	19-65	0.35	9	1.26	32	1.92	49
RTX-04	9.7	248	1-5/16 - 3-1/8	32-80	0.47	12	1.65	42	2.56	65
RTX-08	12.1	308	1-13/16 - 3-7/8	46-100	0.59	15	2.08	53	3.22	82
RTX-14	14.6	372	2 – 4-5/8	50-120	0.72	18.5	2.48	63	3.89	99
RTX-18	15.5	393	3 - 5-1/2	75-140	0.87	22.2	2.75	70	4.37	111
RTX-30	18	457	3-9/16- 6-1/8	90-155	1	25.4	3.26	83	5.28	132

Model	Ratchet Link Hex Size*		Torque Range		Weight		Ordering No.
	in	mm	ft.lb.	Nm	lb	kg	
RTX-02	3/4 – 2-3/4	19-65	257-1710	348-2318	4.5	2	8434 2021 90
RTX-04	1 - 3-1/8	25-85	578-3855	784-5227	9.7	4.4	8434 2021 95
RTX-08	1-5/8 - 4-1/8	46-105	1223-8151	1658-11051	19.5	9	8434 2022 00
RTX-14	2-1/2 – 5-3/8	60-135	2010-13400	2725-18168	33	15	8434 2116 58
RTX-18	3-1/2 -5-1/2	75-140	2861-19074	3879-25861	51	23	8434 2022 05
RTX-30	3-1/2 -6-1/2	90-165	4770-31800	6467-43114	78	35.5	8434 2022 10

Designs and specifications are subject to change without notice or obligation.

Choosing your RTX series hydraulic torque wrench

1

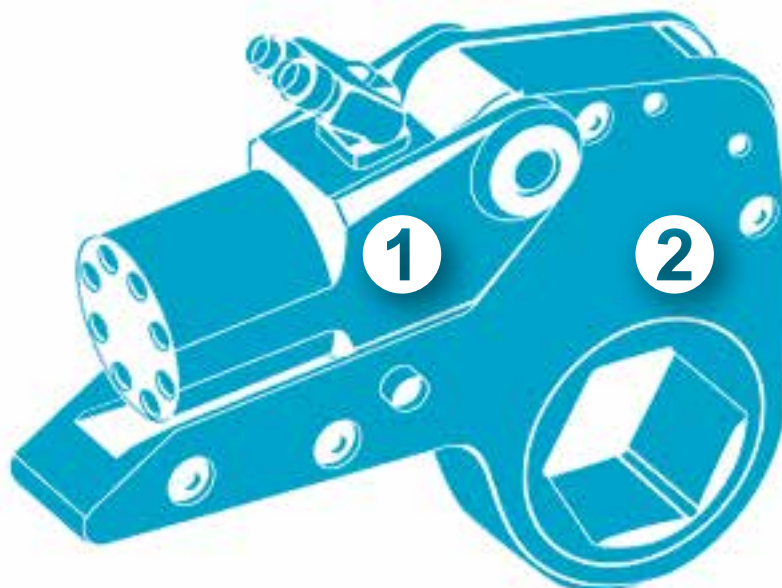
RTX Powerhead

Choose your torque range.

2

Direct Fit Ratchet Links

Choose the Across Flat Hex link size needed for your application.



Wide range of ratchet links designed to suit low clearance applications with a range of 6 power heads, power torques from 348 – 43114 Nm (257 – 31800 ft. lb).

Contact your local sales office for any special design or tool fit requirements.

RTX-02 and RTX-04 Ratchet link sizes



Use the following link sizes with RTX-02, which has a torque range 348-2318 Nm (257 to 1710 ft. lb).

Nominal Hexagon A/F Inch	Metric	Link Ref.	Model	PTD Ordering No.
	17	#1	RL02-17MM	8434 2132 41
3/4"	19	#1	RL02-012/19MM	8434 2131 84
13/16"		#1	RL02-013	8434 2131 87
7/8"	22	#1	RL02-014/22MM	8434 2020 00
15/16"	24	#1	RL02-24MM	8434 2020 54
1"		#1	RL02-100	8434 2020 03
1-1/16"	27	#1	RL02-101/27MM	8434 2131 96
1-1/8"		#1	RL02-102	8434 2131 99
1-3/16"	30	#2	RL02-103/30MM	8434 2132 05
1-1/4"	32	#2	RL02-104/32MM	8434 2132 08
1-5/16"		#3	RL02-105	8434 2132 14
	34	#3	RL02-34MM	8434 2132 81
1-7/16"	36	#3	RL02-107/36MM	8434 2021 68
1-1/2"		#4	RL02-108	8434 2132 30
1-9/16"		#4	RL02-109	8434 2132 23
1-5/8"	41	#4	RL02-110/41MM	8434 2021 07
1-11/16"		#5	RL02-111	8434 2132 26
1-3/4"		#5	RL02-112	8434 2132 29
1-13/16"	46	#5	RL02-113/46MM	8434 2132 32
1-7/8"		#6	RL02-114	8434 2020 06
1-15/16"		#6	RL02-115	8434 2132 38
	50	#6	RL02-50MM	8434 2021 86
2"		#6	RL02-200	8434 2132 50
2-1/16"		#7	RL02-201	8434 2132 53
2-1/8"		#7	RL02-202	8434 2132 56
2-3/16"	55	#7	RL02-203/55MM	8434 2132 59
2-1/4"		#8	RL02-204	8434 2132 62
	58	#8	RL02-58MM	8434 2132 89
2-5/16"		#8	RL02-205	8434 2132 65
2-3/8"	60	#8	RL02-206/60MM	8434 2021 47
2-7/16"		#9	RL02-207	8434 2132 68
2-1/2"		#9	RL02-208	8434 2132 71
2-9/16"	65	#9	RL02-209/65MM	8434 2021 50
2-5/8"		#10	RL02-210	8434 2021 51
2-3/4"	70	#10	RL02-212/70MM	8434 2059 29
2-13/16"		#11	RL02-213 13/16	8434 2021 60
2-15/16"	75	#11	RL02-215/75MM	8434 2132 92

Common nut size
Special link design

Use the following link sizes with RTX-04, which has a torque range of 784-5227 Nm (578 to 3,855 ft. lb).

Nominal Hexagon A/F Inch	Metric	Link Ref.	Model	PTD Ordering No.
	15	#1	RL04-15MM	8434 2133 47
	17	#1	RL04-17MM	8434 2133 48
7/8"	22	#1	RL04-014/24MM	8434 2133 19
15/16"	24	#1	RL04-24MM	8434 2133 93
1"		#1	RL04-100	8434 2133 22
1-1/16"	27	#1	RL04-101/27MM	8434 2020 63
1-1/8"		#1	RL02-102	8434 2133 23
1-3/16"	30	#1	RL04-103/30MM	8434 2133 25
1-1/4"	32	#1	RL04-104/32MM	8434 2020 15
1-5/16"		#1	RL04-105	8434 2133 32
1-7/16"	36	#1	RL04-107/36MM	8434 2020 09
1-1/2"		#2	RL04-108	8434 2133 40
1-9/16"		#2	RL04-109	8434 2133 41
1-5/8"	41	#2	RL04-110/41MM	8434 2021 35
1-11/16"		#3	RL04-111	8434 2020 12
1-3/4"		#3	RL04-112	8434 2020 60
1-13/16"	46	#3	RL04-113/46MM	8434 2021 53
1-7/8"		#4	RL04-114	8434 2133 43
1-15/16"		#4	RL04-115	8434 2133 46
	50	#4	RL04-50MM	8434 2134 30
2"		#4	RL04-200	8434 2133 49
2-1/16"		#5	RL04-201	8434 2133 52
2-1/8"		#5	RL04-202	8434 2133 55
2-3/16"	55	#5	RL04-203/55MM	8434 2021 71
2-1/4"		#6	RL04-204	8434 2133 58
	58	#6	RL04-58MM	8434 2134 42
2-5/16"		#6	RL04-205	8434 2133 61
2-3/8"	60	#6	RL04-206/60MM	8434 2133 64
2-7/16"		#7	RL04-207	8434 2133 65
2-1/2"		#7	RL04-208	8434 2133 67
2-9/16"	65	#7	RL04-209/65MM	8434 2133 70
2-5/8"		#8	RL04-210	8434 2133 73
2-3/4"	70	#8	RL04-212/70MM	8434 2021 62
2-13/16"		#9	RL04-213	8434 2133 85
2-15/16"	75	#9	RL04-215/75MM	8434 2020 21
3"		#10	RL04-300	8434 2134 00
	77	#10	RL04-77MM	8434 2020 22
3-1/16"		#10	RL04-301	8434 2134 03
3-1/8"		#10	RL04-302	8434 2134 06
	80	#10	RL04-80MM	8434 2134 51
3-3/16"		#10	RL04-303	8434 2134 07
	85	#11	RL04-85MM	8434 2134 54
3-3/8"		#11	RL04-306	8434 2134 08
3-1/2"		#12	RL04-308	8434 2134 09
	90	#12	RL04-90MM	8434 2059 30
3-3/4"	95	#13	RL04-312/95MM	8434 2059 31

RTX-08 and RTX-14 Ratchet link sizes



Use the following link sizes with RTX-08, which has a torque range of 1658 -11051 Nm (1,223 to 8,151 ft. lb).

Nominal Hexagon A/F Inch	Metric	Link Ref.	Model	PTD Ordering No.
1-1/8"		#1	RL08-102	8434 2134 93
1-7/16"	36	#1	RL08-107/36MM	8434 2059 34
1-5/8"	41	#1	RL08-110/41MM	8434 2135 02
1-11/16"		#1	RL08-111	8434 2135 08
1-13/16"	46	#1	RL08-113/46MM	8434 2020 66
1-7/8"		#1	RL08-114	8434 2135 11
	50	#1	RL08-50MM	8434 2135 47
2"		#1	RL08-200	8434 2020 68
2-1/16"		#2	RL08-201	8434 2135 17
2-1/8"		#2	RL08-202	8434 2135 50
2-3/16"	55	#2	RL08-203/55MM	8434 2020 69
2-1/4"		#3	RL08-204	8434 2135 20
2-3/8"	60	#3	RL08-206/60MM	8434 2020 70
2-7/16"		#4	RL08-207	8434 2135 23
2-1/2"		#4	RL08-208	8434 2135 26
2-9/16"	65	#4	RL08-209/65MM	8434 2116 04
2-5/8"		#5	RL08-210	8434 2135 29
2-3/4"	70	#5	RL08-212/70MM	8434 2135 59
2-13/16"		#6	RL08-213	8434 2135 32
2-15/16"	75	#6	RL08-215/75MM	8434 2135 65
3"		#7	RL08-300	8434 2135 35
	77	#7	RL08-77MM	8434 2135 68
	78	#7	RL08-78MM	8434 2135 71
3-1/8"		#7	RL08-302	8434 2020 72
	80	#7	RL08-80MM	8434 2135 74
	85	#8	RL08-85MM	8434 2021 11
3-3/8"		#8	RL08-306	8434 2021 02
3-1/2"		#9	RL08-308	8434 2020 74
	90	#9	RL08-90MM	8434 2135 38
3-5/8"		#10	RL08-310	8434 2020 27
3-3/4"	95	#10	RL08-312/95MM	8434 2135 41
3-7/8"		#11	RL08-314	8434 2021 65
	100	#11	RL08-100MM	8434 2020 24
4-1/16"		#12	RL08-401	8434 2020 75
	105	#12	RL08-105MM	8434 2134 96
4-1/4"		#12	RL08-404	8434 2020 78
	110	#13	RL08-110MM	8434 2135 05
	115		RL08-115MM	8434 2135 14

Use the following link sizes with RTX-14, which has a torque range of 2725 -18168 Nm (2010 to 13,400 ft. lb).

Nominal Hexagon A/F Inch	Metric	Link Ref.	Model	PTD Ordering No.
1-1/4"	32	#1	RL14-104/32MM	8434 2135 99
1-1/2"		#1	RL14-108	8434 2136 02
	50	#1	RL14-50MM	8434 2059 36
2"		#1	RL14-200	8434 2020 33
2-3/16"	55	#1	RL14-203/55MM	8434 2020 37
2-1/4"		#1	RL14-204	8434 2020 37
2-3/8"	60	#1	RL14-206/60MM	8434 2136 13
2-1/2"		#1	RL14-208	8434 2136 16
2-9/16"	65	#1	RL14-209/65MM	8434 2020 39
2-5/8"		#1	RL14-210	8434 2136 19
2-3/4"	70	#1	RL14-212/70MM	8434 2136 66
2-13/16"		#2	RL14-213	8434 2136 22
2-15/16"	75	#2	RL14-215/75MM	8434 2021 29
3"		#3	RL14-300	8434 2136 25
	77	#3	RL14-77MM	8434 2021 30
3-1/16"		#3	RL14-301	8434 2136 28
3-1/8"		#3	RL14-302	8434 2136 31
	80	#3	RL14-80MM	8434 2021 20
3-3/16"		#4	RL14-303	8434 2136 32
	85	#4	RL14-85MM	8434 2021 32
3-3/8"		#4	RL14-306	8434 2136 33
3-1/2"		#5	RL14-308	8434 2136 34
	90	#5	RL14-90MM	8434 2136 37
3-5/8"		#6	RL14-310	8434 2136 38
3-11/16"		#6	RL14-311	8434 2136 39
3-3/4"	95	#6	RL14-312/95MM	8434 2020 42
3-7/8"		#7	RL14-314	8434 2020 45
	100	#7	RL14-100MM	8434 2021 14
4-1/16"		#8	RL14-401	8434 2021 26
4-1/8"		#8	RL14-402	8434 2136 46
	105	#8	RL14-105MM	8434 2135 98
4-3/16"		#9	RL14-403	8434 2136 47
4-1/4"		#9	RL14-404	8434 2020 84
	110	#9	RL14-110MM	8434 2136 01
4-1/2"		#10	RL14-408	8434 2136 49
	115	#10	RL14-115MM	8434 2136 04
4-5/8"		#10	RL14-410	8434 2136 55
	120	#10	RL14-120MM	8434 2136 07
5"		#11	RL14-500	8434 2021 41
	130	#11	RL14-130MM	8434 2136 10
5-3/8"		#12	RL14-506	8434 2136 58

RTX-18 and RTX-30 Ratchet link sizes



Use the following link sizes with RTX-18, which has a torque range of 3879 - 25861 Nm (2,861 to 19,074 ft lb).

Nominal Inch	Hexagon A/F Metric	Link Ref.	Model	PTD Ordering No.
2-3/16"	55		RL18-203/55MM	8434 2137 10
2-3/8"	60	#1	RL18-206/60MM	8434 2137 11
2-9/16"	65	#1	RL18-209/65MM	8434 2137 12
2-3/4"	70	#1	RL18-212/70MM	8434 2059 47
2-15/16"	75	#1	RL18-215/75MM	8433 2137 16
3"		#1	RL18-300	8434 2137 13
	77	#2	RL18-77MM	8434 2137 17
3-1/8"		#2	RL18-302	8434 2137 08
	80	#2	RL18-80MM	8434 2137 18
	85	#3	RL18-85MM	8434 2137 21
3-3/8"		#3	RL18-306	8434 2020 85
3-1/2"		#3	RL18-308	8434 2020 87
	90	#3	RL18-90MM	8434 2020 86
3-3/4"	95	#4	RL18-312/95MM	8434 2020 90
3-7/8"		#4	RL18-314	8434 2137 15
	100	#4	RL18-100MM	8434 2020 88
4-1/16"		#5	RL18-401	8434 2020 47
	105	#5	RL18-105MM	8434 2136 88
4-1/4"		#5	RL18-404	8434 2020 48
	110	#5	RL18-110MM	8434 2136 94
	115	#6	RL18-115MM	8434 2136 97
4-5/8"		#6	RL18-410	8434 2020 93
	120	#7	RL18-120MM	8434 2137 00
5"		#7	RL18-500	8434 2021 56
	130	#8	RL18-130MM	8434 2137 03
	135	#8	RL18-135MM	8434 2137 06
5-3/8"		#8	RL18-506	8434 2021 23
	140	#9	RL18-140MM	8434 2020 89
5-5/8"		#9	RL18-510	8434 2021 22
	145	#9	RL18-145MM	8434 2020 94
5-3/4"		#9	RL18-512	8434 2020 96
	150	#10	RL18-150MM	8434 2059 44
5-15/16"		#10	RL18-515	8343 2021 24
6-1/8"	155	#10	RL18-602/155MM	8434 2021 25

Use the following link sizes with RTX-30, which has a torque range of 6467 - 43114 Nm (4,770 to 31,800 ft lb).

Nominal Inch	Hexagon A/F Metric	Link Ref.	Model	PTD Ordering No.
2-9/16"	65	#1	RL30-209/65MM	8434 2137 72
2-15/16"	75	#1	RL30-215/75MM	8433 2137 73
3-1/8"		#1	RL30-302	8434 2137 75
	80	#1	RL30-80MM	8434 2138 14
	85	#1	RL30-85MM	8434 2138 17
3-3/8"		#1	RL30-306	8434 2137 78
3-1/2"		#1	RL30-308	8434 2137 81
	90	#2	RL30-90MM	8434 2138 18
3-3/4"	95	#2	RL30-312/95MM	8434 2137 84
3-7/8"		#2	RL30-314	8434 2137 87
	100	#2	RL30-100MM	8434 2137 33
4-1/16"		#3	RL30-401	8434 2137 88
4-1/8"		#3	RL30-402	8434 2137 89
	105	#3	RL30-105MM	8434 2137 36
4-1/4"		#3	RL30-404	8434 2137 90
	110	#3	RL30-110MM	8434 2137 39
4-1/2"		#4	RL30-408	8434 2021 01
	115	#4	RL30-115MM	8434 2137 42
4-5/8"		#4	RL30-410	8434 2021 00
	120	#5	RL30-120MM	8434 2137 45
5"		#5	RL30-500	8434 2020 99
	130	#6	RL30-130MM	8434 2020 53
	135	#6	RL30-135MM	8434 2137 54
5-3/8"		#6	RL30-506	8434 2020 51
	140	#7	RL30-140MM	8434 2138 21
	145	#7	RL30-145MM	8434 2137 57
5-3/4"		#7	RL30-512	8434 2137 93
	150	#8	RL30-150MM	8434 2137 60
5-15/16"		#8	RL30-515	8434 2137 96
6-1/8"	155	#8	RL30-602/155MM	8434 2020 59
	160	#9	RL30-160MM	8434 2137 66
6 3/8"		#9	RL30-606	8434 2138 05
6 1/2"		#9	RL30-608	8434 2138 08
	170	#10	RL30-170MM	
	175	#10	RL30-175MM	
7 1/16"		#10	RL30-701	8434 2138 11
	180	#11	RL30-180MM	

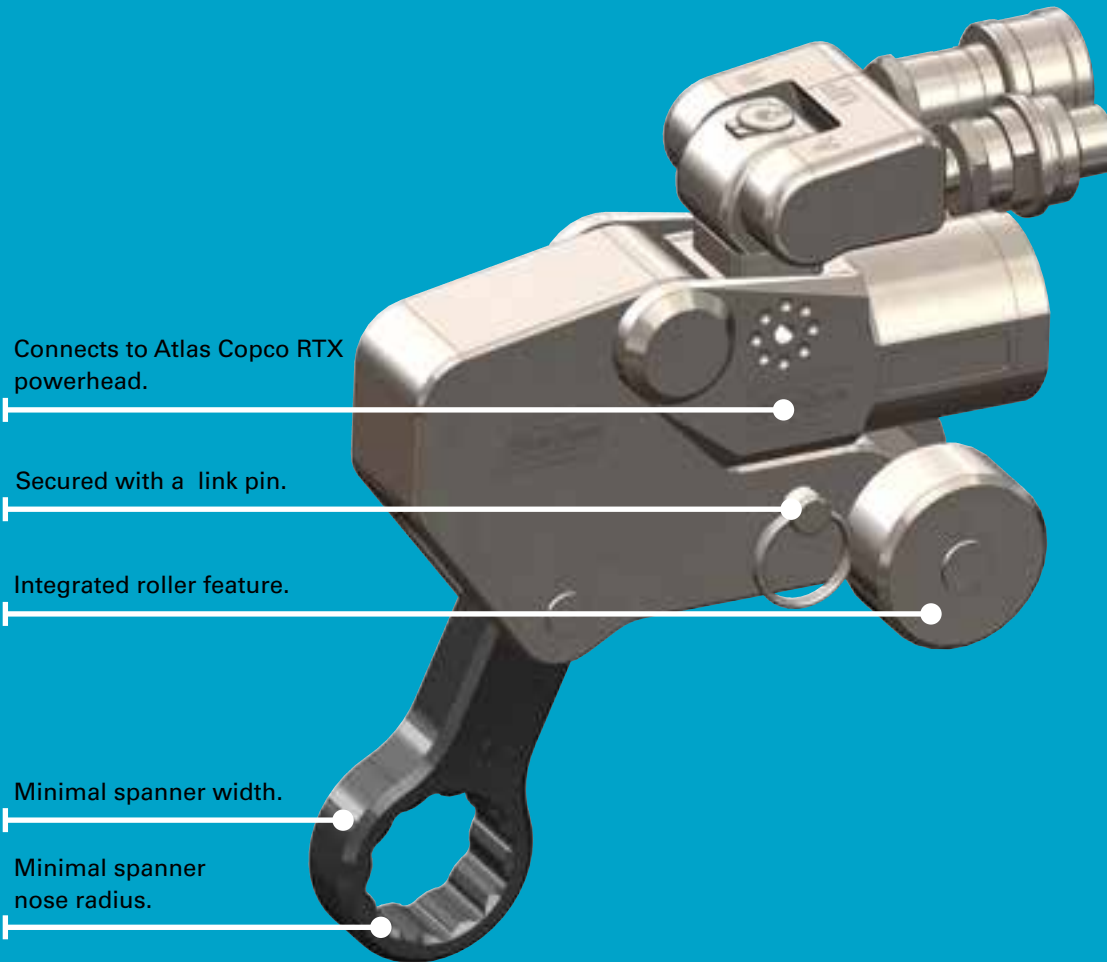
Common nut size

Special link design

EA Tool

Extreme access spanner

The EA Tool is perfect for ultra-tight clearances where our reduced-radius ratchet links for RTX series won't fit. To choose the best one for your application, follow these steps:



Choose your power head

The RTX powers the EA Spanner assembly. Choose your powerhead based on the torque values you will need.



Set up your link

Our link has been designed from the ground up to provide the strength needed while being extremely easy to set up.



Choose your spanner

Extreme Access spanners provide the durability and strength of our traditional ratchet links but can fit where traditional links won't.

EA Spanner ordering numbers



Description	A/F	Ordering No.
RTL-02 LINK		8434 2022 90
RTL-04 LINK		8434 2022 91
RTL-08 LINK		8434 2022 92

EA02 SPANNERS

EA-02-012-C	3/4"	8434 2165 13
EA-02-013-C	13/16"	8434 2165 14
EA-02-014-C	7/8"	8434 2165 15
EA-02-015-C	15/16"	8434 2165 16
EA-02-100-C	1"	8434 2165 18
EA-02-102-C	1-1/8"	8434 2165 20
EA-02-103-C	1-3/16"	8434 2165 21
EA-02-104-C	1-1/4"	8434 2165 22
EA-02-105-C	1-5/16"	8434 2165 24
EA-02-106-C	1-3/8"	8434 2165 25
EA-02-107-C	1-7/16"	8434 2165 27
EA-02-108-C	1-1/2"	8434 2165 28
EA-02-109-C	1-9/16"	8434 2165 29
EA-02-110-C	1-5/8"	8434 2165 31
EA-02-111-C	1-11/16"	8434 2165 33
EA-02-112-C	1-3/4"	8434 2165 34
EA-02-113-C	1-13/16"	8434 2165 35
EA-02-114-C	1-7/8"	8434 2165 36
EA-02-115-C	1-15/16"	8434 2165 37
EA-02-200-C	2"	8434 2165 38
EA-02-201-C	2-1/16"	8434 2165 39
EA-02-202-C	2-1/8"	8434 2165 40
EA-02-203-C	2-3/16"	8434 2165 42
EA-02-204-C	2-1/4"	8434 2165 43
EA-02-205-C	2-5/16"	8434 2165 44
EA-02-206-C	2-3/8"	8434 2165 46
EA-02-207-C	2-7/16"	8434 2165 47
EA-02-208-C	2-1/2"	8434 2165 48
EA-02-209-C	2-9/16"	8434 2165 49
EA-02-210-C	2-5/8"	8434 2165 50
EA-02-211-C	2-11/16"	8434 2165 51
EA-02-212-C	2-3/4"	8434 2165 52
EA-02-213-C	2-13/16"	8434 2165 54
EA-02-214-C	2-7/8"	8434 2165 55
EA-02-215-C	2-15/16"	8434 2165 56
EA-02-24MM-C	24mm	8434 2165 17
EA-02-27MM-C	27mm	8434 2165 19
EA-02-32MM-C	32mm	8434 2165 23
EA-02-36MM-C	36mm	8434 2165 26
EA-02-41MM-C	41mm	8434 2165 30
EA-02-42MM-C	42mm	8434 2165 32
EA-02-50MM-C	50mm	8434 2022 04
EA-02-55MM-C	55mm	8434 2165 41
EA-02-60MM-C	60mm	8434 2165 45
EA-02-70MM-C	70mm	8434 2165 53
EA-02-75MM-C	75mm	8434 2165 57

Description	A/F	Ordering No.
EA04 SPANNERS		
EA-04-111-C	1-11/16"	8434 2165 70
EA-04-112-C	1-3/4"	8434 2165 71
EA-04-113-C	1-13/16"	8434 2165 72
EA-04-114-C	1-7/8"	8434 2165 73
EA-04-115-C	1-15/16"	8434 2165 74
EA-04-200-C	2"	8434 2165 76
EA-04-201-C	2-1/16"	8434 2023 01
EA-04-202-C	2-1/8"	8434 2165 78
EA-04-203-C	2-3/16"	8434 2021 94
EA-04-204-C	2-1/4"	8434 2165 81
EA-04-205-C	2-5/16"	8434 2165 82
EA-04-206-C	2-3/8"	8434 2021 91
EA-04-207-C	2-7/16"	8434 2165 85
EA-04-208-C	2-1/2"	8434 2165 86
EA-04-209-C	2-9/16"	8434 2021 97
EA-04-210-C	2-5/8"	8434 2165 88
EA-04-211-C	2-11/16"	8434 2165 89
EA-04-212-C	2-3/4"	8434 2021 93
EA-04-213-C	2-13/16"	8434 2165 92
EA-04-214-C	2-7/8"	8434 2165 93
EA-04-215-C	2-15/16"	8434 2021 96
EA-04-300-C	3"	8434 2165 95
EA-04-302-C	3-1/8"	8434 2023 02
EA-04-50MM-C	50mm	8434 2165 75
EA-04-51MM-C	51mm	8434 2165 77
EA-04-55MM-C	55mm	8434 2165 79
EA-04-56MM-C	56mm	8434 2165 80
EA-04-60MM-C	60mm	8434 2165 83
EA-04-61MM-C	61mm	8434 2165 84
EA-04-66MM-C	66mm	8434 2165 87
EA-04-70MM-C	70mm	8434 2165 90
EA-04-71MM-C	71mm	8434 2165 91
EA-04-75MM-C	75mm	8434 2165 94
EA-04-80MM-C	80mm	8434 2165 96

Description	A/F	Ordering No.
EA08 SPANNERS		
EA-08-100MM-C	100mm	8434 2166 46
EA-08-107-C	1-7/16"	8434 2165 97
EA-08-108-C	1-1/2"	8434 2165 98
EA-08-109-C	1-9/16"	8434 2165 99
EA-08-110-C	1-5/8"	8434 2166 01
EA-08-111-C	1-11/16"	8434 2166 03
EA-08-112-C	1-3/4"	8434 2166 04
EA-08-113-C	1-13/16"	8434 2166 05
EA-08-114-C	1-7/8"	8434 2166 06
EA-08-115-C	1-15/16"	8434 2166 07
EA-08-200-C	2"	8434 2166 09
EA-08-201-C	2-1/16"	8434 2166 11
EA-08-202-C	2-1/8"	8434 2166 12
EA-08-203-C	2-3/16"	8434 2166 14
EA-08-204-C	2-1/4"	8434 2166 16
EA-08-205-C	2-5/16"	8434 2166 17
EA-08-206-C	2-3/8"	8434 2166 19
EA-08-207-C	2-7/16"	8434 2166 21
EA-08-208-C	2-1/2"	8434 2166 22
EA-08-209-C	2-9/16"	8434 2166 23
EA-08-210-C	2-5/8"	8434 2166 25
EA-08-211-C	2-11/16"	8434 2166 26
EA-08-212-C	2-3/4"	8434 2166 27
EA-08-213-C	2-13/16"	8434 2166 30
EA-08-214-C	2-7/8"	8434 2166 31
EA-08-215-C	2-15/16"	8434 2166 32
EA-08-300-C	3"	8434 2166 34
EA-08-302-C	3-1/8"	8434 2166 35
EA-08-304-C	3-1/4"	8434 2022 03
EA-08-305-C	3-5/16"	8434 2166 37
EA-08-306-C	3-3/8"	8434 2166 39
EA-08-308-C	3-1/2"	8434 2166 40
EA-08-309-C	3-9/16"	8434 2166 42
EA-08-314-C	3-7/8"	8434 2166 44
EA-08-400-C	4"	8434 2166 45
EA-08-404-C	4-1/4"	8434 2166 47
EA-08-41MM-C	41mm	8434 2166 00
EA-08-42MM-C	42mm	8434 2166 02
EA-08-50MM-C	50mm	8434 2166 08
EA-08-51MM-C	51mm	8434 2166 10
EA-08-55MM-C	55mm	8434 2166 13
EA-08-56MM-C	56mm	8434 2166 15
EA-08-60MM-C	60mm	8434 2166 18
EA-08-61MM-C	61mm	8434 2166 20
EA-08-66MM-C	66mm	8434 2166 24
EA-08-70MM-C	70mm	8434 2166 28
EA-08-71MM-C	71mm	8434 2166 29
EA-08-75MM-C	75mm	8434 2166 33
EA-08-80MM-C	80mm	8434 2166 36
EA-08-85MM-C	85mm	8434 2166 38
EA-08-90MM-C	90mm	8434 2166 41
EA-08-95MM-C	95mm	8434 2166 43

Backup wrenches



T-Screw Operation

Easily remove by twisting the top screw. No hammers needed

High strength axis

Adjustable reaction, heat treated for durability

Thin profile

Adjusts to any application



12 Point

The backup wrench fits standard and 12 point nuts.

Alloy steel construction

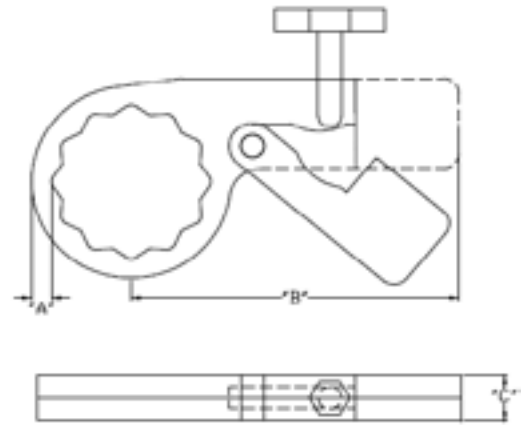
High quality material avoids tool failure

Backup wrenches drastically improve safety by eliminating the need for hammer wrenches and spanners.

They work in conjunction with any of our bolting tools and safely prevents the nut from rotating.

Imperial

Model	A/F Size	A	B	C	Ordering No.
BK-011	11/16IN	0.25"	5.25"	0.75"	8434 2128 89
BK-012	3/4"	0.25"	5.25"	0.75"	8434 2128 97
BK-013	13/16IN	0.25"	5.25"	0.75"	8434 2128 88
BK-015	15/16"	0.25"	5.25"	0.75"	8434 2128 98
BK-100	1"	0.25"	5.25"	0.75"	8434 2056 33
BK-102	1 1/8"	0.25"	5.25"	0.75"	8434 2129 55
BK-104=32MM	1 1/4"- 32mm	0.25"	5.25"	0.75"	8434 2128 90
BK-105	1 5/16"	0.25"	5.25"	0.75"	8434 2056 31
BK-108	1 1/2"	0.25"	5.25"	0.75"	8434 2128 96
BK-111	1 11/16"	0.25"	5.25"	0.75"	8434 2129 57
BK-112	1 3/4"	0.25"	5.25"	0.75"	8434 2129 02
BK-113	1 13/16"	0.25"	5.25"	0.75"	8434 2056 30
BK-114	1 7/8"	0.25"	5.25"	0.75"	8434 2129 05
BK-200	2"	0.25"	5.25"	0.75"	8434 2056 32
BK-201	2 1/16"	0.25"	5.25"	0.75"	8434 2129 11
BK-202	2 1/8"	0.25"	5.25"	0.75"	8434 2129 14
BK-203	2 3/16"	0.25"	5.25"	0.75"	8434 2056 34
BK-204	2 1/4"	0.25"	5.25"	0.75"	8434 2129 17
BK-205	2 5/16"	0.25"	5.25"	0.75"	8434 2128 70
BK-206	2 3/8"	0.25"	5.25"	0.75"	8434 2056 36
BK-207	2 7/16"	0.25"	5.25"	0.75"	8434 2128 95
BK-208	2 1/2"	0.25"	5.25"	0.75"	8434 2128 71
BK-209	2 9/16"	0.33"	7"	1"	8434 2056 38
BK-210	2 5/8"	0.33"	7"	1"	8434 2056 40
BK-211	2 11/16"	0.33"	7"	1"	8434 2128 73
BK-212	2 3/4"	0.33"	7"	1"	8434 2056 42
BK-213	2 13/16"	0.33"	7"	1"	8434 2129 58
BK-214	2 7/8"	0.33"	7"	1"	8434 2056 45
BK-215	2 15/16"	0.33"	7"	1"	8434 2056 44
BK-300	3"	0.33"	7"	1"	8434 2129 23
BK-301	3 1/16"	0.33"	7"	1"	8434 2128 74
BK-302	3 1/8"	0.33"	7"	1"	8434 2056 46
BK-302=80MM	3 1/8"	0.33"	7"	1"	8434 2056 53
BK-304	3 1/4"	0.33"	7"	1"	8434 2128 76
BK-306	3 3/8"	0.33"	7"	1"	8434 2128 77
BK-308=90MM	3 1/2"	0.5"	10.5"	1.5"	8434 2056 48
BK-310	3 5/8"	0.5"	10.5"	1.5"	8434 2128 67
BK-312	3 3/4"	0.5"	10.5"	1.5"	8434 2129 29
BK-314	3 7/8"	0.5"	10.5"	1.5"	8434 2056 50
BK-400	4"	0.5"	10.5"	1.5"	8434 2128 68
BK-402	4 1/8"	0.5"	10.5"	1.5"	8434 2129 35
BK-404	4 1/4"	0.5"	10.5"	1.5"	8434 2129 38
BK-410	4 5/8"	0.5"	10.5"	1.5"	8434 2056 52
BK-500	5"	0.66"	14"	2"	8434 2056 54
BK-506	5 3/8"	0.66"	14"	2"	8434 2056 56
BK-512	5 3/4"	0.66"	14"	2"	8434 2056 67



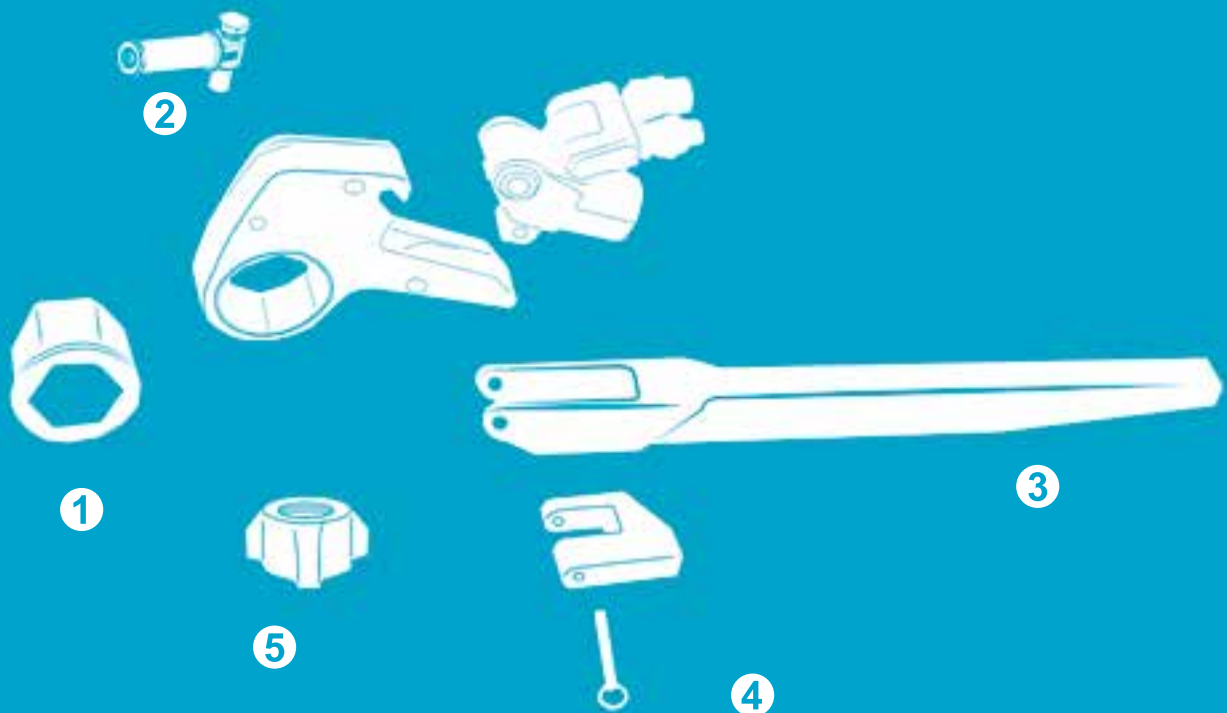
T Handle

T Handle	Ordering No.
BK-075-TH-01	8434 2056 57
BK-100-TH-01	8434 2056 59
BK-108-TH-01	8434 2056 61
BK-200-TH-01	8434 2056 63

Metric

Model	A/F Size	A	B	C	Ordering No.
BK-24MM	24mm	6.4mm	133mm	19mm	8434 2056 23
BK-30MM	30mm	6.4mm	133mm	19mm	8434 2129 26
BK-34MM	34mm	6.4mm	133mm	19mm	8434 2128 91
BK-36MM	36mm	6.4mm	133mm	19mm	8434 2129 32
BK-43mm	43mm	6.4mm	133mm	19mm	8434 2129 33
BK-55MM	55mm	6.4mm	133mm	19mm	8434 2128 92
BK-70MM	70mm	8.5mm	178mm	25mm	8434 2129 41
BK-75MM	75mm	8.5mm	178mm	25mm	8434 2056 55
BK-85MM	85mm	8.5mm	178mm	25mm	8434 2129 44
BK-100MM	100mm	12.7mm	267mm	38mm	8434 2056 24
BK-105MM	105mm	12.7mm	267mm	38mm	8434 2128 93
BK-110MM	110mm	12.7mm	267mm	38mm	8434 2128 99
BK-120MM	120mm	16.9mm	356mm	50mm	8434 2129 08

Low profile hydraulic torque wrench accessories



- ❶ Insert hex reducer
- ❷ Safety handle for RTX
- ❸ Alco arm
- ❹ Inside reaction arm
- ❺ Safety nut

RTX Tool accessories

1 Insert hex reducer



Starting Size	Reduces To	Ordering No.
2 3/4	1 5/8	4222 2134 17
2 3/4	1 13/16	4222 2134 20
2 3/4	1 7/8	4222 2134 23
46mm	36mm	4222 2134 26
50mm	41mm	4222 2134 29
50mm	46mm	4222 2134 32
1 13/16	30mm	4222 2119 58
1 13/16	36mm	4222 2119 62
1 13/16	42mm	4222 2119 66
2	1 3/4	4222 2137 74
2	1 13/16	4222 2137 77
2 1/4	1 5/16	4222 2137 80
2 1/4	1 1/2	4222 2137 83
2 1/4	1 7/8	4222 2137 86
2 1/2	1 7/8	4222 2119 70
2 3/4	2 1/2	4222 2137 89
2 3/4	2 1/16	4222 2137 92
2 3/4	2 1/8	4222 2137 95
2 3/4	2 3/16	4222 2137 98
2 3/4	2 1/4	4222 2138 01
2 3/4	2 3/8	4222 2138 04
2 15/16	2 9/16	4222 2138 07
3 1/8	1	4222 2138 10
3 1/8	1 1/2	4222 2138 13

2 Support/safety handle



Model	Ordering No.
All RTX Tools	8434 2170 31

Starting Size	Reduces To	Ordering No.
3 1/8	1 5/8	4222 2138 16
3 1/8	1 3/4	4222 2138 19
3 1/8	2	4222 2138 22
3 1/8	2 3/8	4222 2138 25
50mm	19mm	4222 2138 28
50mm	32mm	4222 2138 31
50mm	41mm	4222 2138 34
50mm	42mm	4222 2138 37
50mm	46mm	4222 2138 40
55mm	50mm	4222 2138 43
65mm	55mm	4222 2119 74
70mm	60mm	4222 2119 78
70mm	65mm	4222 2119 82
100mm	80mm	4222 2140 62
2 3/16	2	4222 2140 65
3 1/8	2 15/16	4222 2140 68
3 1/8	50mm	4222 2140 71
3 1/8	55mm	4222 2140 74
3 1/8	60mm	4222 2140 77
3 7/8	3 1/2	4222 2140 80
60mm	50mm	4222 2122 07
60mm	55mm	4222 2122 11
70mm	46mm	4222 2140 83

3 Alco arm



Model	Ordering No.
RTX02-ALC	8434 2057 58
RTX04-ALC	8434 2057 60
RTX08-ALC	8434 2057 62
RTX14-ALC	8434 2057 64
RTX18-ALC	8434 2057 66
RTX30-ALC	8434 2057 67

Custom sizes available on request

4 Onside reaction arm



Model	Ordering No.
RTX02-14	4222 2107 14
RTX04-14	4222 2109 27
RTX08-14	4222 2110 44
RTX14-14	4222 2141 22
RTX18-14	4222 2141 23
RTX30-14	4222 2144 43

5 Safety nut



Stud Size	Ordering No.
2"	8434 2129 19
2-1/2"	8434 2129 18
2-1/4"	8434 2129 16
1-7/8"	8434 2129 15
3"	8434 2129 13
2-3/4"	8434 2129 12
1-3/4"	8434 2129 10
1-5/8"	8434 2129 09
1-1/2"	8434 2129 07
1-3/8"	8434 2129 06
1-1/4"	8434 2129 04
1-1/8"	8434 2129 03
1"	8434 2129 01
7/8"	8434 2129 00

Hydraulic torque wrench pumps



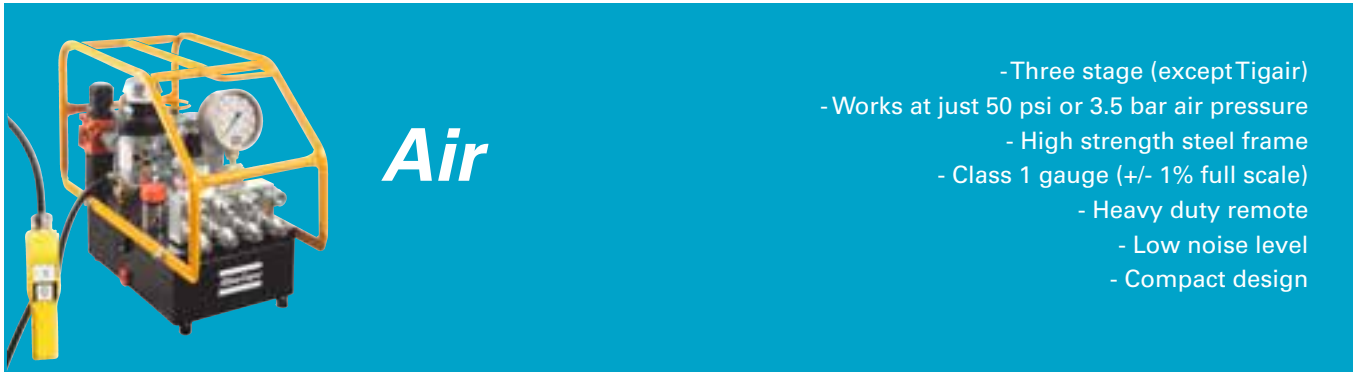
Electric

- Three stage
- Effective oil cooling system
- High strength steel frame
- Oil filter for enhanced life
- Class 1 gauge (+/- 1% full scale)
- Auto shutoff after 1 minute idling
- High temperature protection

		Panther 025	Panther 55	Lynx	Panther 150	
Ordering Numbers	110V w/full frame	8434 2040 33	110V 8434 2040 35	110V 8434 2059 61	110V 8434 2040 39	220V 8434 2040 41
	220V w/full frame	8434 2059 54	220V 8434 2040 37	220V 8434 2059 59		
Dimensions (LxWxH)	inches	14.1 x 12.2 x 17.3	17.3 x 12.6 x 16.5	9.5 x 17.14 x 18.12	17.3 x 13 x 17.3	17.3 x 13 x 17.3
	mm	360 x 310 x 440	460 x 320 x 420	541.3 x 435.3 x 460.2	440 x 330 x 440	440 x 330 x 440
Weight (w/o / with oil)	lb	42.6 / 46.6	61.6 / 70.4	75	64.9 / 73.7	64.9 / 73.7
	kg	19.4 / 21.1	28 / 32	34	29.5 / 33.5	29.5 / 33.5
Oil Capacity	Gallons	0.45	1.05	2.5	1.5	1.5
	Liters	1.7	4.0	9.5	4.0	4.0
Intercooler System		No	Yes	Optional Accessory	Yes	Yes
Oil Flow@ 1250psi/86bar	cu.in	195 cu. in/min	391 cu. in/min	-	463 cu. in/min	517.6 cu. in/min
	l/min	3.2 l/min	6.4 l/min	-	7.6 l/min	8.5 l/min
Oil Flow@ 3600psi/250bar		54 cu. in/min	110 cu. in/min	-	183 cu. in/min	207.0 cu. in/min
		0.9 l/min	1.8 l/min	-	3.0 l/min	4.4 l/min
Oil Flow@ 10,000psi/700bar		21 cu. in/min	42 cu. in/min	56 cu. in/min	61 cu. in/min	79.1 cu. in/min
		0.35 l/min	0.7 l/min	0.9 l/min	1.0 l/min	1.3 l/min
Ports		1	4	1	4	
Recommended Tools	RTP5	•	•	•		
	RT1	•	•	•		
	RT3	•	•	•		
	RT5		•	•		
	RT8		•	•		•
	RT10		•	•		•
	RT20		•	•		•
	RT25		•	•		•
	RT50		•	•		•
	RTX2	•	•	•		•
	RTX4		•	•		•
	RTX8		•	•		•
	RTX14		•	•		•
	RTX18		•	•		•
RTX30		•	•		•	

* 4-port manifold is available as an optional accessory. See the pump accessory page for order.

Hoses and oil not included with the pump. Be sure to order corresponding amount of oil for your pump and select hose length for your application.



- Three stage (except Tigair)
- Works at just 50 psi or 3.5 bar air pressure
- High strength steel frame
- Class 1 gauge (+/- 1% full scale)
- Heavy duty remote
- Low noise level
- Compact design

		Panther A110	Panther A380	TigAir
Ordering Numbers		Full Frame 8434 2040 17	8434 2040 22 (ATEX) 8434 2040 23	8434 2059 62 (ATEX)
Dimensions (LxWxH)	inches	15.7 x 13 x 18.5	19.6 x 10.6 x 15.7	18 x 10.5 x 18.5
	mm	400 x 330 x 470	500 x 270 x 400	457.2 x 266.7 x 439.9
Weight (w/o / with oil)	lb	47.3 / 55.2	60.9 / 68.8	75
	kg	21.5 / 25.1	27.7 / 31.3	34
Oil Capacity	Gallons	0.95	0.95	2.5
	Liters	3.6	3.6	9.5
Oil Flow@ 675bar	cu.in	275 cu.in/min	456.75 cu. in/min	-
	l/min	4.5 l/min	7.5 l/min	-
Oil Flow@ 75-220bar		67 cu in./min	152 cu. in/min	-
		1.1 l/min	2.5 l/min	-
Oil Flow@ Up to 700bar		24 cu. in/min	54.8 cu.in/min	72 cu. in/min
		0.4 l/min	0.9 l/min	1.1 l/min
Ports		1	4	1
Recommended Tools	RTP5	•	•	•
	RT1	•	•	•
	RT3	•	•	•
	RT5		•	•
	RT8		•	•
	RT10		•	•
	RT20		•	•
	RT25		•	•
	RT50		•	•
	RTX2	•	•	•
	RTX4		•	•
	RTX8		•	•
	RTX14		•	•
	RTX18		•	•
RTX30		•	•	

* 4-port manifold is available as an optional accessory. See the pump accessory page for order.

Maintenance kits are available for every pump model. Consult your local Atlas Copco bolting representative for ordering information.

Accessories for hydraulic torque wrench pumps



10kpsi/700 bar hoses

Model	Description	Ordering No.
090172	4.5M / 15 ft	8434 2050 08
090172-7	7M / 22.9 ft	8434 2123 95
090172-10	10M / 32 ft	8434 2123 74
090172-15	15M / 49.2 ft	8434 2050 10
090172-20	20M / 65.6 ft	8434 2123 83
090172-30	30M / 98.4 ft	8434 2123 86
090172	4.5 mtr Braided	8434 2050 09
090172	7 mtr Braided	8434 2050 13



Hydraulic oil

Model	Description	Ordering No.
Tellus 46	5L / 1.32G Container	8434 2040 45



Calibrated gauges

Model	Description	Ordering No.
090233-2	Gauge 70Mpa Back Mounted	8434 2124 07
090233-1	Gauge 700bar-10kpsi	8434 2051 59



4-port manifold

Model	Description	Ordering No.
4-port	4 port manifold for Tigair	8434211573
4-port	4 port manifold for Lynx	8434211573

Couplers and fittings



Description	Ordering No.	Design/Shape	Where Used	Alternate Description
1/8" Coupler Female	8434 2050 06		RT-0.5, RT-01, RTX-02	Coupling, female screw-on X 1/8"NPT (M)
1/4" Female Coupler	8434 2123 41		RT-03, RT-05, RT08, RT-10, RT-20, RT-25, RT-50, RTX-04, RTX-08, RTX-14, RTX-18, RTX-30, PUMPS, HOSES.	Coupling, female screw-on X 1/4"NPT (M)
3/8" Female Coupler	8434 2123 44		General	Coupling, female screw-on X 3/8"NPT (M)
1/8" Male Coupler	8434 2123 65		RT-0.5, RT-01, RTX-02	Coupling, male screw-on X 1/8"NPT (M)
QCCOUPERS Quick Connect Coupler set	8434 2131 36		Can be used on all wrenches/pumps/hoses as alternative to standard screw-on couplings. Adaptors are also required (1/4 npt or 1/8 npt as appropriate)	Coupler set, quick connect male & female
Nipple Male-Male 1/4INx1/4IN	8434 2050 00		Used with quick coupler set 8438 2131 36 & on pumps/ hoses with 8434 2123 38. Also can be used with 8434 2123 38 as an alternative to 8434 2123 68.	Adaptor, 1/4 npt (M) X 1/4 NPT (M)
Nipple Male 1/4INx-1/8IN	8434 2050 02		Used with quick coupler set 8438 2131 36 & can be used with 8434 2123 38 as alternative to 8434 2123 65	Adaptor, 1/4 npt (M) X 1/8 NPT (M)
Nipple NPT 1/4INx1/4IN	8434 2050 04		Used to connect in-line gauges/ accessories	T-piece, 1/4 npt (M) X 1/4 NPT (M) X 1/4 NPT (F)
1/4" Male Female Nipple	8434 2123 38		Used on pumps/ hoses with 8434 2050 00. Can be used as alternative to 8434 2123 68 & 8434 2123 65 when used with appropriate adaptor	Coupler, male screw-on X 1/4 NPT (F)
M 1/4" Male Nipple	8434 2123 68		RT-03, RT-05, RT08, RT-10, RT-20, RT-25, RT-50, RTX-04, RTX-08, RTX-14, RTX-18, RTX-30.	Coupling, male screw-on X 1/4"NPT (M)

RT Advance

*Controlled, precise
and accurate hydraulic
wrench system*



Wifi
Remote access system support

4 USB ports (for bar code reader, label printer etc.)
1 VGA
1 LAN
Speaker, Mic
1 RS232 port

Highly effective radiator cooling system
for continuous operation

Class 1 gauge
Pressure sensor with 0.25% full scale
resolution
Proven solenoid valves
Reliable couplers.
Pump options (P55 / P150)



Full featured remote control with
output signals for Ok, NOK, low torque,
high torque, untightening

Twin-line hose with
couplers cables for sensor
and encoder. Special high
resistant wrap.

Detachable, reversible angle encoder
Sensor controlled auto cycle
Integrated retainer for square drive tools



Atlas Copco RT Advance hydraulic wrench system

For years, Atlas Copco has been known for providing electrical transducerized tightening solutions with technology that keeps you ahead of the game and helps you and your customers to achieve sustainable productive growth.

RT advance is the beginning of our developments towards achieving similar standards with hydraulics.

Features

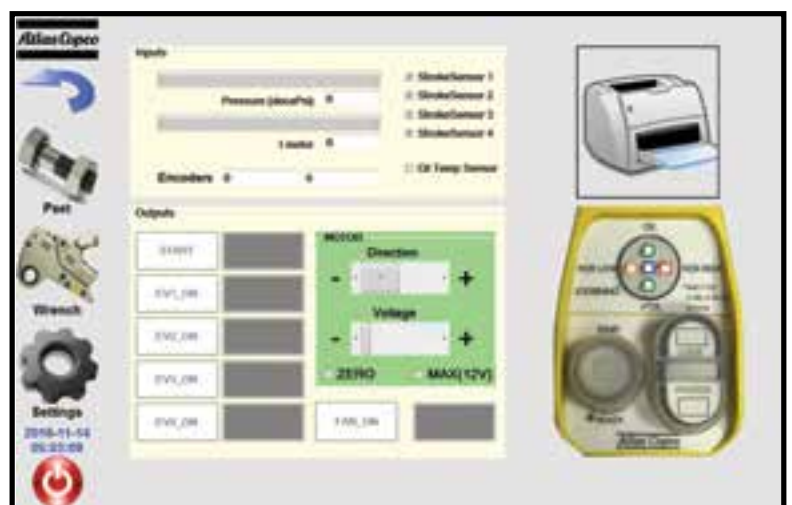
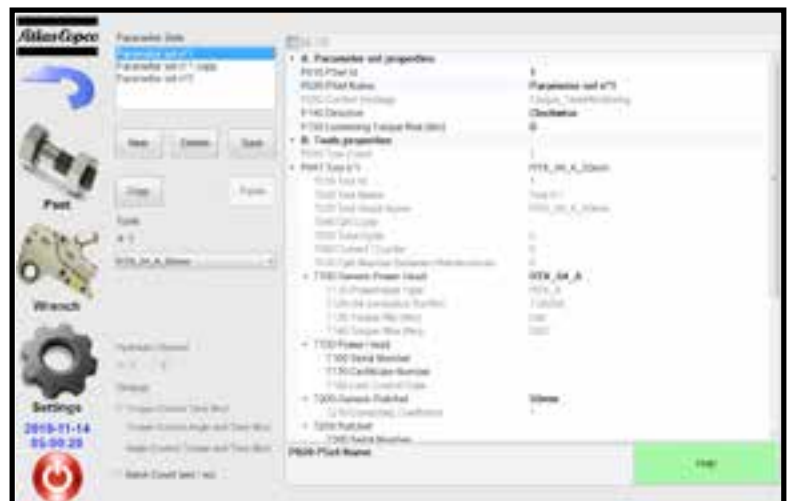
- Multifunction controller
- HD 10" Colour touch Screen
- 16GB inbuilt memory
- 4 identifiers for traceability
- User friendly interface
- Torque, Angle and time based strategies
- Open protocol /ToolsNet
- VDE / VDI 2862 Part 2 compliant

Software

User friendly software programming enables operator to design parameter sets to be used on different applications and scenarios.

Following strategies arrest most of material, machine and human made errors and provide traceability to improve.

- Torque control and time monitoring
- Torque control and angle monitoring with time
- Angle control and torque monitoring with time



Tool options

RTA tools use the same platform as our standard RT square drive and RTX direct fit tools but with additional sensors and provisions for reversible encoder. Angle encoder option empowers tool to report even a small deviation in angle (2048 readable positions over 360° rotation) and report errors.



Direct fit (AA)



Square drive (AA)

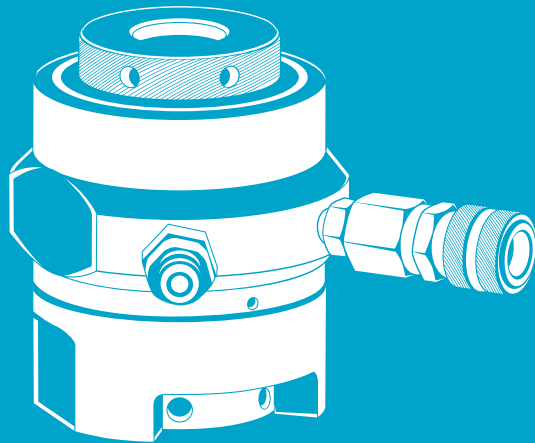


Direct fit (A)

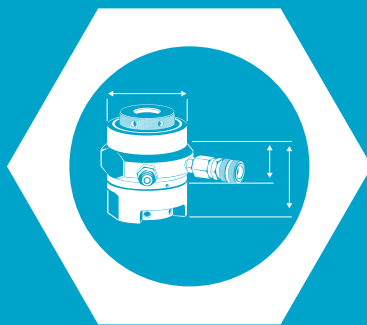
RTAdvance tools are designed to meet industry requirements of traceability and data recording. Please contact local sales for more details.

RTA Product Range	Ft.lb		Nm	
	Min	Max	Min	Max
Square Drive Tools				
RT1 A (w/o encoder) RT1 AA (with encoder)	195	1390	264	1885
RT3 A (w/o encoder) RT3 AA (with encoder)	453	3230	614	4379
RT5 A (w/o encoder) RT5 AA (with encoder)	783	5590	1061	7579
RT8 A (w/o encoder) RT8 AA (with encoder)	1120	8000	1519	10847
Direct fit tools				
RTX2 power head	257	1710	348	2318
RTX4 power head	578	3855	784	5227
RTX8 power head	1223	8151	1658	11051
Ratchet Links				
RL02 A (w/o encoder) RL04 A (w/o encoder) RL08 A (w/o encoder)	Check for standard range of available ratchets.			
RL02 AA (with encoder) RL04 AA (with encoder) RL08 AA (with encoder)				
Pumps (220 / 110 V)				
RTA 150- Opt. 1 (Torque, Time) 4 port RTA 150- Opt. 2 (Torque, Angle, Time) 1 port RTA 150- Opt. 3 (Torque, Angle, Time) 2 port	Pumps complete with controller, pressure sensor, DC drive, full frame and protection cover			
Hoses				
Hoses 4,5m for RTA Hoses 10m for RTA Hoses 15m for RTA Hoses 20m for RTA	With cables for stroke sensor, encoder and protective cover			

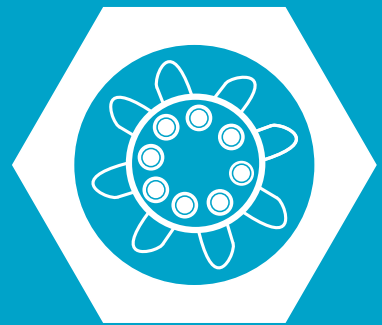
Hydraulic bolt tensioning systems



*Reaction free
operation*



*Custom
engineering*



*Simultaneous
tensioning*



Tentec CTST

Topside hydraulic bolt tensioner

Thread insert

Contains a matching female thread to the bolt being tensioned.

Reliable seals

Proven seal technology ensures many 1000's of tool pressure cycles.

Piston stroke

15mm piston/ram stroke capability on models CTST 02 - CTST 06.

Versatile

Detachable and Interchangeable bridge component.



Tentec CTST range of topside bolt tensioning tools comprises 6 base tools covering bolt sizes from 3/4" to 4" (M20 to M100). The tools are designed to fit on to most ANSI B16.5, ANSI B16.47 Series 1, MSS-SP44, API-6A and API-17D flanges. Each base tool can be converted for use with different bolt sizes using a conversion kit.



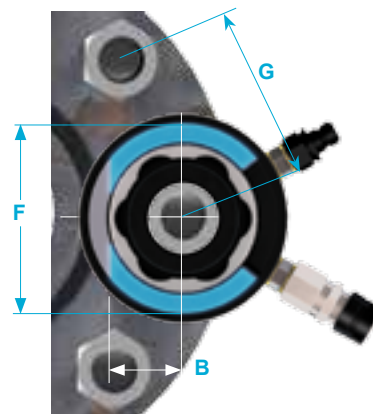
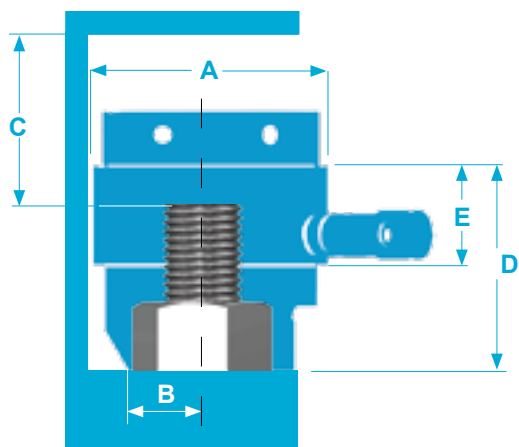
Hydraulic connections

User configurable quick release connections.

Nut Rotating Socket (NRS)

Fits around the bolted joint nut to allow for easy rotation.

CTST Bolt tensioners

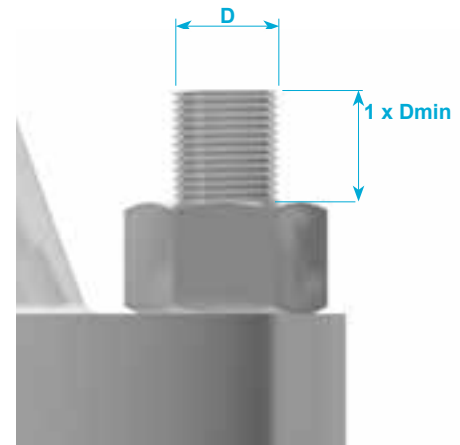


Tool	Item Imperial	Thread Size		Item Metric	Bolt Load		Ram Area		Stroke Weight		A	B	C	D	E	F	G
		Inch	mm		Kn	Ton	In ²	mm ²	mm	kg							
No 1	HTT.9551.034	3/4"-10UNC	M20x2.5	HTT.9551.020	227.81	22.86	2.354	1518.76	10	2.0	73.50	21.0	67.00	71.0	45	62	49.5
	HTT.9551.078	7/8"-9UNC	M22x2.5	HTT.9551.022						1.9		24.0	64.00	71.0	63	53	
	HTT.9551.100	1"-8UN	M24x3	HTT.9551.024						1.9		24.0	69.00	78.0	69	58.5	
	HTT.9551.118	1 1/8"-8UN	M27x3	HTT.9551.027						1.9		24.0	66.00	79.0	74	63.5	
No 2	HTT.9552.118	1 1/8"-8UN	M27x3	HTT.9552.027	443.00	44.46	4.578	2953.69	15	4.8	102	27.0	85.50	92.0	54	82	67.5
			M30x3.5	HTT.9552.030						4.9		32.0	85.00	93.0	85	69	
	HTT.9552.114	1 1/4"-8UN	M33x3.5	HTT.9552.033						4.6		31.0	84.00	95.0	85	72	
	HTT.9552.138	1 3/8"-8UN	M36x4	HTT.9552.036						4.6		34.0	84.00	98.0	91	78	
	HTT.9552.112	1 1/2"-8UN	M39x4	HTT.9552.039						4.7		36.5	82.00	100.0	90	80	
No 3	HTT.9553.112	1 1/2"-8UN	M39x4	HTT.9553.039	810.85	81.38	8.379	5405.70	15	9.5	133	36.5	98.00	109.0	56	97	83.5
	HTT.9553.158	1 5/8"-8UN	M42x4.5	HTT.9553.042						9.0		37.5	93.00	107.0	110	92.5	
	HTT.9553.134	1 3/4"-8UN	M45x4.5	HTT.9553.045						9.3		40.5	98.50	116.0	115	98	
	HTT.9553.178	1 7/8"-8UN	M48x5	HTT.9553.048						9.0		42.5	95.00	116.0	116	101	
	HTT.9553.200	2"-8UN	M52x5	HTT.9553.052						8.6		50.0	93.50	117.0	120	106	
No 4	HTT.9554.178	1 7/8"-8UN	M48x5	HTT.9554.048	1273.16	127.78	13.159	8489.96	15	16.1	163	43.5	106.00	118.0	57	130	108
	HTT.9554.200	2"-8UN	M52x5	HTT.9554.052						15.7		46.0	102.50	117.0	124	108	
	HTT.9554.214	2 1/4"-8UN	M56x5.5	HTT.9554.056						15.8		55.0	103.00	123.0	134	118.5	
			M60x5.5	HTT.9554.060						18.3		54.0	121.50	145.5	150	127	
	HTT.9554.212	2 1/2"-8UN	M64x6	HTT.9554.064						15.1		58.0	102.50	130.0	147	130.5	
No 5	HTT.9555.212	2 1/2"-8UN	M64x6	HTT.9555.064	1828.99	183.56	18.905	12196.45	15	22.7	193	64.0	107.50	133.0	60	147	130.5
			M68x6	HTT.9555.068						23.6		80.0	111.00	141.0	160	138	
	HTT.9555.234	2 3/4"-8UN	M72x6	HTT.9555.072						24.7		72.0	115.00	147.0	161	143	
	HTT.9555.300	3"-8UN	M76x6	HTT.9555.076						22.2		77.0	108.00	146.0	170	153	
No 6	HTT.9556.300	3"-8UN	M76x6	HTT.9556.076	2643.43	265.30	27.323	17627.48	15	38.5	233	77.0	120.00	153.0	64	170	153
			M80x6	HTT.9556.080						38.3		78.0	117.00	154.0	178	155.5	
	HTT.9556.314	3 1/4"-8UN	M85x6	HTT.9556.085						38.1		78.0	114.00	154.0	182	165.5	
	HTT.9556.312	3 1/2"-8UN	M90x6	HTT.9556.090						37.0		86.0	114.00	160.0	191	174.5	
	HTT.9556.334	3 3/4"-8UN	M95x6	HTT.9556.095						37.0		99.0	116.00	168.0	210	189.5	
	HTT.9556.400	4"-8UN	M100x6	HTT.9556.100						36.4		105.0	116.00	174.0	220	200	

CTST Ordering numbers

Bolt protrusion

CTST-Series tensioners need a minimum of 1 x bolt diameter protruding above the hexagon or round nut.



Metric

Item	Description	Ordering No.
HTT.9551.020	M20 CTST Tensioner	8434 2200 71
HTT.9551.022	M22 CTST Tensioner	8434 2200 73
HTT.9551.024	M24 CTST Tensioner	8434 2200 75
HTT.9551.027	M27 CTST Tensioner	8434 2200 77
HTT.9552.027	M27 CTST Tensioner	8434 2200 80
HTT.9552.030	M30 CTST Tensioner	8434 2200 82
HTT.9552.033	M33 CTST Tensioner	8434 2200 83
HTT.9552.036	M36 CTST Tensioner	8434 2200 85
HTT.9552.039	M39 CTST Tensioner	8434 2200 87
HTT.9553.039	M39 CTST Tensioner	8434 2200 94
HTT.9553.042	M42 CTST Tensioner	8434 2200 95
HTT.9553.045	M45 CTST Tensioner	8434 2200 96
HTT.9553.048	M48 CTST Tensioner	8434 2200 97
HTT.9553.052	M52 CTST Tensioner	8434 2200 98
HTT.9554.048	M48 CTST Tensioner	8434 2201 03
HTT.9554.052	M52 CTST Tensioner	8434 2201 05
HTT.9554.056	M56 CTST Tensioner	8434 2201 06
HTT.9554.060	M60 CTST Tensioner	8434 2201 07
HTT.9554.064	M64 CTST Tensioner	8434 2201 08
HTT.9555.064	M64 CTST Tensioner	8434 2201 13
HTT.9555.068	M68 CTST Tensioner	8434 2201 14
HTT.9555.072	M72 CTST Tensioner	8434 2201 15
HTT.9555.076	M76 CTST Tensioner	8434 2201 16
HTT.9556.076	M76 CTST Tensioner	8434 2201 30
HTT.9556.080	M80 CTST Tensioner	8434 2201 31
HTT.9556.085	M85 CTST Tensioner	8434 2201 32
HTT.9556.090	M90 CTST Tensioner	8434 2201 33
HTT.9556.095	M95 CTST Tensioner	8434 2201 34
HTT.9556.100	M100 CTST Tensioner	8434 2201 35

Imperial

Item	Description	Ordering No.
HTT.9551.034	3/4" CTST Tensioner	8434 2200 70
HTT.9551.078	7/8" CTST Tensioner	8434 2200 72
HTT.9551.100	1" CTST Tensioner	8434 2200 74
HTT.9551.118	1 1/8" CTST Tensioner	8434 2200 76
HTT.9552.118	1 1/8" CTST Tensioner	8434 2200 79
HTT.9552.114	1 1/4" CTST Tensioner	8434 2200 81
HTT.9552.138	1 3/8" CTST Tensioner	8434 2200 84
HTT.9552.112	1 1/2" CTST Tensioner	8434 2200 86
HTT.9553.112	1 1/2" CTST Tensioner	8434 2200 89
HTT.9553.158	1 5/8" CTST Tensioner	8434 2200 90
HTT.9553.134	1 3/4" CTST Tensioner	8434 2200 91
HTT.9553.178	1 7/8" CTST Tensioner	8434 2200 92
HTT.9553.200	2" CTST Tensioner	8434 2200 93
HTT.9554.178	1 7/8" CTST Tensioner	8434 2201 00
HTT.9554.200	2" CTST Tensioner	8434 2201 01
HTT.9554.214	2 1/4" CTST Tensioner	8434 2201 04
HTT.9554.212	2 1/2" CTST Tensioner	8434 2201 02
HTT.9555.212	2 1/2" CTST Tensioner	8434 2201 10
HTT.9555.234	2 3/4" CTST Tensioner	8434 2201 11
HTT.9555.300	3" CTST Tensioner	8434 2201 12
HTT.9556.300	3" CTST Tensioner	8434 2201 26
HTT.9556.314	3 1/4" CTST Tensioner	8434 2201 25
HTT.9556.312	3 1/2" CTST Tensioner	8434 2201 27
HTT.9556.334	3 3/4" CTST Tensioner	8434 2201 28
HTT.9556.400	4" CTST Tensioner	8434 2201 29

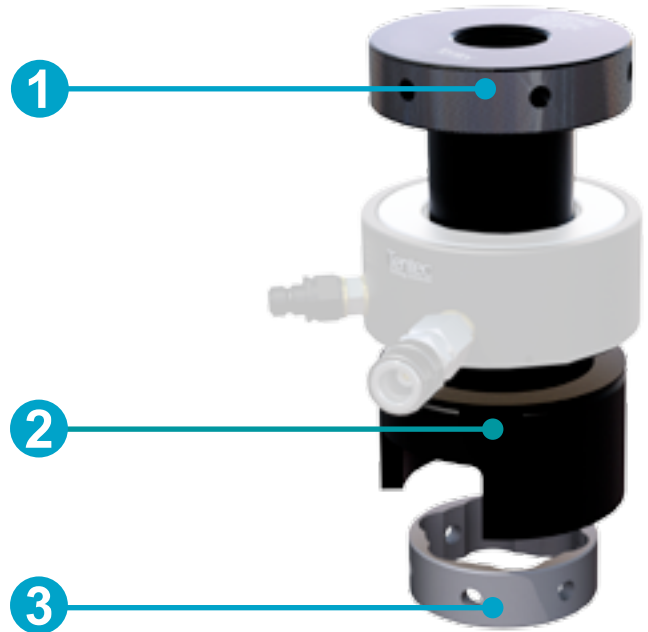
You can order a complete tensioner for the stud size using the table above, or you can order load cells and conversion kits as needed. Many different configurations are available for our CTST bolt tensioners.

CTST Conversion kits

Conversion Kits offer a very economical way to expand your inventory of bolt tensioning tools. Kits are available to convert a Tentec CTST tensioner to suit an alternative bolt size within its size range.

Kits consist of three items:

- 1 Thread insert
- 2 Bridge piece
- 3 Nut rotating socket

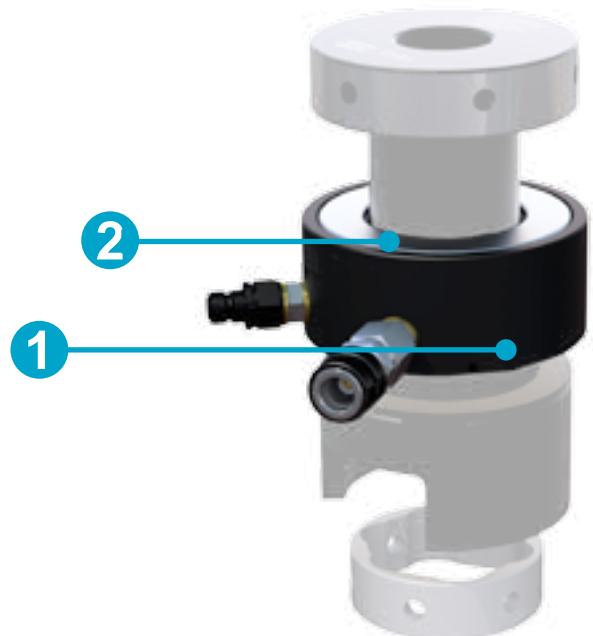


Load cell and seal kits

The core unit for any tensioner set is composed of two items:

- 1 Load cells
- 2 Seal kit

Comes fitted with hydraulic connections.



CTST Conversion kit ordering numbers

Metric

Tool Ident	Item	Description	Ordering No.
No 1	HTT.9551.521	M20 Conversion Kit	4222 2600 02
	HTT.9551.523	M22 Conversion Kit	4222 2600 04
	HTT.9551.525	M24 Conversion Kit	4222 2600 06
	HTT.9551.528	M27 Conversion Kit	4222 2600 08
No 2	HTT.9552.528	M27 Conversion Kit	4222 2600 10
	HTT.9552.532	M30 Conversion Kit	4222 2600 11
	HTT.9552.534	M33 Conversion Kit	4222 2600 13
	HTT.9552.537	M36 Conversion Kit	4222 2600 15
No 3	HTT.9552.514	M39 Conversion Kit	4222 2600 17
	HTT.9553.540	M39 Conversion Kit	4222 2600 19
	HTT.9553.543	M42 Conversion Kit	4222 2600 21
	HTT.9553.546	M45 Conversion Kit	4222 2600 23
	HTT.9553.549	M48 Conversion Kit	4222 2600 25
	HTT.9553.553	M52 Conversion Kit	4222 2600 27
No 4	HTT.9554.549	M48 Conversion Kit	4222 2600 29
	HTT.9554.553	M52 Conversion Kit	4222 2600 31
	HTT.9554.557	M56 Conversion Kit	4222 2600 33
	HTT.9554.562	M60 Conversion Kit	4222 2600 34
No 5	HTT.9554.568	M64 Conversion Kit	4222 2600 36
	HTT.9555.565	M64 Conversion Kit	4222 2701 60
	HTT.9555.570	M68 Conversion Kit	4222 2701 61
	HTT.9555.573	M72 Conversion Kit	4222 2701 62
	HTT.9555.577	M76 Conversion Kit	4222 2701 63
No 6	HTT.9556.577	M76 Conversion Kit	4222 2600 38
	HTT.9556.582	M80 Conversion Kit	4222 2600 39
	HTT.9556.586	M85 Conversion Kit	4222 2600 41
	HTT.9556.591	M90 Conversion Kit	4222 2600 43
	HTT.9556.596	M95 Conversion Kit	4222 2600 45
	HTT.9556.501	M100 Conversion Kit	4222 2600 47

Imperial

Tool Ident	Item	Description	Ordering No.
No 1	HTT.9551.536	3/4" Conversion Kit	4222 2600 01
	HTT.9551.580	7/8" Conversion Kit	4222 2600 03
	HTT.9551.502	1" Conversion Kit	4222 2600 05
	HTT.9551.520	1 1/8" Conversion Kit	4222 2600 07
No 2	HTT.9552.520	1 1/8" Conversion Kit	4222 2600 12
	HTT.9552.516	1 1/4" Conversion Kit	4222 2600 09
	HTT.9552.540	1 3/8" Conversion Kit	4222 2600 14
	HTT.9552.511	1 1/2" Conversion Kit	4222 2600 16
No 3	HTT.9553.514	1 1/2" Conversion Kit	4222 2600 18
	HTT.9553.516	1 5/8" Conversion Kit	4222 2600 20
	HTT.9553.536	1 3/4" Conversion Kit	4222 2600 22
	HTT.9553.580	1 7/8" Conversion Kit	4222 2600 24
No 4	HTT.9553.502	2" Conversion Kit	4222 2600 26
	HTT.9554.580	1 7/8" Conversion Kit	4222 2600 28
	HTT.9554.502	2" Conversion Kit	4222 2600 30
	HTT.9554.516	2 1/4" Conversion Kit	4222 2600 32
No 5	HTT.9554.511	2 1/2" Conversion Kit	4222 2600 35
	HTT.9555.514	2 1/2" Conversion Kit	4222 2701 64
	HTT.9555.536	2 3/4" Conversion Kit	4222 2701 65
No 6	HTT.9555.502	3" Conversion Kit	4222 2701 66
	HTT.9556.502	3" Conversion Kit	4222 2600 37
	HTT.9556.516	3 1/4" Conversion Kit	4222 2600 40
No 6	HTT.9556.511	3 1/2" Conversion Kit	4222 2600 42
	HTT.9556.536	3 3/4" Conversion Kit	4222 2600 44
	HTT.9556.542	4" Conversion Kit	4222 2600 46

Load cell and seal kits ordering numbers

Item	Description	Ordering No.
HTT.9551.000A	CTST No.1 Loadcell	8434 2200 69
HTT.9551.003.A	CTST No.1 Spare Seal Kit	4222 2700 26
HTT.9552.000A	CTST No.2 Loadcell	8434 2200 78
HTT.9552.003.A	CTST No.2 Spare Seal Kit	4222 2700 27
HTT.9553.000A	CTST No.3 Loadcell	8434 2200 88
HTT.9553.003.A	CTST No.3 Spare Seal Kit	4222 2700 28

Item	Description	Ordering No.
HTT.9554.000A	CTST No.4 Loadcell	8434 2200 99
HTT.9554.003.A	CTST No.4 Spare Seal Kit	4222 2700 29
HTT.9555.000A	CTST No.5 Loadcell	8434 2201 09
HTT.9555.003.A	CTST No.5 Spare Seal Kit	4222 2700 30
HTT.9556.000A	CTST No.6 Loadcell	8434 2201 24
HTT.9556.003.A	CTST No.6 Spare Seal Kit	4222 2700 31

Tentec Airbac Bolt Tensioner

Reduced diameter thread insert provides weight saving



One piece end cap and valve protection brackets



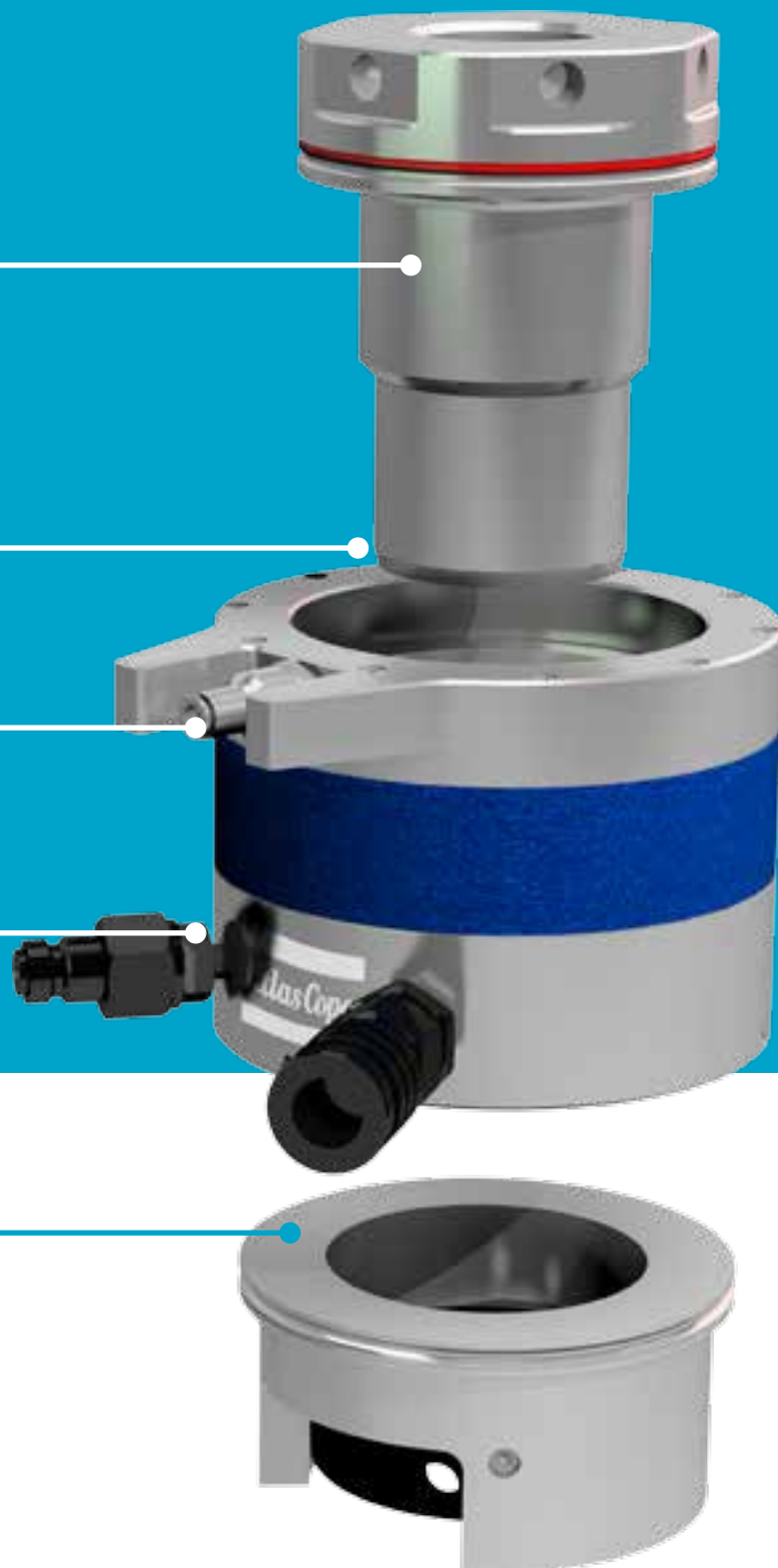
One way air valve for rapid re-charging



Outside diameter same as CTST model ensuring compatibility with ASME, ANSI and API flanges



Standard bridge and NRS interchangeable with CTST tool range



The patented Airbac range of Tentec topside bolt tensioning tools consist of 6 base tools covering bolt sizes from 3/4" to 4" (M20 to M100). The tools are designed to fit on to most ANSI B16.5, ANSI B16.47 Series 1, MSS-SP44, API-6A and API-17D flanges.

Bolt tightening solutions

Consistent, Dependable and Safe.

Using multiple bolt tensioning tools on a bolted joint gives a much improved uniform bolt load across all bolts.

Axial Bolt Load: Bolt load is applied axially to the bolt. Inconsistencies such as friction, bending and lubricant are not a factor when using bolt tensioners. No torsional stresses are involved.

Rapid: Multiple bolt tensioners offer a rapid and accurate method of tightening a bolt.

Accurate: Bolt load is directly proportional to the pressure applied to the tensioner.

Benefits

Piston return more than twice as fast as spring assisted tensioners

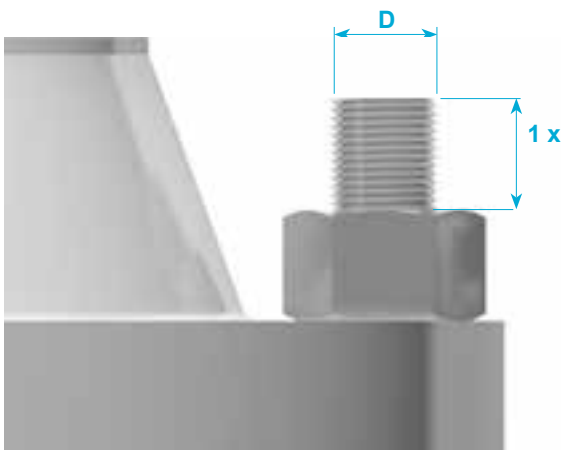
A 20% weight saving versus spring assisted equivalents reduces operator fatigue

Enhanced corrosion protection for harsh environments

Identical hydraulic pressure areas, load outputs, and MWP (1500 bar) as the CTST range

Bolt protrusion

The patented Airbac Series tensioners need a minimum of 1 x bolt diameter protruding above the hexagon or round nut.



Maximum Working Pressure = 1500bar

Tool Identification	Thread Size	Tentec Completed Tool GA No (HTT)	Part Number	Dimensions						
				A	B	C	D	E	F	G
AB-01	3/4"	HTT.18001.034	8434 2204 31	73.50	21	75	79	45	62	49.5
	M20 x 2.5	HTT.18001.020	8434 2204 32		21	74			63	49.5
	7/8"	HTT.18001.078	8434 2204 33		24	72	79		63	53
	M22 x 2.5	HTT.18001.022	8434 2204 34		24	72	79		63	53
	1"	HTT.18001.100	8434 2204 35		24	75.75	86		69	58.5
	M24 x 3	HTT.18001.024	8434 2204 36		24	77	86		69	58.5
	1 1/8"	HTT.18001.118	8434 2204 37		27	73.5	87		74	63.5
	M27 x 3	HTT.18001.027	8434 2204 38		27	75	87		74	63.5
AB-02	1 1/8"	HTT.18002.118	8434 2204 40	102	27	97.5	104	66	82	67.5
	M27 x 3	HTT.18002.027	8434 2204 41		27	99	104		82	67.5
	M30 x 3.5	HTT.18002.030	8434 2204 42		32	97	105		85	69
	1 1/4"	HTT.18002.114	8434 2204 43		31	97.5	107		85	72
	M33 x 3.5	HTT.18002.033	8434 2204 44		31	96	107		85	72
	1 3/8"	HTT.18002.138	8434 2204 45		34	97.25	110		91	78
	M36 x 4	HTT.18001.036	8434 2204 46		34	96	110		91	78
	1 1/2"	HTT.18002.112	8434 2204 47		36.5	96	112		90	80
AB-03	M39 x 4	HTT.18002.039	8434 2204 48	133	36.5	95	112	100	90	80
	M36 x 4	HTT.18003.036	8434 2204 50		36.5	130.5	153		97	83.5
	1 1/2"	HTT.18003.112	8434 2204 51		36.5	128.5	153		97	83.5
	M39 x 4	HTT.18003.039	8434 2204 52		36.5	127.5	153		97	83.5
	1 5/8"	HTT.18003.158	8434 2204 53		37.5	123.25	151		110	92.5
	M42 x 4.5	HTT.18003.042	8434 2204 54		37.5	122.5	151		110	92.5
	1 3/4"	HTT.18003.134	8434 2204 55		40.5	129.25	160		115	98
	M45 x 4.5	HTT.18003.045	8434 2204 56		40.5	128.5	160		115	98
AB-04	1 7/8"	HTT.18003.178	8434 2204 57	163	42.5	126	160	100	116	101
	M48 x 5	HTT.18003.048	8434 2204 58		42.5	125.5	160		116	101
	2"	HTT.18003.200	8434 2204 59		50	123.75	161		120	106
	M52 x 5	HTT.18003.052	8434 2204 60		50	122.5	161		120	106
	M42 x 4.5	HTT.18004.042	8434 2204 62		43.5	134.25	161		120	106
	1 7/8"	HTT.18004.178	8434 2204 63		43.5	128.75	161		130	108
	M48 x 5	HTT.18004.048	8434 2204 64		43.5	128.25	161		130	108
	2"	HTT.18004.200	8434 2204 65		46	124.5	160		130	108
AB-05	M52 x 5	HTT.18004.052	8434 2204 66	193	46	123.25	160	111.25	124	108
	2 1/4"	HTT.18004.214	8434 2204 67		55	124.25	166		124	108
	M56 x 5.5	HTT.18004.056	8434 2204 68		55	125.25	166		134	118.5
	M60 x 5.5	HTT.18004.060	8434 2204 69		54	143.75	188.5		134	118.5
	2 1/2"	HTT.18004.212	8434 2204 70		58	124.75	173		150	127
	M64 x 6	HTT.18004.064	8434 2204 71		58	124.25	173		147	130.5
	2 1/2"	HTT.18005.212	8434 2204 73		64	138.25	184.25		147	130.5
	M64 x 6	HTT.18005.064	8434 2204 74		64	137.75	184.25		147	130.5
AB-06	M68 x 6	HTT.18005.068	8434 2204 75	233	80	141.75	192.25	111.25	160	138
	2 3/4"	HTT.18005.234	8434 2204 76		72	146	198.25		161	143
	M72 x 6	HTT.18005.072	8434 2204 77		72	143.75	198.25		161	143
	3"	HTT.18005.300	8434 2204 78		77	138.75	197.25		170	153
	M76 x 6	HTT.18005.076	8434 2204 79		77	138.75	197.25		170	153
	3"	HTT.18006.300	8434 2204 81		77	141.75	200.25		170	153
	M76 x 6	HTT.18006.076	8434 2204 82		77	141.75	200.25		170	153
	M80 x 6	HTT.18006.080	8434 2204 83		78	138.75	201.25		178	155.5
AB-06	3 1/4"	HTT.18006.314	8434 2204 84	233	78	136.25	201.25	111.25	182	165.5
	M85 x 6	HTT.18006.085	8434 2204 85		78	133.75	201.25		182	165.5
	3 1/2"	HTT.18006.312	8434 2204 86		86	136	207.25		191	174.5
	M90 x 6	HTT.18006.090	8434 2204 87		86	134.75	207.25		191	174.5
	3 3/4"	HTT.18006.334	8434 2204 88		99	137.5	215.25		210	189.5
	M95 x 6	HTT.18006.095	8434 2204 89		99	137.75	215.25		210	189.5
	4"	HTT.18006.400	8434 2204 90		105	137.25	221.25		220	200
	M100 x 6	HTT.18006.100	8434 2204 91		105	138.75	221.25		220	200

Designs and specifications are subject to change without notice or obligation. Read all safety instructions in the manual before usage.
 AB-01 and AB-02 are manual retract tensioners.

Tool Identification	Thread Size	Conversion Kit No	Part No	Tool Load		Hydraulic Pressure Area		Stroke		Total Tool Weight		Load Cell Weight Only										
				kN	Ton	mm2	In2	mm	In	kg	lbs	kg	lbs									
AB-01	3/4"	HTT.18001.201	4222 2600 50	227.812	22.864	1518.746	2.354	10	0.394	2.71	5.96	1.64	3.61									
	M20 x 2.5	HTT.18001.202	4222 2600 51							2.71	5.96											
	7/8"	HTT.18001.203	4222 2600 52							2.61	5.74											
	M22 x 2.5	HTT.18001.204	4222 2600 53							2.62	5.76											
	1"	HTT.18001.205	4222 2600 54							2.71	5.96											
	M24 x 3	HTT.18001.206	4222 2600 55							2.76	6.07											
	1 1/8"	HTT.18001.207	4222 2600 56							2.73	6.01											
	M27 x 3	HTT.18001.208	4222 2600 57							2.81	6.18											
	1 1/8"	HTT.18002.200	4222 2600 58							5.58	12.28											
	M27 x 3	HTT.18002.201	4222 2600 59							5.64	12.41											
AB-02	M30 x 3.5	HTT.18002.202	4222 2600 60	443.060	44.466	2953.734	4.578	10	0.394	5.68	12.50	3.02	6.64									
	1 1/4"	HTT.18002.203	4222 2600 61							5.5	12.10											
	M33 x 3.5	HTT.18002.204	4222 2600 62							5.49	12.08											
	1 3/8"	HTT.18002.205	4222 2600 63							5.56	12.23											
	M36 x 4	HTT.18002.206	4222 2600 64							5.57	12.25											
	1 1/2"	HTT.18002.207	4222 2600 65							5.76	12.67											
	M39 x 4	HTT.18002.208	4222 2600 66							5.71	12.56											
	AB-03	M36 x 4	HTT.18003.300							4222 2600 67	810.849			81.378	5405.665	8.379	10	0.394	11.83	26.03	6.53	14.37
		1 1/2"	HTT.18003.301							4222 2600 68									11.7	25.74		
		M39 x 4	HTT.18003.302							4222 2600 69									11.73	25.81		
1 5/8"		HTT.18003.303	4222 2600 70	11.4	25.08																	
M42 x 4.5		HTT.18003.304	4222 2600 71	11.55	25.41																	
1 3/4"		HTT.18003.305	4222 2600 72	11.68	25.70																	
M45 x 4.5		HTT.18003.306	4222 2600 73	11.74	25.83																	
1 7/8"		HTT.18003.307	4222 2600 74	11.54	25.39																	
M48 x 5		HTT.18003.308	4222 2600 75	11.63	25.59																	
2"		HTT.18003.309	4222 2600 76	11.18	24.60																	
AB-04	M52 x 5	HTT.18003.310	4222 2600 77	1273.489	127.809	8489.933	13.159	10	0.394	11.2	24.64	9.52	20.94									
	M42 x 4.5	HTT.18004.300	4222 2600 78							18.33	40.33											
	1 7/8"	HTT.18004.301	4222 2600 79							17.87	39.31											
	M48 x 5	HTT.18004.302	4222 2600 80							17.97	39.53											
	2"	HTT.18004.303	4222 2600 81							17.53	38.57											
	M52 x 5	HTT.18004.304	4222 2600 82							17.57	38.65											
	2 1/4"	HTT.18004.305	4222 2600 83							17.91	39.40											
	M56 x 5.5	HTT.18004.306	4222 2600 84							18.32	40.30											
	M60 x 5.5	HTT.18004.307	4222 2600 85							20.56	45.23											
	2 1/2"	HTT.18004.308	4222 2600 86							17.4	38.28											
AB-05	M64 x 6	HTT.18004.309	4222 2600 87	1829.474	183.608	12196.497	18.905	10	0.394	17.74	39.03	14.59	32.10									
	2 1/2"	HTT.18005.400	4222 2600 88							26.76	58.87											
	M64 x 6	HTT.18005.401	4222 2600 89							27.12	59.66											
	M68 x 6	HTT.18005.402	4222 2600 90							27.82	61.20											
	2 3/4"	HTT.18005.403	4222 2600 91							28.85	63.47											
	M72 x 6	HTT.18005.404	4222 2600 92							29.1	64.02											
	3"	HTT.18005.405	4222 2600 93							26.76	58.87											
	M76 x 6	HTT.18005.406	4222 2600 94							27.57	60.65											
	3"	HTT.18006.500	4222 2600 95							41.22	90.68											
	M76 x 6	HTT.18006.501	4222 2600 96							41.99	92.38											
AB-06	M80 x 6	HTT.18006.502	4222 2600 97	2644.126	265.368	17627.506	27.323	10	0.394	41.31	90.88	20.11	44.24									
	3 1/4"	HTT.18006.503	4222 2600 98							41.19	90.62											
	M85 x 6	HTT.18006.504	4222 2600 99							41.72	91.78											
	3 1/2"	HTT.18006.505	4222 2601 00							40.32	88.70											
	M90 x 6	HTT.18006.506	4222 2601 01							40.97	90.13											
	3 3/4"	HTT.18006.507	4222 2601 02							40.58	89.28											
	M95 x 6	HTT.18006.508	4222 2601 03							41.77	91.89											
4"	HTT.18006.509	4222 2601 04	40.7	89.54																		
M100 x 6	HTT.18006.510	4222 2601 05	41.61	91.54																		

Tentec Compact 8

Subsea hydraulic bolt tensioner

RELEASE BUTTON
For rapid speed of use.

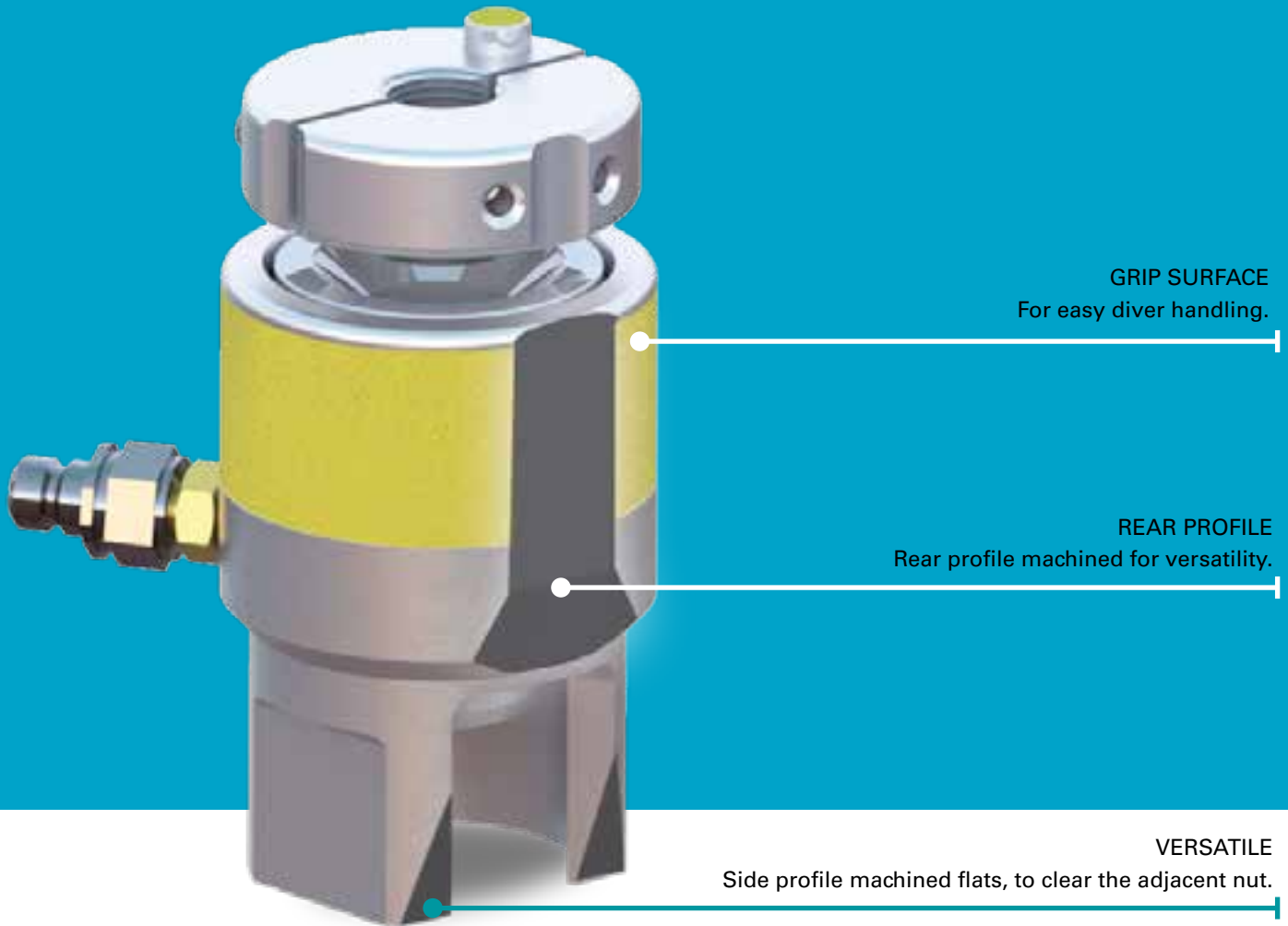
SPLIT REACTION NUTS
For rapid speed of fit.

STAINLESS STEEL
Durable and low maintenance

HYDRAULIC CONNECTIONS
User configurable
Connections.



Tentec COMPACT-8 range of subsea bolt tensioning tools brings a new generation of bolting solutions. Comprising just 8 bolt tensioning tools, the COMPACT-8 series is capable of tensioning most standard flanges and Compact flanges. The COMPACT-8 series is made from high strength stainless steel which greatly reduces maintenance work to a minimum after subsea use.

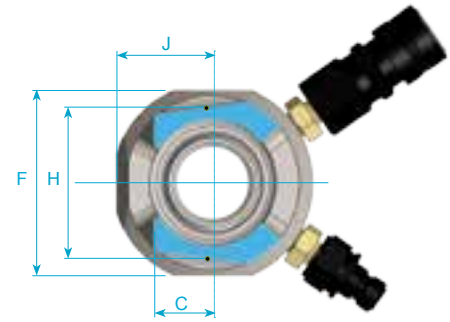
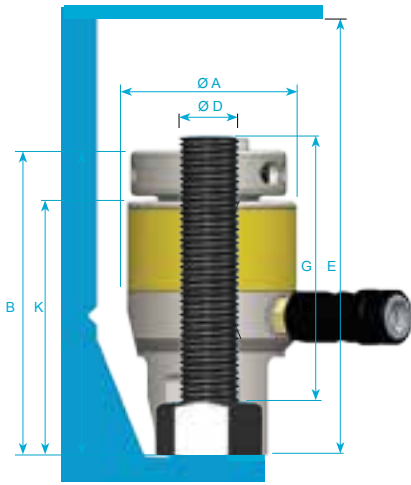


Compact 8 technical data

Model	Bolt Dia	Thread Pitch	Tool Dia	Side Dia	Tool Height	Radial Dim'n	Max Initial Bolt Load kN	Hyd Area mm ²	Ram Stroke mm	Extra Stud Length	Headroom Dimension	AF	Radial Dim'n	Dim'n
	D		A	F	B	C				G	E	H	J	K
	Inch		mm	mm	mm	mm				mm	mm	mm	mm	mm
C8-00	0.75	UNC	66.0	66.0	123	20	190.21	1268.420	20	113.5	214.5	50.2	31.6	97.00
	0.875	UNC	66.0	66.0	123	20	190.21	1268.420	20	110.3	214.5	50.2	31.6	97.00
C8-01	1	8-UN	87.0	87.0	153	25	328.87	2193.020	30	137.1	270.5	65	41.5	127.00
	1.125	8-UN	87.0	87.0	153	25	328.87	2193.020	30	134.0	270.5	65	41.5	127.00
C8-02	1.25	8-UN	104.5	104.5	165	28	514.84	3433.170	30	142.8	286.5	82.5	50.15	135.00
	1.375	8-UN	104.5	104.5	165	28	514.84	3433.170	30	139.6	286.5	82.5	50.15	135.00
C8-03	1.5	8-UN	123.1	118.3	184.5	35	746.70	4979.300	30	155.9	321.5	90	59.1	150.50
	1.625	8-UN	123.1	118.3	184.5	35	746.70	4979.300	30	152.8	321.5	90	59.1	150.50
C8-04	1.75	8-UN	150.0	143.5	210.75	48	1177.31	7850.800	30	175.8	365.0	110	71.7	169.75
	1.875	8-UN	150.0	143.5	210.75	48	1177.31	7850.800	30	172.7	365.0	110	71.7	169.75
C8-05	2	8-UN	150.0	143.5	210.75	48	1177.31	7850.800	30	169.5	365.0	110	71.7	169.75
	2.25	8-UN	182.5	174.3	235.75	59	1904.04	12696.940	30	188.1	393.0	136	87.1	179.75
C8-06	2.5	8-UN	182.5	174.3	235.75	59	1904.04	12696.940	30	181.8	393.0	136	87.1	179.75
	2.75	8-UN	210.0	210.0	259.75	65	2542.11	16951.840	30	199.4	432.0	163.5	105	199.75
C8-07	3	8-UN	210.0	210.0	259.75	65	2542.11	16951.840	30	193.1	432.0	163.5	105	199.75
	3.25	8-UN	258.1	258.1	302.8	85	4059.32	27069.190	30	229.8	492.6	204	129	232.25
C8-07	3.5	8-UN	258.1	258.1	302.8	85	4059.32	27069.190	30	223.4	492.6	204	129	232.25
	3.75	8-UN	258.1	258.1	302.8	85	4059.32	27069.190	30	217.1	492.6	204	129	232.25

Model	Bolt Dia D mm	Thread Pitch	Tool Dia	Side Dia	Tool Height	Radial Dim'n	Max Initial Bolt Load kN	Hyd Area mm ²	Ram Stroke mm	Extra Stud Length	Headroom Dimension	AF	Radial Dim'n	Dim'n
			A	F	B	C				G	E	H	J	K
			mm	mm	mm	mm				mm	mm	mm	mm	mm
C8-01	24	3	87.0	87.0	153	25	328.87	2193.020	30	138	270	65	41.5	127.00
	27	3	87.0	87.0	153	25	328.87	2193.020	30	135	270	65	41.5	127.00
	30	3.5	87.0	87.0	153	25	328.87	2193.020	30	133.5	271.5	65	41.5	127.00
C8-02	33	3.5	104.5	104.5	165	28	514.84	3433.170	30	142.5	287.5	82.5	50.15	135.00
	36	4	104.5	104.5	165	28	514.84	3433.170	30	141	289	82.5	50.15	135.00
C8-03	39	4	123.1	118.3	184.5	35	746.70	4979.300	30	157.5	324	90	59.1	150.50
	42	4.5	123.1	118.3	184.5	35	746.70	4979.300	30	156	325.5	90	59.1	150.50
C8-04	45	4.5	150.0	143.5	210.8	48	1177.31	7850.800	30	179.25	369	110	71.7	169.75
	48	5	150.0	143.5	210.8	48	1177.31	7850.800	30	177.75	370.5	110	71.7	169.75
	52	5	150.0	143.5	210.8	48	1177.31	7850.800	30	173.75	370.5	110	71.7	169.75
C8-05	56	5.5	182.5	174.3	235.8	59	1904.04	12696.940	30	196.25	400	136	87.1	179.75
	60	5.5	182.5	174.3	235.8	59	1904.04	12696.940	30	192.25	400	136	87.1	179.75
	64	6	182.5	174.3	235.8	59	1904.04	12696.940	30	189.75	401.5	136	87.1	179.75
C8-06	68	6	210.0	210.0	259.8	65	2542.11	16951.840	30	209.75	440.5	163.5	105	199.75
	72	6	210.0	210.0	259.8	65	2542.11	16951.840	30	205.75	440.5	163.5	105	199.75
	76	6	210.0	210.0	259.8	65	2542.11	16951.840	30	201.75	440.5	163.5	105	199.75
C8-07	80	6	258.1	258.1	302.8	85	4059.32	27069.190	30	240.8	501.05	204	129	232.25
	85	6	258.1	258.1	302.8	85	4059.32	27069.190	30	235.8	501.05	204	129	232.25
	90	6	258.1	258.1	302.8	85	4059.32	27069.190	30	230.8	501.05	204	129	232.25
	95	6	258.1	258.1	302.8	85	4059.32	27069.190	30	225.8	501.05	204	129	232.25

Compact 8 ordering numbers



Technical Specification

Maximum Working Pressure = 1500bar : 21750psi
 Maximum ram stroke = (Tools O1 to O7): 30mm : 1.181"
 Maximum ram stroke = (Tool O0): 20mm : 0.787"

Item	Description	Ordering No.
HTT.9700.102.A	No.0 Compact-8 Spare Seal Kit	4222 2700 04
HTT.9700.000.A	No.0 Compact-8 Subsea Loadcell	8434 2200 54
HTT.9701.102.A	No.1 Compact-8 Spare Seal Kit	4222 2700 05
HTT.9701.000.A	No.1 Compact-8 Subsea Loadcell	8434 2200 55
HTT.8824.500.A	No.1 Split Nut - 1" Thread	8434 2200 18
HTT.8824.501.A	No.1 Split Nut - 1.1/8" Thread	8434 2200 19
HTT.8824.510.A	No.1 Split Nut - M24 Thread	8434 2200 20
HTT.8824.511.A	No.1 Split Nut - M27 Thread	8434 2200 21
HTT.8824.512.A	No.1 Split Nut - M30 Thread	8434 2200 22
HTT.9702.102.A	No.2 Compact-8 Spare Seal Kit	4222 2700 06
HTT.9702.000.A	No.2 Compact-8 Subsea Loadcell	8434 2200 56
HTT.8825.500.A	No.2 Split Nut - 1.1/4" Thread	8434 2200 23
HTT.8825.501.A	No.2 Split Nut - 1.3/8" Thread	8434 2200 24
HTT.8825.510.A	No.2 Split Nut - M33 Thread	8434 2200 25
HTT.8825.511.A	No.2 Split Nut - M36 Thread	8434 2200 26
HTT.9703.102.A	No.3 Compact-8 Spare Seal Kit	4222 2700 07
HTT.9703.000.A	No.3 Compact-8 Subsea Loadcell	8434 2200 57
HTT.8826.500.A	No.3 Split Nut - 1.1/2" Thread	8434 2200 27
HTT.8826.510.A	No.3 Split Nut - M39 Thread	8434 2200 29
HTT.8826.511.A	No.3 Split Nut - M42 Thread	8434 2200 30
HTT.8826.501.A	No.3 Split Nut 1.5/8" Thread	8434 2200 28
HTT.9704.102.A	No.4 Compact-8 Spare Seal Kit	4222 2700 08
HTT.9704.000.A	No.4 Compact-8 Subsea Loadcell	8434 2200 58
HTT.8827.500.A	No.4 Split Nut - 1.3/4" Thread	8434 2200 31
HTT.8827.501.A	No.4 Split Nut - 1.7/8" Thread	8434 2200 32

Item	Description	Ordering No.
HTT.8827.502.A	No.4 Split Nut - 2" Thread	8434 2200 33
HTT.8827.510.A	No.4 Split Nut - M45 Thread	8434 2200 34
HTT.8827.511.A	No.4 Split Nut - M48 Thread	8434 2200 35
HTT.8827.512.A	No.4 Split Nut - M52 Thread	8434 2200 36
HTT.9705.102.A	No.5 Compact-8 Spare Seal Kit	4222 2700 09
HTT.9705.000.A	No.5 Compact-8 Subsea Loadcell	8434 2200 59
HTT.8828.501.A	No.5 Split Nut - 2.1/2" Thread	8434 2200 38
HTT.8828.500.A	No.5 Split Nut - 2.1/4" Thread	8434 2200 37
HTT.8828.510.A	No.5 Split Nut - M56 Thread	8434 2200 39
HTT.8828.511.A	No.5 Split Nut - M60 Thread	8434 2200 40
HTT.8828.512.A	No.5 Split Nut - M64 Thread	8434 2200 41
HTT.9706.102.A	No.6 Compact-8 Spare Seal Kit	4222 2700 10
HTT.9706.000.A	No.6 Compact-8 Subsea Loadcell	8434 2200 60
HTT.8829.500.B	No.6 Split Nut - 2.3/4" Thread	8434 2200 42
HTT.8829.501.B	No.6 Split Nut - 3" Thread	8434 2200 43
HTT.8829.510.B	No.6 Split Nut - M68 Thread	8434 2200 44
HTT.8829.511.B	No.6 Split Nut - M72 Thread	8434 2200 45
HTT.8829.512.B	No.6 Split Nut - M76 Thread	8434 2200 46
HTT.9707.102.A	No.7 Compact-8 Spare Seal Kit	4222 2700 11
HTT.9707.000.A	No.7 Compact-8 Subsea Loadcell	8434 2200 61
HTT.8830.501.B	No.7 Split Nut - 3.1/2" Thread	8434 2200 48
HTT.8830.500.B	No.7 Split Nut - 3.1/4" Thread	8434 2200 47
HTT.8830.502.A	No.7 Split Nut - 3.3/4" Thread	8434 2200 49
HTT.8830.510.B	No.7 Split Nut - M80 Thread	8434 2200 50
HTT.8830.511.B	No.7 Split Nut - M85 Thread	8434 2200 51
HTT.8830.512.B	No.7 Split Nut - M90 Thread	8434 2200 52
HTT.8830.513.A	No.7 Split Nut - M95 Thread	8434 2200 53

You can order Compact-8 tensioners using the table above. There are also many different configurations available for our Compact-8 subsea bolt tensioners.

Tentec WTB

Wind turbine hydraulic bolt tensioner

Automatic reset

Internal heavy duty springs automatically resets the tensioner once the pressure has been released.

High life puller

All Aero WTB tensioners have a device that ensures the tool fails safely in the unlikely event of a puller failure.



These feature-packed tensioners have been designed with rapid tensioning in mind and offer a safe, reliable and consistent method of simultaneously tensioning many bolts.

Grip surface

For easy user handling.

Optional cycle counter

For maintenance scheduling purposes all Aero WTB Tools offer an optional mechanical pressure cycle counter.

Swivel connection

360° swivel operation allows the hydraulic hoses to be positioned in the best possible position to allow open access to the tensioning tools.

Geared nut run down

The inclusion of a gear nut run-down mechanism offers a very rapid and consistent way of seating the hexagon nuts during the tensioning procedure.

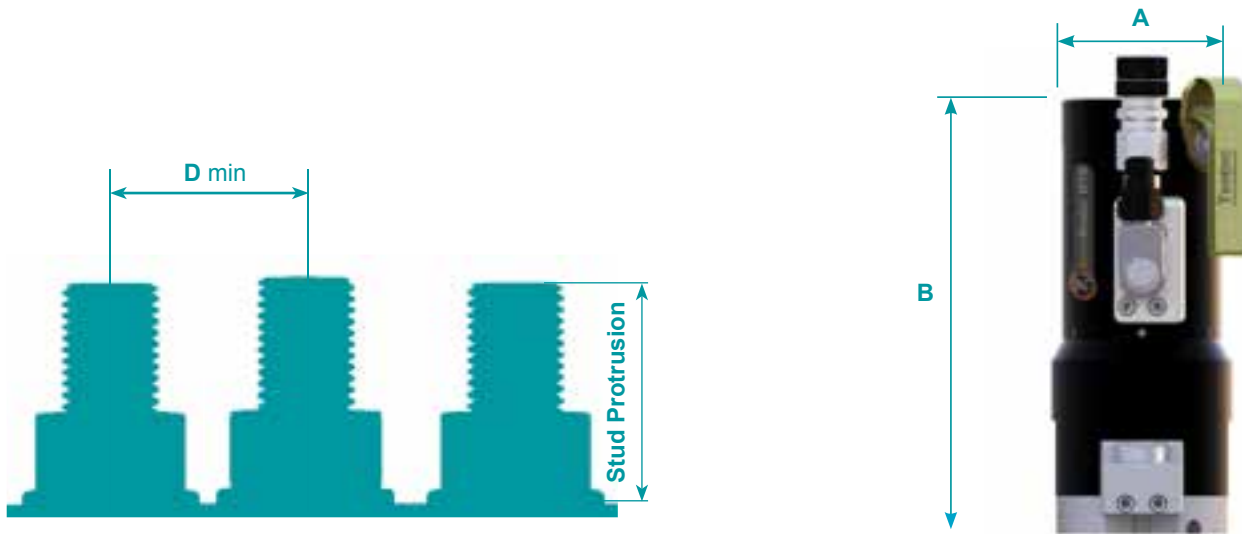
Best fit

The interchangeable profile cut spacer at the base of the tool gives the tensioner the flexibility to be used on many different applications.

“Snap Down” Nut Drive

To increase speed all Aero WTB tensioners are fitted with a spring loaded device that automatically engages the tensioner drive socket with the hexagon nut.

AERO WTB technical data



Model	Bolt Diameter	Stud Protrusion (Mm)		Max Stroke	Maximum Load		Hydraulic Pressure Area		Dia A	Height B	D	Weight
		min	max		mm	kN	lbs	mm2				
WTB30	M30	59	69	8	465.38	104622	3447.21	5.343	72	205	64	6.16
WTB33	M33	64	73	10	575.80	129444	4265.09	6.611	79	217.5	71	7.24
WTB36	M36	71	81	10	678.26	152478	5024.05	7.787	84.5	229.5	77	8.75
WTB39	M39	76	86	10	810.58	182225	6004.20	9.307	92	263	83	11.12
WTB42	M42	83	93	10	929.67	208999	6886.37	10.674	97	262.5	95	12.75
WTB45	M45	88	98	10	1079.48	242682	7996.12	12.394	105	275.5	94.5	15.86
WTB48	M48	94	104	10	1221.57	274620	9048.67	14.025	111	286.5	100.5	17.84
WTB56	M56	110	120	10	1686.19	379070	12490.29	19.359	132	314	115	26.5
WTB64	M64	124	134	10	2221.00	499300	16461.30	25.515	150	352	124	35

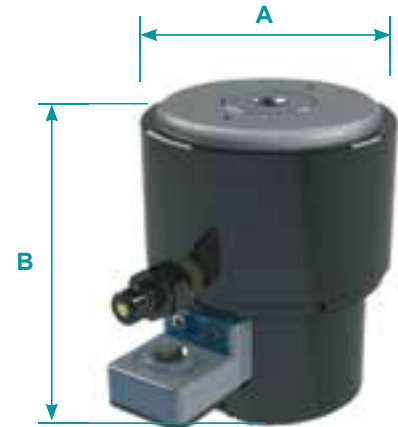
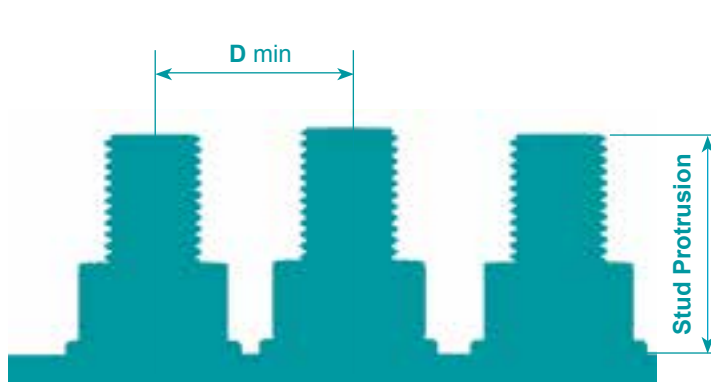
WTB Tensioner ordering numbers

Model	Description	Ordering No.
M30 – HTT.8010.000	M30 Blade Tensioner	8434 2200 62
M33 – HTT.8011.000	M33 Blade Tensioner	8434 2200 63
M36 – HTT.8012.000	M36 Blade Tensioner	8434 2200 64
M39 – HTT.8013.000	M39 Blade Tensioner	8434 2200 65
M42 – HTT.8014.000	M42 Blade Tensioner	8434 2200 66
M45 – HTT.8015.000	M45 Blade Tensioner	8434 2200 67
M48 – HTT.8016.000	M48 Blade Tensioner	8434 2200 68
M56 – HTT.9185.000	M56 Blade Tensioner	8434 2203 50
M64 – HTT.13153.000	M64 Blade Tensioner	8434 2203 51

WTB Spare seal kit ordering numbers

Model	Description	Ordering No.
HTT.8010	WTB Spare Seal kit	4222 2700 12
HTT.8011	WTB Spare Seal kit	4222 2700 13
HTT.8012	WTB Spare Seal kit	4222 2700 14
HTT.8013	WTB Spare Seal kit	4222 2700 15
HTT.8014	WTB Spare Seal kit	4222 2700 16
HTT.8015	WTB Spare Seal kit	4222 2700 17
HTT.8016	WTB Spare Seal kit	4222 2700 18
HTT.9185	WTB Spare Seal kit	4222 2701 16
HTT.13153	WTB Spare Seal kit	4222 2701 17
HTT.8314	WTBLH Spare Seal kit	4222 2701 18
HTT.13153	WTBLH Spare Seal kit	4222 2701 19

AERO WTB-low height technical data



Model	Bolt Diameter	Stud Protrusion (Mm)		Max Stroke	Maximum Load		Hydraulic Pressure		Dia A	Height B	D	Weight
		min	max		mm	lbs	mm2	in2				
WTBLH36	M36	71	91	10	678.14	152452	5023.4	7.79	123	167.5	-	9.97
WTBLH42	M42	83	103	10	930.15	209106	6889.96	10.68	142.5	181.3	-	13.94

WTB-LH ordering numbers

Model	Description	Ordering No.
M36-HTT.8314	M36 Low Height Tensioner	8434 2203 52
M42- HTT.8315	M42 Low Height Tensioner	8434 2203 53



"Snap Down" Nut Drive



Automatic Reset



Best Fit

You can order a from our standard wind turbine base tensioners but there are many different configurations available for our WTB tensioners.

Tentec WTF

*Wind turbine foundation
hydraulic bolt tensioner*



Tentec wind turbine foundation tensioning tools can be supplied to suit many different AllThread Bars and the more conventionally ISO metric and Imperial Unified thread forms. These feature packed tensioners have been designed with rapid tensioning in mind and offer a safe, reliable and consistent method to simultaneously tension many foundation bolts.

Seal reliability

Class leading high pressure seal technology.

Long piston stroke

The Aero WTF range of tensioners offer up to 25mm piston/ram stroke capability.

Handling straps

For easy user handling in tight areas.

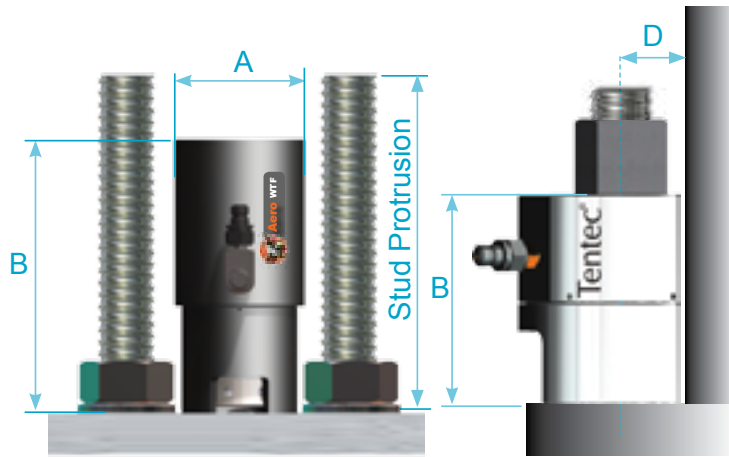
Swivel connection

360° swivel operation allows the hydraulic hoses to be positioned in the best possible position to allow open access to the tensioning tools.

Geared nut run down

The inclusion of a gear nut run-down mechanism offers a very rapid and consistent way of seating the hexagon nuts during the tensioning procedure.

AERO WTF technical data



75 KSI - All Thread Bar

Tool Ident	Foundation Bolt Type	Gear Box	Stud Protrusion (mm)		Max Stroke mm	Maximum Load		Hydraulic Pressure Area		Dia A mm	Height B mm	D mm	Weight kg
			#10	#11		kN	lbs	mm2	In2				
WTF-8041	Grade 75ksi AllThread	Y	260	257	25	472.6	106244.7	3500.72	5.426	110	231	56	10.84
WTF-8148	Grade 75ksi AllThread	N	260	257	25	472.6	106244.7	3500.72	5.426	110	231	56	10.47
WTF-8040	Grade 75ksi AllThread	Y	200	197	10	472.6	106244.7	3500.72	5.426	108	158	55	7.06
WTF-8147	Grade 75ksi AllThread	N	200	197	10	472.6	106244.7	3500.72	5.426	108	158	55	6.69
WTF-7566	Grade 75ksi Elliptical AllThread	N	205	198	10	469.3	105502.8	3128.83	4.85	142	144	41	10

150 KSI - All Thread Bar

Tool Ident	Foundation Bolt Type	Gear Box	Stud Protrusion (mm)		Max Stroke mm	Maximum Load		Hydraulic Pressure Area		Dia A mm	Height B mm	D mm	Weight kg
			#10	#11		kN	lbs	mm2	In2				
WTF-8342	Grade 150ksi AllThread	Y	270	275	25	762.45	171404.8	5647.79	8.754	125	245	63.5	14.34
WTF-8343	Grade 150ksi AllThread	N	270	275	25	762.45	171404.8	5647.79	8.754	125	245	63.5	14.34
WTF-8340	Grade 150ksi AllThread	Y	215	223	10	762.45	171404.8	5647.79	8.754	123	175	62.5	9.72
WTF-8341	Grade 150ksi AllThread	N	215	223	10	762.45	171404.8	5647.79	8.754	123	175	62.5	9.72

Metric Coarse Threads

Tool Ident	Foundation Bolt Type	Gear Box	Stud Protrusion (mm)		Max Stroke mm	Maximum Load		Hydraulic Pressure Area		Dia A mm	Height B mm	D mm	Weight kg
			Max	Min		kN	lbs	mm2	In2				
WTF-9753	M36x4	Y	250	190	15	579.8	130344	3866	5.992	108	210	50.6	10.27
WTF-9426	M42x4.5	Y	250	199	15	788	177078	5251	8.139	124	210	62	13.25

AERO WTF ordering numbers

Aero Foundation tensioners come in four basic types.

- 1 Long piston stroke tensioner
- 2 Metric thread tensioner
- 3 Short piston stroke tensioner
- 4 Elliptical tensioner



Tool Ident	Foundation Bolt Type	Ordering No.
75 KSI - All Thread Bar		
WTF-8041	Grade 75ksi All Thread	8434 2203 54
WTF-8148	Grade 75ksi All Thread	8434 2203 55
WTF-8040	Grade 75ksi All Thread	8434 2203 56
WTF-8147	Grade 75ksi All Thread	8434 2203 57
WTF-7566 Elliptical	Grade 75ksi All Thread	8434 2203 58
150 KSI - All Thread Bar		
WTF-8342	Grade 150ksi All Thread	8434 2203 59
WTF-8343	Grade 150ksi All Thread	8434 2203 60
WTF-8340	Grade 150ksi All Thread	8434 2203 61
WTF-8341	Grade 150ksi All Thread	8434 2203 62
Metric Coarse Threads		
WTF-9753	M36x4	8434 2203 63
WTF-9426	M42x4.5	8434 2203 64

WTF spare seals ordering numbers

Model	Description	Ordering No.
WTF-8041	WTF Spare Seals	4222 2701 41
WTF-8148	WTF Spare Seals	4222 2701 42
WTF-8040	WTF Spare Seals	4222 2701 43
WTF-8147	WTF Spare Seals	4222 2701 44
WTF-7566 Elliptical	WTF Spare Seals	4222 2701 45
WTF-8342	WTF Spare Seals	4222 2701 46
WTF-8343	WTF Spare Seals	4222 2701 47
WTF-8340	WTF Spare Seals	4222 2701 48
WTF-8341	WTF Spare Seals	4222 2701 49
WTF-9753	WTF Spare Seals	4222 2701 50
WTF-9426	WTF Spare Seals	4222 2701 51

You can order from our standard WTF wind turbine foundation tensioners using the table above. There are many different configurations available.

Tentec hydraulic nuts

Top collar and bottom collar models

HYDRAULIC CONNECTIONS

User configurable quick release connections.
Side and top connections available.

NUT BODY

Designed with considerable allowable
piston movement.

HYDRAULIC SEALS

Proven seal technology ensures many
thousands of tool pressure cycles.

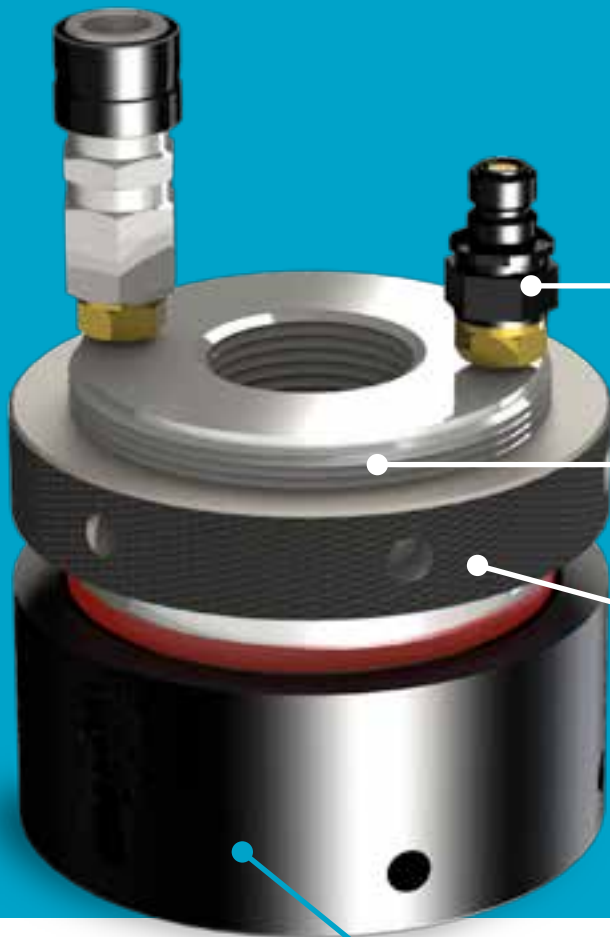
LOAD RETAINING COLLAR

The tension is permanently retained by
means of the load retaining collar.



Bottom collar

Tentec Hydraulic Nuts offer an extremely rapid and simple method of simultaneously accurately tensioning every bolt on a bolted joint. Hydraulic Nuts become a permanent part of the bolted joint and remain on the joint after the bolt load has been generated.



HYDRAULIC CONNECTIONS
User configurable quick release connections.
Side and top connections available.

THREADED PISTON
Interfaces with the load collar to
retain bolt load.

LOAD RETAINING COLLAR
The tension is permanently
retained by means of the load
retaining collar.

Top collar

NUT BODY
Designed with considerable allowable piston movement.

Bottom collar technical data



Model		Thread		Bolt Load		O	H	S	Ordering No.	
Inch	Metric	Inches	Metric	kN	Tons	mm	mm	mm	Imperial	Metric
BCHN:0875	BCHN:0022	7/8	M22	190	19.1	54	48	5	8434 2202 64	8434 2202 86
BCHN:1000	BCHN:0024	1"	M24	205	20.6	57	44	5	8434 2202 65	8434 2202 87
BCHN:1125	BCHN:0027	1 1/8	M27	220	22.1	60	48	5	8434 2202 66	8434 2202 88
	BCHN:0030		M30							8434 2200 09
BCHN:1250	BCHN:0033	1 1/4	M33	265	26.6	67	51	5	8434 2202 67	8434 2202 89
BCHN:1375	BCHN:0036	1 3/8	M36	325	32.6	73	54	6	8434 2202 68	8434 2200 08
BCHN:1500	BCHN:0039	1 1/2	M39	373	37.5	78	56	6	8434 2202 69	8434 2202 90
BCHN:1625	BCHN:0042	1 5/8	M42	424	42.6	83	58	6	8434 2202 70	8434 2200 07
BCHN:1750	BCHN:0045	1 3/4	M45	445	44.6	86	60	6	8434 2202 71	8434 2202 91
BCHN:1875	BCHN:0048	1 7/8	M48	523	52.5	93	70	8	8434 2202 72	8434 2202 92
BCHN:2000	BCHN:0052	2	M52	629	63.1	102	71	8	8434 2202 73	8434 2202 93
BCHN:2250	BCHN:0056	2 1/4	M56	781	78.3	112	75	8	8434 2202 74	8434 2202 94
BCHN:2500	BCHN:0064	2 1/2	M64	941	94.4	124	86	8	8434 2202 75	8434 2202 95
BCHN:2750	BCHN:0068	2 3/4	M68	1042	104.5	131	90	8	8434 2202 76	8434 2202 96
BCHN:3000	BCHN:0072	3	M72	1246	125.1	144	94	10	8434 2202 77	8434 2202 97
BCHN:3250	BCHN:0080	3 1/4	M80	1607	161.3	159	104	10	8434 2202 78	8434 2202 98
BCHN:3500	BCHN:0090	3 1/2	M90	2027	203.4	176	114	10	8434 2202 79	8434 2202 99
BCHN:3750	BCHN:0095	3 3/4	M95	2160	216.7	182	118	10	8434 2202 80	8434 2203 00
BCHN:4000	BCHN:0100	4	M100	2466	247.5	200	124	15	8434 2202 81	8434 2203 01
BCHN:4500	BCHN:0110	4 1/2	M110	2814	282.4	215	136	15	8434 2202 82	8434 2203 02
BCHN:5000	BCHN:0125	5	M125	3820	383.4	244	148	15	8434 2202 83	8434 2203 03
BCHN:5500	BCHN:0140	5 1/2	M140	4954	497.1	272	164	15	8434 2202 84	8434 2203 04
BCHN:6000	BCHN:0150	6	M150	5655	567.5	290	176	15	8434 2202 85	8434 2203 05

Hydraulic nut seal ordering numbers

Ordering No.	Item imperial	Thread		Item metric	Ordering No.
		Inches	metric		
4222 2700 32	BCHN:0875	7/8"	M22	BCHN:0022	4222 2700 52
4222 2701 58	BCHN:1000	1"	M24	BCHN:0024	4222 2700 53
4222 2701 59	BCHN:1125	1 1/8"	M27	BCHN:0027	4222 2700 54
			M30	BCHN:0030	4222 2700 03
4222 2700 33	BCHN:1250	1 1/4"	M33	BCHN:0033	4222 2700 55
4222 2700 34	BCHN:1375	1 3/8"	M36	BCHN:0036	4222 2700 02
4222 2700 35	BCHN:1500	1 1/2"	M39	BCHN:0039	4222 2700 56
4222 2700 36	BCHN:1625	1 5/8"	M42	BCHN:0042	4222 2700 01
4222 2700 37	BCHN:1750	1 3/4"	M45	BCHN:0045	4222 2700 57
4222 2700 38	BCHN:1875	1 7/8"	M48	BCHN:0048	4222 2700 58
4222 2700 39	BCHN:2000	2"	M52	BCHN:0052	4222 2700 59

Ordering No.	Item imperial	Thread		Item metric	Ordering No.
		Inches	metric		
4222 2700 40	BCHN:2250	2 1/4"	M56	BCHN:0056	4222 2700 60
4222 2700 41	BCHN:2500	2 1/2"	M64	BCHN:0064	4222 2700 61
4222 2700 42	BCHN:2750	2 3/4"	M68	BCHN:0068	4222 2700 62
4222 2700 43	BCHN:3000	3"	M72	BCHN:0072	4222 2700 63
4222 2700 44	BCHN:3250	3 1/4"	M80	BCHN:0080	4222 2700 64
4222 2700 45	BCHN:3500	3 1/2"	M90	BCHN:0090	4222 2700 65
4222 2700 46	BCHN:3750	3 3/4"	M95	BCHN:0095	4222 2700 66
4222 2700 47	BCHN:4000	4"	M100	BCHN:0100	4222 2700 67
4222 2700 48	BCHN:4500	4 1/2"	M110	BCHN:0110	4222 2700 68
4222 2700 49	BCHN:5000	5"	M125	BCHN:0125	4222 2700 69
4222 2700 50	BCHN:5500	5 1/2"	M140	BCHN:0140	4222 2700 70
4222 2700 51	BCHN:6000	6"	M150	BCHN:0150	4222 2700 71

Top collar technical data



Model		Thread		Bolt Load		O	H	Ram Stroke	Ordering No.	
Inch	Metric	Inches	Metric	kN	Tons	mm	mm	mm	Imperial	Metric
TCHN:0875	TCHN:0022	7/8	M22	190	19.1	54	40	5	8434 2203 06	8434 2203 28
TCHN:1000	TCHN:0024	1	M24	205	20.6	57	44	5	8434 2203 07	8434 2203 29
TCHN:1125	TCHN:0027	1 1/8	M27	220	22.1	60	46	5	8434 2203 08	8434 2203 30
TCHN:1250	TCHN:0033	1 1/4	M33	265	26.6	67	48	5	8434 2203 09	8434 2203 31
TCHN:1375	TCHN:0036	1 3/8	M36	325	32.6	73	52	6	8434 2203 10	8434 2203 32
TCHN:1500	TCHN:0039	1 1/2	M39	373	37.5	78	56	6	8434 2203 11	8434 2203 33
TCHN:1625	TCHN:0042	1 5/8	M42	424	42.6	83	58	6	8434 2203 12	8434 2203 34
TCHN:1750	TCHN:0045	1 3/4	M45	445	44.6	86	60	6	8434 2203 13	8434 2203 35
TCHN:1875	TCHN:0048	1 7/8	M48	523	52.5	93	64	8	8434 2203 14	8434 2203 36
TCHN:2000	TCHN:0052	2	M52	629	63.1	102	72	8	8434 2203 15	8434 2203 37
TCHN:2250	TCHN:0056	2 1/4	M56	781	78.3	112	75	8	8434 2203 16	8434 2203 38
TCHN:2500	TCHN:0064	2 1/2	M64	941	94.4	124	81	8	8434 2203 17	8434 2203 39
TCHN:2750	TCHN:0068	2 3/4	M68	1042	104.5	131	89	8	8434 2203 18	8434 2203 40
TCHN:3000	TCHN:0072	3	M72	1246	125.1	144	96	10	8434 2203 19	8434 2203 41
TCHN:3250	TCHN:0080	3 1/4	M80	1607	161.3	159	104	10	8434 2203 20	8434 2203 42
TCHN:3500	TCHN:0090	3 1/2	M90	2027	203.4	176	114	10	8434 2203 21	8434 2203 43
TCHN:3750	TCHN:0095	3 3/4	M95	2160	216.7	182	117	10	8434 2203 22	8434 2203 44
TCHN:4000	TCHN:0100	4	M100	2466	247.5	200	126	15	8434 2203 23	8434 2203 45
TCHN:4500	TCHN:0110	4 1/2	M110	2814	282.4	215	138	15	8434 2203 24	8434 2203 46
TCHN:5000	TCHN:0125	5	M125	3820	383.4	244	150	15	8434 2203 25	8434 2203 47
TCHN:5500	TCHN:0140	5 1/2	M140	4954	497.1	272	168	15	8434 2203 26	8434 2203 48
TCHN:6000	TCHN:0150	6	M150	5655	567.5	290	174	15	8434 2203 27	8434 2203 49

Hydraulic nut seal ordering numbers

Ordering No.	Item imperial	Thread		Item metric	Ordering No.
		Inches	metric		
4222 2700 72	TCHN:0875	7/8"	M22	TCHN:0022	4222 2700 94
4222 2700 73	TCHN:1000	1"	M24	TCHN:0024	4222 2700 95
4222 2700 74	TCHN:1125	1 1/8"	M27	TCHN:0027	4222 2700 96
4222 2700 75	TCHN:1250	1 1/4"	M33	TCHN:0033	4222 2700 97
4222 2700 76	TCHN:1375	1 3/8"	M36	TCHN:0036	4222 2700 98
4222 2700 77	TCHN:1500	1 1/2"	M39	TCHN:0039	4222 2700 99
4222 2700 78	TCHN:1625	1 5/8"	M42	TCHN:0042	4222 2701 00
4222 2700 79	TCHN:1750	1 3/4"	M45	TCHN:0045	4222 2701 01
4222 2700 80	TCHN:1875	1 7/8"	M48	TCHN:0048	4222 2701 02
4222 2700 81	TCHN:2000	2"	M52	TCHN:0052	4222 2701 03
4222 2700 82	TCHN:2250	2 1/4"	M56	TCHN:0056	4222 2701 04

Ordering No.	Item imperial	Thread		Item metric	Ordering No.
		Inches	metric		
4222 2700 83	TCHN:2500	2 1/2"	M64	TCHN:0064	4222 2701 05
4222 2700 84	TCHN:2750	2 3/4"	M68	TCHN:0068	4222 2701 06
4222 2700 85	TCHN:3000	3"	M72	TCHN:0072	4222 2701 07
4222 2700 86	TCHN:3250	3 1/4"	M80	TCHN:0080	4222 2701 08
4222 2700 87	TCHN:3500	3 1/2"	M90	TCHN:0090	4222 2701 09
4222 2700 88	TCHN:3750	3 3/4"	M95	TCHN:0095	4222 2701 10
4222 2700 89	TCHN:4000	4"	M100	TCHN:0100	4222 2701 11
4222 2700 90	TCHN:4500	4 1/2"	M110	TCHN:0110	4222 2701 12
4222 2700 91	TCHN:5000	5"	M125	TCHN:0125	4222 2701 13
4222 2700 92	TCHN:5500	5 1/2"	M140	TCHN:0140	4222 2701 14

Order from standard configurations on the table above.

Tentec V-Series

Compact flange bolt tensioner

Knurled thread insert

Makes operation easier for the user.



Sculpted to fit

Machined flats and other custom design on this tensioner perfectly clears elliptical hub profile, weld protrusion and peion diameter.

The V-Series compact flange bolt tensioners are a purpose designed range of tools designed specifically for use on SPO Compact flanges. The range consists of 11 powerful bolt tensioning tools covering bolt sizes from 3/4" to 4".

Grip surface

Allows easier user handling.

Holding straps

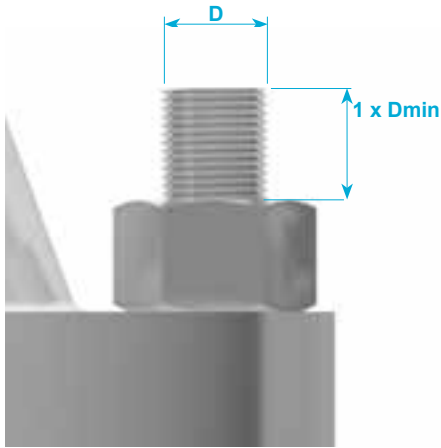
On our larger tensioners, we include holding straps to make it easier to move tools around.

No small bonded seals

All V-Series have been designed without the need for small bonded seals, which helps reduce downtime.



Tentec V-Series technical data



V-Series tensioners need a minimum of 1 x bolt diameter protruding above the hexagon or round nut.

Tool	Item Imperial	Thread Size		Item Metric	Bolt Load		Ram Area		Stroke Mm	Weight Kg
		Inch	Mm		Kn	Ton	In ²	Mm ²		
V-1	HTT.10101.034	3/4"-10Unc	M20x2.5	HTT.10101.020	135.5	13.599	1.401	903.87	10	1.67
V-2	HTT.10102.034	3/4"-10Unc	M20x2.5	HTT.10102.020	189.39	19.007	1.958	1263.22	10	2.17
	HTT.10102.078	7/8"-9Unc	M22x2.5	HTT.10102.022						2.07
V-3	HTT.10103.078	7/8"-9Unc	M22x2.5	HTT.10103.022	245.92	24.681	2.542	1640.00	15	3.33
	HTT.10103.100	1"-8Un	M24x3	HTT.10103.024						3.19
V-4			M27x3	HTT.10104.027	415.52	41.702	4.295	2770.96	15	6.2
	HTT.10104.118	1.1/8-8Un	M30x3.5	HTT.10104.030						6.08
	HTT.10104.114	1.1/4"-8Un	M33x3.5	HTT.10104.033						5.87
V-5	HTT.10105.138	1.3/8"-8Un	M36x4	HTT.10105.036	628.64	63.091	6.498	4192.25	15	8.65
	HTT.10105.112	1.1/2"-8Un	M39x4	HTT.10105.039						8.37
V-6	HTT.10106.158	1.5/8"-8Un	M42x4.5	HTT.10106.042	878.45	88.162	9.08	5858.05	15	12.08
	HTT.10106.134	1.3/4"-8Un	M45x4.5	HTT.10106.045						11.73
V-7	HTT.10107.178	1.7/8"-8Un	M48x5	HTT.10107.048	1184.49	118.877	12.243	7898.69	15	16.34
	HTT.10107.200	2"-8Un	M52x5	HTT.10107.052						15.92
V-8			M56x5.5	HTT.10108.056	1905.46	191.234	19.695	12706.43	15	28.27
	HTT.10108.214	2.1/4"-8Un	M60x5.5	HTT.10108.060						27.91
	HTT.10108.212	2.1/2"-8Un	M64x6	HTT.10108.064						26.71
V-9			M68x6	HTT.10109.068	2544.02	255.321	26.295	16964.48	15	40.13
	HTT.10109.234	2.3/4"-8Un	M72x6	HTT.10109.072						39.22
	HTT.10109.300	3"-8Un	M76x6	HTT.10109.076						37.64
V-10			M80x6	HTT.10110.080	3521.35	353.407	36.397	23481.89	15	64.76
	HTT.10110.314	3.1/4"-8Un	M85x6	HTT.10110.085						63.07
	HTT.10110.312	3.1/2"-8Un	M90x6	HTT.10110.090						61.05
V-11	HTT.10111.334	3.3/4"-8Un	M95x6	HTT.10111.095	4653.38	467.018	48.098	31030.91	15	88.36
	HTT.10111.400	4"-8Un	M100x6	HTT.10111.100						85.64

Tentec V-Series ordering numbers

Tool	Item		Thread Size		PTD Number Imperial	PTD Number Metric
	Imperial	Inch	mm	Metric		
V-1	HTT.10101.034	3/4" V-Series Tensioner	M20 V-Series Tensioner	HTT.10101.020	8434 2201 36	8434 2201 57
V-2	HTT.10102.034	3/4" V-Series Tensioner	M20 V-Series Tensioner	HTT.10102.020	8434 2201 37	8434 2201 58
	HTT.10102.078	7/8" V-Series Tensioner	M22 V-Series Tensioner	HTT.10102.022	8434 2201 38	8434 2201 59
V-3	HTT.10103.078	7/8" V-Series Tensioner	M22 V-Series Tensioner	HTT.10103.022	8434 2201 39	8434 2201 60
	HTT.10103.100	1" V-Series Tensioner	M24 V-Series Tensioner	HTT.10103.024	8434 2201 40	8434 2201 61
V-4			M27 V-Series Tensioner	HTT.10104.027		8434 2201 62
	HTT.10104.118	1.1/8" V-Series Tensioner	M30 V-Series Tensioner	HTT.10104.030	8434 2201 41	8434 2201 63
	HTT.10104.114	1.1/4" V-Series Tensioner	M33 V-Series Tensioner	HTT.10104.033	8434 2201 42	8434 2201 64
V-5	HTT.10105.138	1.3/8" V-Series Tensioner	M36 V-Series Tensioner	HTT.10105.036	8434 2201 43	8434 2201 65
	HTT.10105.112	1.1/2" V-Series Tensioner	M39 V-Series Tensioner	HTT.10105.039	8434 2201 44	8434 2201 66
V-6	HTT.10106.158	1.5/8" V-Series Tensioner	M42 V-Series Tensioner	HTT.10106.042	8434 2201 45	8434 2201 67
	HTT.10106.134	1.3/4" V-Series Tensioner	M45 V-Series Tensioner	HTT.10106.045	8434 2201 46	8434 2201 68
V-7	HTT.10107.178	1.7/8" V-Series Tensioner	M48 V-Series Tensioner	HTT.10107.048	8434 2201 47	8434 2201 69
	HTT.10107.200	2" V-Series Tensioner	M52 V-Series Tensioner	HTT.10107.052	8434 2201 48	8434 2201 70
V-8			M56 V-Series Tensioner	HTT.10108.056		8434 2201 71
	HTT.10108.214	2.1/4" V-Series Tensioner	M60 V-Series Tensioner	HTT.10108.060	8434 2201 49	8434 2201 72
	HTT.10108.212	2.1/2" V-Series Tensioner	M64 V-Series Tensioner	HTT.10108.064	8434 2201 50	8434 2201 73
V-9			M68 V-Series Tensioner	HTT.10109.068		8434 2201 74
	HTT.10109.234	2.3/4" V-Series Tensioner	M72 V-Series Tensioner	HTT.10109.072	8434 2201 51	8434 2201 75
	HTT.10109.300	3" V-Series Tensioner	M76 V-Series Tensioner	HTT.10109.076	8434 2201 52	8434 2201 76
V-10			M80 V-Series Tensioner	HTT.10110.080		8434 2201 77
	HTT.10110.314	3.1/4" V-Series Tensioner	M85 V-Series Tensioner	HTT.10110.085	8434 2201 53	8434 2201 78
	HTT.10110.312	3.1/2" V-Series Tensioner	M90 V-Series Tensioner	HTT.10110.090	8434 2201 54	8434 2201 79
V-11	HTT.10111.334	3.3/4" V-Series Tensioner	M95 V-Series Tensioner	HTT.10111.095	8434 2201 55	8434 2201 80
	HTT.10111.400	4" V-Series Tensioner	M100 V-Series Tensioner	HTT.10111.100	8434 2201 56	8434 2201 81

V-Series spare seal kit ordering numbers

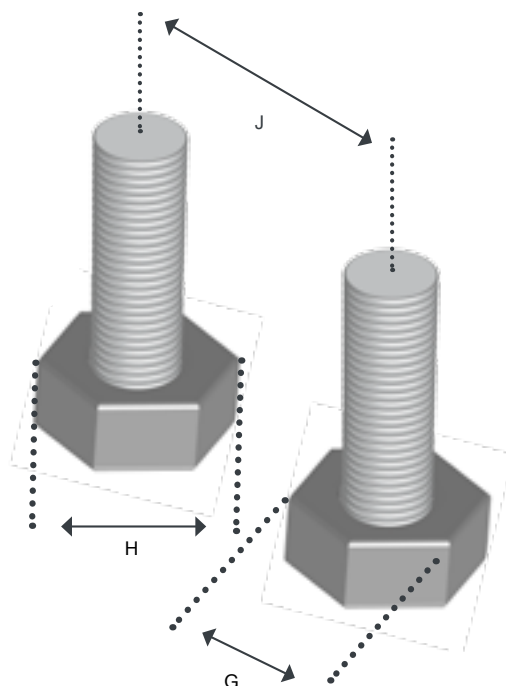
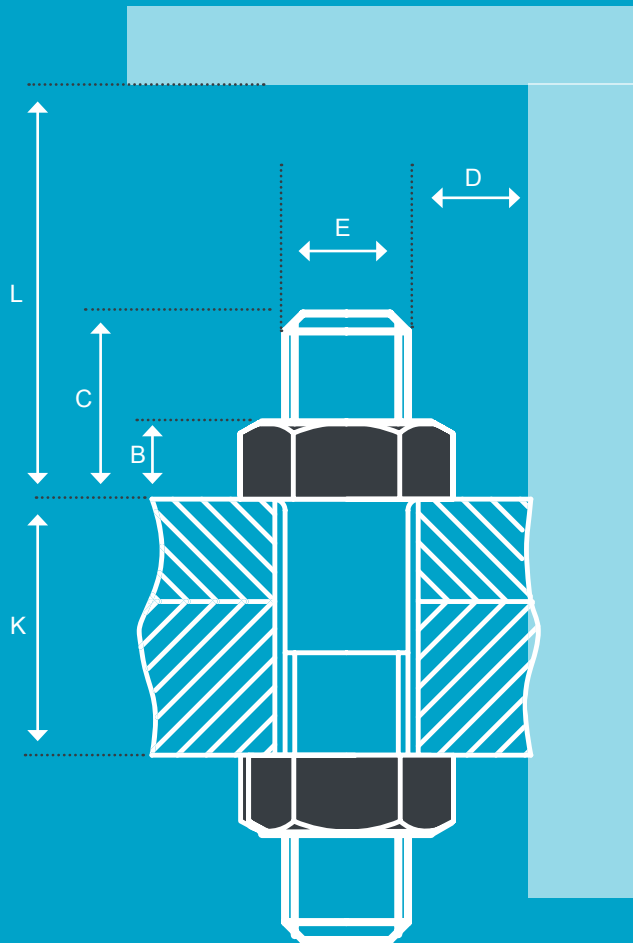
Tool	Description	Ordering No.
V-1	V-1 Spare Seal Kit	4222 2701 20
V-2	V-2 Spare Seal Kit	4222 2701 21
V-3	V-3 Spare Seal Kit	4222 2701 22
V-4	V-4 Spare Seal Kit	4222 2701 23
V-5	V-5 Spare Seal Kit	4222 2701 24
V-6	V-6 Spare Seal Kit	4222 2701 25

Tool	Description	Ordering No.
V-7	V-7 Spare Seal Kit	4222 2701 26
V-8	V-8 Spare Seal Kit	4222 2701 27
V-9	V-9 Spare Seal Kit	4222 2701 28
V-10	V-10 Spare Seal Kit	4222 2701 29
V-11	V-11 Spare Seal Kit	4222 2701 30

You can order a from our standard V-Series range using the table above. There are many different configurations available for V-Series bolt tensioners.

Custom tensioners

Custom-built for your application



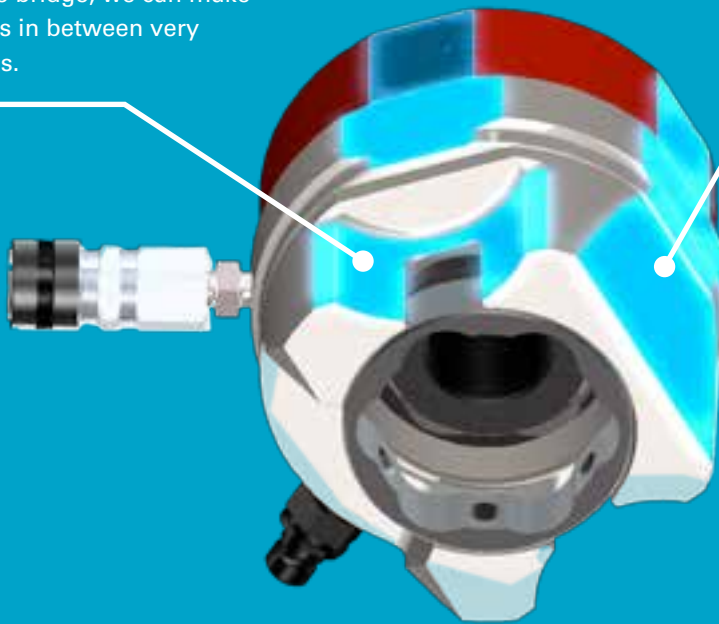
Tentec line of tensioners cover a great range of applications, but our in-house development team really shines when it comes to custom tensioner design. No matter the application, our team can get it done. By providing us with basic measurements, we can create the exact tensioner design for your application. All parts of a tensioner can be customized to cater for any special application. Common customization is requested to match thread pitch, bolt load requirements and Nut Rotating Socket height.

Customized sculpted bridge

By customizing the bridge, we can make a tensioner that fits in between very close hexagon nuts.

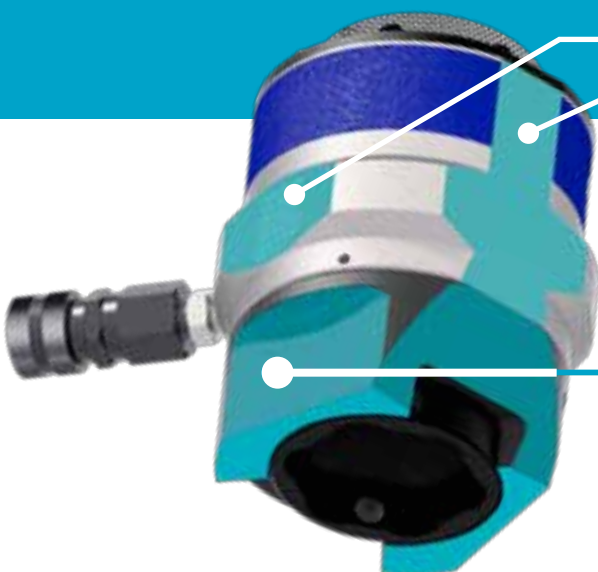
Customized machined flats

Customized machined flats to the rear of the tensioner to allow for tight weld radius and tight applications.



Machined profile

We can machine profile, rear and sides to adjust to a specific measurement.



Machined nut rotating socket

Profiles can be reduced on the Nut Rotating Socket to perfectly sit in between adjacent nuts.

Accessories for tentec bolt tensioners

Hand Pumps

Item	Description	Ordering No.
HTT.2065.000.A	Low Pressure Hand Pump	8434 2200 03
HTT.2122.000.A	High Pressure Hand Pump	8434 2200 04



Air-Driven Pumps

Item	Description	Ordering No.
HTT.6271	Low Pressure Air Driven Pump D500, 25,000 psi	8434 2200 05
HTT.6272	High Pressure Air Driven Pump D500, 40,000 psi	8434 2200 06
Hi-Flow HTT.6978	Low Pressure Hi-Flow Air Driven Pump, stainless steel frame D600, 25,000 psi	8434 2202 62
Hi-Flow HTT.9384	High Pressure High Flow Air Driven Pump, stainless steel frame D600, 40,000 psi	8434 2202 63
HTT.18007.000	Airbac Pump	4222 2601 06
HTT.18008.000	Retro-fit Kit	4222 2601 07



Wind Turbine Pumps

Item	Description	Ordering No.
HTT.8900.200	Wind Turbine Pump 115v-60Hz	8434 2203 66
HTT.8900.400	Wind Turbine Pump 230v-50Hz	8434 2203 68
HTT.8900.600	Wind Turbine Pump 400v-50Hz	8434 2203 70

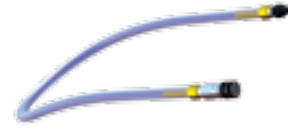
For any other voltage/frequency contact local sales office



Hydraulic Hoses

Item	Description	Ordering No.
HTT.4425.130	4.Ply 1.3 Meter Long Hose (Low Pressure)	8434 2200 10
HTT.4425.150	4.Ply 1.5 Meter Long Hose (Low Pressure)	8434 2200 11
HTT.4425.300	4.Ply 3.0 Meter Long Hose (Low Pressure)	8434 2200 12
HTT.4425.500	4.Ply 5 Meter Long Hose (Low Pressure)	8434 2200 13
HTT.4444.130	6.Ply 1.3 Meter Long Hose (High Pressure)	8434 2200 14
HTT.4444.150	6.Ply 1.5 Meter Long Hose (High Pressure)	8434 2200 15
HTT.4444.300	6.Ply 3.0 Meter Long Hose (High Pressure)	8434 2200 16
HTT.4444.500	6.Ply 5 Meter Long Hose (High Pressure)	8434 2200 17

1500 bar Hydraulic Link Hose



2275 bar Hydraulic Link Hose



Couplers/Nipples

Item	Description	Ordering No.
HTT.3427.000	1/4" Male X 1/4" Male Adaptor (Tensioner)	4222 2700 19
HTT.3627.000	1/4" Male X 1/4" Cejn Male (Hose)	4222 2700 20
400.021-4490-2	1/4" Bonded Seal	4222 2700 21
C101161202	C116 Female Coupling (Low Pressure)	4222 2700 22
C101166202	C116 Male Nipple (Low Pressure)	4222 2700 23
C101251203	C125 Female Coupling (High Pressure)	4222 2700 24
C101256203	C125 Male Nipple (Hiigh Pressure)	4222 2700 25
HTT.4132	1/4 BSP M X 1/8 BSP M ADAP	4222 2701 52
DOWTY.0.125	1/8" Bonded Seal	4222 2701 53
HTT.2408	1/8" BSP CONED BLANK PLUG	4222 2701 54
HTT.3609	9/16" UNF CONED BLANK PLUG	4222 2701 55
HTT.5886	1/4" BSP BLANK PLUG	4222 2701 56

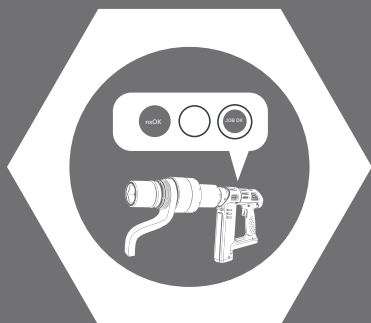
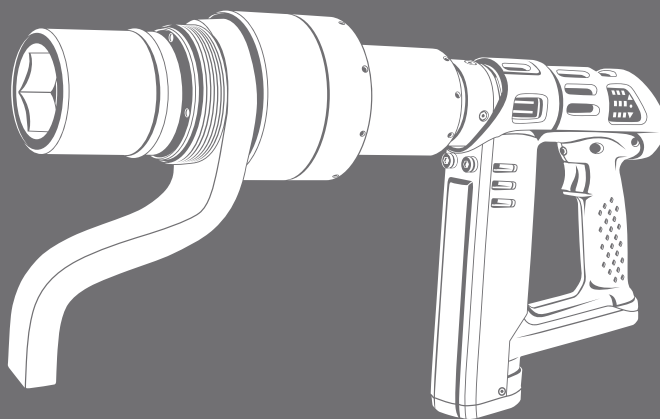


Hydraulic Oil

Item	Description	Ordering No.
AWS68	AWS68 - Hyd Oil One Gallon	8434 2200 01
AWS32	AWS32 - Hyd Oil One Gallon	8434 2200 02



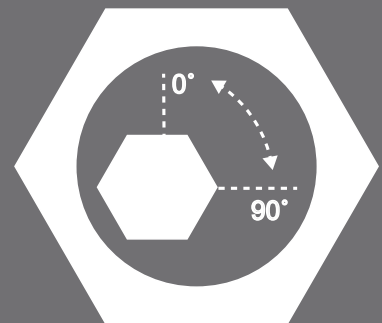
Electric transducerized nutrunner



**OPERATOR
FEEDBACK**



TRACEABILITY



TORQUE AND ANGLE



Tensor Revo HA



Common controller. Controlled by the Power Focus 6000, the common touch screen controller for all Tensor tools.

Slim gears offer highest accessibility to application. 5 models of tools from 390 to 8000 Nm.

Quality. Unique transducerized tool with swivel offers quality of tightenings and traceability.

360° swivel reaction bar. Offers flexibility while working on different applications. Wide range of light weight reaction bars are available.

Handle angle adjusting joint.

Two Hand start. The Revo HA is designed with safety and ergonomics in mind. The two hand start ensures operator safety during tightening operation. Better ergonomics and handling with adjustable handle.

Led Lights provide instant and clear feedback to the operator.

Common controller. Controlled by the Power Focus 6000, the common touch screen controller for all Tensor tools.

High access

It is smaller, lighter and faster

Traditional air and hydraulic tools have problems with noise, vibration and unproductive operation. Also, on most tools the operator can not see the tightening result. This leads to unnecessary investments in additional tools.

Highest accessibility

With usability in focus, the Revo HA is designed with a slim gearbox and compact reaction bars with relatively low weight. It's also equipped with a socket release function that releases the socket and reaction bar from the joint after tightening is done.

Process quality

The Revo HA is the first ever swiveling transducerized tool in this segment. It uses traceability, angle control and monitoring to assure perfect joint quality.

Faster tightening process

These high torque models can operate at comparatively high speeds. With multi torque setting buttons and operator feedback on the display the tightening process is shortened.

Safe and ergonomic

Two-handed start trigger makes it safer to operate. With the tool weight balanced out in two hands operator fatigue is reduced. The low vibration and noise level provides a much sounder and comfortable working environment. The controller case enables easy transport between stations and tasks.



REVO CASE



CONTROLLER CASE

Technical data & order numbers

Model	Square Drive	Torque range		Speed rpm	Weight		Length mm	Ordering No.
		Nm	ft lb		kg	lb		
ETP ST101-1300-20-F-HA	¾"	390-1300	288-1000	65	6.4	14.1	348	8433 2313 03
ETP ST101-2400-25-F-HA	1"	720-2400	532-1770	31	7.5	16.5	400	8433 2326 03
ETP ST101-4000-25-F-HA	1"	1200-4000	885-2950	16	11	24.2	461	8433 2324 03
ETP ST101-5500-38-F-HA	1½"	1650-5500	1217-4056	17	13.2	29.1	452	8433 2325 03
ETP ST101-6500-38-F-HA	1½"	1950-6500	1440-4800	12	13.2	29.1	452	8433 2327 03
ETP ST101-8000-38-F-HA*	1½"	2400-8000	1770-5900	10	13.2	29.1	452	8433 2328 03

* Available only with PF4000. Please contact division for more information.
Reaction bar not included for ETP ST101. See accessories.

Revo tool accessories

Model	Ordering No.
Revo HA1300/2600 case	8433 2305 11
Revo HA4000 case	8433 2305 12
Revo HA5800/8000 case	8433 2305 13
Tool protective cover (included)	4220 4299 00
Support handle (included)	4220 4001 83
Adjustable operator handle with trigger	4220 4522 82
Fan module for tool	4220 4417 90
Quick change socket release kit ¾"	4210 3476 80
Quick change socket release kit 1"	4210 3524 80
ST barcode scanner	8433 0615 50

Model	Ordering No.
Protective cover for ST scanner	4220 2762 10
Tool cables – Power Focus 6000	
ST Cable, 5m	4220 4375 05
ST Cable 7m	4220 4375 07
ST Cable, 10m	4220 4375 10
ST Cable, 15m	4220 4375 15
Cable protection	4220 2977 90

Model	Ordering No.
Error proofing modules	
Stacklight ESL04	8433 0570 13
Operator panel advanced	8433 0565 00
Selector, large sockets	8433 0610 44

For additional accessories, cable/controller configurations and software, see Atlas Copco Industrial PowerTools catalogue.

Power Focus 6000

Controller hardware & Software	Ordering No.
Power Focus 6000	8436 1800 02
IAM Process Control	8436 0910 40
IAM Process Control 2 VS	8436 0910 42
IAM Process Control 3 VS	8436 0910 43
IAM Process Control 4 VS	8436 0910 44
IAM Process Control 5 VS	8436 0910 45
IAM Process Control 6 VS	8436 0910 46
IAM Process Plus Control	8436 0910 50
IAM Process Plus Control 2 VS	8436 0910 52
IAM Process Plus Control 3 VS	8436 0910 53
IAM Process Plus Control 4 VS	8436 0910 54
IAM Process Plus Control 5 VS	8436 0910 55
IAM Process Plus Control 6 VS	8436 0910 56

Model	Ordering No.
Controller carry case IP67 class	8433 2305 10
Controller mounting stand	4222 1736 04
Compact cooling fan module	4222 1599 80
Controller IP54 kit	4222 1769 90

Reaction bars and suspension yokes (not included)

Tool model	A. Steel Bar	B. S-type	C. Sliding Drive	D. Square bracket	E. Swivelling suspension yoke
Revo HA 1300	4210 4757 90	4210 4480 90	4210 4752 90	4210 4758 90	4210 3088 83
Revo HA 2400	4210 4757 93	4210 4480 94	4210 4752 93	4210 4758 93	4210 3088 82
Revo HA 4000	4210 4757 91	4210 4480 93	4210 4752 91	4210 4758 91	4210 3088 81
Revo HA5500/6500/8000	4210 4757 92	4210 4480 92	4210 4752 92	4210 4758 92	4220 4075 91*

* Refer ServAid for accessories selection



CONTROLLER MOUNTING STAND

Sockets

Saltus sockets, bits and specials



Experienced engineers from the Atlas Copco "Competence Center Sockets" develop and produce standard and customized sockets covering nearly every tightening situation.

More than 1.800 different high-quality Saltus sockets in various versions, lengths and with useful features optimize your assembly operations and increase your productivity.

Thanks to our continuous stream of innovations we steadily improve materials, form and function.

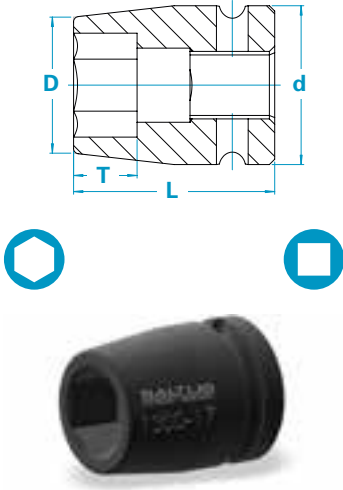
An outstanding example for sustainable productivity:

Our new Long Life sockets which have a three to ten times longer lifetime than normal sockets – depending on your application.

Where standard sockets cannot support your assembly process efficiently enough, we develop the optimal, individual and customized solutions in close cooperation with you. These customized sockets are even available in small batches, and if needed within 5-10 working days as express production.





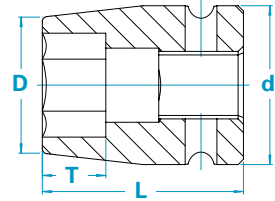
Sockets, short version



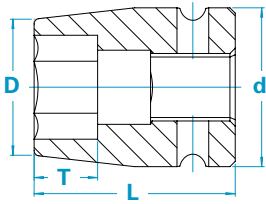
		Output-Ø D mm	Input-Ø d mm	Length L mm	Depth T mm	Weight g	Ordering No.	Pin and O-Ring Reference*	
	in	mm							
3/4		16	28.8	44	50	11	378	4027 1500 16	U
3/4		17	30	44	50	12	370	4027 1500 17	U
3/4		18	31.3	44	50	13	382	4027 1500 18	U
3/4		19	32.5	44	50	13	379	4027 1500 19	U
3/4		21	35	44	50	15	380	4027 1500 21	U
3/4		22	36.3	44	50	15	374	4027 1500 22	U
3/4		24	38.8	44	50	16	382	4027 1500 24	U
3/4		27	42.5	44	50	16	381	4027 1500 27	U
3/4		30	46.3	44	53	18	416	4027 1500 30	U
3/4		32	48.8	44	53	19	436	4027 1500 32	U
3/4		33	50	44	55	20	460	4027 1500 33	U
3/4		34	51.3	44	55	20	480	4027 1500 34	U
3/4		36	53.8	44	55	20	512	4027 1500 36	U
3/4		41	60	44	57	22	611	4027 1500 41	U
3/4		46	66.3	44	62	23	771	4027 1500 46	U
3/4		50	71.3	54	62	30	930	4027 1500 50	Q
	in	in							
3/4		11/16	30	44	50	12	365	4027 1500 82	U
3/4		3/4	32.5	44	50	13	379	4027 1500 81	U
3/4		13/16	35	44	50	15	385	4027 1500 79	U
3/4		7/8	36.3	44	50	15	369	4027 1500 78	U
3/4		15/16	38.8	44	50	16	387	4027 1500 77	U
3/4		1	40	44	50	16	369	4027 1500 76	U
3/4		1.1/16	42.5	44	50	16	381	4027 1500 99	U
3/4		1.1/8	45	44	53	18	417	4027 1500 98	U
3/4		1.1/4	48.8	44	53	19	441	4027 1500 96	U
3/4		1.5/16	51.3	44	55	20	495	4027 1500 94	U
3/4		1.1/2	56.3	44	57	20	558	4027 1500 91	U
3/4		1.3/4	65	44	62	23	762	4027 1500 86	U
3/4		1.7/8	68.8	54	62	23	945	4027 1500 83	Q
	in	mm							
1		21	37.8	54	57	15	605	4027 1600 21	T
1		22	39	54	57	15	620	4027 1600 22	T
1		24	41.5	54	57	16	627	4027 1600 24	T
1		27	45.3	54	57	16	630	4027 1600 27	T
1		30	49	54	62	21	650	4027 1600 30	T
1		32	51.5	54	62	21	660	4027 1600 32	T
1		34	54	54	62	21	690	4027 1600 34	T
1		33	52.8	54	62	21	660	4027 1600 33	T
1		36	56.5	54	62	21	716	4027 1600 36	T
1		41	62.8	54	66	25	850	4027 1600 41	T
1		46	69	54	70	29	1024	4027 1600 46	T
1		50	74	54	70	35	1050	4027 1600 50	T
1		55	80.3	54	75	39	1286	4027 1600 55	T
1		60	86.5	54	75	39	1400	4027 1600 60	T
1		65	92.8	54	75	38	1630	4027 1600 65	T
1		70	99	54	75	37	1625	4027 1600 70	T



Sockets, short version

		Output-Ø D mm	Input-Ø d mm	Length L mm	Depth T mm	Weight g	Ordering No.	Pin and O-Ring Reference*
in	in							
1	7/8	39	54	57	15	615	4027 1600 78	T
1	15/16	41.5	54	57	16	627	4027 1600 77	T
1	1	42.8	54	57	16	620	4027 1600 76	T
1	1.1/16	45.3	54	57	16	630	4027 1600 99	T
1	1.1/8	47.8	54	57	18	637	4027 1600 98	T
1	1.3/16	49	54	62	21	647	4027 1600 97	T
1	1.1/4	51.5	54	62	21	655	4027 1600 96	T
1	1.5/16	54	54	62	21	700	4027 1600 94	T
1	1.1/2	59	54	66	25	770	4027 1600 91	T
1	1.11/16	65.3	54	68	27	977	4027 1600 87	T
1	1.7/8	71.5	54	70	35	990	4027 1600 83	T
1	2	75.3	54	70	35	1030	4027 1600 81	T
1	2.1/16	76.5	54	75	40	1185	4027 1600 79	T
in	mm							
1.1/2	41	68	86	80	22	2346	4027 1700 41	S
1.1/2	42	70	86	80	22	2330	4027 1700 42	S
1.1/2	46	74	86	84	26	2360	4027 1700 46	S
1.1/2	50	79	86	84	27	2400	4027 1700 50	S
1.1/2	52	82	86	84	38	2340	4027 1700 52	S
1.1/2	54	84	86	84	38	2340	4027 1700 54	S
1.1/2	55	85	86	90	44	2450	4027 1700 55	S
1.1/2	58	88	86	90	44	2510	4027 1700 58	S
1.1/2	60	91	86	90	43	2640	4027 1700 60	S
1.1/2	65	97	86	95	48	3050	4027 1700 65	S
1.1/2	70	103	86	100	52	3350	4027 1700 70	S
1.1/2	75	108	86	105	56	3700	4027 1700 75	S
1.1/2	80	115	86	110	60	4240	4027 1700 80	S
1.1/2	85	122	86	110	60	4550	4027 1700 85	S
1.1/2	90	128	86	112	60	4840	4027 1700 90	S
1.1/2	95	135	127	112	52	7660	4027 1700 95	P
1.1/2	100	140	127	115	53	7700	4027 1700 00	P
1.1/2	105	146	127	120	57	8000	4027 1700 05	P
1.1/2	110	153	127	124	60	9200	4027 1700 10	P
1.1/2	115	160	127	128	62	10700	4027 1700 15	P
1.1/2	120	166	127	132	64	11200	4027 1700 20	P
1.1/2	125	173	127	136	67	13000	4027 1700 25	P
1.1/2	130	180	127	140	69	14200	4027 1700 30	P
1.1/2	135	186	127	145	73	14940	4027 1700 35	P
1.1/2	140	190	127	150	76	15600	4027 1700 40	P
1.1/2	150	200	127	160	83	16500	4027 1700 51	P
in	mm							
2.1/2	55	96	137	130	72	9220	8434 2054 08	O
2.1/2	60	100	137	130	68	9300	8434 2059 06	O
2.1/2	65	104	137	130	68	9300	8434 2053 86	O
2.1/2	70	110	137	130	68	9300	8434 2053 88	O
2.1/2	75	118	137	130	68	9310	8434 2059 07	O
2.1/2	80	126	137	130	68	9280	8434 2054 12	O
2.1/2	85	133	137	130	68	9300	8434 2054 16	O
2.1/2	90	143	137	140	78	10550	8434 2054 18	O
2.1/2	95	148	137	140	78	10800	8434 2053 94	O
2.1/2	100	153	137	140	78	11100	8434 2053 72	O
2.1/2	105	158	137	150	88	12100	8434 2126 47	O





Sockets, short version

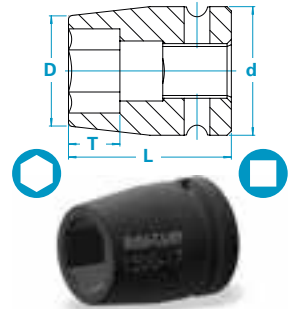


			Output-Ø D mm	Input-Ø d mm	Length L mm	Depth T mm	Weight g	Ordering No.	Pin and O-Ring Reference**
	in	mm							
2.1/2		110	166	137	150	88	13000	8434 2053 74	O
2.1/2		115	174	137	150	88	13900	8434 2053 76	O
2.1/2		120	181	160	150	88	16900	8434 2053 78	N
2.1/2		125	187	160	150	88	17500	8434 2053 80	N
2.1/2		130	195	160	170	106	21500	8434 2053 82	N
2.1/2		135	202	160	170	106	22500	8434 2053 84	N
2.1/2		140	208	160	170	106	23000	8434 2126 50	N
2.1/2		145	214	160	170	106	24000	8434 2059 08	N
2.1/2		150	219	160	170	106	24500	8434 2059 09	N
2.1/2		155	224	160	180	115	29000	8434 2059 10	N
2.1/2		160	229	160	180	115	31000	8434 2059 11	N
2.1/2		165	235	160	180	115	32000	8434 2059 12	N
2.1/2		170	240	160	180	115	32500	8434 2059 13	N
2.1/2		175	247	160	180	115	34500	8434 2059 14	N
2.1/2		180	253	160	225	143	41400	8434 2059 15	N
2.1/2		185	258	160	225	143	42300	8434 2059 16	N
2.1/2		190	264	160	225	143	43600	8434 2059 17	N
2.1/2		200	276	160	225	143	46600	8434 2059 18	N
2.1/2		210	287	160	225	143	49200	8434 2059 19	N
2.1/2		215	293	160	225	143	50800	8434 2059 20	N
2.1/2		235	316	160	225	143	56400	8434 2059 21	N
2.1/2		255	339	160	225	143	63200	8434 2059 22	N
	in	in							
2.1/2		2	92	137	130	72	9000	8434 2053 85	O
2.1/2		2.3/16	97	137	130	72	8580	8434 2126 53	O
2.1/2		2.3/8	100	137	130	68	9300	8434 2126 56	O
2.1/2		2.7/16	102	137	130	68	9450	8434 2126 59	O
2.1/2		2.9/16	104	137	130	68	9300	8434 2053 86	O
2.1/2		2.3/4	110	137	130	68	9300	8434 2053 88	O
2.1/2		2.15/16	118	137	130	68	9300	8434 2053 90	O
2.1/2		3	120	137	130	68	9300	8434 2126 62	O
2.1/2		3.1/8	126	137	130	68	9300	8434 2126 65	O
2.1/2		3.1/2	142	137	140	78	10400	8434 2053 92	O
2.1/2		3.5/8	145	137	140	78	10600	8434 2126 68	O
2.1/2		3.3/4	148	137	140	78	10800	8434 2053 94	O
2.1/2		3.7/8	151	137	140	78	11000	8434 2053 96	O
2.1/2		4	155	137	140	78	11300	8434 2053 98	O
2.1/2		4.1/16						8434 2053 99	O
2.1/2		4.1/8	158	137	150	88	12100	8434 2054 00	O
2.1/2		4.1/4	163	137	150	88	12800	8434 2054 02	O
2.1/2		4.3/8	167	137	150	88	13300	8434 2126 71	O
2.1/2		4.5/8	178	160	150	88	15200	8434 2054 04	N
2.1/2		5	190	160	170	106	21500	8434 2126 74	N
2.1/2		5.3/16	198	160	170	106	22000	8434 2054 06	N
2.1/2		5.3/8	204	160	170	106	23000	8434 2126 77	N
2.1/2		5.3/4	216	160	170	106	25000	8434 2126 80	N
2.1/2		6.1/8	224	160	180	115	30000	8434 2126 83	N
2.1/2		6.1/2	235	160	180	115	32000	8434 2054 10	N
2.1/2		7	250	160	180	115	35500	8434 2059 23	N



Also available with double hex and surface drive or in long execution on demand or download our complete catalogue on Sockets and Bits.

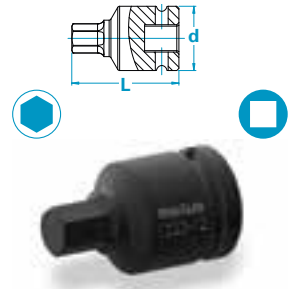
Sockets, short version

		Output-Ø D mm	Input-Ø d mm	Length L mm	Depth T mm	Weight g	Ordering No.	Pin and O-Ring Reference**
in	in							
2.1/2	7.5/16	260	160	225	143	47500	8434 2059 24	N
2.1/2	7.13/16	273	160	225	143	49500	8434 2059 25	N
2.1/2	8.7/8	304	160	225	143	62000	8434 2054 14	N
2.1/2	9.1/8	312	160	225	143	65000	8434 2059 26	N
2.1/2	10	338	160	225	143	70000	8434 2059 27	N





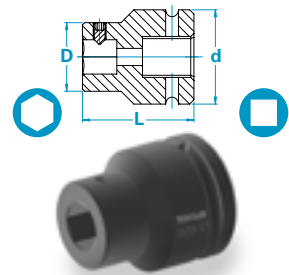
Bit sockets, suited for inhex screws

		Input-Ø d mm	Length L mm	Weight g	Ordering No.	Pin and O-Ring Reference*
in	mm					
3/4	12	44	62	408	4027 1523 12	U
3/4	14	44	62	397	4027 1523 14	U
3/4	17	44	62	387	4027 1523 17	U
3/4	19	44	66	428	4027 1523 19	U
3/4	22	44	66	442	4027 1523 22	U
1	17	54	90	825	4027 1623 17	T
1	19	54	90	814	4027 1623 19	T
1	22	54	90	856	4027 1623 22	T
1	24	54	90	876	4027 1623 24	T
1	27	54	90	915	4027 1623 27	T
1	30	54	90	971	4027 1623 30	T





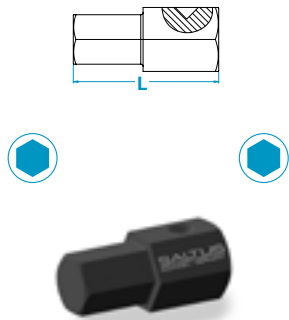
Bit Holders for exchangeable bits with hexagonal drive

		Output-Ø D mm	Input-Ø d mm	Length L mm	Weight g	Ordering No.	Pin and O-Ring Reference**
in	mm						
3/4	16	32	44	52	369	4027 1535 10	U
3/4	22	44	44	60	530	4027 1535 11	U
1	22	44	54	70	770	4027 1635 11	T



Bits for inhex screws for bit holder with hexagonal drive

		Length L mm	Weight g	Ordering No.
mm	mm			
16	10	40	46	4027 1550 10
16	12	40	52	4027 1550 12
16	14	40	60	4027 1550 14
16	16	40	69	4027 1550 16
16	17	40	73	4027 1550 17
16	19	40	80	4027 1550 19
22	17	50	120	4027 1650 17
22	19	50	140	4027 1650 19
22	22	50	162	4027 1650 22
22	24	50	176	4027 1650 24
22	27	50	200	4027 1650 27
22	30	50	227	4027 1650 30
22	32	55	243	4027 1650 32



Pin and o-ring sets

Reference* Letter	Locking pin Diameter mm	Length mm	O-Ring Ø mm	Inner Ø mm	Pin and O-Ring Set Ordering No.
U	4	36	5	36	4027 1598 90
T	5	45	7	45	4027 1698 90
S	7	75	10	75	4027 1798 90
Q	5.5	45	5	45	4027 1598 91
P	7	110	10	114	4027 1798 91
O	8	125	12	125	4027 1898 90
N	8	145	12	147	4027 1898 91



Flange spreaders

Mechanical spreading wedges

Portable and lightweight

360 degree rotation handle design

No finger pinching points

Rugged carbon steel construction



ACMP700 Features

- Lightweight and easy to handle
- Sealed bladder
- Can be used at any angle and orientation
- Highly resistant to oil leakage

ACMP700

- Overall Length: 554.0mm (21.81")
- Handle Length: 360.0mm (14.17")
- Pump Weight: 4.0Kg (8.8lb)





ACMS08T features

- Portable and lightweight
- 360 degree rotation handle design
- No finger pinching points
- Rugged carbon steel construction

Capabilities

8T spreading force from
180Nm (133ft.lb) of torque

Spreads: 6.0mm – 63.7mm
(0.24" - 2.5")
(without stepped blocks)

Spreads: 60.0mm – 86.7mm
(2.4" - 3.4")
(with stepped blocks)

(0.24" - 1.28") spread using only 1st step



ACHS14T features

- High power to weight ratio
- Revolving handle
- No finger pinching points

Capabilities

14T spread force from
10,000psi (700 Bar) Hydraulic pressure

Spreads: 6.0mm – 63.7mm
(0.24" - 2.5")
(without stepped blocks)

Spreads: 60.0mm – 86.7mm
(2.4" - 3.4")
(with stepped blocks)

Kit contents

- 1 x ACMS08T wedgehead
- 1 x 203 N m (150 ft lb) torque wrench with 22 mm socket
- 1 x Safety block
- 2 x Step blocks
- 2 x Screws for step block
- 1 x Lanyard
- 1 x Allen key
- 1 x Instruction manual
- 1 x Polycarbonate carrying case

Kit contents

- 1 x ACHS14T wedgehead c/w hydraulic cylinder
- 1 x Lanyard
- 1 x Allen key
- 1 x Safety block
- 2 x Step block
- 2 x Screws for step blocks
- 1 x Instruction manual
- 1 x Polycarbonate carrying case

Part No.	Product	Description
8434 2058 04	Hydraulic Pump	ACMP700 Manual
8434 2058 05	Flange Spreader	ACMS08T Mechanical
8434 2058 06	Flange Spreader	ACHS14T Hydraulic
8434 2058 07	Hose Kit	Single Line 700 bar 4mtr

Nut splitters

***Used to remove corroded
and seized nuts***

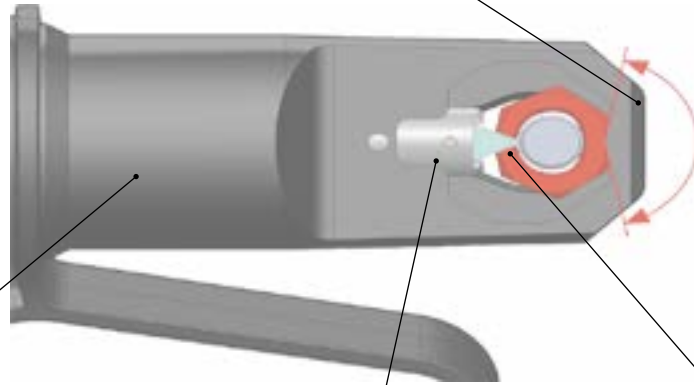




A DIN 2642 * NIO R 131-3

Hydraulic nut splitters

The combination of the sharp cutting tip and opposing convex reaction point encourages more efficient splitting by spreading the nut open rather than squashing the nut onto the stud. This makes it easier to rotate the nut for the second cut



Integral hydraulic cylinder with high grade material to make it smallest and lightest nut splitter

Quick and easy cutting tip replacement

Cutting tip made from heat-treated shock-resisting tool steel for better cut and longer life

Bolt Size	1/2"		9/16"		5/8"		3/4"		7/8"		1"	
	Heavy	Standard	Heavy	Standard	Heavy	Standard	Heavy	Standard	Heavy	Standard	Heavy	
Nut Size A/F	22.2mm (7/8")	22.2mm (7/8")	23.8mm (15/16")	23.8mm (15/16")	27mm (1 1/16")	28.6mm (1 1/8")	31.8mm (1 1/4")	33.3mm (1 5/16")	36.5mm (1 7/16")	38.1mm (1 1/2")	41.3mm (1 5/8")	
Tool	ACNS12	ACNS12	ACNS12/ACNS15	ACNS12/ACNS15		ACNS15		ACNS15	ACNS15/ACNS20	ACNS20		

1 1/8"		1 1/4"		1 3/8"		1 1/2"		1 5/8"		1 3/4"	
Standard	Heavy	Standard	Heavy	Standard	Heavy	Standard	Heavy	Standard	Heavy	Standard	Heavy
42.9mm (1 11/16")	46mm (1 13/16")	47.6mm (1 7/8")	50.8mm (2")	52.4mm (2 1/16")	55.6mm (2 3/16")	57.2mm (2 1/4")	60.3mm (2 3/8")	61.9mm (2 7/16")	65.1mm (2 9/16")	66.7mm (2 5/8")	69.9mm (2 3/4")
ACNS20	ACNS20/ACNS36	ACNS36	ACNS36	ACNS36		ACNS36		ACNS36	ACNS36/ACNS50	ACNS50	

1 7/8"		2"	
Standard	Heavy	Standard	Heavy
71.4mm (2 13/16")	74.6mm (2 15/16")	76.2mm (3")	79.4mm (3 1/8")
ACNS50		ACNS50	ACNS50

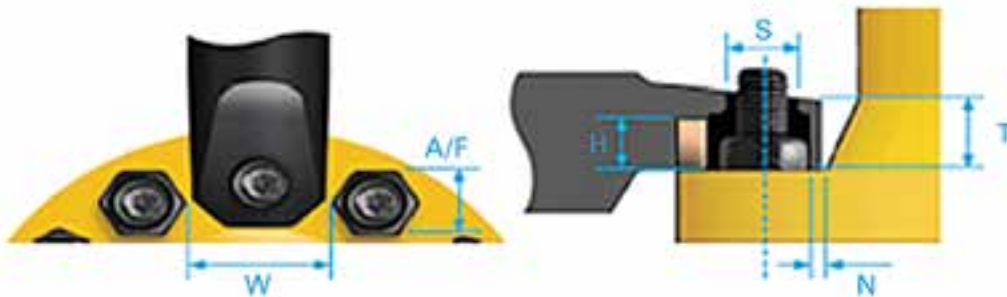
Bolt Size	M14	M16	M20	M24	M30	M36	M42	M48
	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Nut Size A/F	21mm (0.83")	24mm (0.94")	30mm (1.2")	36mm (1.4")	46mm (1.8")	55mm (2.2")	65mm (2.6")	75mm (3.0")
Tool	ACNS12	ACNS12/ACNS15	ACNS15	ACNS15/ACNS20	ACNS20	ACNS36	ACNS36/ACNS50	ACNS50

Features



- A** Five models
(22-75 mm A/F)
- B** Non standard range to cover up to 115 mm A/F
- C** Compact design to work on flanges
- D** Easy to change blade
- E** Ergonomically designed

Spatial envelope



Symbol	Measurement	ACNS12		ACNS15		ACNS20		ACNS36		ACNS50	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
A/F	Across Flats	17.5 mm (0.69")	30.0 mm (1.18")	23.0 mm (0.91")	36.5 mm (1.44")	32.0 mm (1.26")	51.0 mm (2.01")	50.8mm (2.0")	65mm (2.6")	50.8mm (2.0")	80mm (3.15")
W	Clear Width	53.5 mm (2.11")	-	57.0 mm (2.24")	-	83.5 mm (3.29")	-	107.6mm (4.2")	-	107.6mm (4.2")	135mm (5.31")
S	Stud Diameter	-	24.5 mm (0.96")	-	25.5 mm (1.00")	-	38.0 mm (1.50")	-	49.2mm (1.94")	-	61mm (2.4")
H	Cutting height	-	20.0 mm (0.79")	-	22.0 mm (0.87")	-	31.5 mm (1.24")	-	45.5mm (1.8")	-	54.5mm (2.15")
N	Nose clearance	8.5 mm (0.33")	-	9.0 mm (0.35")	-	16.0 mm (0.63")	-	10.5mm (0.4")	-	10.5mm (0.4")	27mm (1.06")
T	Nose height	26.5 mm (1.04")		32.5 mm (1.28")		45 mm (1.77")		56mm (2.2")		65mm (2.56")	

Ordering No.	Our Model	Weight		Nut Range A/F	
		Kg	Lbs	MM	Inch
8434 2058 00	ACNS12	4	8.8	17.5 mm - 30.0 mm	(0.69" - 1.18")
8434 2058 01	ACNS15	4.5	9.9	23.0 mm - 36.5 mm	(0.91" - 1.44")
8434 2058 02	ACNS20	7	15.4	32.0 mm - 51.0 mm	(1.26" - 2.01")
8434 2058 03	ACNS36	11	24.2	50.8 mm - 65.0 mm	(2.00" - 2.56")
8434 2058 11	ACNS50	24.5	54	65 mm - 75.0 mm	(2.56" - 2.94")

Software

Toolsnet 8 - widgets are personalised views for your specific needs

The **ToolsNet 8 dashboard is modular** giving you a direct overview of the production in the plant. Extracting and visualizing the information you find most interesting and important to monitor – any time. Every user can configure the dashboard in a way that best suits their needs.

Maybe you want a complete overview of the assembly line to analyze productivity. Or you need to monitor a certain station to improve on quality.

Order numbers –ToolsNet 8

ToolsNet 8

Type	Name	Ordernumber
Reports	ToolsNet 8 - 1 spindle	8092 1710 01
Reports	ToolsNet 8 - 3 spindles	8092 1710 03
Reports	ToolsNet 8 - 5 spindles	8092 1710 05
Reports	ToolsNet 8 - 10 spindles	8092 1710 10
Reports	ToolsNet 8 - 25 spindles	8092 1710 25
Reports	ToolsNet 8 - 50 spindles	8092 1710 50
Reports	ToolsNet 8 - 75 spindles	8092 1710 75
Reports	ToolsNet 8 - 125 spindles	8092 1710 80
Reports	ToolsNet 8 - 225 spindles	8092 1710 85
Reports	ToolsNet 8 - 350 spindles	8092 1710 90
Reports	ToolsNet 8 - 500 spindles	8092 1710 95
Reports	ToolsNet 8 - 1000 spindles	8092 1710 00
Alerts	ToolsNet 8 - 5 spindles	8092 1711 05
Alerts	ToolsNet 8 - 10 spindles	8092 1711 10
Alerts	ToolsNet 8 - 25 spindles	8092 1711 25
Alerts	ToolsNet 8 - 50 spindles	8092 1711 50
Alerts	ToolsNet 8 - 75 spindles	8092 1711 75
Alerts	ToolsNet 8 - 125 spindles	8092 1711 80
Alerts	ToolsNet 8 - 225 spindles	8092 1711 85
Alerts	ToolsNet 8 - 350 spindles	8092 1711 90
Alerts	ToolsNet 8 - 500 spindles	8092 1711 95
Alerts	ToolsNet 8 - 1000 spindles	8092 1711 00
Analysis	ToolsNet 8 - 5 spindles	8092 1712 05
Analysis	ToolsNet 8 - 10 spindles	8092 1712 10
Analysis	ToolsNet 8 - 25 spindles	8092 1712 25
Analysis	ToolsNet 8 - 50 spindles	8092 1712 50
Analysis	ToolsNet 8 - 75 spindles	8092 1712 75
Analysis	ToolsNet 8 - 125 spindles	8092 1712 80
Analysis	ToolsNet 8 - 225 spindles	8092 1712 85
Analysis	ToolsNet 8 - 350 spindles	8092 1712 90
Analysis	ToolsNet 8 - 500 spindles	8092 1712 95
Analysis	ToolsNet 8 - 1000 spindles	8092 1712 00

ToolsNet 4000 –ToolsNet 8

Type	Name	Ordernumber
Reports	ToolsNet 8 - 5 spindles	8092 1810 05
Reports	ToolsNet 8 - 10 spindles	8092 1810 10
Reports	ToolsNet 8 - 25 spindles	8092 1810 25
Reports	ToolsNet 8 - 50 spindles	8092 1810 50
Reports	ToolsNet 8 - 75 spindles	8092 1810 75
Reports	ToolsNet 8 - 125 spindles	8092 1810 80
Reports	ToolsNet 8 - 225 spindles	8092 1810 85
Reports	ToolsNet 8 - 350 spindles	8092 1810 90
Reports	ToolsNet 8 - 500 spindles	8092 1810 95
Reports	ToolsNet 8 - 1000 spindles	8092 1810 00
Alerts	ToolsNet 8 - 5 spindles	8092 1811 05
Alerts	ToolsNet 8 - 10 spindles	8092 1811 10
Alerts	ToolsNet 8 - 25 spindles	8092 1811 25
Alerts	ToolsNet 8 - 50 spindles	8092 1811 50
Alerts	ToolsNet 8 - 75 spindles	8092 1811 75
Alerts	ToolsNet 8 - 125 spindles	8092 1811 80
Alerts	ToolsNet 8 - 225 spindles	8092 1811 85
Alerts	ToolsNet 8 - 350 spindles	8092 1811 90
Alerts	ToolsNet 8 - 500 spindles	8092 1811 95
Alerts	ToolsNet 8 - 1000 spindles	8092 1811 00
Analysis	ToolsNet 8 - 5 spindles	8092 1812 05
Analysis	ToolsNet 8 - 10 spindles	8092 1812 10
Analysis	ToolsNet 8 - 25 spindles	8092 1812 25
Analysis	ToolsNet 8 - 50 spindles	8092 1812 50
Analysis	ToolsNet 8 - 75 spindles	8092 1812 75
Analysis	ToolsNet 8 - 125 spindles	8092 1812 80
Analysis	ToolsNet 8 - 225 spindles	8092 1812 85
Analysis	ToolsNet 8 - 350 spindles	8092 1812 90
Analysis	ToolsNet 8 - 500 spindles	8092 1812 95
Analysis	ToolsNet 8 - 1000 spindles	8092 1812 00





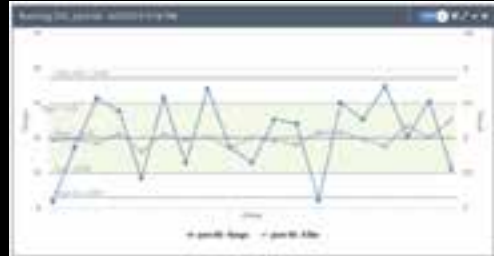
Top NOK applications

Shows the applications with the highest failure rate for a configured part of the tool structure.



Running SPC

Shows the real-time X-bar and range charts for a configured application.



Tool maintenance

Shows all the Power Focus tools in production that need service or calibration.



Latest results

Shows an overview of the latest results from the chosen part of the tool structure.

ToolsNet 8 will:

- Boost your productivity with reduced rework and less bottlenecks.
- Improve your quality by avoiding recalls tracking changes and finding the problems before they occur.
- Reduce service costs with preventive maintenance for your tools, reduced down time and faster reaction time with alert notices.

New license or upgrade?

If you currently are working with ToolsNet 4000 you can install an upgrade to ToolsNet 8. Users of previous versions and first time users need to do a full installation of ToolsNet 8.

Get in touch with your Atlas Copco contact today. Learn more on www.atlascopco.com

Flange management system – iFMS

A modular software-based management system

What is iFMS?

iFMS is used for the planning, data capture, analysis & reporting of activities related to the inspection, maintenance & testing of bolted joints and pipework.

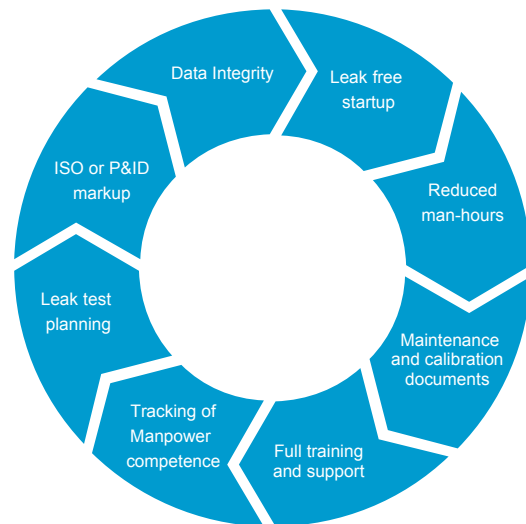
Who is iFMS for?

Operators wishing to manage their assets throughout construction, commissioning, shutdowns, turnarounds and routine maintenance

- Service companies offering integrated flange management and pressure testing services
- Specialist technical services companies providing flange management as a complementary service line
- Construction companies required to produce and maintain auditable records for flange assembly and tightening activities
- Engineering companies providing a specialist quality control function where state of the art software is a vital component of an overall flange management system

What does it do?

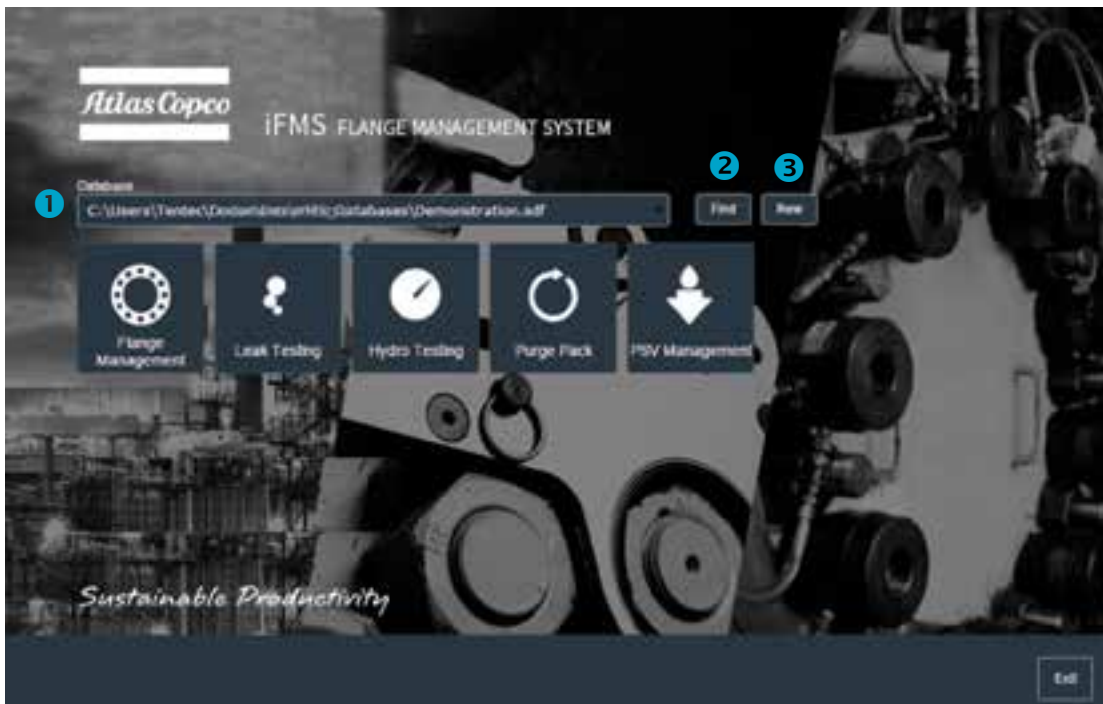
- Flexible and customisable import routines allow data import from a variety of formats and applications
- Flange management information capture and reporting based on Energy institute 'Guidelines for the management of integrity of bolted joints for pressurised systems'
- System generated leak test packs are based on HSE 'Safety requirements for pressure testing Guidance Note GS4'
- Software is easily customised to capture any data and generate additional service line work-packs
- Drawing module allows PDF-based ISOs and P&IDs to be marked up to support Flange Management and Leak testing instructions, procedures and activities
- Drawings and work-packs can be copied and edited, drawings up rev'd retaining mark-up to facilitate the rapid generation of packs
- Customisable reports and outputs
- Anomaly tracking
- In built tools to monitor project progress



What are the benefits?

- Ease of data import and system population
- Established database of flange and connector types, gasket types, bolt materials
- Can incorporate the torque and tension tool details from any supplier
- The drawing views and the flange registers are always synchronised allowing users to work in whichever environment is most familiar
- The real time data capture using handhelds support a more detailed and accurate audit trail as well as eliminating the time and errors associated with data re-keying
- The software can be easily customised to support the functionality, data and branding to suit each client and project
- iFMS can be made interoperable with existing business and engineering systems
- Single database of drawings is reusable for all current & future FM and pressure testing activities eliminating time and costs associated with pre-engineering
- iFMS is easily tailored to support additional service lines so can be used as a single tool to support your main business operations
- Improves data integrity, eliminating costs associated with user errors
- The iFMS engine has been used to drive major new-build, upgrade and shutdown projects globally

Flange management system – iFMS



① Database filename and path ② Find existing database ③ Create new database

Joint integrity procedures

Procedures are arranged in two categories – Control Based and Task Based

CONTROL BASED

- Management Responsibilities
- Scope and Intent
- Competency Management
- Activity Planning
- Activity Execution
- Joint Criticality
- Permanent Tagging
- Reporting
- Temporary 3/4 Part Tagging

TASK BASED

- Lubrication of Nut and Bolt Assemblies
- Flange Break out
- Clamp Break out
- Flange Preparation
- Clamp Preparation and Assembly (Manual torque)
- Flange Hydraulic Torque
- Flange Bolt Tensioning
- Hot Bolting
- Clamp Preparation and Assembly (Hydraulic)

Joint integrity training

The worldwide standard for joint integrity training



We offer a mobile training service as well as our own comprehensive certified training school within our facility. This gives our customers the option of either using Atlas Copco bolting equipment in our training school or on site at our customers facility giving the trainee's the benefit of learning on the actual equipment they will be using on the job.

ECITB defined training course "Mechanical Joint Integrity Standards" training is given by fully certified ECITB licensed trainers.

Successful trainees are issued the globally recognised ECITB certificate of technical competence. "Management of Joint Integrity" employer's can selectively choose training content from a selection of disciplines:-

MJI10 Hand Torque Bolted Connections

MJI18 Hydraulic Tensioned Bolted Connections

MJI19 Hydraulic Torqued Bolted Connections

TE12 Hydraulic Nuts*

TE13 BTS-Bolt Tightening Software*

A preferred Learner/Trainer ratio of 4:1 is available.

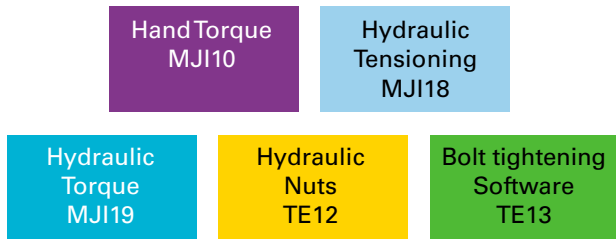
We are a specialist provider of training and competence assurance programmes in the assembly and tightening of bolted connections to industries as diverse as oil & gas (onshore and offshore), power generation, construction, defence and renewable energy.

We deliver training in controlled bolting in accordance with "Mechanical Joint Integrity Standards" document published by the Engineering Construction Industry Training Board (ECITB). The training standards available are MJI10 hand torque, MJI18 hydraulic tensioning and MJI19 hydraulic torque wrenches. Additional derived courses include TE12 Hydraulic Nuts and TE13 BTS-Bolt Tightening Software.

These standards are recognised by industry and recommended as the benchmark qualification for bolting personnel by the energy institute and other influential authorities.

ECITB - Mechanical joint integrity standards

Stage 1 - Training



Stage 2 - Workplace task assignments

Each learner after attending an approved training course from stage 1 and attaining the training certificate requires a period of workplace experience to practise new skills and knowledge. This period allows for the consolidation of skills and knowledge against work based tasks.



Stage 3 - Test centre assessment

Requires each individual to complete a formal assessment of their job knowledge, skills and ability in each Mechanical Joint Integrity subject.



Stage 4 - Technical competence validation

To confirm the individual's current skills, knowledge and ability the ECITB technical competence validation test is undertaken every 3 years to prove ongoing performance development.

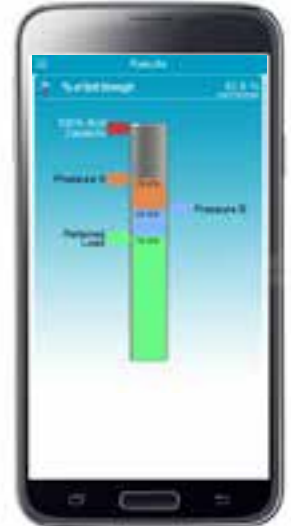
Support

Bolt Tightening Software & IOS/ Android APP

Software to complement our other standard tension and torque tightening products. This is now also available to install on IOS and Android platforms allowing users even easier access to critical calculations and bolt tightening procedures. The software includes data for the following standard flanges:

- ANSI B16.5
- ANSI B16.47 Series A
- MSS SP-44
- API 6A
- API 17SV
- Vector SPO Compact Flanges
- Norsok L-005

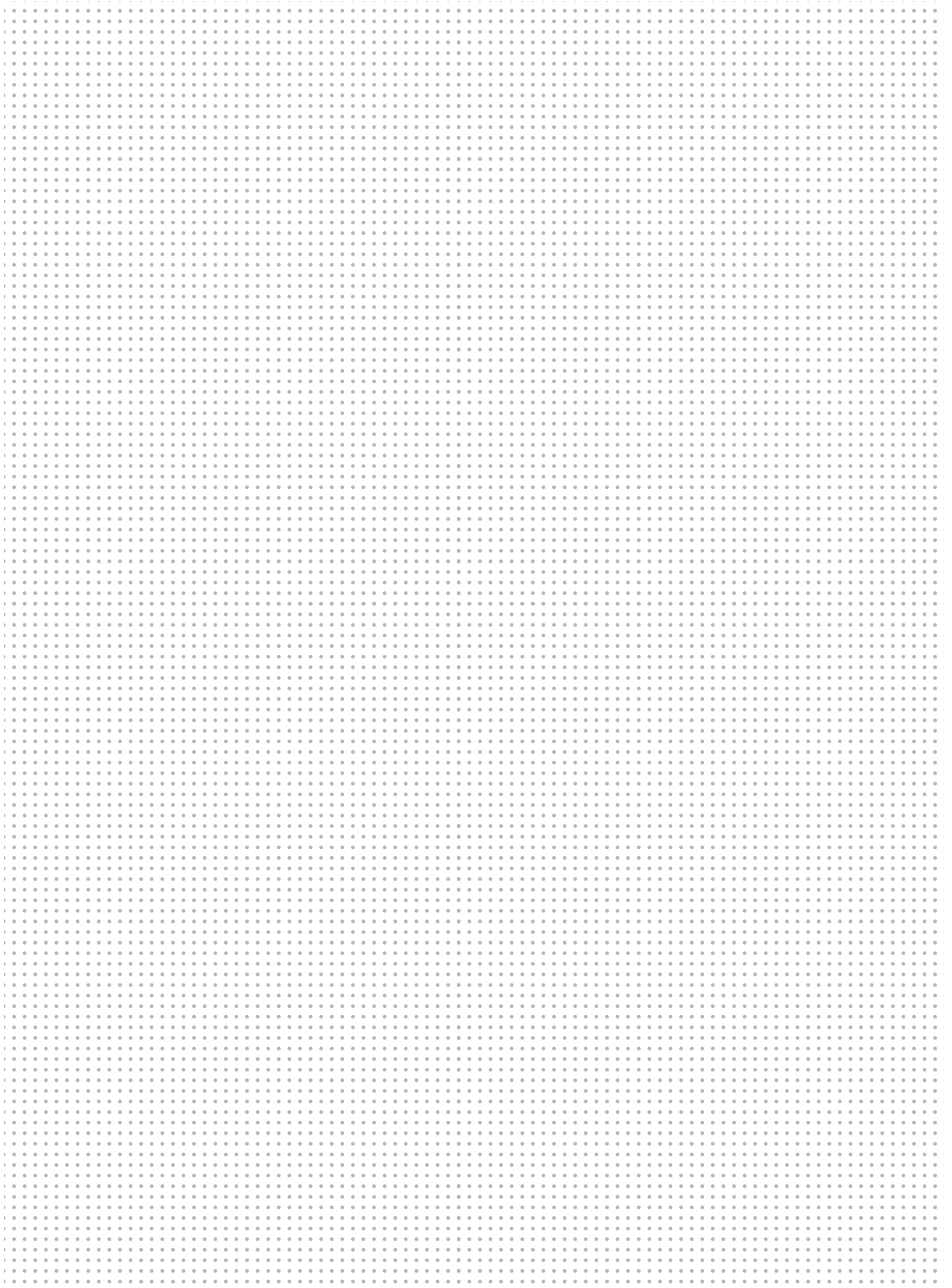
Contact our local sales for more details to download and use the software or app.



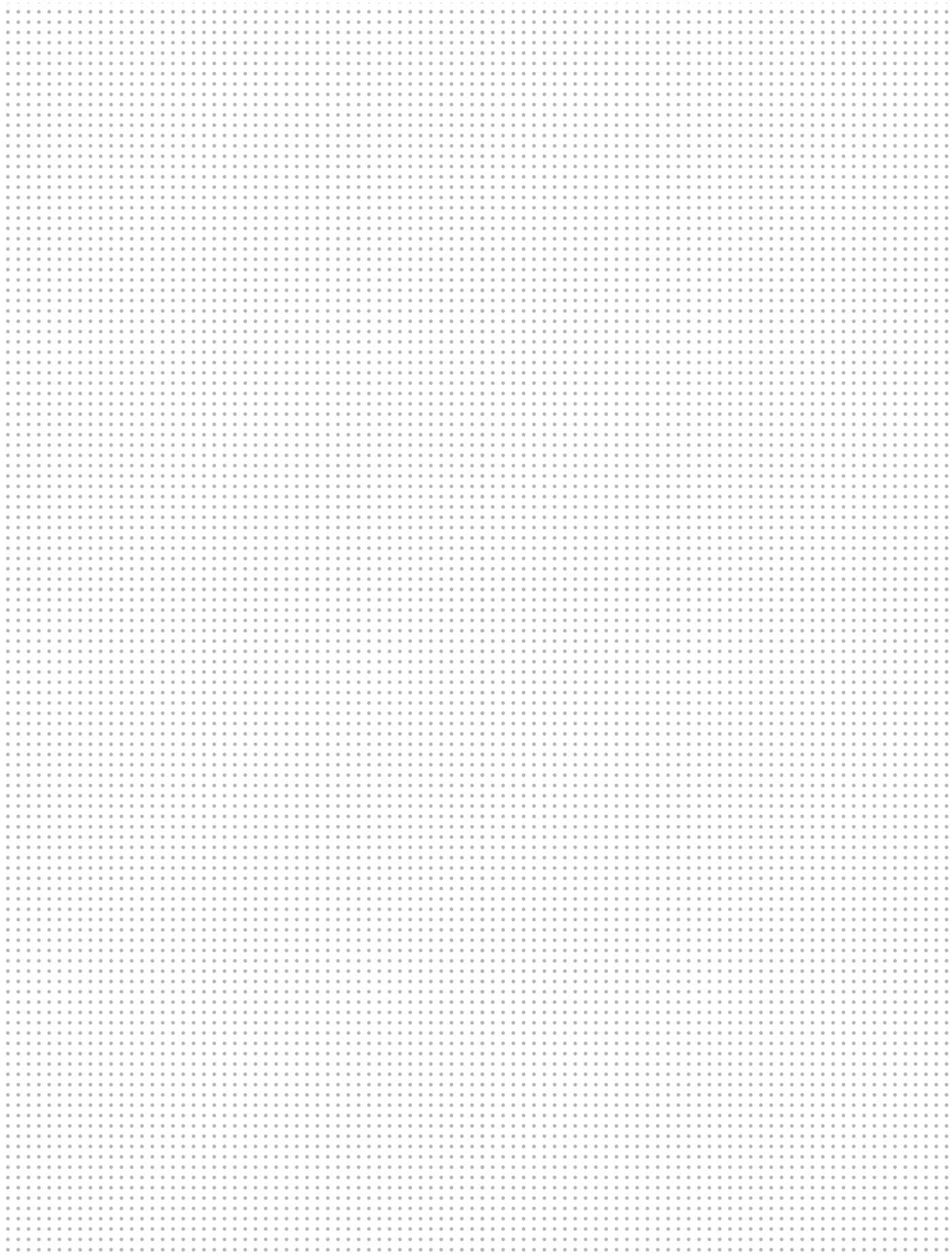
Notes



NOTES



NOTES



Committed to sustainable productivity

We stand by our responsibilities towards our customers, towards the environment and the people around us.

We make performance stand the test of time. This is what we call - Sustainable Productivity.

Atlas Copco