

Industrial Power Tools 2013

Premier productivity solutions

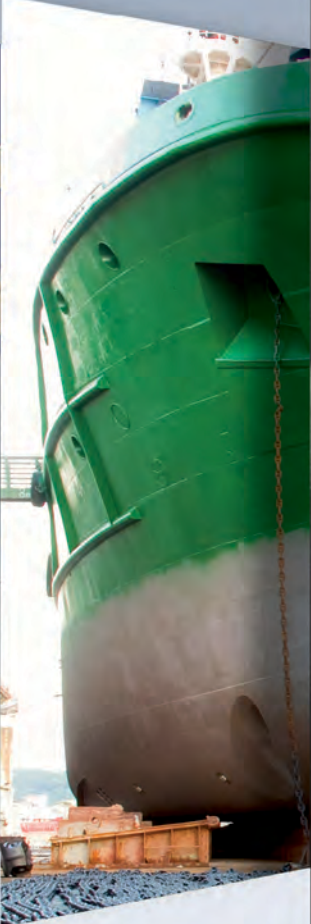


Sustainable Productivity

Atlas Copco

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Whatever your **business** we can add **value**

A global technology leader, Atlas Copco is a true solutions provider to the manufacturing industries of the world. You will find the high-tech tools, assembly systems and process software of the future in our range today. From big bolt fastening technology for offroad vehicles, down to “micro” tools for tiny fasteners in the electronics industry, Atlas Copco has the solutions you need to stay ahead of the game.



You talk, we listen

For us, listening is crucial. Whether you build vehicles, aircraft, appliances or electronics, your ongoing feedback gives us valuable insights into your business and the challenges you face to remain competitive. Our response? A continuous stream of innovations that raise productivity in your operation.

We lead, others follow

Atlas Copco leads the world for high tech operator-friendly tools supported by advanced process control and quality assurance software. We currently have more than 4 000 tools in our range and our dynamic product development program generates a large number of innovative new products every year.

Lean production

In the automotive and other industries our high-performance, hand-operated and fixtured assembly tools and extensive know-how make a major contribution to lean production. Every third car in the Western world was built using our cutting edge fastening solutions.

Safety critical applications

On assembly lines in the manufacturing industries many joints are safety critical. Atlas Copco controlled fastening tools, fixtured solutions and market-leading assembly process software enable our customers to meet today's demands for joint validation, documentation and traceability.

Productivity starts with people

Atlas Copco continues to lead the field for ergonomically designed tools that minimize operator fatigue and increase individual productivity. Outstanding examples are our vibration-damped riveting systems, chosen by major aircraft manufacturers, and our turbo-powered grinders that have made heavy tasks lighter for tool operators in heavy metal fabrication operations.

Committed to sustainable productivity

Our brand promise embraces virtually all aspects of our operations. It means that Atlas Copco people do everything they can to ensure reliable, lasting results with responsible use of resources – human, natural and capital.

In our own operations worldwide we focus on maintaining a high competence level, and health and safety in the workplace. We constantly strive to reduce the impact of production on the environment.

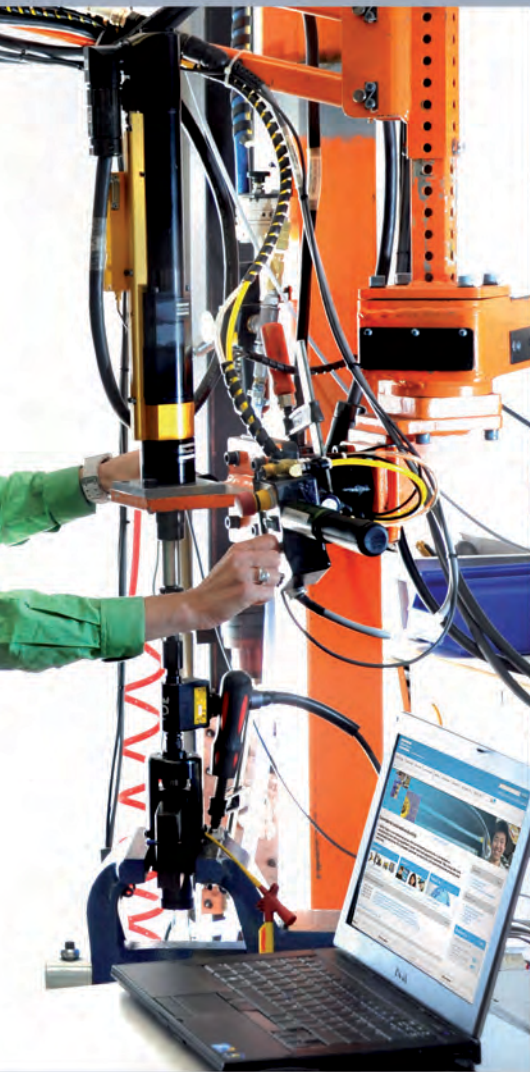
A true innovator, Atlas Copco continuously develops new, energy efficient products with lowest cost of ownership. Safeguarding health and boosting productivity at our customers' plants through better ergonomics have long been part of our business philosophy.

All-in-all, we are acting for a better society around us.



Close to your **business** in touch with your **needs**

With resources in more than 90 countries, we can offer you a profitable partnership on a local or global basis. Atlas Copco product specialists, distributors and service engineers are on hand worldwide to share the responsibility for keeping your production on-line around the clock. We understand the challenges you face and our commitment to your productivity is total.



Customer Centers

Unique among competitors, Atlas Copco has Customer Centers throughout the world. Their common goal is to give you the best return on your investment. Once the tools are installed, our entire organization is dedicated to keeping your operation on-line.

Application centers

Our strategically located Application Centers configure complete assembly stations with process monitoring and control for the automotive, aerospace and other industries where joint quality is crucial. Using standard components we can deliver a complete tightening station for quality integrated fastening in just three weeks.

Worldwide service

Our global service organization, with more than 1 000 certified technicians, offers an unmatched level of customer support. The Atlas Copco certification program ensures that wherever you are in the world you receive the same high quality service.

Whatever your language

We offer customer training and a wide range of training materials, including e-learning, interactive presentations and pocket guides in several languages. Operator and service instructions, supplied with all products, are available in many languages. Installation, operation, maintenance and service instructions are available on our website.

Order-driven production

At our tool plant, production is order driven and lead times are extremely short. Before leaving our factory every tool and system is rigorously tested. Quality control and test data are stored for each product.

Fast delivery

Place orders by phone or on-line. Orders received before 16:00 are packed and shipped the same day. European customers receive deliveries from our standard range within 24 to 48 hours from our worldwide distribution warehouse in Belgium. Deliveries to other continents take up to 72 hours.



A truly **innovative** company striving for **excellence**

Atlas Copco is a truly innovative company, continuously striving for excellence. Our dynamic product development program generates a large number of new products every year. We currently have more than 4 000 tools in our range and we own more than 400 patents. Covering all our operations, we have a quality target: To attain maximum quality at all stages from initial development to spare part deliveries.



Proof of company excellence

The ISO 9001 Certificate confirms that Atlas Copco Tools product company conforms to the Quality Standard ISO 9001. Our quality policy is:

- To fulfill customers' expectations.
- To deliver problem-free products at the right time.
- To continuously improve our products, services and processes.
- To have motivated personnel with clearly defined goals.

In effect it means you know what you are getting. Carefully specified manufacturing processes ensure that every product leaving our factory meets exactly the same standards of quality and performance.

EC declaration of conformity

From January 1, 1995, all machines produced by Atlas Copco conform with the EC Machine Directive which focuses on safety. From December 29, 2009 the directive is 2006/42/EC.

Each Atlas Copco tool bears the CE marking and is accompanied by detailed safety and operating instructions and a declaration of conformity.

Our obligations

- The manufacturer must ensure that the machine is designed in conformance with the standards laid down for the machine type in question.
- The machine must be accompanied by a declaration of conformity.
- The design project must be thoroughly documented.
- The sign affixed to the machine must carry:
 - Name and address of manufacturer.
 - Product designation and technical data, defined in the relevant standard.
 - The CE marking.
 - Country and year of manufacturer.

The machine must be accompanied by safety and operating instructions warning of possible hazards when the machine is in use. The instructions must also include a declaration of noise and vibration based on tests performed according to test codes such as EN standards or other recognized standards. The instructions must be written in all EC languages.

Ergonomics

Our goal is to supply the market with the most ergonomic and operator friendly tools available. For us ergonomics embraces all the factors involved in the interaction between the equip-

ment and the operator. Important parameters are handle design, load on the operator, torque reaction from tightening tools, temperature, vibration emission, noise emission, dust and oil. The vibration and noise values included in the instructions and in this catalogue are measured according to internationally accepted standards. For vibration we use the ISO 28927 series and for noise ISO 15744. The values are emission values primarily intended to compare tools.

Environment

We continuously strive to reduce our environmental impact. To achieve this we require all our major entities to be certified according to ISO 14001. The Environmental Management System focus areas include:

- Design for Environment – including environmental criteria in our design process.
- Improving energy efficiency in our production and product performance.
- Reducing hazardous substances in our production and products.
- Promoting sustainability "best practice" in our supply chain.
- Supplying environmental information to our customers.
- Providing environmental awareness training for our employees.

Your guide to the catalogue



Accessories included

Under this heading a specification is given for each type of tool and of the parts (nipples, keys, guards, etc.) supplied with the tool. Instructions and a list of spare parts are always included in the package.

Optional accessories

Here you will find the specifications for most of the accessories. They are dependent on the job the tool is to be used for and have to be ordered separately.

Air consumption

The air consumption of the tools is stated in liters per second, l/s, and relates to free air, i.e., the compressed air expanded to atmospheric pressure. Unless otherwise stated, the figures are valid at a working pressure of 6.3 bar and indicate the maximum air consumption.

Maximum air consumption is valid for the tool without a speed governor when idling, i.e., when the tool is running at no load. A tool with a speed governor, has the maximum air consumption at the maximum power output.

Speed

The tool speeds are indicated in revolutions per minute, r/min, and indicate the idling speed, i.e., the speed at which the tool runs at no load and at a working pressure of 6.3 bar, if not otherwise specified. The speed at max. output is 50% of the idling speed for tools without a speed governor and 80 – 90% of the idling speed for tools with a speed governor.

Selected service kits to order

Under this heading, service kits for the most frequent service jobs done on the tool in question are listed.

Vibration and noise emission

Vibration and noise emission values are presented in a separate section at the end of the catalogue. From December 29, 2009 vibration emission shall be given as vibration total values (3-axes values).

Vibration values referring to the ISO 28927 are always given as a measured vibration value and an uncertainty. The uncertainty is an indication of the spread in the vibration when measured. The spread in the in-use vibration emitted in a real work situation is at least of the same magnitude, often considerably bigger.

Vibration values referring to ISO 28927 can in many cases also be used as rough estimates of the in-use vibration values when tools are used in typical applications.

In-use vibration is influenced by factors beyond our control such as poor maintenance,

pirate parts, unbalanced grinding wheels, etc.

When measuring noise, Atlas Copco uses the standard ISO 15744. The figure given in this catalogue is the measured sound pressure level. If the measured value exceeds 80 dB(A), the sound power level is also given. The standards describe how to calculate this figure. The uncertainty in the figures from variations in the test method and production is 3 dB(A). In-use noise values close to the operator's ear may differ considerably from the given values particularly since in many applications the sound from the process is higher than the unloaded tool noise.

We, Atlas Copco Tools AB, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a workplace situation over which we have no control. We recommend a program of health surveillance to detect early symptoms which may relate to noise or vibration exposure, so that management procedures can be modified to help prevent future impairment.

Length

1 in	=	0.0254 m
1 m	=	39.3701 in / 3.2808 ft
1 mm	=	0.0393701 in

Weight

1 lb	=	0.4536 kg
1 kg	=	2.2046 lb

Torque

1 kpm	=	9.8067 Nm
1 Ft lb	=	1.3558 Nm

Torque

1 In lb	=	0.1130 Nm
1 Nm	=	0.1020 kpm 0.7376 ft lb

Pressure

1 bar	=	100 kPa
1 kp/cm ² (at)	=	98.0665 kPa
1 psi	=	6.8948 kPa
1 kPa	=	0.0101972 kp/cm ² (at)

Power

1 kpm/s	=	9.8067 W
1 hp	=	745.7 W 101.972 kpm/s
1 kW	=	1.3410 hp

Flow

1 m ³ /min	=	16.6667 l/s
1 cfm	=	0.4720 l/s
1 m ³ /h	=	0.2778 l/s
1 l/s	=	2.1189 cfm

Pneumatic Assembly Tools

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Fast, accurate and operator friendly

Atlas Copco supplies a broad range of pneumatic assembly tools designed to give you highest possible productivity on your assembly line. The result of decades of development, the tools include ergonomically designed screwdrivers, pulse tools, nutrunners and impact wrenches, that offer superior productivity. High productive tools means less air consumption that translates into big energy savings since energy consumption and CO₂ emissions are reduced. Vibration and noise levels are minimized, power-to-weight ratios are high. It all adds up to maximum operator comfort and highest individual productivity.

Impact wrenches (LMS)

Impact wrenches have unmatched speed and power-to-weight characteristics, which makes them ideal e.g. for loosening applications. They productify raw power and cover a wide torque range including both non shut-off and shut-off models. They are also reaction free.

Impulse tools (ErgoPulse XS, PTS, PTX)

Impulse tools are the ideal choice for fast and reaction-free one-hand tightenings. They have the same advantages as impact wrenches but with higher accuracy. In addition you will get a tool with good ergonomics, which means lower sound levels and less vibrations. Pulse tools also have a longer service life. They come in non shut-off and shut-off version.

Controlled impulse tools (Pulsor C)

The Pulsor C is a further developed pulse tool with advanced error-proofing functionality. It is a multi torque pulse tool for quality critical tightenings offering complete control of the tightening process with result reporting.

Screwdrivers

We offer a wide range of extremely accurate, ergonomically designed screwdrivers for all kinds of jobs involving smaller screw sizes, up to M6. All models are lubrication-free.

- **Direct drive (LUD, LUF, HRD)**

The low cost alternative for wood and self-drilling screws.

- **Slip clutch (TWIST, LUF)**

Best for sheet metal screws, wood screws or self-tapping screws.

- **Shut-off control (LUM)**

Best practice in most cases, especially for machine screws and screws in plastic. Very good accuracy and lowest bit consumption.

Nutrunners

Suitable for all kinds of tightening tasks from 0.5 Nm, nutrunners in Atlas Copco's extensive range are extremely accurate. Due to their ergonomic designs they are also very comfortable to operate. All models are lubrication-free.

- **Angle and straight type (LTV, LTD)**

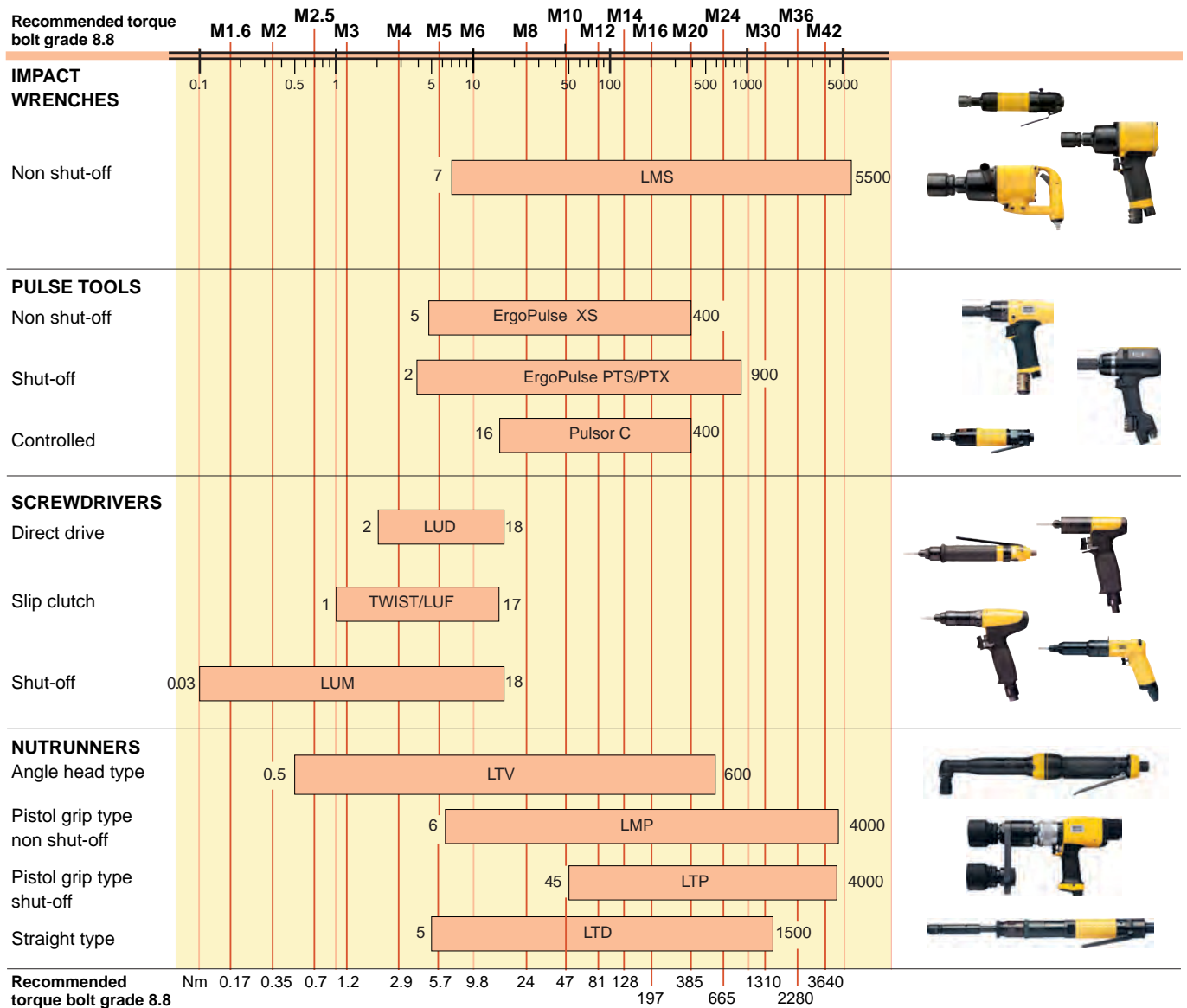
Accurate workhorses for limited spaces suitable for high volume serial production. Very good accuracy, small angle head and possible to attach special heads. Low noise and vibration levels.

- **Pistol grip type (LMP, LTP)**

High torque tools for super fast, accurate tightenings. Low noise, and low vibration tools for operator comfort.



Selection Guide



Torque recommendations

The torque is important to ensure the required clamping force. The table shows the recommended max tightening torque for the most common types of screws and bolts: untreated, oil-smearred screws (friction coefficient = 0.125) with metric coarse thread. The torque corresponds to approximately 62% of tensile stress.

M-threaded screws/bolts Tightening torque Nm, according to ISO 898/1

Thread	Bolt grade							Thread	Bolt grade					
	3.6	4.6	4.8	5.8	8.8	10.9	12.9		4.6	4.8	5.8	8.8	10.9	12.9
M1.6	0.05	0.065	0.086	0.11	0.17	0.24	0.29	M14	48	58	80	128	181	217
M2	0.10	0.13	0.17	0.22	0.35	0.49	0.58	M16	74	88	123	197	277	333
M2.2	0.13	0.17	0.23	0.29	0.46	0.64	0.77	M18	103	121	172	275	386	463
M2.5	0.20	0.26	0.35	0.44	0.70	0.98	1.20	M20	144	170	240	385	541	649
M3	0.35	0.46	0.61	0.77	1.20	1.70	2.10	M22	194	230	324	518	728	874
M3.5	0.55	0.73	0.97	1.20	1.90	2.70	3.30	M24	249	295	416	665	935	1120
M4	0.81	1.10	1.40	1.80	2.90	4.00	4.90	M27	360	435	600	961	1350	1620
M5	0.60	2.20	2.95	3.60	5.70	8.10	9.70	M30	492	590	819	1310	1840	2210
M6	2.80	3.70	4.90	6.10	9.80	14.0	17.0	M36	855	1030	1420	2280	3210	3850
M8		8.90	10.50	15.0	24.0	33.0	40.0	M42	1360		2270	3640	5110	6140
M10		17.0	21.0	29.0	47.0	65.0	79.0	M45	1690		2820	4510	6340	7610
M12		30.0	36.0	51.0	81.0	114.0	136.0	M48	2040		3400	5450	7660	9190

High accuracy, good ergonomics

Atlas Copco pneumatic screwdrivers bring accuracy and good ergonomics into the production process, while offering robust, reliable designs. The range includes models to fit any low torque application. The tools are available in pistol grip, angle and straight configurations with drive types spanning a wide range of speeds and torques.

In this range of pneumatic screwdrivers, the proven and patented Atlas Copco clutch design gives high torque accuracy and repeatable results over time. All screwdrivers are lightweight, with optimum non-slip grip and handle design for operator comfort. A fast clutch shut-off gives minimum reaction impulse, thus reducing operator strain. All Atlas Copco screwdrivers are lubrication-free.

A complete range

Our pneumatic screwdrivers are available in pistol grip, angle and straight configurations. The LUM, TWIST, LUF and LUD models are pistol grip and straight tools, and the LTV and TWIST VR are angle tools.

Shut-off type screwdrivers

LUM and LTV models have a fast and accurate shut-off clutch for smooth performance and high quality tightening. They are suitable for joints with demands on torque accuracy, providing accurate tightening time-after-time, independent of variations in joint stiffness. Electro Static Discharge (ESD) approved models and RE models are available in this range. RE models enable a signal to be received from the tool, in order to control batch count. All RE models need to be combined with an external RE control system. Shut-off tools are the best choice for machine screws, thread-rolling screws and thread-forming screws for plastic.

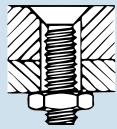
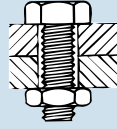
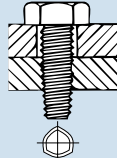
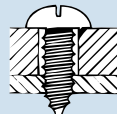
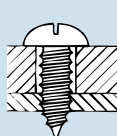
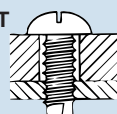
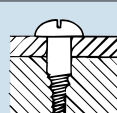
Slip clutch type screwdrivers

TWIST and LUF HR screwdrivers have a slip clutch that applies a pulsating force when the torque level is reached. These tools are suitable where the torque level may temporarily rise during the rundown phase, for instance when using sheet metal screws, wood screws or self-tapping screws.

Direct drive type screwdrivers

LUD and LUF HRD are direct drive screwdrivers that stall when final torque is reached. The torque level is adjusted by regulating the air pressure. LUD and LUF HRD are mainly used for self-drilling and wood screws.



SCREW TYPE	SCREWDRIVER										
	Ø Screw size	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6		
Machine screw 4.8 Property class 4.8 normal for cross recessed and slotted screws 	Torque Nm/in lb	0.09/0.8	0.2/1.8	0.4/3.5	0.6/5.3	1.0/8.8	1.4/12.4	2.9/25.7	4.9/43.4		
	Recommended tool	LUM02		LUM10			LUM12		LUM22		
				LTV009					LTV18	LUM32	
Machine screw 8.8 Property class 8.8 normal for hexagon, Allen head and Torx® Locking nut with plastic insert, increase torque 10%, mechanical-lock nut, increase torque 20% 	Torque Nm/in lb	0.2/1.8	0.4/3.5	0.7/6.2	1.2/10.6	1.9/16.8	2.9/25.7	4.3/38.1	5.7/50.4	9.8/86.7	
	Recommended tool	LUM02		LUM10			LUM12				
					LTV009		LUM22			LTV18	LUM32
Thread rolling screw-M Property class between 8.8 and 10.9 due to case hardening. Taprite® and Swageform are examples 	Torque Nm/in lb		0.5/4.4		1.4/12.4		3.2/28.3	6.5/57.5	11.0/97.3		
	Recommended tool	LUM02		LUM10			LUM12		LUM22		
				LTV009					LTV18	LUM32	
Thread forming screw-ST 	Torque Nm/in lb	0.3/2.7	1.0/8.8	1.8/15.9	2.9/25.7	4.2/37.2	6.7/59.3	9.1/80.5			
	Recommended tool		TWIST12/22		LUF34						
Thread forming screw-ST for plastic 	Torque Nm/in lb	0.3/2.7	1.0/8.8	1.8/15.9	2.9/25.7	4.2/37.2	6.7/59.3	9.1/80.5			
	Recommended tool	LUM02		LUM10			LUM12		LUM22		
				LTV009					LTV18	LUM32	
Self drilling screw-ST 	Torque Nm/in lb	0.3/2.7	1.0/8.8	1.8/15.9	2.9/25.7	4.2/37.2	6.7/59.3	9.1/80.5			
	Recommended tool		TWIST12			LUD		LUF34			
Wood screw 	Torque Nm/in lb		1.5/13.3	3/26.5	5/44.2	7.5/66.4		12/106.2			
	Recommended tool		LUD12/22			TWIST12/22				LUF34	

Shut-off clutch
 Slip clutch
 Direct drive

* With optional coupling-ring.
 ⚙ With optional spring.

Ordering No. 4210 2316 01
 Ordering No. 4210 1831 00

The LUM pistol grip range comes in several different configurations:

- HR: Model with non-balanced grip can be used with high grip when feed force is needed or with low grip for minimal reaction force.
- HRX: Model with balanced grip perfectly balanced for standard pistol grip applications.
- HRF: Balanced grip with multiple air inlets for flexible connection.
- The LUM32 model has the highest force to weight ratio amongst the pneumatic screwdrivers. It is also a tool with low reaction force and fast shut-off because of the position of the clutch.

RE reporting models are available, designated with suffix -RE. Soft stop options are available, designated with the suffix SS.



Model	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb			l/s	cfm			
With trigger start												
LUM22 HR3	0.6-3	5.3-26.5	2200	0.85	1.9	186	18	7.5	16	8	1/4	8431 0269 00
LUM22 HR4	0.6-4	5.3-35.4	1650	0.85	1.9	186	18	7.5	16	8	1/4	8431 0269 02
LUM22 HR4-RE	0.6-4	5.3-35.4	1650	0.85	1.9	186	18	7.5	16	8	1/4	8431 0278 65
LUM22 HR6	1.5-6.5	13.3-57.5	1150	0.85	1.9	186	18	7.5	16	8	1/4	8431 0269 01
LUM22 HR6-RE	1.5-6.5	13.3-57.5	1150	0.85	1.9	186	18	7.5	16	8	1/4	8431 0278 64
LUM22 HR10	3.5-10	31-88.5	750	1	2.2	218	18	7.5	16	10	1/4	8431 0269 03
LUM22 HR10-RE	3.5-10	31-88.5	750	1	2.2	218	18	7.5	16	10	1/4	8431 0278 66
LUM22 HR12	3.5-12.5	31-110.6	500	1	2.2	210	18	7.5	16	10	1/4	8431 0269 04
LUM22 HR12-RE	3.5-12.5	31-110.6	500	1	2.2	210	18	7.5	16	10	1/4	8431 0278 67
LUM22 HR12-370	3.5-12.5	31-110.6	370	1	2.2	210	18	7.5	16	10	1/4	8431 0269 05
LUM32 HR10	5-10	44.2-88.5	750	0.72	1.6	183	18.5	7.5	16	10	1/4	8431 0269 90
LUM32 HR15	7.5-15.5	66-137.2	450	0.72	1.6	183	18.5	7.5	16	10	1/4	8431 0269 91
With trigger and push start												
LUM22 HR3-P	0.6-3	5.3-26.5	2200	0.85	1.9	186	21	7.5	16	8	1/4	8431 0269 06
LUM22 HR4-P	0.6-4	5.3-35.4	1650	0.85	1.9	186	21	7.5	16	8	1/4	8431 0269 08
LUM22 HR6-P	1.5-6.5	13.3-57.5	1150	0.85	1.9	186	21	7.5	16	8	1/4	8431 0269 07
LUM22 HR10-P	3.5-10	31-88.5	750	1	2.2	218	21	7.5	16	10	1/4	8431 0269 09
LUM22 HR12-P	3.5-12.5	31-110.6	500	1	2.2	210	21	7.5	16	10	1/4	8431 0269 10
LUM22 HR12-370-P	3.5-12.5	31-110.6	370	1	2.2	210	21	7.5	16	10	1/4	8431 0269 11

Continued...

Model	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb			l/s	cfm			
Balanced grip models with trigger start												
LUM12 HRX1	0.6-1.8	5.3-15.9	2300	0.65	1.4	176	15	6	13	6	1/8	8431 0278 58
LUM12 HRX2	0.6-2.5	5.3-22.1	1650	0.65	1.4	176	16	6	13	6	1/8	8431 0278 56
LUM12 HRX3	0.4-3.5	5.3-31.9	1150	0.7	1.5	186	16	6	13	6	1/8	8431 0278 54
LUM12 HRX3-RE	0.4-3.5	3.5-31.9	1150	0.7	1.5	186	16	6	13	6	1/8	8431 0278 55
LUM12 HRX5	0.4-5	3.5-44.2	850	0.7	1.5	186	16	6	13	6	1/8	8431 0278 51
LUM12 HRX5-RE	0.4-5	3.5-44.2	850	0.7	1.5	186	16	6	13	6	1/8	8431 0278 53
LUM12 HRX5-350	0.4-5	3.5-44.2	350	0.7	1.5	186	16	6	13	6	1/8	8431 0278 48
LUM12 HRX5-350-RE	0.4-5	3.5-44.2	350	0.7	1.5	186	16	6	13	6	1/8	8431 0278 49
LUM12 HRX8	1.5-8	13.3-70.8	500	0.7	1.5	186	16	6	13	6	1/8	8431 0278 60
LUM12 HRX8-50	1.5-8	13.3-70.8	50	0.7	1.5	196	16	6	13	6	1/8	8431 0280 25
LUM12 HRX8-110	1.5-8	13.3-70.8	110	0.7	1.5	196	16	6	13	6	1/8	8431 0280 27
LUM12 HRX8-250	1.5-8	13.3-70.8	250	0.7	1.5	186	16	6	13	6	1/8	8431 0278 69
LUM12 HRX8-RE	1.5-8	13.3-70.8	500	0.7	1.5	186	16	6	13	6	1/8	8431 0278 61
LUM22 HRX2	1.2-2 ^a	10.6-17.7	4500	0.9	2	187	18	9	19	8	1/4	8431 0269 29
LUM22 HRX2-3200	1.1-2.6 ^a	9.7-23	3200	0.9	2	187	18	9	19	8	1/4	8431 0278 85
LUM22 HRX3	0.6-3 ^a	5.3-26.5	2250	0.9	2	187	18	9	19	8	1/4	8431 0269 22
LUM22 HRX3.5	0.6-3.5	5.3-29.2	2250	0.9	2	187	18	9	19	8	1/4	8431 0269 99
LUM22 HRX4	0.6-4 ^a	5.3-35.4	1650	0.9	2	187	18	9	19	8	1/4	8431 0269 20
LUM22 HRX6	1.5-6.5 ^a	13.3-57.5	1100	0.95	2.1	197	18	9	19	8	1/4	8431 0269 21
LUM22 HRX6-RE	1.5-6.5 ^a	13.3-57.5	1100	0.95	2.1	197	18	9	19	8	1/4	8431 0278 71
LUM22 HRX10	3.5-10 ^a	31-88.5	800	1.1	2.4	219	18	9	19	10	1/4	8431 0269 23
LUM22 HRX10-RE	3.5-10 ^a	31-88.5	800	1.1	2.4	219	18	9	19	10	1/4	8431 0278 73
LUM22 HRX11-220	3.5-12.5 ^a	31-110.6	220	1.15	2.5	229	18	9	19	10	1/4	8431 0282 20
LUM22 HRX12	3.5-12.5	31-110.6	500	1.1	2.4	211	18	9	19	10	1/4	8431 0269 24
LUM22 HRX12-RE	3.5-12.5 ^a	31-110.6	500	1.1	2.4	211	18	9	19	10	1/4	8431 0278 74
LUM22 HRX12-50	3.5-12.5 ^a	31-110.6	50	1.15	2.5	229	18	9	19	10	1/4	8431 0280 26
LUM22 HRX12-120	3.5-12.5 ^a	31-110.6	120	1.15	2.5	229	18	9	19	10	1/4	8431 0280 28
LUM22 HRX12-370	3.5-12.5 ^a	31-110.6	370	1.1	2.4	211	18	9	19	10	1/4	8431 0269 25
LUM22 HRX12-370-RE	3.5-12.5 ^a	31-110.6	370	1.1	2.4	211	18	9	19	10	1/4	8431 0278 75
LUM22 HRX26 ^b	3-26	26.6-230	220	1.2	2.6	233	18	9	19	10	1/4	8431 0269 39
Balanced grip models with trigger start and soft stop function												
LUM10 HRX1-SS	0.2-0.6	1.8-5.3	800	0.65	1.4	176	16	6	13	6	1/8	8431 0280 02
Multiple air inlet models and air-on-top models with trigger start												
LUM12 HRF2	0.6-2.5	5.3-22.1	1650	0.65	1.4	190	16	6	13	6	1/8	8431 0269 31
LUM12 HRF3	0.4-3.6	3.5-31.9	1150	0.7	1.5	200	16	6	13	6	1/8	8431 0269 32
LUM12 HRF5	0.4-5	3.5-44.2	850	0.7	1.5	200	16	6	13	6	1/8	8431 0269 33
LUM12 HRF8	1.5-8	13.3-70.8	500	0.7	1.5	200	16	6	13	6	1/8	8431 0269 34

^a 1.4-4 Nm with spring, Ordering No. 4210 1831 00.

^b 1/4" square drive.

All models: Are reversible and have quick change chuck.

All data at an air pressure of 6.3 bar.

For operator comfort a support handle is recommended for high torque, see Optional Accessories.

The LUD and LUF pistol grip range comes in several different configurations:

- HR/HRD: Model with non balanced grip can be used with high grip when feed force is needed or with low grip for minimal reaction force.
- HRX: Models with balanced grip are perfectly balanced for standard pistol grip applications.



Model	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb			l/s	cfm			
With trigger start												
LUD12 HRX2	1-2.5	8.8-22.1	1600	0.5	1.1	115	16	6.5	14	8	1/8	8431 0278 77
LUD12 HRX5	2-5	17.7-44.2	850	0.5	1.1	125	16	6.5	14	8	1/8	8431 0278 78
LUD12 HRX8	3.5-8	31.0-70.8	500	0.5	1.1	125	16	6.5	14	8	1/8	8431 0278 79
LUD22 HR3	1.5-2.8	13.3-24.8	3600	0.65	1.4	125	18	8	17	8	1/4	8431 0269 17
LUD22 HR5	2.8-5.5	24.8-48.7	1650	0.65	1.4	125	18	8	17	8	1/4	8431 0269 18
LUD22 HR12	5-12	44.2-106.2	750	0.75	1.7	143	18	8	17	8	1/4	8431 0269 19
LUF34 HRD04	8.0-18.0	71-160	440	1.2	2.6	212	20	9	19	10	1/4	8431 0311 22
LUF34 HRD08	8.0-11.0	71-97	750	1.2	2.6	212	20	9	19	10	1/4	8431 0311 24
LUF34 HRD16	4.0-8.0	35-71	1600	0.9	2.0	179	20	9	19	10	1/4	8431 0311 26
Reversible drill, tapper and screwdriver												
COMBI22 HR2	2.0-2.7	18-24	3600	0.9	2.0	205	20	7	15	8	1/4	8431 0255 89
COMBI22 HR5	2.7-5.7	24-50	1600	0.9	2.0	205	20	7	15	8	1/4	8431 0255 80
COMBI22 HR10	5.0-10.0	44-89	800	1.1	2.4	240	20	7	15	8	1/4	8431 0255 62
COMBI34 HR04	8.0-18.0	71-160	400	1.5	3.3	228	20	9	19	10	1/4	8431 0311 32
COMBI34 HR08	8.0-11.0	71-97	750	1.3	2.9	218	20	9	19	10	1/4	8431 0311 34
COMBI34 HR16	4.0-8.0	35-71	1600	1.0	2.2	179	20	9	19	10	1/4	8431 0311 36

All models: Are reversible.
 Female hexagon drive for bits: 1/4" on pistol grip models.
 Combi-tools are delivered with drill chuck and 1/4" female hex drive for bits.
 Torque at min 3 bar and max 6 bar.

The TWIST and LUF pistol grip range comes in several different configurations:

- HR: Model with non-balanced grip can be used with high grip when feed force is needed or with low grip for minimal reaction force.
- HRX: models with balanced grip are perfectly balanced for standard pistol grip applications.
- HRF: Balanced grip with multiple air inlets for flexible connection.



Model	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb			l/s	cfm			
With trigger and push start												
TWIST12 HRX2	0.6-2.4	5.3-21.2	1650	0.65	1.4	176	15	6.5	14	6	1/8	8431 0278 40
TWIST12 HRX3	0.6-3.5	5.3-31.0	1150	0.65	1.4	186	15	6.5	14	6	1/8	8431 0278 39
TWIST12 HRX4	0.5-4.4	4.4-38.9	800	0.65	1.4	186	15	6.5	14	6	1/8	8431 0278 38
TWIST22 HRX7	1.5-7.5	13.3-66.4	1100	1.05	2.3	205	15	9	19	8	1/4	8431 0269 26
TWIST22 HRX10	1.5-10	13.3-88.5	750	1.1	2.4	205	15	9	19	8	1/4	8431 0269 27
TWIST22 HRX12	5-12	44.2-106.2	500	1.05	2.3	205	15	9	19	8	1/4	8431 0269 28
TWIST22 HR3	1.0-3.5	8.9-31	2100	0.95	2.1	195	15	8	17	8	1/4	8431 0278 86
TWIST22 HR6	2.2-6.5	19.5-57.5	1600	0.95	2.1	195	15	8	17	8	1/4	8431 0269 70
TWIST22 HR7	1.5-7.5	13.3-66.4	1150	0.95	2.1	195	15	8	17	8	1/4	8431 0269 14
TWIST22 HR10	1.5-10.0	13.3-88.5	750	1	2.2	205	15	8	17	8	1/4	8431 0269 15
TWIST22 HR12	5.0-12.0	44.2-106.2	500	1	2.2	195	15	8	17	8	1/4	8431 0269 16
LUF34 HR04	3.0-17.0	27.0-150.0	440	1.4	3.1	265	21	9.5	19	8	1/4	8431 0311 05
LUF34 HR08	2.0-15.0	18.0-133.0	750	1.4	3.1	265	21	9.5	19	8	1/4	8431 0311 09
LUF34 HR16	3.0-12.0	27.0-107.0	1600	1.4	3.1	265	21	9.5	19	8	1/4	8431 0311 17
Multiple air inlet models (12) and air-on-top models with trigger start and push start												
TWIST12 HRF4	0.5-4.4	4.4-38.9	850	0.7	1.5	200	15	6	2.8	6	1/8	8431 0269 40
TWIST HRF08 ^a	1.5-7.5	13.0-66.0	800	1.2	2.6	212	25	7	15	8	1/4	8431 0252 42
TWIST HRF16 ^a	2.2-6.5	20.0-58.0	1600	1.2	2.6	212	25	7	15	8	1/4	8431 0252 44

^a Only air-on-top models.

All models: Are reversible.

Female hexagon drive for bits: 1/4".

Have quick change chuck.

Straight screwdrivers should be used with a torque arm for best ergonomics.

LUM straight screwdrivers come in two different configurations:

- PR: Model with push-to-start function and reverse button.
- SR: Model with lever start function and reverse ring.

RE reporting conversion kits are available for SR models, see accessory page.

Soft stop options are available, designated with the suffix -SS.



Model	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb			l/s	cfm			
With push start and button reverse												
LUM02 PR04-1200	0.03-0.32	0.27-2.9	1200	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 04
LUM02 PR04-1800	0.03-0.32	0.27-2.9	1800	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 02
LUM02 PR07-350	0.025-0.6	0.23-5.4	350	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 08
LUM02 PR07-500	0.025-0.6	0.23-5.4	500	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 06
LUM02 PR04-950-Q	0.03-0.32	0.27-2.9	950	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 15
LUM02 PR04-1200-Q	0.03-0.32	0.27-2.9	1200	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 14
LUM02 PR04-1800-Q	0.03-0.32	0.27-2.9	1800	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 12
LUM02 PR07-350-Q	0.025-0.6	0.23-5.4	350	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 18
LUM02 PR07-500-Q	0.025-0.6	0.23-5.4	500	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 16
LUM02 PR07-600-Q	0.025-0.6	0.23-5.4	500	0.17	0.35	172	10	2.2	4.7	6 ^a	M5	8431 0146 03
LUM10 PR03	0.1-1.5	0.8-13	300	0.4	0.9	206	15	3	6	6	1/8	8431 0146 05
LUM10 PR05	0.1-1.5	0.8-13	460	0.4	0.9	206	15	3	6	6	1/8	8431 0146 09
LUM10 PR12	0.1-1.1	0.8-10	1200	0.4	0.9	196	15	3	6	6	1/8	8431 0146 17
LUM10 PR21	0.1-0.7	0.8-6	2000	0.4	0.9	196	15	3	6	6	1/8	8431 0146 25
LUM12 PR1	0.6-1.6	5.3-14.2	1900	0.55	1.2	195	17	4.5	10	6	1/8	8431 0278 29
LUM12 PR2	0.4-2.3	3.5-20.4	1450	0.55	1.2	195	17	4.5	10	6	1/8	8431 0278 27
LUM12 PR3	0.4-3.2	3.5-28.3	1000	0.55	1.2	195	17	4.5	10	6	1/8	8431 0278 26
LUM12 PR4	0.4-4.2	3.5-37.2	750	0.55	1.2	195	17	4.5	10	6	1/8	8431 0278 25
LUM12 PR5	0.4-5	3.5-44.2	450	0.55	1.2	195	20	4.5	10	6	1/8	8431 0278 30
LUM22 PR2-3500	1.1-2.5	9.7-22.1	3500	0.75	1.7	211	20	7	15	8	1/4	8431 0278 89
LUM22 PR3	0.6-3.2	5.3-28.3	2100	0.75	1.7	211	20	7	15	8	1/4	8431 0269 61
LUM22 PR4	0.5-4.0	4.4-35.4	1600	0.75	1.7	211	20	7	15	8	1/4	8431 0269 55
LUM22 PR4-2300	0.7-4.5	5.9-38.2	2300	0.75	1.7	211	20	7	15	8	1/4	8431 0278 81
LUM22 PR5-260	0.4-5.0	3.5-44.2	260	0.75	1.7	211	20	7	15	8	1/4	8431 0269 62
LUM22 PR5-350	0.4-5.0	3.5-44.2	350	0.75	1.7	211	20	7	15	8	1/4	8431 0269 60
LUM22 PR6	1.5-6.0	13.3-53.1	1000	0.75	1.7	211	20	7	15	8	1/4	8431 0269 56
LUM22 PR8-1100	1.5-8.0	13.3-70.8	1100	0.9	2.0	224	20	7	15	8	1/4	8431 0278 88
LUM22 PR10	3.5-10.0	31-88.5	700	0.95	2.1	232	22	7	15	8	1/4	8431 0269 58
LUM22 PR12	3.5-12.5	31-110.6	450	0.9	2.0	224	22	7	15	8	1/4	8431 0269 57
LUM22 PR12-350	3.5-12.5	31-110.6	350	0.95	2.1	224	22	7	15	8	1/4	8431 0269 59
LUM22 PR12-850	3.5-12.0	31-106.2	850	1	2.2	246	22	8.5	15	8	1/4	8431 0278 80
With push start, button reverse and soft stop function												
LUM10 PR1-SS	0.2-0.6	1.8-5.3	460	0.4	0.9	206	15	3	6	6	1/8	8431 0280 06
LUM12 PR1-SS	0.6-1.3	5.3-11.5	800	0.55	1.2	195	20	4.5	10	6	1/8	8431 0280 05

^a Air inlet thread M5. Nipple and coupling included accessory for all LUM 02 models, hose size dia. 6 mm.

All models: Are reversible and have quick change chuck.

ESD approved: LUM10/12/22 SR/PR

SR-models have ring reverse control.

PR-models have push button reverse.

Model	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb			l/s	cfm			
With lever start and without push start												
LUM12 SR1	0.6-1.8	5.3-15.9	2200	0.6	1.3	217	17	6	13	6	1/8	8431 0278 35
LUM12 SR2	0.5-2.5	4.4-22.1	1700	0.6	1.3	217	17	6	13	6	1/8	8431 0278 34
LUM12 SR3	0.4-3.5	3.5-31	1200	0.6	1.3	217	17	6	13	6	1/8	8431 0278 33
LUM12 SR4	0.4-4.5	3.5-39.8	850	0.6	1.3	217	17	6	13	6	1/8	8431 0278 32
LUM22 SR3	0.6-3.2	5.3-28.3	1950	0.8	1.8	239	20	7	15	8	1/4	8431 0269 44
LUM22 SR4	0.6-4	5.3-35.4	1500	0.8	1.8	239	20	7	15	8	1/4	8431 0269 46
LUM22 SR5-300	0.4-5	3.5-44.2	300	0.8	1.8	239	20	7	15	8	1/4	8431 0269 51
LUM22 SR6	1.5-6	13.3-53.1	1000	0.85	1.9	239	20	7	15	8	1/4	8431 0269 47
LUM22 SR10	3.5-10	31-88.5	700	1	2.2	260	22	7	15	8	1/4	8431 0269 49
LUM22 SR12	3.5-12.5	31-110.6	430	0.95	2.1	252	22	7	15	8	1/4	8431 0269 48
LUM22 SR12-300	3.5-12.5	31-110.6	300	1	2.2	252	22	7	15	8	1/4	8431 0269 50

ESD approved: LUM10/12/22 SR/PR

All models: Are reversible and have quick change chuck.

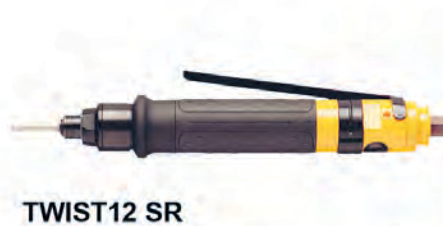
Slip-clutch

Straight Models

Straight screwdrivers should be used with a torque arm for best ergonomics

The TWIST straight screwdrivers come in two different configurations:

- PR: Model with push to start function and reverse button
- SR: Model with lever start function and reverse ring.



Model	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb			l/s	cfm			
With lever start												
TWIST12 SR3	0.7-3.3	6.2-29.2	1650	0.65	1.4	225	15	6	13	6	1/8	8431 0278 44
TWIST12 SR4	0.5-4.2	4.4-37.2	1100	0.65	1.4	225	15	6	13	6	1/8	8431 0278 43
TWIST22 SR6	1.5-6.0	13.3-53.1	1500	0.85	1.9	239	15	7	15	8	1/8	8431 0269 52
TWIST22 SR10	1.5-10.0	13.3-88.5	700	0.9	2.0	246	15	7	15	8	1/8	8431 0269 53
With push start												
TWIST22 PR4-2300	1.0-4.0	8.9-35.4	2300	0.75	1.7	242	15	7	15	8	1/4	8431 0278 92
TWIST22 PR6	2.2-6.5	19.5-57.5	1600	0.75	1.7	211	15	7	15	8	1/4	8431 0278 91
TWIST22 PR7	1.5-7.5	13.3-66.4	1100	0.75	1.7	211	15	7	15	8	1/4	8431 0278 90

LTV angle screwdriver models have a fast, accurate shut-off clutch and are designed for durability.

- Slim design of the angle head allows good access in limited spaces and awkward positions.
- Spiral cut gears give high accuracy.

RE reporting conversion kits are available for LTV screwdriver models. For kit, see accessory page.



LTV009

Model	Torque range soft joint		Free speed r/min	Weight		Length mm	Angle head height mm	Angle head center to side mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb				l/s	cfm			
LTV009 R03-10	0.7-3	6.2-26.5	1400	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 23
LTV009 R05-6	0.4-5	3.5-44.2	850	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 08
LTV009 R05-42	0.4-5	3.5-44.2	850	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 07
LTV009 R05-Q	0.4-5	3.5-44.2	850	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 06
LTV009 R07-6	1.1-7	9.7-61.9	500	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 11
LTV009 R07-6-230	0.3-7	2.6-61.9	230	0.8	1.8	266	25	9	6	13	6	1/8	8431 0279 18
LTV009 R07-42	1.1-7	9.7-61.9	500	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 10
LTV009 R07-Q	1.1-7	9.7-61.9	500	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 09
LTV009 R08-FS-10	1.5-8	13.3-70.8	340	1.1	2.4	261	23.5	13.5	6	13	6	1/8	8431 0632 11
LTV009 R09-6	1.3-9	11.5-79.6	430	0.7	1.5	266	28.5	11	6	13	6	1/8	8431 0278 17
LTV009 R09-10	1.3-9	11.5-79.6	430	0.7	1.5	266	28.5	11	6	13	6	1/8	8431 0278 13
LTV009 R09-42	1.3-9	11.5-79.6	430	0.7	1.5	266	28.5	11	6	13	6	1/8	8431 0278 15
LTV009 R09-Q	1.3-9	11.5-79.6	430	0.7	1.5	266	28.5	11	6	13	6	1/8	8431 0278 12
LTV009 R11-6-200	1.3-11	11.5-97.3	200	0.7	1.5	266	28.5	11	6	13	6	1/8	8431 0278 24
LTV009 R11-6-200-B	1.3-11	11.5-97.3	200	0.8	1.8	266	27.6	11	6	13	6	1/8	8431 0278 31
LTV009 R11-6	1.3-11	11.5-97.3	320	0.8	1.8	266	28.5	11	6	13	6	1/8	8431 0278 22
LTV009 R11-10	1.3-11	11.5-97.3	320	0.8	1.8	266	28.5	11	6	13	6	1/8	8431 0278 20
LTV009 R11-42	1.3-11	11.5-97.3	320	0.8	1.8	266	28.5	11	6	13	6	1/8	8431 0278 21
LTV009 R11-Q	1.3-11	11.5-97.3	320	0.8	1.8	266	28.5	11	6	13	6	1/8	8431 0278 19
LTV009 R025-Q	0.6-2.5	5.3-22.1	1650	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 00
LTV009 R035-6	0.4-3.5	3.5-31	1100	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 05
LTV009 R035-42	0.4-3.5	3.5-31	1100	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 04
LTV009 R035-Q	0.4-3.5	3.5-31	1100	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 03

ESD approved: LTV009.

All models: Are reversible.

-42 = 1/4" female hexagon drive for bits.

-10 = 3/8" square drive.

-6 = 1/4" square drive for sockets.

-Q = 1/4" quick change chuck.

FS = Flush socket.

Model	Torque range soft joint		Free speed r/min	Weight		Length mm	Angle head height mm	Angle head center to side mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
	Nm	in lb		kg	lb				l/s	cfm			
With 1/4" square drive													
TWIST VR07-6	1.3-7.0	12-62	700	1.0	2.2	280	29	10	4	8	8	1/4	8431 0256 11
With 1/4" female hexagon drive													
TWIST VR07-I6	1.3-7.0	12-62	700	1.0	2.2	280	29	10	4	8	8	1/4	8431 0256 03
TWIST VR13-I6	2.0-6.0	18-53	1300	1.0	2.2	280	29	10	4	8	8	1/4	8431 0256 29

Accessories Included

Clutch adjustment key

Included with all shut-off and slip clutch tools

Exhaust hose

Included with straight and air-on-top models



Clutch adjustment key

Optional Accessories

Model	Ordering No.
Threaded clutch houses	
LUM12 PR/SR 1, 2, 3, 4	4210 4386 04
LUM12 HRX/HRF 1, 3, 5, 8	4210 4386 04
LUM22 HRX/HR 2, 3, 4, 6	4210 4386 04
LUM22 HRX/HR 10, 12	4210 4392 03
LUM22 SR/PR 3, 4, 5, 6, 8	4210 4383 04
LUM22 SR/PR 10, 12	4210 4383 03
Angle head covers	
LTV009 R025-R07	4210 4115 00
LTV009 R08-R11	4210 4116 00
Protective covers	
LUM22/32 HR	4210 3150 00
LUM22 HRX	4210 3151 00
LUM12 HRX	4210 4642 00
Threaded fronts	
LUM 32 HR10, 15	4210 4252 90
Suspension yoke for LTV009	4210 4461 80
Quick change chuck kit , extra wide diameter for easy handling	4210 2326 91
Angle-head for LTV009 R03/08/09/11, 90° hex drive magnetic bit holder ^a	4210 3857 91
Vacuum screw pick-up for LUM02	4210 4706 80

^a Substitute for 4210 3857 XX angle heads.



Suspension yoke



Quick change chuck kit



Angle-head for LTV009



Vacuum screw pick-up for LUM02

RE-conversion kits

Model	Ordering No.
LUM12 HRF	4210 3624 99
LUM12 SR	4210 4137 90
LUM22 SR	4210 2057 80
LTV009	4210 4137 90

Designation	Exhaust hose	Support handle	ESD hose	Torque arms adapters	Installation proposal	ESD approved pistol handle
LUM12 HRX/HRF	4210 2052 00	4110 1355 92	8202 0501 06	–	8202 1180 67	4210 3616 04
LUM22 HR 3, 4, 6	4210 2052 00	4110 1355 92	8202 0501 10	–	8202 1180 77	4210 4337 04
LUM22 HR 10, 12	4210 2052 00	4110 1355 93	8202 0501 10	–	8202 1180 77	4210 4337 04
LUM22 HRX 3, 4, 6	4210 2052 00	4110 1355 92	8202 0501 10	–	8202 1180 77	4210 3616 04
LUM12 SR	4210 2052 00	–	8202 0501 06	4390 1735 52	8202 1180 67	–
LUM12 PR	4210 2052 00	–	8202 0501 06	4390 1735 53	8202 1180 67	–
LUM22 SR	4210 2053 00	–	8202 0501 10	4390 1735 51	8202 1180 77	–
LUM22 PR	4210 2053 00	–	8202 0501 10	4390 1735 54	8202 1180 77	–
LTV009	4210 2052 00	–	8202 0501 06	–	8202 1180 67	–
LUM32 HR	4210 2052 00	4110 1355 94	8202 0501 10	–	8202 1180 77	4210 4337 04
LUF34	4210 2053 00	4110 1355 82	8202 0501 10	–	8202 1180 77	–

Productivity Kits

Model	Max air flow	Hose, 5 m	Coupling	Lubrication	Ordering No.
For small screwdrivers with 1/8" BSP air inlet					
MIDI Optimizer F/RD EQ08-C06-1/8	6 l/s	Cabclair 6 mm	ErgoQIC 08	Yes	8202 0850 10
MIDI Optimizer F/R EQ08-C06-1/8	6 l/s	Cabclair 6 mm	ErgoQIC 08	No	8202 0850 19
For small screwdrivers with 1/4" BSP air inlet					
MIDI Optimizer F/RD EQ08-C06	6 l/s	Cabclair 6 mm	ErgoQIC 08	Yes	8202 0850 06
For screwdrivers with 1/4" BSP air inlet					
MIDI Optimizer F/RD EQ08-C08	9 l/s	Cabclair 8 mm	ErgoQIC 08	Yes	8202 0850 00
MIDI Optimizer F/R EQ08-C08	9 l/s	Cabclair 8 mm	ErgoQIC 08	No	8202 0850 01



Service Kits

The spare parts included in the service kits cover a normal overhaul of your tool. Always have them available for a fast and economical repair.

Main parts included:

- Vane kit
- Motor bearings
- Gaskets
- O-rings
- Circlips
- Pins etc.

Model	Ordering No.
LUM10 PR	4081 0070 90
LUM12 HRX, HRF	4081 0247 90
LUM12 SR	4081 0254 90
LUM12 PR	4081 0250 90
LUM22 HR/HRX 3, 4, 6, 12	4081 0281 90
LUM22 HR/HRX 10	4081 0282 90
LUM22 PR/SR 3, 4, 6, 12	4081 0284 90
LUM22 PR/SR 10	4081 0285 90
LUM25 HRF	4081 0075 90
LUM32 HR	4081 0316 90
LUF34 HR	4081 0086 90
TWIST HRF	4081 0079 90
TWIST VR	4081 0078 90
TWIST HR 3, 7, 12	4081 0291 90
TWIST HR 6	4081 0281 90
TWIST HR 10	4081 0292 90
TWIST12 HRX 2, 3, 4	4081 0247 90
TWIST22 HRX 2-3200, 7, 12	4081 0296 90
TWIST22 HRX 10	4081 0295 90
LTV009	4081 0248 90
LTV18	4081 0085 90

Power you can depend on

Atlas Copco impact wrenches are designed to provide dependability and a long, trouble-free service life in the toughest conditions. Few other tools can match the Atlas Copco impact wrench when it comes to flexibility, capacity-to-weight ratio and simplicity in use and maintenance.

Atlas Copco's powerful, high-speed impact wrenches are designed to cut production times by providing rapid run-down and fast tightening. Impact wrenches build up torque in joints through a series of rotary impacts, where air pressure and tightening time affect the torque obtained. As a general rule, if a wrench impacts longer than 5 seconds on a fastener, a larger wrench should be used in order to achieve better durability.

The LMS models are non shut-off, which means they will shut off once the operator releases the trigger.

LMS

The LMS is a non shut-off impact wrench with extraordinary power to weight qualities and virtually no reaction force during tightening. The torque is applied to the joint, not to your wrist.

These tools are typically used where fast tightening or disassembly is needed and the range covers recommended torque levels between 7-5500 Nm.







LMS 8-series

The new LMS 8-series impact wrenches delivers true raw power and enables extremely fast tightening and loosening.

The innovative and unique Grease Retaining System ensures maximum tool performance with long service intervals.



Selection Guide

	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M36	M42	M45	M48
Nm	9.8	24	47	81	128	197	275	385	518	665	961	1310	2280	3640	4510	5450
LMS	LMS08	LMS18	LMS18	LMS28	LMS38	LMS38	LMS48	LMS58	LMS58	LMS61	LMS61	LMS68	LMS88	LMS88	LMS88	LMS88
	LMS08	LMS18	LMS28	LMS38	LMS38	LMS48	LMS58	LMS58	LMS58	LMS68	LMS68	LMS68	LMS88			
	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M36	M42	M45	
Nm	14	33	65	114	181	277	386	541	728	935	1350	1840	3210	5110	6340	
LMS	LMS08	LMS18	LMS28	LMS28	LMS38	LMS38	LMS48	LMS58	LMS61	LMS61	LMS68	LMS88	LMS88	LMS88	LMS88	
	LMS18	LMS18	LMS28	LMS38	LMS48	LMS48	LMS58	LMS68	LMS68	LMS68	LMS88					
	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M36	M42		
Nm	17	40	79	136	217	333	463	649	874	1120	1620	2210	3850	6140		
LMS	LMS08	LMS18	LMS28	LMS28	LMS38	LMS48	LMS58	LMS61	LMS61	LMS68	LMS88	LMS88	LMS88	LMS88		
	LMS18	LMS18	LMS28	LMS38	LMS48	LMS58	LMS68	LMS68	LMS68	LMS88						

■ = HEAVY DUTY

■ = EXTRA HEAVY DUTY

The torque figures are normal tightening torque for untreated oil-smearred and rust-protected bolts and nuts in the most common strength grades. The torque figures correspond to approximately 63% of tensile stress.

LMS models

- Recommended operating range 7-1800 Nm.
- Fast tightening and disassembly.
- Negligible reaction force.
- Low weight.
- High power-to-weight ratio.
- Tightening time should not exceed 5 seconds, to avoid excess wear on the tool.
- Soft-start throttle.
- Long service intervals.
- Durable high performance with Grease Retaining System.



Model	Bolt size mm	Square drive in	Torque range		Max torque		Impacts per min	Free speed r/min	Weight		Length excl. anvil mm	CS dist- ance mm	Air con- sumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb	Nm	ft lb			kg	lb			l/s	cfm			
LMS08 HR10	6-8	3/8	7-45	5-33	65	48	1650	14000	0.9	2.0	185	21	2.5	5	6.3	1/4	8434 1080 00
LMS08 HR42	6-8	1/4 ^a	7-35	5-26	60	44	1650	14000	0.9	2.0	186	21	2.5	5	6.3	1/4	8434 1080 05
LMS18 HR13	10	1/2	10-110	7-81	150	110	1500	8100	1.45	3.2	144	26	8.5	18	10	1/4	8434 1180 00
LMS18 HR10	10	3/8	10-90	7-66	120	88	1650	8100	1.45	3.2	148	26	6.5	14	10	1/4	8434 1180 01
LMS28 HR13	12	1/2	30-210	22-155	390	287	1500	9500	1.85	4.1	146	29	8.5	18	10	3/8	8434 1280 00
LMS38 HR13	14-16	1/2	40-375	29-276	850	627	1350	8000	2.6	5.7	167	29	10	21	10	3/8	8434 1380 00
LMS48 HR20	16-18	3/4	100-550	74-405	1375	1014	1100	6500	3.3	7.3	173	38	12	25.2	12.5	3/8	8434 1480 00
LMS58 HR25	20-22	1	300-800	221-590	1900	1401	900	5500	4.8	10.6	210	42	14.5	30.5	12.5	3/8	8434 1580 00
LMS58 HR20	18-20	3/4	300-800	221-590	1900	1401	900	5500	4.8	10.6	210	42	14.5	30.5	12.5	3/8	8434 1580 01
LMS68 HR25	22-30	1	600-1800	442-1400	4450	3282	780	5000	9.8	21.5	252	55	28	58.9	16	1/2	8434 1680 01

^a Female hex. quick change chuck.

LMS models

- Recommended operating range 7-5500 Nm.
- Fast tightening and disassembly.
- Negligible reaction force.
- Low weight.
- High power-to-weight ratio.
- Soft-start throttle.
- Tightening time should not exceed 5 seconds, to avoid excess wear on the tool.
- Long service intervals.
- Durable high performance with grease retaining system.



Model	Bolt size mm	Square drive in	Torque range		Max torque		Impacts per min	Free speed r/min	Weight		Length excl. anvil mm	CS dist- ance mm	Air consumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb	Nm	ft lb			kg	lb			l/s	cfm			
LMS08 SR42	6-8	1/4 ^a	7-35	5-26	60	44	1650	12500	0.85	1.9	185	20	2.5	5	6.3	1/4	8434 1081 06
LMS08 SR10	6-8	3/8	7-45	5-33	65	48	1650	12500	0.85	1.9	184	20	2.5	5	6.3	1/4	8434 1081 11
LMS68 GIR25	22-30	1	600-1800	442-1400	4450	3282	780	5000	9.6	21.1	339	55	28	58.9	16	1/2	8434 1680 00
LMS68 GOR25	22-30	1	600-1800	442-1400	4450	3282	780	5000	9.6	21.1	339	55	28	58.9	16	1/2	8434 1680 02
LMS68 GIR S5	22-30	1 5/8 ^b	600-1800	442-1400	4450	3282	780	5000	9.6	21.1	339	55	28	58.9	16	1/2	8434 1680 05
LMS68 GOR S5	22-30	1 5/8 ^b	600-1800	442-1400	4450	3282	780	5000	9.6	21.1	339	55	28	58.9	16	1/2	8434 1680 10
LMS88 GIR38	30-42	1 1/2	1000-5500	737-4054	10000	7370	540	3800	15.0	33.0	381	63.5	33	69.4	16	1/2	8434 1880 00
LMS88 GOR38	30-42	1 1/2	1000-5500	737-4054	10000	7370	540	3800	15.0	33.0	381	63.5	33	69.4	16	1/2	8434 1880 01
LMS88 GIR S5	30-42	1 5/8 ^b	1000-5500	737-4054	10000	7370	540	3800	15.0	33.0	381	63.5	33	69.4	16	1/2	8434 1880 05
LMS88 GOR S5	30-42	1 5/8 ^b	1000-5500	737-4054	10000	7370	540	3800	15.0	33.0	381	63.5	33	69.4	16	1/2	8434 1880 10

^a Female hex. quick change chuck.

^b Spline drive No. 5.

GOR = Outside trigger.

GIR = Inside trigger.

Optional Accessories

MultiFlex Swivel

Model	Ordering No.
LMS08 HR10/SR10	8202 1350 20
LMS18 HR10/13, LMS28/38 HR13, LMS48/58 HR20, LMS58 HR25	8202 1350 22
LMS68 HR25, LMS68/88 GIR, LMS68/88 GOR	8202 1350 24



MultiFlex Swivel

Whip hose

Model	Ordering No.
LMS08 HR10/SR10, LMS18 HR10/13, LMS28/38 HR13, LMS48/58 HR20, LMS58 HR25	Not necessary
LMS68 HR25, LMS68/88 GIR, LMS68/88 GOR	8202 1180 28



Whip hose

Productivity Kits

Model	Max air flow	Hose, 5 m	Coupling	Lubrication	Ordering No.
For small impacts and pulse tools with 1/4" BSP air inlet					
MIDI Optimizer F/RD EP EQ08-C08	9 l/s	Cablair 8 mm	ErgoQIC 08	Yes	8202 0850 35
For 1/2" impact wrenches and pulse tools with 3/8" BSP air inlet					
MIDI Optimizer F/RD EQ08-C10	16 l/s	Cablair 10 mm	ErgoQIC 08	Yes	8202 0850 36
For 1/2" impact wrenches and pulse tools with 1/4" BSP air inlet					
MIDI Optimizer F/RD EQ08-C10	16 l/s	Cablair 10 mm	ErgoQIC 08	Yes	8202 0850 37
MIDI Optimizer F/RD EQ10-R10	16 l/s	Rubber 10 mm	ErgoQIC 10	Yes	8202 0850 38
For impact wrenches and pulse tools with 3/8" BSP air inlet					
MIDI Optimizer F/RD EQ10-C13	23 l/s	Cablair 13 mm	ErgoQIC 10	Yes	8202 0850 39
For impact wrenches and pulse tools with 1/2" BSP air inlet					
MIDI Optimizer F/RD EQ10-T13	35 l/s	Turbo 13 mm	ErgoQIC 10	Yes	8202 0850 41



Service Kits

The spare parts included in the service kits cover a normal overhaul of your tool. Always have them available for a fast and economical repair.

Main parts included:

- Gaskets
- O-rings
- Circlips
- Pins etc.

Model	Service kit
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

ErgoPulse impulse tools – fast, reliable and operator friendly

The speed, reliability, and accuracy of ErgoPulse hydraulic impulse nutrunners, combined with the fact that they are comfortable to operate, make them suitable for continuous heavy production. Since there is no metal-to-metal impact in a pulse tool, it provides a softer, more controlled pulse with considerably less vibration and noise than an impact wrench.

A complete range

ErgoPulse impulse tools are available in straight and pistol grip, shut-off and non shut-off versions. The range covers torque from 2–900 Nm.

The ErgoPulse principle – The heart of a pulse tool is the hydraulic pulse unit. Since the pulses are very short, there is almost no reaction force in the handle, only the much lower motor torque is transferred to the operator's hand. In addition, there are less vibrations and noise than with an impact wrench. Combined with good balance and low weight the result is a tool that is very comfortable to operate.

PTS and PTX shut-off pulse tools

Atlas Copco shut-off pulse tools shut off the air supply when the pre-set torque is reached. Operator influence is minimized and the result is increased accuracy and faster tightening.

Torque sensing system – In ErgoPulse PTS and PTX nutrunners torque is "sensed" by means of a rotatable inertial mass acting against an adjustable spring. The result is a highly accurate and easily adjustable shut-off system.

Pulse mechanism – The pulse mechanism has pistons for minimum weight and long service life. The design is based on cam-guided pistons and rollers and the pulse cylinder is oil-filled. The moving parts are thus completely immersed in oil, which ensures a long service life.

Twin chamber vane motor – This is designed to give high torque at low speed, which gives the best characteristics for fast, accurate tightening.

TRIM valve – A patented adjustable valve at the air outlet is used to maximize tool accuracy on one type of joint, which could be hard, medium or soft.

AUTOTRIM valve – PTS/PTX-AT tools are equipped with an automatic two-stage trim valve. The tool runs down the screw with reduced free speed. After 1-2 pulses it shifts automatically to full power thus enabling both hard and soft joints to be tightened with excellent results with-

out any adjustments. The PTS/PTX-AT tools can also be used for reporting applications. ErgoPulse PTS-HRF – These are Air-on-Top versions which offer full flexibility. You either use the air inlet on top to avoid the disturbing hose hook or you use the conventional air inlet at the bottom of the handle – a convenient tool for use in workstations.

ErgoPulse PTX – The new ErgoPulse PTX series is intended for applications where weight is critical. The tools are available in both Trim and AutoTrim versions.

ErgoPulse 25PTX

At the top of the PTX range, is the new ErgoPulse 25PTX, which gives you 900 Nm of tightening torque in a tool weighing only 10.3 kg.

ErgoPulse XS non shut-off tools

ErgoPulse XS is the correct choice when the operator needs to control the process. The tools provide high torque, fast, accurate tightening and long service lifetimes.

Twin chamber vane motor – This is designed to give high torque at low speed, which provides the best characteristics for fast, reliable and accurate tightening.

Double or triple bladed pulse mechanisms – The tools are equipped with pulse units with two or three blades. They employ the Atlas Copco patented cam-guided design to push out the blades, giving very high reliability. The pulse units have a high power-to-weight ratio, making the tools very powerful for their size. Torque is adjusted by regulating an artificial leak in the hydraulic circuit.

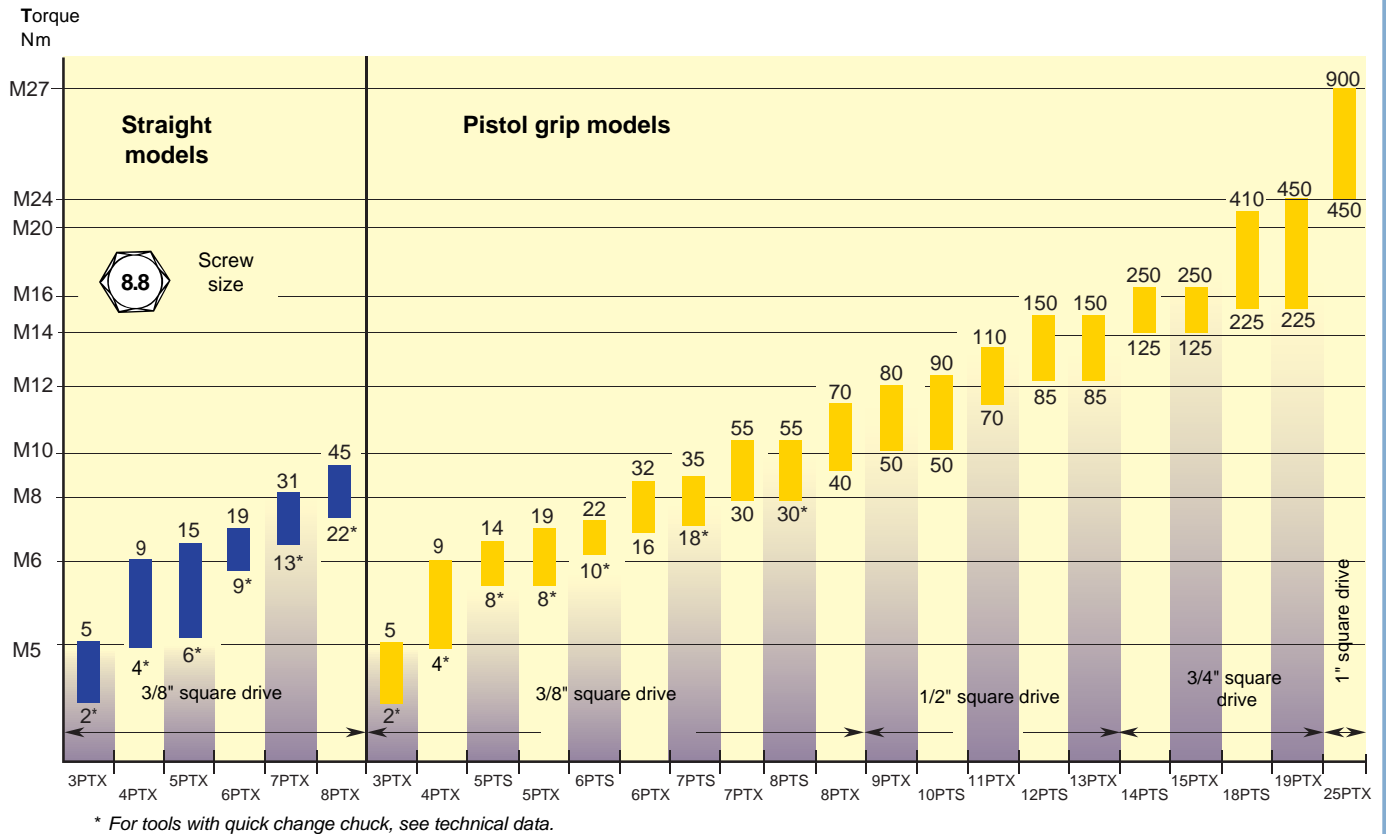
ErgoPulse 6PS

This model is a good choice for tightening self-tapping screws and when fast, powerful reversing is needed. Torque is adjusted by regulating the air pressure.



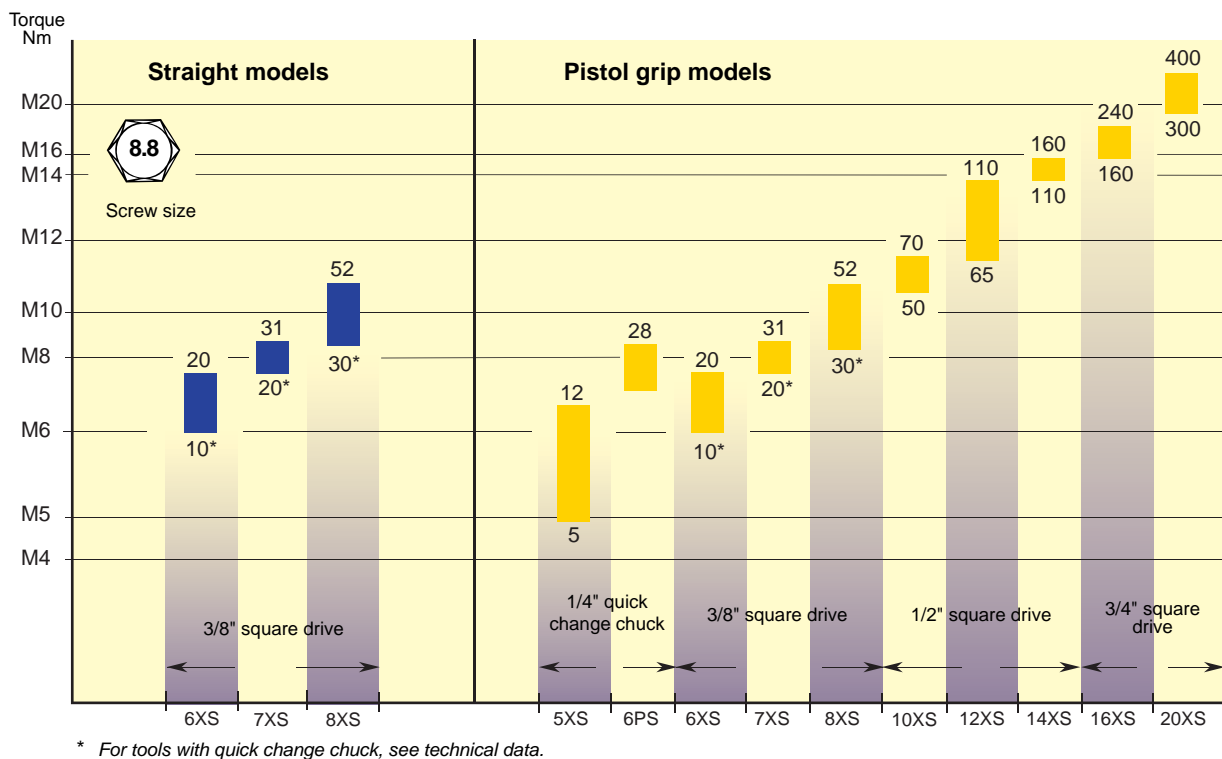
EP PTS/PTX Shut-off models

The ErgoPulse PTS and PTX tools can be adjusted within a wide torque range by simply setting the spring force that counteracts the inertia body. Torque should preferably be checked with a hand torque wrench. Electronic monitoring with an in-line transducer is possible but should be verified with a manual hand torque wrench to avoid measuring errors due to the extremely short pulse sequence.



EP XS/PS Non shut-off models

The size of tool is determined on the basis of torque and/or bolt dimension. Torque should preferably be checked with a hand torque wrench. Electronic monitoring with an in-line transducer is possible but should be verified with a manual hand torque wrench to avoid measuring errors due to the extremely short pulse sequence.



EP PTX models

In ErgoPulse shut-off tools the air supply is shut off as soon as the pre-set torque has been reached, minimizing operator influence. The result is increased accuracy and faster tightening.

- High reliability.
- Consistent torque over time, low mean-shift.
- High level of durability.
- High speed, short cycle times.
- One-handed operation.
- High power-to-weight ratio.
- No springs to wear out.
- No wear on key parts.
- High precision components.
- No reaction forces.
- Light, well-balanced tools.
- Low noise levels.
- Lubrication free.



Model	Bolt size mm	Square drive in	Torque range ^a		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
TRIM-RE														
EP3PTX5 HR42-RE	M4-M5	1/4 ^b	2-5	1.6-4	5000 ^c	0.8	1.7	154	21	9	4	8	1/4	8431 0375 51
EP4PTX9 HR10-RE	M5	3/8	4-9	3-7	3400 ^d	0.9	1.9	164	22	9	4	8	1/4	8431 0375 54
EP4PTX9 HR42-RE	M5	1/4 ^b	4-9	3-7	3400 ^d	0.9	1.9	164	22	9	4	8	1/4	8431 0375 50
EP5PTX17 HR42-RE	M6	1/4 ^b	7-17	5-13	7000 ^d	0.9	1.9	164	22	15	7	8	1/4	8431 0375 00
EP5PTX19 HR10-RE	M6	3/8	8-19	6-14	7000 ^d	0.9	1.9	164	22	15	7	8	1/4	8431 0375 04
EP6PTX28 HR42-RE	M6-M8	1/4 ^b	15-28	11-18	8500 ^d	0.9	1.9	164	22	15	7	8	1/4	8431 0375 10
EP6PTX32 HR10-RE	M6-M8	3/8	16-32	12-23	8500 ^d	0.9	1.9	164	22	15	7	8	1/4	8431 0375 20
EP7PTX55 HR10-RE	M8-M10	3/8	30-55	22-40	7200 ^d	1.2	2.5	176	25	19	9	10	1/4	8431 0375 30
EP8PTX70 HR10-RE	M10	3/8	40-70	29-51	6900 ^d	1.2	2.5	176	25	19	9	10	1/4	8431 0375 60
EP9PTX80 HR13-RE	M10	1/2	50-80	37-59	5200 ^d	1.5	3.3	188	29	23	11	10	1/4	8431 0375 40
EP11PTX110 HR13-RE	M12	1/2	70-110	51-81	5100 ^d	1.7	3.8	196	29	25	12	10	1/4	8431 0376 50
EP13PTX150 HR13-RE	M12-M14	1/2	85-150	63-110	5300 ^d	2.3	5.1	197	33.5	32	15	13	3/8	8431 0376 60
EP15PTX250 HR20-RE	M12-M16	3/4	125-250	92-184	4300 ^d	3.1	6.8	216	36.5	45	21	13	3/8	8431 0376 70
EP19PTX450 HR20-RE	M16-M20	3/4	225-450	166-332	3300 ^d	4.2	9.2	221	44	49	23	13	3/8	8431 0376 80
Trim-RE Low pressure models														
EP5PTX HR10-RE-L	M5	3/8	7-15	5-11	5900 ^e	0.9	2.0	164	22	9	4	8	1/4	8431 0379 04
EP5PTX HR42-RE-L	M4-M5	1/4 ^b	6-13	4-10	5900 ^e	0.8	1.8	154	21	9	4	8	1/4	8431 0379 00
EP6PTX HR10-RE-L	M6	3/8	13-25	9-18	7900 ^e	0.9	2.0	164	22	15	7	8	1/4	8431 0379 20
EP6PTX HR42-RE-L	M5	1/4 ^b	11-22	8-16	7900 ^e	0.9	2.0	164	22	9	4	8	1/4	8431 0379 10
EP7PTX HR10-RE-L	M6	3/8	23-35	17-26	6200 ^e	0.9	2.0	164	22	15	7	10	1/4	8431 0379 30
EP8PTX HR10-RE-L	M6-M8	3/8	33-45	24-33	6300 ^e	0.9	2.0	164	22	15	7	10	1/4	8431 0379 60
AutoTrim^d														
EP3PTX5 HR42-AT	M4-M5	1/4 ^b	2-5	1.6-4	4500 ^c	0.8	1.8	154	21	9	4	8	1/4	8431 0375 53
EP4PTX9 HR10-AT	M5	3/8	4-9	3-7	3300 ^c	0.9	2.0	164	22	9	4	8	1/4	8431 0375 56
EP4PTX9 HR42-AT	M5	1/4 ^b	4-9	3-7	3300 ^c	0.9	2.0	164	22	9	4	8	1/4	8431 0375 52
EP5PTX17 HR42-AT	M6	1/4 ^b	7-17	5-13	5400 ^c	0.9	2.0	164	22	15	7	8	1/4	8431 0375 02
EP5PTX19 HR10-AT	M6	3/8	8-19	6-14	5400 ^c	0.9	2.0	164	22	15	7	8	1/4	8431 0375 06
EP6PTX28 HR42-AT	M6-M8	1/4 ^b	15-28	11-18	8500 ^c	0.9	2.0	164	22	15	7	8	1/4	8431 0375 12
EP6PTX32 HR10-AT	M6-M8	3/8	16-32	12-23	8500 ^c	0.9	2.0	164	22	15	7	8	1/4	8431 0375 22
EP7PTX55 HR10-AT	M8-M10	3/8	30-55	22-40	6900 ^c	1.2	2.5	176	25	19	9	10	1/4	8431 0375 32
EP8PTX70 HR10-AT	M10	3/8	40-70	29-51	6900 ^c	1.2	2.5	176	25	19	9	10	1/4	8431 0375 62
EP9PTX80 HR13-AT	M10	1/2	50-80	37-59	5100 ^c	1.5	3.4	188	29	23	11	10	1/4	8431 0375 42
EP11PTX110 HR13-AT	M12	1/2	70-110	51-81	5100 ^c	1.7	3.8	196	29	25	12	10	1/4	8431 0376 52
EP13PTX150 HR13-AT	M12-M14	1/2	85-150	63-110	5300 ^c	2.3	5.0	197	33.5	32	15	13	3/8	8431 0376 62
EP15PTX250 HR20-AT	M12-M16	3/4	125-250	92-184	4200 ^c	3.1	6.8	216	36.5	45	21	13	3/8	8431 0376 72
EP19PTX450 HR20-AT	M16-M20	3/4	225-450	166-332	3300 ^c	4.2	9.2	221	44	49	23	13	3/8	8431 0376 82
AutoTrim Low pressure models														
EP5PTX HR10-AT-L	M5	3/8	7-15	5-11	5900 ^e	0.9	2.0	164	22	9	4	8	1/4	8431 0379 06
EP5PTX HR42-AT-L	M4-M5	1/4 ^b	6-13	4-10	5900 ^e	0.8	1.8	154	21	9	4	8	1/4	8431 0379 02
EP6PTX HR10-AT-L	M6	3/8	13-25	9-18	7900 ^e	0.9	2.0	164	22	15	7	8	1/4	8431 0379 22
EP6PTX HR42-AT-L	M5	1/4 ^b	11-22	8-16	7900 ^e	0.9	2.0	164	22	9	4	8	1/4	8431 0379 12
EP7PTX HR10-AT-L	M6	3/8	23-35	17-26	6200 ^e	0.9	2.0	164	22	15	7	10	1/4	8431 0379 32
EP8PTX HR10-AT-L	M6-M8	3/8	33-45	24-33	6300 ^e	0.9	2.0	164	22	15	7	10	1/4	8431 0379 62

^aTo be used as a guide only, final torque depends on type of joint, accessories used and air pressure.

^bFemale hexagon drive. Quick change chuck.
^cIn full speed mode.

^dRE-reporting kit not included (Ordering No. 4250 1854 91).
^eMeasured at 5 bar air pressure.

EP PTS models

ErgoPulse PTS is the reliable and powerful workhorse and offers the same shut-off mechanism as the peak performer PTX. The PTS series has some air on top HRF models, making it possible to feed the air from above to the tool to make it easier to use in many applications. All PTS models can also be used as lubrication free, just like other ErgoPulse tools.



Model	Bolt size mm	Square drive in	Torque range ^a		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
TRIM-RE[®]														
EP5PTS12 HR42-RE	M5-M6	1/4 ^b	6-12	4-9	5400 ^c	1.0	2.2	196	21	6.5	14	8	1/4	8431 0374 05
EP5PTS14 HR10-RE	M5-M6	3/8	8-14	6-10	5400 ^c	1.0	2.2	191	21	6.5	14	8	1/4	8431 0374 00
EP6PTS22 HR10-RE	M6	3/8	10-22	7-16	7300 ^c	1.0	2.2	191	21	7	15	8	1/4	8431 0374 20
EP6PTS20 HR42-RE	M6	1/4 ^b	8-20	6-15	7300 ^c	1.0	2.2	196	21	7	15	8	1/4	8431 0374 15
TRIM-RE with balanced grip[®]														
EP7PTS30 HR42-RE	M8	1/4 ^b	16-31	12-23	5700 ^c	1.4	3.0	175	26	8	17	10	1/4	8431 0374 35
EP7PTS35 HR10-RE	M8	3/8	18-35	13-26	5700 ^c	1.4	3.0	176	26	8	17	10	1/4	8431 0374 40
EP8PTS40 HR42-RE	M8	1/4 ^b	22-40	16-29	7300 ^c	1.4	3.0	175	26	9	19	10	1/4	8431 0374 55
EP8PTS55 HR10-RE	M8-M10	3/8	30-55	22-40	7300 ^c	1.4	3.0	176	26	9	19	10	1/4	8431 0374 60
EP10PTS90 HR13-RE	M10-M12	1/2	50-90	37-66	5200 ^c	1.8	4.0	193	29	11	23	10	1/4	8431 0374 80
EP12PTS150 HR13-RE	M12-M14	1/2	85-150	63-110	4200 ^c	2.5	5.5	201	34	13	27	13	3/8	8431 0374 90
EP14PTS250 HR20-RE	M12-M16	3/4	125-250	92-185	4000 ^c	3.3	7.2	216	37	20	42	13	3/8	8431 0374 95
EP18PTS410 HR20-RE	M16-M20	3/4	225-410	166-302	3000 ^c	4.3	9.5	202	42	22	46	13	3/8	8431 0374 98
TRIM-RE with Air on top[®]														
EP7PTS35 HRF10-RE	M8	3/8	18-35	13-26	5700 ^c	1.4	3.0	176	31	8	17	10	1/4	8431 0374 41
EP8PTS55 HRF10-RE	M8-M10	3/8	30-55	22-40	7300 ^c	1.4	3.0	176	31	9	19	10	1/4	8431 0374 61
EP10PTS90 HRF13-RE	M10-M12	1/2	50-90	37-66	5200 ^c	1.8	4.0	193	34	11	23	10	1/4	8431 0374 81
AutoTrim[®]														
EP6PTS20 HR42-AT	M6	1/4 ^b	8-20	6-15	6300 ^d	1.0	2.2	196	21	7	15	8	1/4	8431 0374 16
EP6PTS22 HR10-AT	M6	3/8	10-22	7-16	6300 ^d	1.0	2.2	191	21	7	15	8	1/4	8431 0374 21
AutoTrim with balanced grip[®]														
EP7PTS30 HR42-AT	M8	1/4 ^b	16-31	12-23	5400 ^d	1.4	3.0	175	26	8	17	10	1/4	8431 0374 37
EP7PTS35 HR10-AT	M8	3/8	18-35	13-26	5400 ^d	1.4	3.0	176	26	8	17	10	1/4	8431 0374 42
EP8PTS40 HR42-AT	M8	1/4 ^b	22-40	16-29	6900 ^d	1.4	3.0	175	26	9	19	10	1/4	8431 0374 57
EP8PTS55 HR10-AT	M8-10	3/8	30-55	22-40	6900 ^d	1.4	3.0	176	26	9	19	10	1/4	8431 0374 62
EP10PTS90 HR13-AT	M10-12	1/2	50-90	37-66	4900 ^d	1.8	4.0	193	29	11	23	10	1/4	8431 0374 82
EP12PTS150 HR13-AT	M12-14	1/2	85-150	63-110	4100 ^d	2.5	5.5	201	34	13	27	13	3/8	8431 0374 92
EP14PTS250 HR20-AT	M12-16	3/4	125-250	92-185	3900 ^d	3.3	7.2	216	37	20	42	13	3/8	8431 0374 97
EP18PTS410 HR20-AT	M16-20	3/4	225-410	166-332	2900 ^d	4.3	9.5	202	42	22	46	13	3/8	8431 0374 99

^a To be used as a guide only, final torque depends on type of joint, accessories used and air pressure.

^b Female hexagon drive. Quick change chuck.
^c With TRIM valve fully open.

^d In full speed mode.

^e RE-reporting kit not included (Ordering No. 4250 1854 91).

EP XS models

In ErgoPulse non shut-off tools the tool produces pulses until the operator releases the trigger. Preferred in applications where it is an advantage for the operator to be able to control the process by shutting off the tool manually.

- High reliability and durability.
- High speed, short cycle times.
- One-handed operation.
- High power-to-weight ratio.
- No springs to wear out.
- High precision components.
- No reaction forces.
- Light, well-balanced tools.
- Low noise levels.
- Lubrication free.



Model	Bolt size mm	Square drive in	Torque range ^a		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
EP6PS HR10	M8	3/8	~30	~22	8000	0.8	1.8	150	21	9	19	10	1/4	8431 0368 21
EP6PS HR42	M8	1/4 ^b	~28	~21	8000	0.8	1.8	148	21	9	19	10	1/4	8431 0368 22
EP8PS HR10	M8-M10	3/8	~65	~48	8000	1.0	2.2	158	23	9	19	10	1/4	8431 0368 24
EP5XS HR42	M5-M6	1/4 ^b	5-12	4-9	8500	0.8	1.8	165	21	9	19	8	1/4	8431 0372 30
EP6XS HR42	M6	1/4 ^b	9-19	6-14	8000	0.8	1.8	150	22	8	17	8	1/4	8431 0372 23
EP6XS HR10	M6	3/8	10-20	7-15	8000	0.8	1.8	152	22	8	17	8	1/4	8431 0372 20
EP7XS HR42	M8	1/4 ^b	17-28	13-21	9000	0.8	1.8	150	22	8	17	8	1/4	8431 0372 10
EP7XS HR10	M8	3/8	20-31	15-23	9000	0.8	1.8	152	22	8	17	8	1/4	8431 0372 00
EP8XS HRX42	M8	1/4 ^b	22-40	16-29	7000	1.0	2.2	172	23	9	19	10	1/4	8431 0369 16
EP8XS HRX10	M8-M10	3/8	30-52	22-38	7000	1.0	2.2	174	23	9	19	10	1/4	8431 0369 09
EP10XS HR13	M10	1/2	50-70	37-52	6000	1.3	2.9	168	26	11	23	10	1/4	8431 0369 40
EP12XS HR13	M12	1/2	65-110	48-81	4500	1.6	3.5	178	29	12	25	10	1/4	8431 0371 00
EP14XS HR13	M14	1/2	110-160	81-118	3500	2.4	5.3	188	34	14	30	13	3/8	8431 0371 50
EP16XS HR20	M16	3/4	160-240	118-177	2800	3.3	7.3	205	37	15	32	13	3/8	8431 0371 55
EP20XS HR20	M20	3/4	300-400	221-295	3700	5.1	11.2	240	43	16	34	13	3/8	8431 0371 60

^a To be used as a guide only, final torque depends on type of joint, accessories used and air pressure.

^b Female hexagon drive. Quick change chuck.

^c Torque is adjusted by regulating the air pressure.

EP PTX models

In ErgoPulse shut-off tools the air supply is shut off as soon as the pre-set torque has been reached, minimizing operator influence. The result is increased accuracy and faster tightening.

- High reliability.
- Consistent torque over time, low mean-shift.
- High level of durability.
- High speed, short cycle times.
- One-handed operation.
- High power-to-weight ratio.
- No springs to wear out.
- High precision components.
- No reaction forces.
- Low noise levels.
- Lubrication free.



Model	Bolt size mm	Square drive in	Torque range ^a		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
TRIM														
EP3PTX5 SR42	M4-M5	1/4 ^b	2-5	1.6-4	4500 ^d	0.7	1.6	202	21	9	4	8	1/4	8431 0376 01
EP4PTX9 SR10	M5	3/8	4-9	3-7	3400 ^d	0.9	2.0	207	21	9	4	8	1/4	8431 0376 04
EP4PTX9 SR42	M5	1/4 ^b	4-9	3-7	3400 ^d	0.9	2.0	207	21	9	4	8	1/4	8431 0376 00
EP5PTX14 SR42	M6	1/4 ^b	7-14	5-10	5300 ^d	0.9	2.0	207	21	15	7	8	1/4	8431 0376 10
EP5PTX15 SR10	M6	3/8	9-15	7-11	5300 ^d	0.9	2.0	207	21	15	7	8	1/4	8431 0376 14
EP6PTX18 SR42	M6	1/4 ^b	9-18	7-13	6800 ^d	0.9	2.0	207	21	15	7	8	1/4	8431 0376 20
EP6PTX19 SR10	M6	3/8	10-19	7-14	6800 ^d	0.9	2.0	207	21	15	7	8	1/4	8431 0376 24
EP7PTX28 SR42	M6-M8	1/4 ^b	17-28	13-18	4300 ^d	1.2	2.5	235	25	17	8	10	1/4	8431 0376 30
EP7PTX31 SR10	M6-M8	3/8	18-31	13-23	4300 ^d	1.2	2.5	235	25	17	8	10	1/4	8431 0376 34
EP8PTX45 SR10	M8	3/8	24-45	18-33	5500 ^d	1.2	2.5	235	25	19	9	10	1/4	8431 0376 40
EP8PTX38 SR42	M8	1/4 ^b	22-38	16-28	5500 ^d	1.2	2.5	235	25	19	9	10	1/4	8431 0376 44
TRIM-RE														
EP25PTX900 GR25-RE	M24-M27	1	450-900	330-660	4500 ^d	10.3	22.7	406	58.5	63	30	13	1/2	8431 0376 90
AutoTrim^e														
EP3PTX5 SR42-AT	M4-M5	1/4 ^b	2-5	1.6-4	4500 ^c	0.8	1.7	262	21	9	4	8	1/4	8431 0376 03
EP4PTX9 SR10-AT	M5	3/8	4-9	3-7	3300 ^c	0.9	2.0	267	21	9	4	8	1/4	8431 0376 06
EP4PTX9 SR42-AT	M5	1/4 ^b	4-9	3-7	3300 ^c	0.9	2.0	267	21	9	4	8	1/4	8431 0376 02
EP5PTX15 SR10-AT	M6	3/8	9-15	7-11	4800 ^c	0.9	2.0	267	21	15	7	8	1/4	8431 0376 16
EP5PTX14 SR42-AT	M6	1/4 ^b	7-14	5-10	4800 ^c	0.9	2.0	267	21	15	7	8	1/4	8431 0376 12
EP6PTX18 SR42-AT	M6	1/4 ^v	9-18	7-13	6700 ^c	0.9	2.0	267	21	15	7	8	1/4	8431 0376 22
EP6PTX19 SR10-AT	M6	3/8	10-19	7-14	6700 ^c	0.9	2.0	267	21	15	7	8	1/4	8431 0376 26
EP7PTX28 SR42-AT	M6-M8	1/4 ^b	17-28	13-18	4300 ^c	1.2	2.5	295	25	15	7	10	1/4	8431 0376 32
EP7PTX31 SR10-AT	M6-M8	3/8	18-31	13-23	4300 ^c	1.2	2.5	295	25	15	7	10	1/4	8431 0376 36
EP8PTX38 SR42-AT	M8	1/4 ^b	22-38	16-28	5900 ^c	1.2	2.5	295	25	19	9	10	1/4	8431 0376 46
EP8PTX45 SR10-AT	M8	3/8	24-45	18-33	5900 ^c	1.2	2.5	295	25	19	9	10	1/4	8431 0376 42
AutoTrim Low pressure models														
EP5PTX SR10-AT-L	M5	3/8	8-13	6-10	4800 ^f	0.9	2.0	267	21	9	4	8	1/4	8431 0368 01
EP5PTX SR42-AT-L	M4-M5	1/4 ^b	7-12	5-9	4800 ^f	0.7	1.6	267	21	9	4	8	1/4	8431 0368 03
EP6PTX SR10-AT-L	M6	3/8	10-17	7-13	6300 ^f	0.9	2.0	267	21	15	7	8	1/4	8431 0368 09
EP6PTX SR42-AT-L	M5	1/4 ^b	9-16	6-12	6300 ^f	0.9	2.0	267	21	9	4	8	1/4	8431 0368 15
EP7PTX SR10-AT-L	M6	3/8	16-22	12-16	4000 ^f	0.9	2.0	295	21	15	7	8	1/4	8431 0368 35
EP7PTX SR42-AT-L	M6	1/4 ^b	15-21	11-15	4000 ^f	0.9	2.0	295	21	15	7	8	1/4	8431 0368 46
EP8PTX SR10-AT-L	M6-M8	3/8	21-32	15-24	5300 ^f	1.2	2.5	295	25	17	8	10	1/4	8431 0367 83

^a To be used as a guide only, final torque depends on type of joint, accessories used and air pressure.

^b Female hexagon drive. Quick change chuck.

^c In full speed mode.

^d With TRIM valve fully open.

^e RE-reporting kit not included (Ordering No. 4250 1854 91).

^f Measured at 5 bar air pressure.

XS models

In ErgoPulse non shut-off tools the tool produces pulses until the operator releases the trigger. Preferred in applications where it is an advantage for the operator to be able to control the process by shutting off the tool manually.

- High reliability and durability.
- High speed, short cycle times.
- One-handed operation.
- High power-to-weight ratio.
- No springs to wear out.
- No wear on key parts.
- High precision components.
- No reaction forces.
- Light, well-balanced tools.
- Low noise levels.
- Lubrication free.



Model	Bolt size mm	Square drive in	Torque range ^a		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
EP6XS SR10	M6	3/8	10-20	7-15	8000	0.7	1.5	221	22	8	17	8	1/4	8431 0372 25
EP6XS SR42	M6	1/4 ^b	9-19	6-14	8000	0.7	1.5	219	22	8	17	8	1/4	8431 0372 27
EP7XS SR10	M8	3/8	20-31	15-23	10000	0.7	1.5	221	22	8	17	8	1/4	8431 0372 05
EP7XS SR42	M8	1/4 ^b	17-28	13-21	10000	0.7	1.5	219	22	8	17	8	1/4	8431 0372 15
EP8XS SR10	M8-M10	3/8	30-52	22-38	8000	0.9	2.0	244	24	9	19	8	1/4	8431 0369 20
EP8XS SR42	M8	1/4 ^b	22-40	16-29	8000	0.9	2.0	242	24	9	19	8	1/4	8431 0369 30

^a To be used as a guide only, final torque depends on type of joint, accessories used and air pressure.

^b Female hexagon drive. Quick change chuck.

Productivity Kits

Model	Max air flow	Hose, 5 m	Coupling	Lubrication	Ordering No.
For small impacts and pulse tools with 1/4" BSP air inlet					
MIDI Optimizer F/RD EP EQ08-C08	9 l/s	Cablair 8 mm	ErgoQIC 08	Yes	8202 0850 35
For 1/2" impact wrenches and pulse tools with 3/8" BSP air inlet					
MIDI Optimizer F/RD EQ08-C10	16 l/s	Cablair 10 mm	ErgoQIC 08	Yes	8202 0850 36
For 1/2" impact wrenches and pulse tools with 1/4" BSP air inlet					
MIDI Optimizer F/RD EQ08-C10	16 l/s	Cablair 10 mm	ErgoQIC 08	Yes	8202 0850 37
MIDI Optimizer F/RD EQ10-R10	16 l/s	Rubber 10 mm	ErgoQIC 10	Yes	8202 0850 38
For impact wrenches and pulse tools with 3/8" BSP air inlet					
MIDI Optimizer F/RD EQ10-C13	23 l/s	Cablair 13 mm	ErgoQIC 10	Yes	8202 0850 39
For impact wrenches and pulse tools with 1/2" BSP air inlet					
MIDI Optimizer F/RD EQ10-T13	35 l/s	Turbo 13 mm	ErgoQIC 10	Yes	8202 0850 41

Optional Accessories

Guided extensions

Available for	Square drive in	Dia. of outgoing spindle mm	Length mm	Marking	Ordering No.
6-8XS, 5-8PT/PTS/PTX	3/8	13	75	10-13-75	4023 3600 02
	3/8	13	100	10-13-100	4023 3600 01
	3/8	13	150	10-13-150	4023 3601 01
	3/8	13	200	10-13-200	4023 3611 01
	3/8	13	250	10-13-250	4023 3612 01
	3/8	13	300	10-13-300	4023 3613 01
10C, 10-12XS	1/2	16	75	13-16-75	4023 3602 02
	1/2	16	100	13-16-100	4023 3602 01
	1/2	16	150	13-16-150	4023 3603 01
	1/2	16	200	13-16-200	4023 3604 01
	1/2	16	250	13-16-250	4023 3614 01
	1/2	16	300	13-16-300	4023 3615 01
14XS, 9-13PTX, 10-12PT/PTS	1/2	18	75	13-18-75	4023 3605 02
	1/2	18	100	13-18-100	4023 3605 01
	1/2	18	150	13-18-150	4023 3606 01
	1/2	18	200	13-18-200	4023 3607 01
	1/2	18	250	13-18-250	4023 3616 01
	1/2	18	300	13-18-300	4023 3617 01
16XS/20XS, 14PTS/18PTS, 15PTX/19PTX	3/4	25	100	20-25-100	4023 3608 01
	3/4	25	150	20-25-150	4023 3609 01
	3/4	25	200	20-25-200	4023 3610 01
	3/4	25	250	20-25-250	4023 3618 01
	3/4	25	300	20-25-300	4023 3619 01



Guided extensions

Guided sockets

Available for	Square in	Width across mm/in	Diameter of outgoing mm	Marking	Ordering No.
Metric sockets					
6-8XS, 5-8PT/PTS/PTX	3/8	10	13	10-13	4026 4210 00
	3/8	13	13	13-13	4026 4213 00
	3/8	16	13	16-13	4026 4216 00
	3/8	17	13	17-13	4026 4217 00
	3/8	18	13	18-13	4026 4218 00
	3/8	19	13	19-13	4026 4219 00
14XS, 9-13PTX, 10-12PT/PTS	1/2	13	18	13-18	4026 4313 00
	1/2	16	18	16-18	4026 4316 00
	1/2	17	18	17-18	4026 4317 00
	1/2	18	18	18-18	4026 4318 00
	1/2	19	18	19-18	4026 4319 00
	1/2	24	18	24-18	4026 4324 00
16XS/20XS, 14PTS/18PTS, 15PTX/19PTX	3/4	18	25	18-25	4026 4418 00
	3/4	24	25	24-25	4026 4424 00
	3/4	30	25	30-25	4026 4430 00
UNC/UNF-sockets					
6-8XS, 5-8PT/PTS/PTX	3/8	1/2	13	1/2-13	4026 4212 00
	3/8	9/16	13	9/16-13	4026 4214 00
	3/8	3/4	13	3/4-13	4026 4219 00
14XS, 9-13PTX, 10-12PT/PTS	1/2	1/2	18	1/2-18	4026 4312 00
	1/2	9/16	18	9/16-18	4026 4314 00
	1/2	3/4	18	3/4-18	4026 4319 00
	1/2	15/16	18	15/16-18	4026 4323 00
16XS/20XS, 14PTS/18PTS, 15PTX/19PTX	3/4	3/4	25	3/4-25	4026 4419 00
	3/4	15/16	25	15/16-25	4026 4423 00
	3/4	11/8	25	11/8-25	4026 4429 00



Guided sockets

Optional Accessories

Guided quick change chuck for power tools

Available for	Square drive in	Female hex in	Diameter of outgoing spindle mm	Marking	Ordering No.
6-8XS, 5-8PT/PTS/PTX	3/8	1/4	13	3/8-1/4-13	4026 4501 00
	3/8	7/16	13	3/8-7/16-13	4026 4502 00
14XS, 9-13PTX, 10-12PT/PTS	1/2	7/16	18	1/2-7/16-18	4026 4503 00



Guided quick change chuck

Pistol grip models	Protective cover	Support handle
EP6/7XS HR	4250 2089 00	
EP8XS HRX	4250 1895 00	
EP10XS HR	4250 1784 00	
EP12XS HR	4250 2459 00	
EP14XS HR	4250 2160 00	
EP16XS HR	4250 2282 00	4250 2396 91
EP20XS HR	4250 2288 00	Included
EP4/5/6PTX HR	4250 2465 00	
EP7/8PTX HR	4250 2466 00	
EP9PTX HR	4250 2467 00	
EP11PTX HR	4250 2551 00	
EP13PTX HR	4250 2718 00	4250 2396 81
EP15PTX HR	4250 2674 00	4250 2396 83
EP19PTX HR	4250 2719 00	4250 2396 82
EP5/6PT/PTS HR	4250 2393 00	
EP7/8PT/PTS HR	4250 1784 00	
EP10PT/PTS HR	4250 1743 00	
EP12PT/PTS HR	4250 1858 00	
EP14PTS HR	4250 2228 00	4250 2396 91
EP18PTS HR	4250 2319 00	



Support handle



Protective cover

For complete information, see spare parts list.



Service Kits

The spare parts included in the service kits cover a normal overhaul of your tool. Always have them available for a fast and economical repair.

Main parts included:

- Vane kit
- Motor bearings
- Gaskets
- O-rings
- Circlips
- Pins etc.

Model	Pulse unit kit	Service kit	Model	Pulse unit kit	Service kit
EP5XS	4210 2532 93	4081 0264 90	EP7PTX HR	4250 2267 96	4081 0410 90
EP6/7XS HR	4250 2084 90	4081 0188 90	EP8PTX HR	4250 2267 91	4081 0279 90
EP6/7XS SR	4250 2084 90	4081 0189 90	EP9PTX HR	4250 2058 90	4081 0411 90
EP6PS HR	4250 2058 91	4081 0274 90	EP11PTX HR	4250 2267 95	4081 0310 90
EP8PS HR	4250 2059 90	4081 0120 90	EP13PTX HR	4250 2267 92	4081 0226 90
EP8XS HR	4250 2085 90	4081 0119 90	EP15PTX HR	4250 2267 93	4081 0242 90
EP8XS SR	4250 2085 90	4081 0190 90	EP19PTX HR	4250 2267 94	4081 0256 90
EP10XS HR	4250 2086 90	4081 0191 90	EP25PTX GR	4250 2267 97	4081 0427 90
EP12XS HR	4250 2087 90	4081 0192 90	EP5/6PTS HR	4250 2058 90	4081 0413 90
EP14XS HR	4250 2170 90	4081 0200 90	EP7/8PTS HR	4250 2267 91	4081 0225 90
EP16XS HR	4250 2281 90	4081 0223 90	EP10PTS HR	4250 2267 90	4081 0222 90
EP20XS HR	4250 2281 91	4081 0245 90	EP12PTS HR	4250 2267 92	4081 0226 90
EP4PTX HR	4250 2058 96	4081 0122 90	EP14PTS HR	4250 2267 93	4081 0242 90
EP5/6PTX HR	4250 2058 90	4081 0122 90	EP18PTS HR	4250 2267 94	4081 0256 90

Oil filling kit (50 ml oil, syringe) 4081 0121 90

For complete information, see spare parts list.

An impulse tool with fastening system intelligence

Atlas Copco's Pulsor C System gives you all the advantages of a controlled impulse tool, plus the intelligence of an electric fastening system. Like all Atlas Copco impulse tools, Pulsor C is fast, powerful, light and compact and generates virtually no reaction force. The controller remembers up to 4,000 tightenings that can be stored and analyzed. This enables you to fine-tune your process and ensure that every tightening in every shift is perfect. If they are not perfect, you can see why.

The Pulsor C, with its control system, is designed for quality critical applications. Pulsor C alerts you to mistakes as soon as they are made. Lights on the back of the tool indicate if screws are correctly tightened. They inform the user about torque, early shut-off or if parts have been forgotten. Pulsor C will control repeatability and can report results.

The system

The Pulsor C system comprises the tool, cable, controller and tool control box where the shut-off valve is located.

The tool

Pulsor C tools are an ergonomic, high-performance range of impulse nutrunners with signal lights to provide direct operator feedback. No mechanical torque setting in tool.

Cables

The strong, resistant electric tool cable is available in three versions: straight, coil and spiral.

Tool Control Box

Pressure adjustment and tool shut-off valves are located in this box.

Controller

The controller remembers up to 4,000 tightenings – everything from torque results and rundown time to identification number (see below for a full list of parameters). The results can easily be sent to a network and stored on a server. They can also be transferred directly to a PC and then analyzed in a program such as Excel. This means that you can easily fine-tune your process.

Pulsor monitors and records:

- Torque result
- Angle result
- Premature shut-off
- Number of pulses
- Tightening time
- Rundown time
- Barcode number

Software

The PC based ToolsTalk Pulsor C software is used for making all system settings.

- Tool settings
- Communication settings to factory networks



The Pulsor C tool is fast and powerful. It is also light, compact and generates virtually no reaction force, making it a very comfortable tool to work with.

- Fast rundown. Up to 9000 rpm for highest productivity.
- No need for reaction arm. Virtually no reaction force due to pulse tightening.
- Avoid downtime. Get an early warning with Tool drift alarm.
- Easy to service. Patented pulse technology with few parts.
- Plan service with service alarms.
- Illumination of working area with bright LED.
- Operator feedback after tightening with LED lights (OK/NOK).



EPP10 C

Model	Bolt size mm	Square drive in	Torque range		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption under load		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
Tools with ball retainer														
EPP6 C40 HR-B10	M6-M8	3/8	20-40	15-30	9000	1.3	2.8	164	23	7	15	10	1/4	8431 0380 53
EPP8 C55 HR-B10	M8-M10	3/8	30-55	22-40	7000	1.5	3.4	172	26	8	17	10	1/4	8431 0380 59
EPP10 C90 HR-B13	M10	1/2	45-90	33-66	5500	2	4.5	184	30	11	23	10	1/4	8431 0380 64
EPP11 C110 HR-B13	M12	1/2	55-110	40-80	5100	2.1	4.6	192	30	12	25	13	1/4	8431 0380 68
Tools with pin retainer														
EPP6 C40 HR10	M6-M8	3/8	20-40	15-30	9000	1.3	2.8	164	23	7	15	10	1/4	8431 0380 46
EPP8 C55 HR10	M8-M10	3/8	30-55	22-40	7000	1.5	3.4	172	26	8	17	10	1/4	8431 0380 57
EPP10 C90 HR13	M10	1/2	45-90	33-66	5500	2	4.5	184	30	11	23	10	1/4	8431 0380 62
EPP11 C110 HR13	M12	1/2	55-110	40-80	5100	2.1	4.6	192	30	12	25	13	1/4	8431 0380 66
EPP13 C150 HR13	M12-M14	1/2	75-150	55-110	5300	2.6	5.7	193	33.5	15	32	13	3/8	8431 0380 71
Tools with through hole in square drive														
EPP15 C250 HR20	M12-M16	3/4	125-250	92-184	4300	3.3	7.3	211	37	21	44	13	3/8	8431 0380 77
EPP19 C400 HR20	M16-M20	3/4	200-400	148-295	3300	4.5	9.9	217	44	23	49	13	3/8	8431 0380 82

Controller software

Pulsor's functionality is unlocked with the RBU (Rapid Backup Unit) key. This patented device gives you access to the functionality you need while providing a backup for the data you have programmed yourself.

Function	RBU Gold
Number of results in the result database	4000
Tool Setup	Yes
Tool Lock Box	Yes
Network/TCP/IP	Yes
I/O-bus (CAM-cabel)	Yes
Click wrench	Yes
ToolsNet	Yes
Number of Psets	up to 100
Number of jobs	up to 100
Statistics	Yes
Number of events	500
Barcode reader	Yes
Tool drift alarm	Yes

Optional Accessories

Tool accessories

Model	Ordering No.
Controllers	
Pulsor Focus 4000-C-HW	8433 6900 20
Pulsor Focus 4000-C-DN-HW	8433 6940 20
Pulsor Focus 4000-C-PB-HW	8433 6942 20
Pulsor Focus 4000-C-PN-HW	8433 6948 20
Pulsor Focus 4000-C-EIP-HW	8433 6949 20
Pulsor Focus 4000-C-IB-HW	8433 6945 20
Tool Control Box	
TCB-1E	8433 0606 40
RBU	
Pulsor C - Gold	8433 6020 20
TCB cables	
Cable PF - TCB, 1.2 m	4250 2901 01
Cable PF - TCB, 5 m	4250 2901 05
Cable PF - TCB, 10 m	4250 2901 10
Tool cables	
Straight 5 m	4250 2533 05
12 m	4250 2533 12
Spiral 5 m	4250 2533 06
12 m	4250 2533 13
Coil 3 m	4250 2533 53
5 m	4250 2533 55
7 m	4250 2533 57
Back plate (for attaching PF and TCB in one plate)	
	4250 2829 90
PCU - Pulsor Control Unit (Includes: controller, RBU, TCB, back plate, cable 1.2 m)	
PCU	8433 6990 30
ToolsTalk Pulsor C, W10	
1-user license	8092 1292 01
5-user license	8092 1292 05
10-user license	8092 1292 10
Plant license	8092 1292 99
Suspension yoke (for upside down hanging, all models)	
	4250 2720 00



Pulsor Focus



Tool Control Box (TCB)



Coil cable



Straight cable



Spiral cable



Selector 4

Controller accessories

Model	Ordering No.
Rotary selector	8433 0606 15
I/O Expander	8433 0564 39
RE-Alarm	8433 0560 03
Selector 4	8433 0610 04
Selector 8	8433 0610 08
Operator panel basic	8433 0565 10
Operator panel advanced	8433 0565 00
Stacklights	
ESL-04 Standard	8433 0570 13
Rotating red	8433 0570 30
Rotating yellow	8433 0570 35
Siren	8433 0570 40
Compact	8433 0570 16
DSL-03 with push button	8433 0570 10
with blanking plugs	8433 0570 11



Stacklight DSL-03



Operator panel Basic

Tool hose kits

Model	Hose kit	Ordering No.
Hoses 5 m		
EPP6 – EPP10	Cablair 10 + Ergo couplings	8202 1180 78
EPP11 – EPP19	Cablair 13 + Ergo couplings	8202 1182 13
Hoses 10 m		
EPP6 – EPP10	Cablair 10 + Ergo couplings	8202 1180 36
EPP11 – EPP19	Cablair 13 + Ergo couplings	8202 1182 15

User-friendly tools offering power, speed and accuracy

The tools in Atlas Copco's broad range of pneumatic nutrunners offer a superior combination of power, speed and accuracy. With their advanced ergonomic designs, they are also extremely user-friendly and will contribute to raising productivity in a wide range of applications in your assembly plant.

Tools in Atlas Copco's range of pneumatic nutrunners are divided into three main categories: Angle, straight and pistol grip versions. These are also available in optional models, such as crowfoot, hold-and-drive, and flush socket.

The power to raise productivity

The high power output provided by Atlas Copco nutrunners is decisive for productivity, i.e., the combined performance of operator and tool. The tools are set at the optimal speed for every torque capacity rating. The balance between speed and clutch response gives high accuracy, ensuring torque repeatability, regardless of joint characteristics.

Comfortable to work with

Our pneumatic nutrunners live up to Atlas Copco's reputation for developing tools with good ergonomics. Low tool weights, thermally insulated grips and low noise and vibration levels all help to reduce operator fatigue and raise individual productivity in your plant.

Simplicity in selection and installation allow you to set the torque once and that is the torque you will get, joint after joint, without complicated analyses.

Choosing the right tool is easy

No joint is too complicated for a nutrunner. To set the torque, just adjust it to the required level, regardless of joint conditions.



A new angle on productivity

The LTV 9-2 and LTV 8 angle nutrunner range from Atlas Copco successfully combines two key performance factors – speed and accuracy. Consistently accurate, high-speed tightening is complemented by advanced ergonomic design, ensuring an unmatched level of productivity. All this is presented in a tool that is very easy to handle.

Angle nutrunners from Atlas Copco are certified for accuracy and durability by major car manufacturers. They are easy to choose, easy to set, and easy to operate.

Accurate every time

Hard or soft joint? You don't need to think about it. The tool gives the torque you install, independent of joint variations and variations in air pressure and lubrication. The clutch shuts off at the same torque, tightening after tightening.

Highest productivity

Instant disengagement of the clutch keeps torque over-shoot to a minimum even on the fastest tools. Our new models were developed to meet the most extreme requirements on operational speeds.

As always, we kept operator comfort in mind. The tools are well balanced, slim and comfortable to handle. Reaction forces are extremely low.

Job verification

For remote indication of clutch release function the tools can be equipped with air signal outlet – RE. This is often used for counting the number of fasteners in a tightening cycle.



LTV29-2 series

- Designed for high speed and small dimensions.
- Slim lightweight design.
- Soft, comfortable grip.
- Easy to reverse.
- Low reaction force.



LTV29-2

LTV39-2 series

- The fastest nutrunners of this type.
- Powerful motor.
- Consistently high accuracy.
- Many operator-friendly features.



LTV39-2

LTV FS flush socket tools

- Minimum angle head size gives good access.
- High torque accuracy.
- Integrated sockets give reduced angle head height.

Model	Bolt size mm	Square drive in	Torque range soft joint		Free speed r/min	Weight		Length mm	Angle head height mm	Angle head center to side mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb				l/s	cfm			
Reversible															
LTV29-2 R12-6	M6	1/4	6-12	4.5-9	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 15
LTV29-2 R12-10	M6	3/8	6-12	4.5-9	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 16
LTV29-2 R12-Q	M6	1/4 ^a	6-12	4.5-9	850	1.3	2.9	351	44	11	10	21	10	1/4	8431 0631 17
LTV29-2 R12-42	M6	1/4 ^b	6-12	4.5-9	850	1.3	2.9	351	34	11	10	21	10	1/4	8431 0631 18
LTV29-2 R12-B6	M6	1/4	6-12	4.5-9	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 00
LTV29-2 R12-B10	M6	3/8	6-12	4.5-9	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 01
LTV29-2 R16-6	M6	1/4	9-16	7-12	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 22
LTV29-2 R16-10	M6	3/8	9-16	7-12	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 21
LTV29-2 R16-Q	M6	1/4 ^a	9-16	7-12	850	1.3	2.9	351	44	11	10	21	10	1/4	8431 0631 24
LTV29-2 R16-42	M6	1/4 ^b	9-16	7-12	850	1.3	2.9	351	34	11	10	21	10	1/4	8431 0631 23
LTV29-2 R16-B6	M6	1/4	9-16	7-12	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 02
LTV29-2 R16-B10	M6	3/8	9-16	7-12	850	1.3	2.9	351	27	11	10	21	10	1/4	8431 0631 03
LTV29-2 R24-10	M8	3/8	12-24	9-18	640	1.4	3.1	374	30	14	10	21	10	1/4	8431 0631 29
LTV29-2 R24-B10	M8	3/8	12-24	9-18	640	1.4	3.1	374	30	14	10	21	10	1/4	8431 0631 04
LTV29-2 R30-10	M8	3/8	15-30	11-22	500	1.4	3.1	374	30	14	10	21	10	1/4	8431 0631 37
LTV29-2 R30-B10	M8	3/8	15-30	11-22	500	1.4	3.1	374	30	14	10	21	10	1/4	8431 0631 36
LTV39-2 R16-10	M6	3/8	7-16	5-12	1200	1.5	3.3	375	27	11	16	34	10	1/4	8431 0633 09
LTV39-2 R16-B10	M6	3/8	7-16	5-12	1200	1.5	3.3	375	27	11	16	34	10	1/4	8431 0631 05
LTV39-2 R24-10	M8	3/8	12-24	9-18	870	1.6	3.5	385	30	14	16	34	10	1/4	8431 0633 14
LTV39-2 R24-B10	M8	3/8	12-24	9-18	870	1.6	3.5	385	30	14	16	34	10	1/4	8431 0631 06
LTV39-2 R30-10	M8	3/8	15-30	11-22	870	1.6	3.5	385	35	14	16	34	10	1/4	8431 0633 19
LTV39-2 R30-B10	M8	3/8	15-30	11-22	870	1.6	3.5	385	35	14	16	34	10	1/4	8431 0631 07
LTV39-2 R37-10	M8	3/8	22-37	16-27	708	1.7	3.7	405	35	18	16	34	10	1/4	8431 0633 24
LTV39-2 R37-B10	M8	3/8	22-37	16-27	708	1.7	3.7	405	35	18	16	34	10	1/4	8431 0631 08
LTV39-2 R48-10	M8	3/8	24-48	18-35	560	1.7	3.7	405	35	18	16	34	10	1/4	8431 0633 27
LTV39-2 R48-13	M8	1/2	24-48	18-35	560	2.0	4.4	425	41	20	16	34	10	1/4	8431 0633 43
LTV39-2 R48-B10	M8	3/8	24-48	18-35	560	1.7	3.7	405	35	18	16	34	10	1/4	8431 0631 09
LTV39-2 R48-B13	M8	1/2	24-48	18-35	560	2.0	4.4	425	41	20	16	34	10	1/4	8431 0631 10
LTV39-2 R56-10	M10	3/8	28-56	21-41	460	1.7	3.7	405	35	18	16	34	10	1/4	8431 0633 35
LTV39-2 R56-13	M10	1/2	28-56	21-41	460	2.0	4.4	425	41	20	16	34	10	1/4	8431 0633 51
LTV39-2 R56-B10	M10	3/8	28-56	21-41	460	1.7	3.7	405	35	18	16	34	10	1/4	8431 0631 11
LTV39-2 R56-B13	M10	1/2	28-56	21-41	460	2.0	4.4	425	41	20	16	34	10	1/4	8431 0631 12
LTV39-2 R70-10	M10	1/2	35-70	26-51	350	2.1	4.6	425	41	20	16	34	10	1/4	8431 0633 59
LTV39-2 R70-B13	M10	1/2	35-70	26-51	350	2.1	4.6	425	41	20	16	34	10	1/4	8431 0631 13
LTV39-2 R85-13	M10-12	1/2	43-85	32-63	305	2.5	5.5	500	52	25	16	34	10	1/4	8431 0633 67
LTV39-2 R85-B13	M10-12	1/2	43-85	32-63	305	2.5	5.5	500	52	25	16	34	10	1/4	8431 0631 14
LTV39-2 R120-13	M12	1/2	60-120	44-88	220	2.5	5.5	500	52	25	16	34	10	1/4	8431 0633 69
Flush socket															
LTV29-2 R24 FS	M8	-	12-24	9-18	640	1.4	3.7	357	32	15	10	21	10	1/4	8431 0634 51
LTV29-2 R30 FS	M8	-	15-30	11-22	500	1.3	3.1	357	32	15	10	21	10	1/4	8431 0634 52
LTV39-2 R37 FS	M8	-	22-37	16-27	708	1.7	3.7	406	38	19	16	34	10	1/4	8431 0634 53
LTV39-2 R48 FS	M8	-	24-48	18-35	560	1.7	3.7	406	38	19	16	34	10	1/4	8431 0634 54
LTV39-2 R56 FS	M8	-	28-56	21-41	460	1.7	3.7	406	38	19	16	34	10	1/4	8431 0634 55
LTV39-2 R70 FS	M10	-	35-70	26-51	350	2.1	4.6	425	50	20	16	34	10	1/4	8431 0634 56
LTV39-2 R85 FS	M10-12	-	43-85	32-63	305	2.5	5.5	500	58	26	16	34	10	1/4	8431 0634 57
LTV39-2 R120 FS	M12	-	60-120	44-88	220	2.5	5.5	500	58	26	16	34	10	1/4	8431 0634 58

^a Quick change chuck. ^b Female hex drive. B - Ball retainer

LTV28 and 38 series

- Highest reliability when tightening M5-M12 screws.
- Small, durable gears.
- Precise clutch.
- Reliable motor.



LTV28

LTV48 series

- Robust, reliable tools.
- Reversible for torques up to 200 Nm.
- Comfortable to operate due to low weight and smooth handles.
- Reaction bars and other accessories available.



LTV38

LTV FS flush socket tools

- Minimum angle head size gives good access.
- High torque accuracy.
- Integrated sockets give reduced angle head height.



LTV48

Model	Bolt size mm	Square drive in	Torque range soft joint		Free speed r/min	Weight		Length mm	Angle head height mm	Angle head center to side mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb				l/s	cfm			
Reversible															
LTV28 R07-6	M5	1/4	2.5-7	1.8-5	1100	1.3	2.9	334	28.5	10	8	17	8	1/4	8431 0601 65
LTV28 R07-42	M5	1/4 ^a	2.5-7	1.8-5	1100	1.3	2.9	334	28.5	10	8	17	8	1/4	8431 0601 73
LTV28 R07-Q	M6	1/4 ^b	2.5-7	1.8-5	1100	1.3	2.9	334	28.5	10	8	17	8	1/4	8431 0601 68
LTV28 R15-6	M6	1/4	7-15	5-11	560	1.4	3.1	349	28	11	10	21	10	1/4	8431 0601 52
LTV28 R15-10	M6	3/8	7-15	5-11	560	1.4	3.1	349	28	11	10	21	10	1/4	8431 0601 55
LTV28 R15-Q	M6	1/4 ^b	7-15	5-11	560	1.4	3.1	349	28	11	10	21	10	1/4	8431 0601 53
LTV28 R20-10	M6	3/8	10-19	7-15	530	1.4	3.1	355	34.5	13.5	10	21	10	1/4	8431 0601 50
LTV28 R20-42	M6	1/4 ^a	10-20	7-15	420	1.4	3.1	350	34	13.5	10	21	10	1/4	8431 0601 48
LTV28 R28-10	M8	3/8	14-28	10-21	340	1.4	3.1	350	29.5	13.5	10	21	10	1/4	8431 0601 40
LTV28 R28-42	M8	3/8	14-28	10-21	340	1.4	3.1	350	29.5	13.5	10	21	10	1/4	8431 0601 44
LTV28 RL28-10	M8	3/8	14-28	10-21	80	1.4	3.1	350	29.5	13.5	10	21	10	1/4	8431 0601 33
LTV38 R42-10	M8	3/8	20-42	15-31	400	2.0	4.4	436	34.5	18	16	34	10	1/4	8431 0603 55
LTV38 R42-13	M8	1/2	20-42	15-31	400	2.2	4.8	453	41	20	16	34	10	1/4	8431 0603 69
LTV38 R50-10	M10	3/8	25-50	18-36	330	2.0	4.4	436	34.5	18	16	34	10	1/4	8431 0603 63
LTV38 R50-13	M10	1/2	25-50	18-36	330	2.2	4.8	453	41	20	16	34	10	1/4	8431 0603 71
LTV38 R57-13	M10	1/2	30-57	22-41	280	2.2	4.8	453	41	20	16	34	10	1/4	8431 0603 51
LTV38 R70-13	M10	1/2	34-70	24-50	225	2.4	5.3	487	41	20	16	34	10	1/4	8431 0603 46
LTV38 R85-13	M10-12	1/2	40-85	29-61	190	2.8	6.1	530	52	25	16	34	10	1/4	8431 0603 38
LTV48 R120-L13	M12	1/2	70-120	51-88	215	3.5	7.6	590	52	25	28	59	12.5	1/2	8431 0534 88
LTV48 R150-L13	M12	1/2	70-150	51-111	170	3.5	7.6	590	52	25	28	59	12.5	1/2	8431 0534 93
LTV48 R200-L13	M14	1/2	115-200	85-148	100	3.8	8.3	610	52	25	28	59	12.5	1/2	8431 0534 98
Flush socket															
LTV48 R150 FS	M12	-	70-150	44-111	180	3.5	7.6	590	70	25	28	59	12.7	1/2	8431 0610 17
LTV48 R200 FS	M14	-	115-200	85-148	100	3.8	8.3	610	70	25	28	59	12.8	1/2	8431 0610 21

^a Female hex drive.
^b Quick change chuck.

LTV69 series

- New twin motor – higher rundown speed, accurate tightening.
- High torques.
- Good access in cramped spaces.

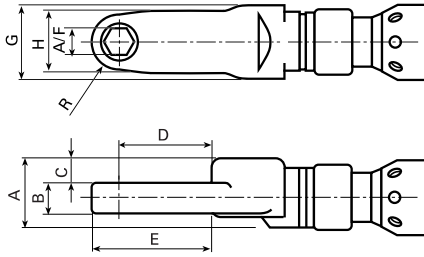


Model	Bolt size mm	Square drive in	Min torque at 3 bar soft joint		Min torque at 6.3 bar soft joint		Max torque at 6.3 bar soft joint		Free speed r/min	Weight		Length mm	Angle head height mm	Angle head center to side mm	Air consumption at free speed		Rec. hose size	Air inlet thread	Ordering No.
			Nm	ft lb	Nm	ft lb	Nm	ft lb		kg	lb				l/s	cfm	mm	in	
Reversible																			
LTV69 R180-13 ^a	M16	1/2	70	52	100	74	170	125	840	5.1	11.1	592	50	25.3	20	42	13	1/2	8431 0830 04
LTV69 R370-20 ^a	M18	3/4	140	103	190	140	370	273	480	7.6	16.6	634	62	32.9	20	42	13	1/2	8431 0830 15
LTV69 R600-25 ^a	M22	1	230	170	400	295	600	443	280	10.2	22.6	676	77	54.0	20	42	13	1/2	8431 0830 21
Non-reversible																			
LTV69 N180-13	M16	1/2	70	52	100	74	170	125	840	4.6	10.1	577	50	25.3	20	42	13	1/2	8431 0830 35
LTV69 N370-20	M18	3/4	140	103	190	140	370	273	480	7.1	15.6	619	62	32.9	20	42	13	1/2	8431 0830 46
LTV69 N600-25	M22	1	230	170	400	295	600	443	280	9.7	21.3	661	77	54.0	20	42	13	1/2	8431 0830 52

^a Fixed reverse.

In-Line crowfoot tools

Dimensions

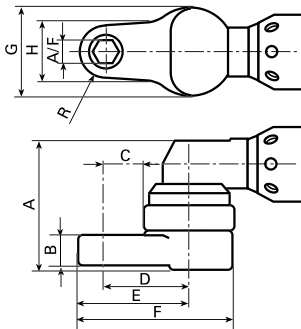


LTC

Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb											
LTC009 R07-10-LI3	2.5-7	1.8-5	285	1.7	3.8	312	10	34	15	12.5	36.7	59.2	35	22	10	8431 0616 00
LTC009 R08-10-LI3	4-8	2.9-6	210	1.3	2.9	312	10	34	10	13.5	37	41	35	22	10	8431 0613 72
LTC009 R08-12-LI3	2.5-8	1.8-6	255	1.8	4	322	12	34	15	12.5	45.5	71	35	30	13	8431 0616 06
LTC009 R12-10-LI5	5-12	3.6-9	120	1.3	2.9	312	10	34	15	12.5	36.7	59	35	22	10	8431 0613 64
LTC009 R13-10-LI3	6-13	4-9	127	1.8	4	312	10	34	15	12.5	46.7	59.2	35	22	10	8431 0616 01
LTC009 R14-10-LI3	5-14	3.6-10	175	1.5	3.3	332	10	34	10	15	52	54.3	35	31	14.5	8431 0613 56
LTC009 R14-12-LI3	6-14	4-10	127	1.8	4	319	12	34	15	12.5	45.5	71	35	30	13	8431 0616 07
LTC009 R15-12-LI3	7-15	5-11	105	1.7	3.8	328	12	34	10	15	51.9	54.3	35	31	14.5	8431 0616 04
LTC28 R14-12-LI3	6-14	5-11	500	2.2	4.9	590	12	34	10	15	54.3	54.3	35	31	14.5	8433 0616 07
LTC28 R18-10-LI3	10-18	7-13	386	1.8	4	421	10	34	15	12.5	36.7	59.2	35	22	10	8431 0616 02
LTC28 R20-12-LI3	12-20	9-15	320	1.8	4	441	12	34	10	15	51.9	54.3	35	31	14.5	8431 0616 05
LTC28 R22-12-LI3	11-22	8-16	345	1.8	4	433	12	34	15	12.5	45.5	71	35	30	13	8431 0616 08
LTC38 R28-12-LI3	14-28	10-20	470	1.8	4	493	12	34	15	12.5	45.5	71	35	30	13	8431 0616 09
LTC38 R34-21-LI3	16-34	12-25	390	3.7	8.2	578	21	46	20	16	74.5	44	64	40	20	8431 0616 10
LTC48 R80-21-LI3	50-80	37-59	250	4	8.9	578	21	46	20	16	74.5	84	64	40	20	8431 0616 12
LTC48 R150-22-LI3	105-150	77-110	90	4.6	10.2	651	22	46	33	14	77.5	84	64	40	20	8431 0616 15

Offset crowfoot tools

Dimensions

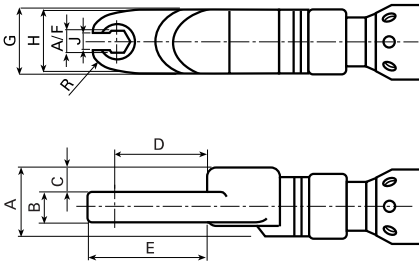


LTC

Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
LTC009 R07-10-LO3	3-7	2.2-5	250	1.6	3.6	304	10	59.5	10	14.55	32.8	42.8	61.1	36.5	22	10	8431 0614 94
LTC009 R10-13-LO5	1.5-10	1.1-7	223	1.8	4	356	13	58	10	71.6	93.6	108.1	130.1	44	31	14.5	8431 0615 00
LTC009 R11-10-LO3	3-11	2.2-8	220	1.5	3.3	290	10	57.5	15	14.55	32.8	42.8	61.1	36.5	22	10	8431 0615 01
LTC29-2R19-10-LO3	10-19	7.3-14	640	2	4.4	384	10	60.3	15	14.55	32.8	42.8	61.1	36.5	22	10	8431 0615 02
LTC29-2R21-13-LO5	11-21	8-15	500	2	4.4	457	13	58.5	10	71.6	93.6	108.1	130.1	44	31	14.5	8431 0615 04
LTC39-2R28-12-LO5	17-28	13-21	560	2.5	5.6	488	12	69.5	15	62	84	97	119	44	30	13	8431 0615 08
LTC39-2R40-14-LO3	22-40	16-29	460	2.4	5.3	452	14	77.8	18	24.8	46.8	61.3	83.3	44	31	14.5	8431 0615 11
LTC39-2R60-16-LO3	34-60	25-44	305	3	6.7	541	16	91	24	27	51	66	91.5	48	30	15	8431 0615 14
LTC48 R80-17-LO3	56-80	41-59	215	4	8.9	641	17	69.5	27	30.3	55.8	72.3	97.8	48	33	16.5	8431 0615 17
LTC48 R90-21-LO5	49-90	36-66	170	4.7	10.4	721	21	69.5	20	100.8	132	152	183.3	62.5	40	20	8431 0612 38
LTC48 R96-18-LO3	56-96	41-71	210	4.7	10.4	651	18	99	32	32	63.2	82.2	113.5	62.5	38	19	8431 0615 21
LTC48 R140-18-LO3	92-140	68-103	100	5	11.1	670	18	99	32	32	63.2	82.2	113.5	62.5	38	19	8431 0615 23
LTC69 R215-21-LO3	160-215	118-158	450	10	22.2	692	21	140.1	40	32	70.4	91.4	128.2	77	42	21	8431 0615 28
Extra heavy duty attachments																	
LTC38 R33-13-A-O-3	16-33	11.8-24	430	2.6	5.8	487	13	60	19	32.8	52.8	68.8	88.8	40	34	16	8431 0611 01
LTC48 R56-17-A-O-3	24-56	18-41	400	3.9	8.7	619	17	66	19	45.1	67.6	87.2	109.7	45	39.2	19.5	8431 0611 06
LTC38 R40-17-A-O-3	23-40	17-29	360	3	6.7	519	17	66	19	45.1	67.6	87.2	109.7	45	39.2	19.5	8431 0611 08
LTC48 R96-19-A-O-3	40-96	30-71	220	4.3	9.6	656	19	87	25	42.3	67.6	87.4	112.7	54	39.5	19.75	8431 0611 11
LTC48 R120-19-A-O-3	48-120	36-89	180	4.3	9.6	656	19	87	25	42.3	67.6	87.4	112.7	54	39.5	19.75	8431 0611 15

In-Line tube nut tools

Dimensions

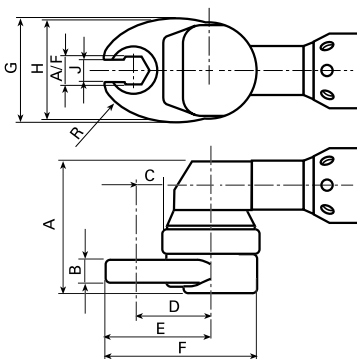


LTO

Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	G mm	H mm	J mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
LTO28 R04-8-LI3	1.6-4.5	1.2-3.2	1100	1.8	4	363	8	32	11	12.25	22.7	21.6	33.5	29	6	7.8	8431 0617 00
LTO28 R06-8-LI3	2.1-6	1.5-4	833	1.8	4	369	8	32	10	13	27.3	25.4	33.5	31	7	9.8	8431 0617 02
LTO28 R12-8-LI3	6-12	4-8	420	2	4.4	388	8	32	10	13	27.3	25.4	33.5	31	7	9.8	8431 0617 03
LTO28 R12-10-LI3	6-12	4-8	420	2	4.4	396	10	32	10	13	27.3	25.4	33.5	31	7	9.8	8431 0612 44
LTO28 R15-10-LI3	6-15	4-11	400	2	4.4	397	10	32	12	11	27.9	26.1	33.5	32	8	10.3	8431 0612 46
LTO28 R17-13-LI3	8-17	6-13	350	1.9	4.2	415	13	34	11	14.5	36.3	32.3	35	38	8.5	12.4	8431 0612 48
LTO28 R19-10-LI3	8-19	6-14	350	1.9	4.2	402	10	34	14	13	31.9	29.7	35	38	8	11.2	8431 0617 07
LTO38 R26-13-LI3	14-35	10-25	220	3	6.7	536	13	46	11	20.8	52	47.3	45	55	12.5	17.2	8431 0612 50
LTO38 R26-17-LI3	15-43	11-31	200	3.2	7.1	547	17	46	12	20	60.3	38.8	45	59	16	20.1	8431 0612 54
LTO38 R28-12-LI3	10-28	7-20	320	2.9	6.4	514	12	43	11	17.5	43.7	29.3	40	50	10.4	15	8431 0617 08
LTO38 R35-12-LI3	14-35	10-25	220	2.9	6.4	519	12	43	11	17.5	43.7	29.3	40	50	10.4	15	8431 0617 09
LTO38 R43-14-LI3	14-43	10-31	220	3.2	7.1	522	14	46	18	17	41	38.5	45	50	12	15	8431 0617 10
LTO28 R118-8-LI3	4.5-11	3.2-8	560	2	4.4	381	8	32	11	12.25	22.7	21.6	33.5	29	6	7.8	8431 0617 01

Offset tube nut tools

Dimensions



LTO

Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	J mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
LTO28 R04-10-LO3	1.6-4.5	1.2-3.3	1100	1.9	4.2	352	10	65.5	12	6.9	25.1	35.5	50.6	36.5	7	9.8	8431 0618 00
LTO28 R04-10-LO5	1.4-4	1.0-2.9	1100	2	4.4	388	10	64.0	10	42.7	60.9	71.4	89.7	36.5	7	9.8	8431 0618 02
LTO28 R10-10-LO5	4-10	2.9-7.3	560	2	4.4	388	10	65.3	10	42.7	60.9	71.4	89.7	36.5	7	9.8	8431 0618 03
LTO28 R10-12-LO5	4-10	2.9-7.3	560	2	4.4	401	12	66.5	11	51	73	84.9	106.9	44	8	11.9	8431 0618 04
LTO28 R11-10-LO3	4.5-11	3.3-8.0	560	1.9	4.2	352	10	65.5	12	6.9	25.1	35.5	50.6	36.5	7	9.8	8431 0618 01
LTO28 R11-12-LO3	4.5-11	3.3-8.0	560	2	4.4	360	12	68.5	11	9.4	31.4	43.8	65.8	44	8.5	12.4	8431 0618 07
LTO28 R12-12-LO5	6-12	4.4-9	470	2	4.4	402	12	66.5	11	51	73	84.9	106.9	44	8	11.9	8431 0618 05
LTO28 R14-12-LO3	6-14	4.4-10	470	2	4.4	357	12	68.5	14	7	29	40.2	62.2	44	8	11.2	8431 0618 08
LTO28 R14-13-LO3	6-14	4.4-10	470	2	4.4	369	13	67	11	12.8	36.8	51.8	75.8	48	10.4	15	8431 0618 10
LTO38 R20-12-LO3	12-20	8-14	250	2	4.4	458	12	68	14	7	29	40.2	62.2	44	8	11.2	8431 0618 09
LTO38 R28-13-LO5	11-28	8.0-20	250	2.3	5.1	506	13	71	18	53.3	75.3	87.7	109.7	44	10.4	12.4	8431 0618 12
LTO38 R30-13-LO3	12-30	8-22	250	2	4.4	470	13	65.5	11	12.8	36.8	51.8	75.8	48	10.4	15	8431 0618 11
LTO38 R36-13-LO5	15-36	11-26	200	2.3	5.1	505	13	71	18	53.3	75.3	87.7	109.7	44	10.4	12.4	8431 0618 13

Hold and Drive

Hold and drive bolts are being used increasingly by, for example, truck manufacturers on the frame assembly line, making what used to be a two-man operation, a one-man task. The distinguishing feature of a hold and drive bolt is that one part is held and the other is tightened from the same side.

LTV HAD

- Especially suitable for shock absorber assembly.
- Special tools based on the standard LTV series are available for use on hold and drive bolts.
- HAD sockets are available in three different lengths.
- Special sockets available upon request.
- Also suitable for break-away bolts, Hi Lok/Hi Shear.

NOTE: The screw must be strong enough to carry the final torque.



LTV38 HAD

Model	Bolt size mm	Torque range soft joint ^a		Free speed r/min	Weight		Length mm	Angle head height mm	Angle head center to side mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
		Nm	ft lb		kg	lb				l/s	cfm			
LTV38 R40 LT HAD ^b	M8-10	15-40	11-30	210	3.0	6.5	530	52	25	10	16	10	1/4	8431 0609 52
LTV38 R42 HAD	M8	20-42	15-31	430	2.2	4.8	453	41	20	10	16	10	1/4	8431 0603 75
LTV38 R50 HAD	M10	25-50	18-36	360	2.2	4.8	453	41	20	10	16	10	1/4	8431 0603 82
LTV38 R85 HAD	M10-12	40-85	30-67	210	3.0	6.5	530	52	25	10	16	10	1/4	8431 0609 58
LTV48 R120 HAD	M12-14	70-120	52-89	220	3.3	7.3	590	70	25	28	59	12.5	1/2	8431 0610 26
LTV48 R150 HAD	M14	70-150	52-111	180	3.3	7.3	590	70	25	28	59	12.5	1/2	8431 0610 30
LTV48 R200 HAD	M14	115-200	85-150	100	3.3	7.3	610	70	25	28	59	12.5	1/2	8431 0610 32
LTV69 R370 HAD	M18	190-370	140-273	480	7.6	16.6	634	62	33	20	42	12.5	1/2	8431 0831 65

^a At min 5 bar.

^b For low torque applications.

NOTE: For sockets and holders see accessory pages.

Other types of Hold and Drive equipped tools are available on special request.

Stall type

- Low inertia design gives accurate torque independent of joint stiffness – in other words, low mean shift.
- Easy torque setting by adjusting the inlet air pressure.
- Reliable, well-proven design.
- Good accessibility due to small dimensioned angle head.



Model	Bolt size mm	Square drive in	Torque range soft joint		Free speed r/min	Weight		Length mm	Angle head		Air consumption at free speed l/s cfm	Rec. hose size mm	Air inlet thread in	Ordering No.			
			at 6.3 bar Nm ft lb	at 3 bar Nm ft lb		kg lb	height mm		center to side mm								
Reversible																	
LMV28 R11-10	M6	3/8	11	8	5	4	1200	1.1	2.4	264	28	11	10	21	10	1/4	8431 0591 07
LMV28 R14-10	M6	3/8	14	10	7	5	1000	1.1	2.4	264	29.5	13.5	10	21	10	1/4	8431 0591 09
Non reversible																	
LMV28 N16-10	M6	3/8	16	12	8	6	1000	1.0	2.2	239	29.5	13.5	11	23	10	1/4	8431 0590 17

Ratchet wrenches

- Unique accessibility, the ratchet wrench is a superior tool for limited space applications.
- To loosen, turn the tool upside down.



Model	Bolt size mm	Square drive in	Torque range soft joint		Free speed r/min	Weight		Length mm	Angle head		Air consumption at free speed l/s cfm	Rec. hose size mm	Air inlet thread in	Ordering No.			
			at 6.3 bar Nm ft lb	at 3 bar Nm ft lb		kg lb	height mm		center to side mm								
LBR33 S26/114-13	M8	13 ^a	22	16	11	8	185	1.4	3.1	290	15	13	9.5	20	10	1/4	8431 0345 71
LBR33 S26/118-16	M8-10	16 ^a	30	22	15	11	135	1.4	3.1	300	15	18	9.5	20	10	1/4	8431 0346 70
LBR33 S26/118-17	M8-10	17 ^a	30	22	15	11	135	1.4	3.1	300	15	18	9.5	20	10	1/4	8431 0346 62

^a Female hex drive.

Worm-drive nutrunners

- Teasing throttle characteristics give significantly reduced free speed.
- Suitable for:
 - Nutrunning
 - Light reaming
 - Tapping
 - Tube-rolling
- Can also be incorporated in rigs as air motors for intermittent operation.



Model	Bolt size mm	Square drive in	Torque range soft joint		Free speed r/min	Weight		Length mm	Angle head		Air consumption at free speed l/s cfm	Rec. hose size mm	Air inlet thread in	Ordering No.			
			at 6.3 bar Nm ft lb	at 3 bar Nm ft lb		kg lb	height mm		center to side mm								
LMK33 S001	M10-12	7/16 ^a	55	41	27	20	130	2.2	4.9	385	39	41	9.5	20	10	1/4	8431 0343 08
LMK33 S002	M10-12	7/16 ^a	32	24	16	12	235	1.9	4.2	291	39	41	9.5	20	10	1/4	8431 0343 16
LMK33 S005	M10	7/16 ^a	29	21	14	10	480	1.7	3.7	263	39	41	9.5	20	10	1/4	8431 0343 24

^a Female hex drive.

Accessories Included

For LTV models

Clutch adjustment key

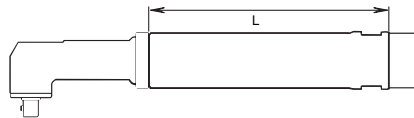
For LBR, LMV and LMK models

Socket adapter, 3/8" square drive LMK22,
1/2" square drive LMK33

Optional Accessories

Extensions for LTV

Suitable for tool	Length of extension –"L"		Ordering No.
	mm	in	
LTV28	75	3	4210 3491 93
LTV28	150	6	4210 3491 95
LTV38 (not R70/R85)	75	3	4210 4301 80
LTV38 (not R70/R85)	150	6	4210 4302 80
LTV38 R70/R85/LTV48	75	3	4210 4303 80
LTV38 R70/R85/LTV48	150	6	4210 4304 80
LTV39-2 R48-10	75	3	4210 4472 81
LTV39-2 R48-10	150	6	4210 4472 83
LTV39-2 R48/56/70-13	75	3	4210 4472 80
LTV39-2 R48/56/70-13	150	6	4210 4473 80
LTV39-2 R56-10	75	3	4210 4472 82
LTV39-2 R56-10	150	6	4210 4472 84
LTV39-2 R85	75	3	4210 4474 80
LTV39-2 R85	150	6	4210 4475 80



Reaction bar kit



Protective cover (a)



Protective cover (b)



Signal connection kit (RE)

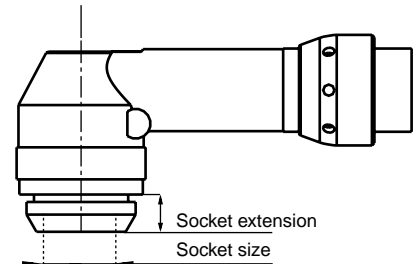
For LTV and LTC models

Model	Exhaust hose	Suspension yoke		Protective cover (see picture)	Reaction bar kit	Signal connection kit (-RE)
		Fixed	Swivelling			
LTV28 R07	4210 2053 00	4210 1631 82	4210 3931 80	4210 3990 00 ^a		4210 4019 90
LTV28, all models except R07	4210 2053 00	4210 1631 82	4210 3931 80	4210 3990 00 ^a		4210 4018 90
LTV29-2/39-2	4210 2053 00	4210 1631 82	4210 4408 80			4210 4017 90
LTV29-2/39-2 R12/R16				4220 2744 05 ^b		
LTV29-2/39-2 R24/R30				4220 2744 03 ^b		
LTV38 R42/R50/R57	4210 2053 00	4210 1631 82	4210 3931 81	4210 3992 90 ^a (not LTC)		4210 4017 90
LTC38, LTV38 FS						
LTV38 R70	4210 2053 00	4210 1631 82	4210 3931 81	4210 4003 90 ^a		4210 4017 90
LTV38 R85, LTV38 HAD	4210 2053 00	4210 1631 82	4210 3931 81	4210 4004 90 ^a	4210 4020 80	4210 4017 90
LTV39-2 R48-10/R50-10				4220 2744 02 ^b		
LTV39-2 R48-13/R50-13/R70				4220 2744 04 ^b		
LTV48 R65	4210 4011 00	4210 4061 80	4210 4021 80	4210 4058 90 ^a	4210 4020 80	4210 4057 90
LTV48 R120/R150/R200, LTC48, LTV48 FS, LTV48 HAD	4210 4011 00	4210 4061 80	4210 4021 80	4210 4059 90 ^a	4210 4020 80	4210 4057 90
LTV69 N/R180	4210 4011 00		4210 3088 87	4210 4059 90 ^a	4220 1128 80	
LTV69 N/R370	4210 4011 00		4210 3088 87		4220 1201 80	
LTV69 N/R600	4210 4011 00		4210 3088 87		4220 1746 80	

Optional Accessories for Flush socket tools

Integrated sockets

Model	Hexagon socket size AF mm / in	Socket extension mm	Ordering No.
LTV29-2 R24/R30 FS			
	8	1.5	4220 4188 08
	10	1.5	4220 4188 90
	12	1.5	4220 4188 92
	13	1.5	4220 4188 93
	5/16"	1.5	4220 4188 98
	1/4"	1.5	4220 4188 96
LTV39-2 R37/R48/R56 FS			
	10	2.5	4220 3987 90
	12	2.5	4220 3987 92
	13	2.5	4220 3987 93
	14	2.5	4220 3987 94
	15	2.5	4220 3987 95
	16	2.5	4220 3987 96
	17	2.5	4220 3987 97
	18	2.5	4220 3987 98
	9/16"	2.5	4220 3987 99
	13	7	4220 4012 93
	13	15	4220 4013 93
	14	15	4220 4013 94
LTV39-2 R70 FS			
	16	0.5	4220 1251 00
	15	16.5	4220 1621 00
	15	1.5	4220 1621 01
	18	6.5	4220 1621 02
	16	11.5	4220 1621 03
	10	3.5	4220 1621 04
	20	8.5	4220 1621 05
	17.5	6.5	4220 1621 06
	19	8.5	4220 1621 07
	16	16.5	4220 1621 08
	18	10.5	4220 1621 09
	16	14.5	4220 1621 10
	19	10	4220 1621 11
	17	11.5	4220 1621 12
	13	3.5	4210 2749 01
	15	3.5	4210 2749 02
	12	3.5	4210 2749 03
	14	3.5	4210 2749 04
	9/16"	3.5	4210 2749 05
	7/16"	3.5	4210 2749 06
LTV39-2 R85/R120 FS			
	24	12.5	4220 1595 01
	18	4.5	4220 1595 02
	25.4	13.5	4220 1595 03
	18	14.5	4220 1595 04
	21	13.5	4220 1595 05
	21	24	4220 1595 06
	14	5.5	4220 1595 07
	14.3	9	4220 1595 08
	17.5	7.5	4220 1595 09
LTV48 R150/R200 FS			
	18	2	4210 3534 68
	18	5.5	4220 1595 02
	18	8.5	4210 3534 18
	19	9.5	4210 3534 19
	21	10.5	4210 3534 21
	22	10.5	4210 3534 22
	24	10.5	4210 3534 24
	24	13.5	4220 1595 01
	27	13.8	4210 3534 27

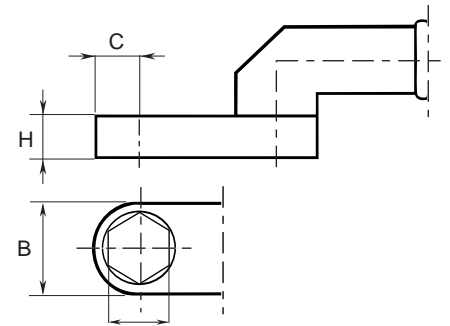


Optional Accessories for Crowfoot tools

Hex sockets

Width across flats		Ordering No.
mm	in	
For LTC38 R33/N41-13-A-O-3^a		
	7/16	4210 2625 03
12		4210 2625 04
	1/2	4210 2625 01
13		4210 2625 00
14		4210 2625 02
15		4210 2625 06
For LTC38 R40/N48-17-A-O-3^b, LTC48 R56-17-A-O-3^b		
13		4210 2626 06
14		4210 2626 04
15		4210 2626 03
	1/2	4210 2626 05
	5/8	4210 2626 02
16		4210 2626 00
17		4210 2626 01
18		4210 2626 10
19		4210 2626 08
For LTC48 R96/R120-19-A-O-3^c		
13		4210 2624 06
14		4210 2624 05
15		4210 2624 04
16		4210 2624 03
17		4210 2624 02
18		4210 2624 01
19	3/4	4210 2624 00

Model	H mm	B mm	C mm
LTC38 R33-13-A-O-3	19	32	16
LTC38 R40-17-A-O-3	19	39	20
LTC48 R56-17-A-O-3	19	39	20
LTC48 R96-19-A-O-3	25	39	20
LTC48 R120-19-A-O-3	25	39	20
LTC38 N41-13-A-O-3	19	32	16



^a 13 mm socket mounted on tool.

^b 17 mm socket mounted on tool.

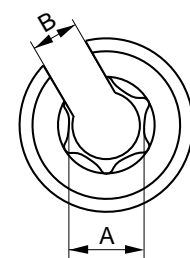
^c 19 mm socket mounted on tool.

Optional Accessories for Open End Type

Sockets

A Socket size mm	B Open end mm	Ordering No.
LTO28 R12-10-L-I-3		
5/16"	7	4210 4288 54
8 mm	7	4210 4288 55
3/8"	7	4210 4288 53
9 mm	7	4210 4288 52
10 mm	7	4210 4288 51
LTO28 R15-10-L-I-3		
8 mm	8	4210 4289 56
9 mm	8	4210 4289 55
3/8"	8	4210 4289 54
10 mm	8	4210 4289 51
11 mm	8	4210 4289 57
7/16"	8	4210 4289 58
12 mm	8	4210 4289 53
LTO28 R17-13-L-I-3		
3/8"	8.5	4210 4290 52
10 mm	8.5	4210 4290 53
11 mm	8.5	4210 4290 59
7/16"	8.5	4210 4290 54
12 mm	8.5	4210 4290 57
1/2"	8.5	4210 4290 55
13 mm	8.5	4210 4290 51
14 mm	8.5	4210 4290 58
9/16"	8.5	4210 4290 56

A Socket size mm	B Open end mm	Ordering No.
LTO38 R26-13-L-I-3		
11 mm	12.5	4210 4291 63
13 mm	12.5	4210 4291 51
14 mm	12.5	4210 4291 58
9/16"	12.5	4210 4291 53
15 mm	12.5	4210 4291 55
5/8"	12.5	4210 4291 54
16 mm	12.5	4210 4291 52
17 mm	12.5	4210 4291 60
11/16"	12.5	4210 4291 56
18 mm	12.5	4210 4291 61
19 mm	12.5	4210 4291 62
3/4"	12.5	4210 4291 57
LTO38 R26-17-L-I-3		
14 mm	14	4210 4292 55
5/8"	14.6	4210 4292 54
17 mm	16	4210 4292 51
18 mm	16	4210 4292 53
19 mm	16	4210 4292 57
3/4"	16	4210 4292 52
20 mm	16	4210 4292 61
13/16"	16	4210 4292 63
21 mm	16	4210 4292 62
22 mm	16	4210 4292 56
7/8"	16	4210 4292 58
15/16"	16	4210 4292 60
24 mm	17.2	4210 4292 59



Optional Accessories for Stall type

Female hex sockets

Dimensions in	Ordering No. LBR33 S26/114	Ordering No. LBR33 S26/118	Dimensions in	Ordering No. LBR33 S26/114	Ordering No. LBR33 S26/118
1/4	4210 0360 05	–	10	4210 0414 10	–
5/16	4210 0360 02	–	12	4210 0414 12	4210 0418 12
3/8	4210 0360 03	4210 0389 02	13	4210 0414 13	4210 0418 13
7/16	4210 0360 04	4210 0389 03	14	4210 0414 14	4210 0418 14
1/2	4210 0360 01	4210 0389 04	15	4210 0414 15	4210 0418 15
9/16	–	4210 0389 06	16	–	4210 0418 16
5/8	–	4210 0389 01	17	–	4210 0418 17
3/4	–	4210 0389 05	18	–	4210 0418 18
			19	–	4210 0389 05

NOTE: That 1/2" female hex sockets must be used together with socket adapters.

Socket adapters

Dimensions	Ordering No. LBR33 S26/114	Ordering No. LBR33 S26/118
1/2" hex 3/8" square drive	4090 0163 00	4090 0163 00
1/2" hex 1/2" square drive	4090 0164 00	4090 0164 00

Optional Accessories for Hold and Drive tools

Nut socket, screw holder and bit holder for LTV38 R42-HAD/LTV38 R50-HAD

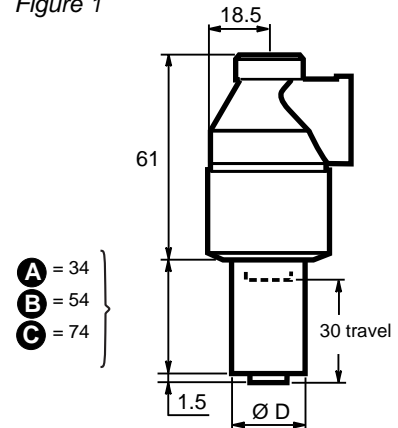
Nut socket (Fig. 1)					
Width across flats		Ordering No.			
W mm	Socket Ø D mm	A	B	C	
10	22	4220 1769 16	4220 1769 31	4220 1769 51	
11	22	4220 1769 15	4220 1769 32	4220 1769 52	
12	22	4220 1769 13	4220 1769 33	4220 1769 53	
13	22	4220 1769 09	4220 1769 12	4220 1769 54	
14	22	4220 1769 05	4220 1769 35	4220 1769 08	
15	22	4220 1769 14	4220 1769 36	4220 1769 56	
16	25	4220 1888 71	4220 1888 81	4220 1888 91	
17	25	4220 1888 72	4220 1888 82	4220 1888 92	
18	26	4220 1888 73	4220 1888 83	4220 1888 93	
19	27	4220 1888 74	4220 1888 84	4220 1888 94	
20	31	4220 1888 75	4220 1888 85	4220 1888 95	
21	31	4220 1888 76	4220 1888 86	4220 1888 96	

Screw holder					
Dimension X x Y mm	Suitable socket size mm	Ordering No.			
		A	B	C	
6.6 x 5	10-21	4220 1770 19	–	–	
7 x 5	10-21	–	4220 1770 17	–	
5.1 x 8.2	10-21	4220 1770 01	–	4220 1770 16	
8 x 6	10-21	4220 1770 02	–	–	

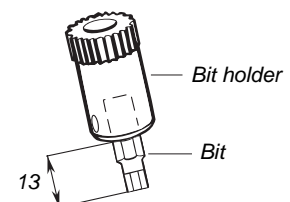
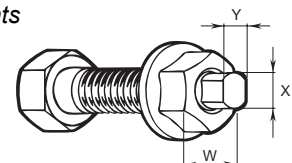
Bit holder					
Bit holder 1/4"					
A	B	C	Width N, mm	Bits	
4220 1959 01	4220 1959 04	4220 1959 03	10-21	1/4"	

Measurements in mm

Figure 1



Two flats



Optional Accessories for Hold and Drive tools

Nut socket, screw holder and bit holder for LTV38 R40 LT/R 85 HAD and LTV48 HAD

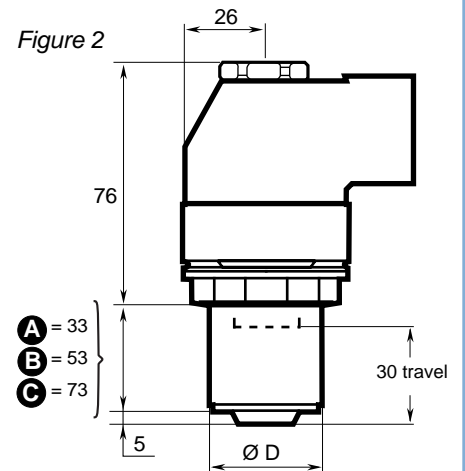
Nut socket (Fig. 2)				
Width across flats W mm	Socket Ø D mm	Ordering No.		
		A	B	C
13	30	4210 3513 13	4210 3513 33	4210 3513 53
14	30	4210 3513 14	4210 3513 34	4210 3513 54
15	30	4210 3513 15	4210 3513 35	4210 3513 55
16	30	4210 3513 16	4210 3513 36	4210 3513 56
17	30	4210 3513 17	4210 3513 37	4210 3513 57
18	31	4210 3513 18	4210 3513 38	4210 3513 58
19	32	4210 3513 19	4210 3513 39	4210 3513 59
21	35	4210 3513 21	4210 3513 41	4210 3513 61
22	35	4210 3513 22	4210 3513 42	4210 3513 62
24	35	4210 3513 24	4210 3513 44	4210 3513 64

Screw holder – Two flats				
Dimension X x Y mm	Suitable socket size mm	Ordering No.		
		A	B	C
8 x 6.3	15-24	4210 2694 17	4210 2694 18	4210 2694 19
8 x 6	15-24	4210 2694 05	4210 2694 10	4210 2694 15
9.55 x 7.6	18-24	4210 2694 01	4210 2694 06	4210 2694 11
11.20 x 8.9	19-24	4210 2694 02	4210 2694 07	4210 2694 12
13 x 9.8	19-24	4210 2694 03	4210 2694 08	4210 2694 13
13.20 x 10.5	19-24	4210 2694 04	4210 2694 09	4210 2694 14

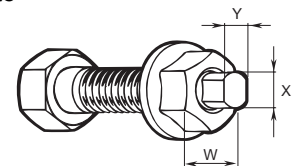
Screw holder – Male hexagon				
Dimension N mm	Suitable socket size mm	Ordering No.		
		A	B	C
7	14-24	4210 2825 41	4210 2825 42	4210 2825 43
8	14-24	4210 2825 01	4210 2825 05	4210 2825 09
9	15-24	4210 2825 02	4210 2825 06	4210 2825 10
10	18-24	4210 2825 03	4210 2825 07	4210 2825 11
11	19-24	4210 2825 04	4210 2825 08	4210 2825 12
12	19-24	4210 2825 13	4210 2825 14	4210 2825 15

Bit holder – Female hexagon			5/16" Bits	
A	B	C	Width N, mm	Ordering No.
4210 2991 91	4210 2991 92	4210 2991 93	5	4023 1215 00
			6	4023 1216 00
			7	4023 1219 00
			8	4023 1217 00
			10	4023 1218 00

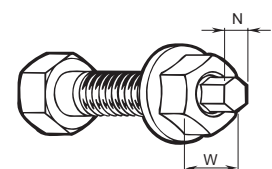
Measurements in mm



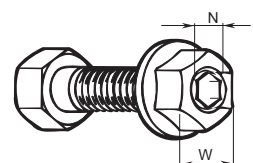
Two flats



Male hexagon



Female hexagon



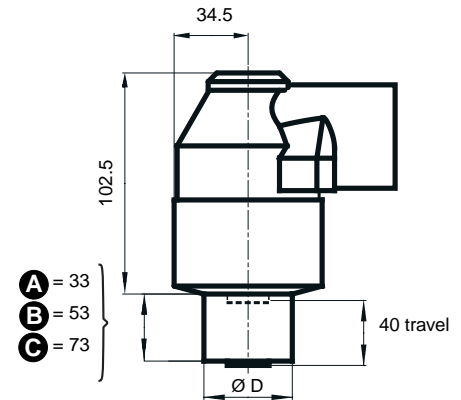
Optional Accessories for Hold and Drive tools

Nut socket, screw holder and bit holder for LTV58 R350-HAD

Nut socket (Fig. 3)		Ordering No.		
Width across flats W mm	Socket Ø D mm	A	B	C
18	41	4220 1778 04	4220 1778 14	4220 1778 24
19	41	4220 1778 05	4220 1778 15	4220 1778 25
20	41	4220 1778 06	4220 1778 16	4220 1778 26
21	41	4220 1778 07	4220 1778 17	4220 1778 27
22	41	4220 1778 08	4220 1778 18	4220 1778 28
23	41	4220 1778 09	4220 1778 19	4220 1778 29
24	41	4220 1778 01	4220 1778 11	4220 1778 21
25	41	4220 1778 02	4220 1778 12	4220 1778 22
25.4=1"	41	4220 1778 10	4220 1778 20	4220 1778 30
26	41	4220 1778 03	4220 1778 13	4220 1778 23
27	46	-	4220 2139 84	4220 2139 94
28	46	-	4220 2139 83	4220 2139 93
29	46	-	4220 2139 82	4220 2139 92
30	46	-	4220 2139 81	4220 2139 91
31	54	-	4220 2297 81	4220 2297 91
32	54	-	4220 2297 82	4220 2297 92
33	54	-	4220 2297 83	4220 2297 93
34	54	-	4220 2297 84	4220 2297 94
35	54	-	4220 2297 85	4220 2297 95
36	54	-	4220 2297 86	4220 2297 96

Measurements in mm

Figure 3



Screw holder – Two flats for LTV69 R370-HAD

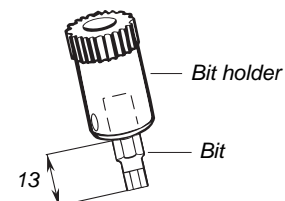
Dimension X x Y N mm	Suitable socket size mm	Ordering No.		
		A	B	C
13 x 9.8	18-36	4220 1777 80	4220 1777 83	4220 1777 85
13.20 x 10.5	18-36	4220 1777 81	4220 1777 84	4220 1777 86

Screw holder – Male hexagon for LTV69 R370-HAD

Dimension N mm	Suitable socket size mm	Ordering No.		
		A	B	C
10	18-36	4220 1777 52	4220 1777 54	4220 1777 72
11	18-36	4220 1777 51	4220 1777 50	4220 1777 73
12	20-36	4220 1777 53	4220 1777 55	4220 1777 74
14	20-36	4220 1777 57	4220 1777 56	4220 1777 75
16	24-36	4220 1777 58	4220 1777 70	4220 1777 76
18	24-36	4220 1777 59	4220 1777 71	4220 1777 77

Bit holder

Bit holder		Ordering No.		
Bit holder	Socket size mm	A	B	C
7	14-24	4210 2825 41	4210 2825 42	4210 2825 43
5/16"	18-20	4220 1777 88	4220 1777 89	4220 1777 90
5/16"	21-36	4220 1777 82	4220 1777 85	4220 1777 87



NOTE: 8 mm bit is included in the bit holders.

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



Service Kits

The spare parts included in the service kits cover a normal overhaul of your tool. Always have them available for a fast and economical repair.

Main parts included:

- Vane kit
- Motor bearings
- Gaskets
- O-rings
- Circlips
- Pins etc.

Model	Service kit
LTV28	4081 0102 90
LTV29-2	4081 0299 90
LTV38	4081 0103 90
LTV39-2	4081 0298 90
LTV48	4081 0236 90
LTV69	4081 0397 90

Fast, flexible and user-friendly

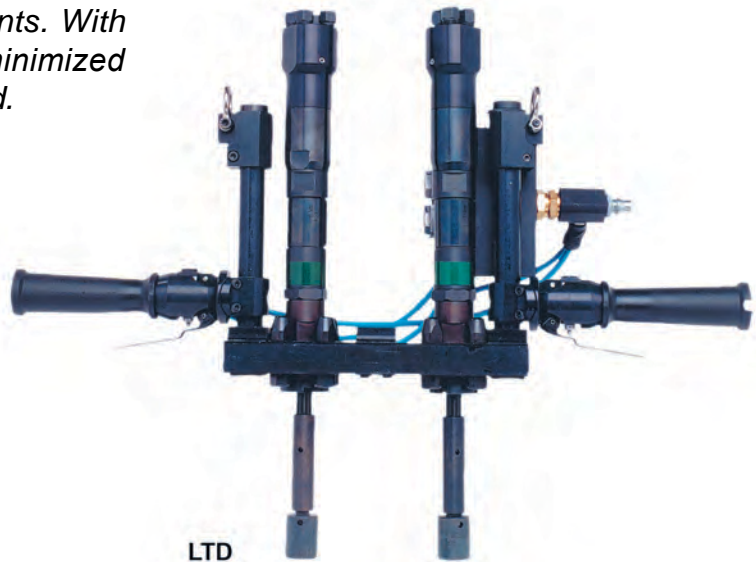
The LTD system offers a flexible, low-cost solution to many advanced tightening requirements. With fixtured tools the operator influence is minimized and very high torque accuracy is achieved.

Articulating arms

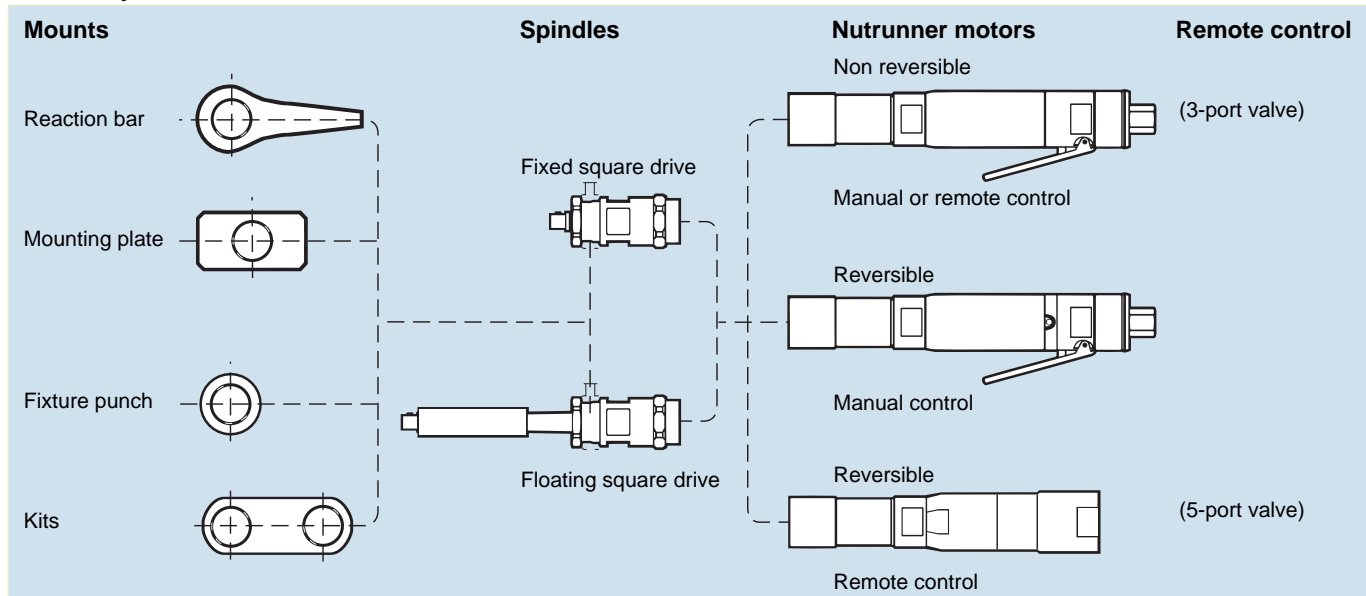
Where a fixed support on the workpiece for a reaction bar is not available, a telescopic or articulated arm mounted LTD nutrunner can be an efficient solution.

Second fastener

By combining two LTD straight nutrunners in a twin spindle unit the screws can be tightened simultaneously.



The LTD system



- **Reaction bar blanks** – For single spindle hand-held applications.
- **Mounting plates** – The LTD/LMD straight nutrunners have a splined reaction bar connection which can also be used for fixed assembly of the nutrunner. A number of standard mounting plates are available to order.
- **Floating square drive** – For two or more spindles the units must usually have floating spindles to compensate for run-down variations. Models with floating square drive or telescopic front parts are available.

- **Fixture punches** – For mounting of the nutrunner to locally made base plates a punch for the splines connection is available as optional equipment.
- **TwinSpin Kit** – A kit for building your own twin spindle assembly unit is available as extra equipment. Atlas Copco offers three sizes of twin spindle multiples, intended for 28, 38 and 48/61 sizes. The CC-distance in the TwinSpin is adjustable and the largest size has a maximum CC-distance of 364 mm. The smallest size has a minimum CC-distance of 53 mm. The complete

set has two throttle handles, one for forward and one for reverse (if the system is non reversible there is only one throttle handle).

- **Remote control** – Remote control valves are available as optional equipment.
- **Air signal outlets** – All LTD models are equipped with air signal outlets for completed operation.

LTD28, 38 and 48 straight nutrunners are based on the power package and clutch from the LTV angle nutrunners.

LTD/LMD61 nutrunners are based on the unique LTP/LMP61 range of twin motor pistol grip nutrunners. With fast run-down and accurate final tightening they offer high productivity and unmatched torque accuracy as well as joint independence.

- Remote control back head – A remote valve is connected to the back head of the LTD-RR tools allowing a better multiple.
- Accessibility – Slim design allows the building of smooth, simple multiples or paired spindle designs. The absence of a clutch makes these tools shorter.
- Flexibility – The range of LTD tools provides you with the options you need to meet your requirements.
- Reversibility – Reversible LTD tools are available.



LTD28



LTD61

Model	Bolt size mm	Square drive in	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
Non reversible, lever start														
LTD28 N9-RE	M5-6	3/8	5-9	4-6	1400	1.1	2.4	339	20	9	19	10	1/4	8431 0534 05
LTD28 N18-RE	M6	3/8	8-18	6-13	780	1.2	2.6	358	20	9	19	10	1/4	8431 0534 08
LTD28 N21-RE	M6	3/8	10-21	7-15	570	1.2	2.6	358	20	9	19	10	1/4	8431 0534 13
LTD28 N22-RE	M6	3/8	10-22	7-16	140	1.2	2.6	358	20	9	19	10	1/4	8431 0534 18
Reversible, lever start														
LTD28 R8-RE	M5-6	3/8	3-8	2-6	1100	1.2	2.6	363	20	8	17	10	1/4	8431 0534 61
LTD28 R16-RE	M6	3/8	7-16	6-12	610	1.3	2.9	383	20	8	17	10	1/4	8431 0534 65
LTD28 R20-RE	M6-8	3/8	10-20	7-15	520	1.3	2.9	383	20	8	17	10	1/4	8431 0534 51
LTD28 R22-RE	M6-8	3/8	10-22	7-16	125	1.3	2.9	383	20	8	17	10	1/4	8431 0534 54
Reversible, remote control back head														
LTD13 R05-RR	M3-5	1/4 ^b	1.5-5	1.1-3.7	850	0.7	1.6	197	16	7	15	8	1/8	8431 0533 05
LTD13 R08-RR	M3-5	1/4 ^b	1.5-8	1.1-6	500	0.8	1.7	197	16	7	15	8	1/8	8431 0533 06
LTD28 R8-RR	M5-6	3/8	3-8	2-6	1100	1.2	2.6	294	20	8	17	10/13	^a	8431 0703 80
LTD28 R16-RR	M6	3/8	7-16	6-12	610	1.3	2.9	313	20	8	17	10/13	^a	8431 0703 82
LTD28 R20-RR	M6-8	3/8	10-20	7-15	520	1.3	2.9	313	20	8	17	10/13	^a	8431 0703 83
Non reversible, lever start, telescopic front part, travel 25 mm														
LTD28 N9F-RE	M5-6	3/8	5-9	4-6	1400	1.5	3.3	447	20	9	19	10	1/4	8431 0534 21
LTD28 N18F-RE	M6	3/8	8-18	6-13	780	1.6	3.5	466	20	9	19	10	1/4	8431 0534 27
LTD28 N21F-RE	M6	3/8	10-21	7-15	570	1.6	3.5	466	20	9	19	10	1/4	8431 0534 39
Reversible, lever start, telescopic front part, travel 25 mm														
LTD28 R8F-RE	M5-6	3/8	3-8	2-6	1100	1.6	3.5	471	20	8	17	10	1/4	8431 0534 78
LTD28 R16F-RE	M6	3/8	7-16	6-12	620	1.7	3.7	491	20	8	17	10	1/4	8431 0534 85
LTD28 R20F-RE	M6-8	3/8	10-20	7-15	570	1.7	3.7	491	20	8	17	10	1/4	8431 0534 37
LTD28 R22F-RE	M6-8	3/8	10-22	7-16	125	1.7	3.7	491	20	8	17	10	1/4	8431 0534 89
Reversible, remote control back head, telescopic front part, travel 25 mm														
LTD28 R8F-RR	M5-6	3/8	3-8	2-6	1100	1.6	3.5	401	20	8	17	10/13	^a	8431 0703 84
LTD28 R16F-RR	M6	3/8	7-16	6-12	620	1.7	3.7	421	20	8	17	10/13	^a	8431 0703 86
LTD28 R20F-RR	M6-8	3/8	10-20	7-15	570	1.7	3.7	421	20	8	17	10/13	^a	8431 0703 88
Non-reversible, lever start														
LTD38 N30-RE	M8	1/2	14-30	10-21	820	2.2	4.8	414	20	16	34	10	1/4	8431 0535 04
LTD38 N38-RE	M8	1/2	20-38	15-27	680	2.2	4.8	414	20	16	34	10	1/4	8431 0535 12
LTD38 N44-RE	M8-10	1/2	18-44	13-32	580	2.2	4.8	414	20	20	42	10	1/4	8431 0535 17
LTD38 N55-RE	M10	1/2	27-55	20-40	470	2.2	4.8	487	20	20	42	10	1/4	8431 0535 20
Reversible, lever start														
LTD38 R27-RE	M8	1/2	13-27	10-20	670	2.1	4.6	441	20	16	34	10	1/4	8431 0534 53
LTD38 R32-RE	M8	1/2	18-32	13-24	560	2.1	4.6	441	20	16	34	10	1/4	8431 0534 52
LTD38 R38-RE	M8-10	1/2	19-38	14-28	480	2.1	4.6	441	20	16	34	10	1/4	8431 0535 78
LTD38 R47-RE	M8-10	1/2	22-47	16-35	380	2.3	5.1	513	20	20	42	10	1/4	8431 0535 83

^a Air inlet thread = 2 x 1/4" + 1 x 3/8".

^c Air inlet thread = 2 x 1/2" + 1 x 3/4".

^b 1/4" quick change chuck.

^d Optional RE kit LTD48 RE Ordering No. 4210 4057 90.

Continued...

Straight Nutrunners

Shut-off

Model	Bolt size mm	Square drive in	Torque range soft joint		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm			
Reversible, remote control back head														
LTD38 R27-RR	M8	1/2	13-27	10-20	670	2.1	4.6	377	21	16	34	10/16	^a	8431 0704 22
LTD38 R32-RR	M8	1/2	18-32	13-24	560	2.1	4.6	377	21	16	34	10/16	^a	8431 0704 24
LTD38 R38-RR	M8-10	1/2	19-38	14-28	480	2.1	4.6	377	21	16	34	10/16	^a	8431 0704 26
LTD38 R47-RR	M8-10	1/2	22-47	16-35	380	2.3	5.1	448	21	16	34	10/16	^a	8431 0704 28
Non-reversible, lever start, telescopic front part, travel 25 mm														
LTD38 N30F-RE	M8	1/2	14-30	10-21	820	2.3	5.0	521	20	20	42	10	1/4	8431 0535 38
LTD38 N38F-RE	M8	1/2	20-38	15-27	680	2.3	5.0	521	20	20	42	10	1/4	8431 0535 46
LTD38 N44F-RE	M8-10	1/2	18-44	13-32	580	2.3	5.0	521	20	20	42	10	1/4	8431 0535 31
LTD38 N55F-RE	M10	1/2	27-55	20-40	470	2.5	5.5	599	23	20	42	10	1/4	8431 0535 53
Reversible, lever start, telescopic front part, travel 25 mm														
LTD38 R27F-RE	M8	1/2	13-27	10-20	670	2.5	5.5	546	20	16	34	10	1/4	8431 0535 65
LTD38 R32F-RE	M8	1/2	18-32	13-24	560	2.5	5.5	546	20	16	34	10	1/4	8431 0535 91
LTD38 R38F-RE	M8-10	1/2	19-38	14-28	480	2.5	5.5	546	20	16	34	10	1/4	8431 0535 95
LTD38 R47F-RE	M8-10	1/2	22-47	16-35	380	2.7	5.9	625	23	16	34	10	1/4	8431 0535 99
Reversible, remote control back head, telescopic front part, travel 25 mm														
LTD38 R27F-RR	M8	1/2	13-27	10-20	670	2.5	5.5	482	21	16	34	10/16	^a	8431 0704 30
LTD38 R32F-RR	M8	1/2	18-32	13-24	560	2.5	5.5	482	21	16	34	10/16	^a	8431 0704 32
LTD38 R38F-RR	M8-10	1/2	19-38	14-28	480	2.5	5.5	482	21	16	34	10/16	^a	8431 0704 34
LTD38 R47F-RR	M8-10	1/2	22-47	16-35	380	2.7	5.9	566	23	16	34	10/16	^a	8431 0704 36
Reversible, lever start														
LTD48 R65-RE	M10	1/2	27-65	20-48	400	3.1	6.8	582	30	28	59	12.5	1/2	8431 0637 07
LTD48 R81-RE	M12	1/2	32-81	24-60	320	3.1	6.8	582	30	28	59	12.5	1/2	8431 0637 12
Reversible, remote control back head														
LTD48 R65-RR	M10	1/2	27-65	20-48	400	3.5	7.7	410	28	30	63	12.5/16	^c	8431 0704 46
LTD48 R81-RR	M12	1/2	32-81	24-60	330	3.5	7.7	410	28	30	63	12.5/16	^c	8431 0704 48
Reversible, lever start, telescopic front part, travel 25 mm														
LTD48 R65F-RE	M10	1/2	27-65	20-48	400	3.5	7.7	700	30	28	59	12.5	1/2	8431 0637 17
LTD48 R81F-RE	M12	1/2	32-81	24-60	320	3.5	7.7	700	30	28	59	12.5	1/2	8431 0637 23
Reversible, remote control back head														
LTD48 R65F-RR	M10	1/2	27-65	20-48	400	3.7	8.2	522	28	30	63	12.5/16	^c	8431 0704 50
LTD48 R81F-RR	M12	1/2	32-81	24-60	330	3.7	8.2	522	28	30	63	12.5/16	^c	8431 0704 52

^a Air inlet thread = 2 x 1/4" + 1 x 3/8".

^c Air inlet thread = 2 x 1/2" + 1 x 3/4".

^b 1/4" quick change chuck.

^d Optional RE kit LTD48 RE Ordering No. 4210 4057 90.

Straight Nutrunners

Shut-off

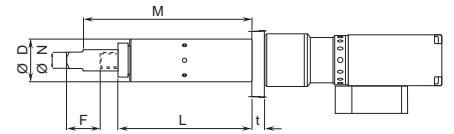
Model	Bolt size mm	Square drive in	Torque range at 6.3 bar		Min torque at 3 bar		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Air inlet thread in	Spline type	Ordering No.
			Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm			
Torque control models with fixed square drive																
LTD61 H100-13-RE	M12	1/2	55-100	40-75	45	35	1800	3.0	6.6	223	29	20	42	3/8	3	8431 0808 06
LTD61 H170-13-RE	M14	1/2	95-170	70-125	70	50	1100	3.0	6.6	223	29	20	42	3/8	3	8431 0808 15
LTD61 H230-19-RE	M16	3/4	125-230	90-170	85	60	820	3.0	6.6	223	29	20	42	3/8	3	8431 0808 23
LTD61 H350-20-RE	M18	3/4	190-350	140-255	145	105	520	3.9	8.6	260	31	20	42	3/8	4	8431 0808 27
LTD61 H500-20-RE	M20	3/4	275-500	200-370	220	160	360	3.9	8.6	260	31	20	42	3/8	4	8431 0808 36
LTD61 H700-25-RE	M22	1	360-650	265-480	280	207	280	4.5	9.9	305	34	20	42	3/8	5	8431 0808 43
LTD61 H900-25-RE	M24	1	480-870	350-640	300	220	210	4.5	9.9	282	32	20	42	3/8	5	8431 0808 45

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

Dimensions

Telescopic front part LTD61

Model	Dimensions						Ordering No.
	N in	D mm	F mm	L mm	M mm	t mm	
LTD61 H100, H170	1/2	34	25	101	127	12	4210 3864 80
LTD61 H230	3/4	41	25	117	148	12	4210 3789 80
LTD61 H350, H500	3/4	50	40	160	201	15	4210 3781 81
LTD61 H700, H900	1	67	50	226	278	15	4210 3788 80



Accessories Included

For all models

Torque adjustment key

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

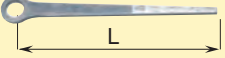


Service Kits

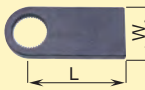
Model	General service kit
LTD61	4081 0397 90

Optional Accessories

Reaction bar

	Dimensions mm	LTD38 N55/R47 LTD48 LMD/LTD61 -13, -19				LMD/LTD61 -20	LMD/LTD61 -25
		LTD28	LTD38	LMD/LTD61 -13, -19	LMD/LTD61 -20		
	L						
Bar blank (steel)	250 200 500	4210 1798 00	4210 2134 00	4210 2219 02		4210 2183 80	4210 2726 80
Bar blank (aluminum)	400			4210 2219 01			

Mounting plate

	Dimensions mm	LTD38 N55/R47 LTD48 LMD/LTD61 -13,-19				LMD/LTD61 -20	LMD/LTD61 -25
		LTD28	LTD38	LMD/LTD61 -13,-19	LMD/LTD61 -20		
Side mount	L x W 90 x 40 120 x 70	4210 1798 01	4210 2134 01			4210 2809 80	4210 2808 80
Center mount	L x W 70 x 40 100 x 50 125 x 65	4210 1798 02	4210 2134 02	4210 2219 03		4210 2183 01	4210 2726 01
Flange mount	D D 55			4210 2219 10			

TwinSpin kit. Includes: 2 support handles, 2 mounting plates (with corresponding splines), 2 handle attachments, 1 suspension wire, 1 reaction arm, 2 beams, 1 assembly tool, 1 mounting plate for reaction bar, 2 posts, 2 brackets.

TwinSpin kit	Max CC-distance ^a	Min CC-distance ^a	Ordering No.
LTD28 RE/RR	383	53	4210 4159 80
LTD38 N55/R47-RE/RR	364	72	4210 4161 80
LTD48 RE/RR	364	72	4210 4161 80
LTD61 H100, H170, H230	364	72	4210 4161 82

^a CC-distance = distance between center of spindles.

Valve kits. Includes: main valve, throttle handle valve/valves, bracket, hose nipples and hose clamps.

Intended for tool type	Valve type	Ordering No.
LTD28/38 RE	3-gate for non reversible	4210 4162 80
LTD28 RR	5-gate for reversible	4210 4163 80
LTD48 RE	3-gate for non reversible	4210 4166 80
LTD38/48 RR	5-gate for reversible	4210 4167 80
LTD61 H100, H170, H230	3-gate for non reversible	4210 4166 80

Exhaust manifolds. Includes: Block, silencer with gasket and nipples.

Intended for tool type	Ordering No.
LTD28 RR	4210 4168 80

An optimum combination of torque, speed and weight

With the LMP/LTP61 range of pistol grip nutrunners from Atlas Copco you get the highest possible torque and speed in relation to the weight of the tool. Fast, accurate and highly operator 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.

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.

Single-handed operation combined with the low weight and perfectly balanced pistol grip design make LMP24/61 and LTP61 nutrunners safe and comfortable to use.

Reversible for maximum flexibility

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



The twin motor in the 61 series gives faster production and increased accuracy with a minimum of air consumption. Torque level on LMP models depends on the pressure of the air fed to the tool, higher pressure creates higher torque.

- High torque accuracy.
- Swiveling function makes tool positioning easy.
- Fast rundown motor saves time.
- Extremely good torque output to weight ratio compared to single motor pistol grip nutrunners.
- Available as both reversible and non-reversible models.



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																
LMP24 H011-10	M6	3/8	13	10	6	4	1550	1.0	2.2	210	18	11	23	1/4	1	8431 0245 56
LMP24 H005-10	M8	3/8	30	22	14	10	500	1.0	2.2	210	18	11	23	1/4	1	8431 0245 49
LMP24 H003-13	M8	1/2	40	30	14	10	330	1.2	2.6	210	18	11	23	1/4	1	8431 0245 64
LMP24 H002-13	M10	1/2	58	43	27	20	240	1.3	2.9	230	21	11	23	1/4	2	8431 0245 31
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																
LMP24 HR011-10	M6	3/8	10	7	5	4	860	1.0	2.2	210	18	11	23	1/4	1	8431 0245 85
LMP24 HR005-10	M8	3/8	22	16	10	7	380	1.0	2.2	210	18	11	23	1/4	1	8431 0245 77
LMP24 HR003-13	M8	1/2	30	22	14	10	250	1.2	2.6	210	18	11	23	1/4	1	8431 0245 91
LMP24 HR002-13	M10	1/2	40	33	20	15	180	1.3	2.9	230	21	11	23	1/4	2	8431 0245 70
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.

- LTP61 models are equipped with twin motors and a shut-off valve to ensure that the tool shuts off when the preset torque level is reached.
- Rundown is twice as fast as the LTP51.
- High torque accuracy, non depending on air pressure feeded.
- Extremely high torque output to weight ratio.
- A reversible tool with fixed positions for both forward and reverse.



LTP61 H900-25

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	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																
LTP61 H100-13	M12	1/2	55-100	40-75	45	35	1800	3.0	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	3.0	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	3.0	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	3.0	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	3.0	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	3.0	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	31.0	380	68	20	42	3/8	8	8431 0801 64
LTP61 HR2800-38	M36	1 1/2	1550-2800	1140-2060	1200	885	65	14.1	31.0	380	68	20	42	3/8	8	8431 0801 71
LTP61 HR3800-38	M42	1 1/2	2100-3800	1540-2800	1600	1180	50	14.1	31.0	380	68	20	42	3/8	8	8431 0801 78

^a Without reaction bar.
Recommended hose size: 13 mm

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

For prevailing applications

- LTP61 PH is specially designed to handle prevailing applications, such as locking nuts.
- Special gear gives a higher change-over torque.
- Fast rundown motor handles most of the rundown before the slower but stronger tightening motor is used.



LTP61 PH900-25

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	Air con- sumption at free speed		Air inlet thread in	Spline type	Ordering No.
			Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm			
Non-reversible																
LTP61 PH100-13	M12	1/2	60-110	45-80	45	33	700	3.0	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	3.0	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	3.0	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

^a Without reaction bar.

Recommended hose size 13 mm for hose length up to 5 m and 16 mm hose size for length 5-10 m.

NOTE: Change over torque is around 10% of maximum torque on a given air pressure.

LTP with Multi Torque Selector

- The Multi Torque Selector makes it possible to preset up to four different shut-off levels.
- The Rotary dial mounted on the tool allows the operator to select different torque levels without changing the tool.
- Ideal for situations where:
 - Several different assembly operations take place.
 - Multi-stage tightening operations are required.
 - Several different torque settings are needed.
- Reverse function that has fixed positions for both forward and reverse.



LTP61 HR900-25-MT

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	Air consumption at free speed		Air 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

^a Without reaction bar.
Recommended hose size: 13 mm.

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

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	Cabclair 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	Cabclair 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	Cabclair 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	Cabclair 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

Accessories Included

For LMP24

Suspension yoke, reaction bar

For LMP/LTP61

Suspension yoke
Protective cover is included

Optional Accessories

For LMP24

Model	Ordering No.
Hose nipple	9000 0247 00
Swivel attachment	4210 2249 80
Exhaust hose	4210 2053 00
Support handle (for H/HR002 only)	4110 1355 82
Spindle extension 115 mm x 1/2" (for H/HR002 only)	4210 2154 80
50 mm x 3/8" (for H/HR011/005 only)	4210 2158 80
1/4" hex bit holder (for H/HR011/005 only)	4021 0443 00
1/2" square adapter (for H/HR011/005 only)	4210 2157 80

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	

Reaction bars LMP/LTP 61

Spline dia mm	Square drive size mm/in	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 8	500/150/20		4210 3899 03
Spline 9	500/85/20		4210 3899 80
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
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
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
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 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
Straight aluminum bar			
Spline 3	L = 400		4210 2219 01
Extended sliding drive reaction bar			
Spline 5	1	68-112	4210 4498 80
Extended sliding tube reaction bar			
Spline 5	1	68-112	4210 4498 82
Bracket stepped			
Spline 1	70/36/13		4210 1798 02
Spline 2	70/41/14		4210 2134 02

Steel bar



Square steel bracket



Triangular steel bracket



Sliding drive reaction bar



S-Type reaction bar



L-Type aluminum bar



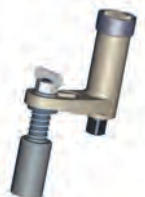
Straight aluminum bar



Extended sliding drive reaction bar



Extended sliding tube reaction bar



Bracket stepped



Service Kits

Model	Trigger kit	General service kit
LMP24	4210 1934 91	4081 0105 90
LMP/LTP61	4210 2190 91	4081 0397 90

Battery Assembly Tools

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True cordless freedom

Atlas Copco's range of industrial battery assembly tools includes both shut-off and transducerized nutrunners and screwdrivers. They allow maximum freedom of movement along the line and inside narrow or closed compartments. Tensor STB tools also offer advanced process control.

The main advantage of battery tools is their superior flexibility due to the absence of cables. This, in turn, improves the efficiency of the operator. Battery assembly tools also contribute to improving safety in the workplace, since there are no air hoses or electric cables to become entangled or jammed. Also, in the automotive industry, for instance, there is no risk of scratches on the car body finish from air hoses or electric cables.

BCP screwdrivers – a pleasure to work with

The BCP screwdriver is ideal for quality critical applications where flexibility is essential. The slim, well-balanced design and ergonomic pistol grip on the BCP screwdriver make it a pleasure to hold. Its compact size and Lithium-Ion batteries put it among the lightest battery screwdrivers on the market. BCP screwdrivers also offer variable speed and plenty of power, with torque levels ranging from 0.8 up to 12 Nm.

All these ergonomic features make the BCP screwdriver the kind of tool you can work with all day long.

Tensor STB nutrunners – fast, light, transducerized battery tools

Ergonomically designed Tensor STB pistol-grip (up to 12 Nm) and angle nutrunners (up to 150 Nm) are ideal for safety critical applications in cramped areas. No other battery powered tool can match Tensor STB's unique fastening performance and advanced process control.

Atlas Copco Industrial Radio Communication (IRC) enables the Tensor STB to be partnered with a Power Focus controller for accurate torque monitoring and full joint traceability. At a typical workstation, one Tensor STB tool can be used for several applications within the same torque range.

Tensor SB nutrunners – transducerized battery tools

The Tensor SB allows adjustable torque settings and has a transducer to ensure superior joint quality.

A robust metal housing ensures that the Tensor SB will stand up to tough industrial environments. Also the battery is powerful, reliable and has no memory effect, which means increased uptime for your production.



Powerful, durable and highly operator friendly

For quality critical applications where flexibility is essential, the BCP screwdriver and the BCV nutrunner are the ideal tool choices. Powerful and durable with superior ergonomics and operator feedback they offer higher productivity in assembly operations, independent of the industry.

Freedom – truly flexible assembly

- No product damage from cables or hoses
- No trip hazards from trailing cables
- No cable or hose management
- Speed setting functionality for the BCP
- Reversible battery pack

Power – high performance and durability

- Robust and industrial tool design
- Li-Ion battery technology for BCP: high power-to-weight.

Ergonomics – a pleasure to work with

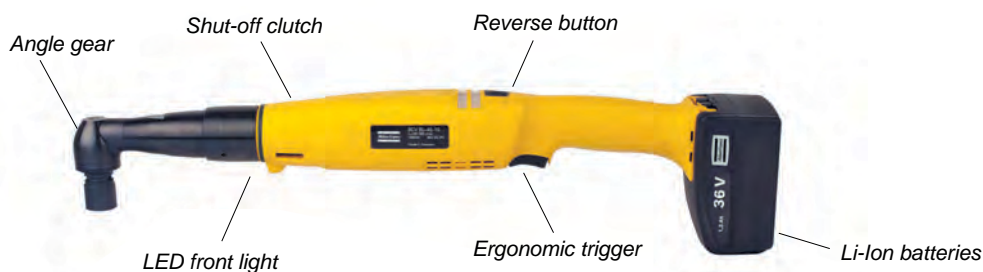
- Reduced operator fatigue and work related health problems
- Light, compact and well-balanced design
- Operator feedback



BCP Tool key features



BCV Tool key features



BCP screwdrivers offer true cordless freedom and superior ergonomics for the operator, thus contributing to outstanding performance.

- Ergonomic, lightweight pistol-grip design.
- 7 brushless models offering variable speed with a speed setting unit.
- Torque range: 0.8-12 Nm.
- Low speed models available.
- Choice of two 18 V Li-Ion batteries: 1.3 Ah Flat Pack or 2.6 Ah Big Pack.



Model	Square drive in	Torque range		Speed range r/min	Weight (excl. battery)		Length mm	Height mm	Ordering No.
		Nm	ft lb		kg	lb			
BCP BL-2-I06	1/4	0.8-2.5	0.6-1.8	500-1550	0.86	1.89	200	188	8431 1273 00
BCP BL-6-I06	1/4	2.0-6.0	1.5-4.4	300-1000	0.86	1.89	200	188	8431 1273 10
BCP BL-8-I06	1/4	3.0-8.0	2.2-5.9	300-800	0.86	1.89	200	188	8431 1273 20
BCP BL-12-I06	1/4	5.0-12.0	3.7-8.8	250-600	0.86	1.89	200	188	8431 1273 30
BCP BL-2L-I06	1/4	0.8-2.5	0.6-1.8	150-440	0.86	1.89	200	188	8431 1273 50
BCP BL-6L-I06	1/4	1.5-6.0	1.1-4.4	150-440	0.86	1.89	200	188	8431 1273 60
BCP BL-12L-I06	1/4	3.0-12.0	2.2-8.8	150-440	0.86	1.89	200	188	8431 1273 40

-L stands for low speed models.

NOTE: The tools are set at maximum speed at delivery.

All pistol grip models have 1/4" female hexagon drive for bits with quick change chuck.

BCV

Nutrunners – Clutch Type

BCV nutrunners are durable and reliable and offer flexible assembly. A lightweight and handy tool for maximum operator comfort.

- Robust yet ergonomic angle tool.
- Torque range 1.5-45 Nm.
- There are two Li-Ion batteries, 18 V and 36 V.



Check with your local Atlas Copco Tools representative regarding availability in your market.

Model	Square drive in	Torque range		Free speed r/min	Weight (excl. battery)		Power W	Battery V	Ordering No.
		Nm	ft lb		kg	lb			
BCV BL-07L-06	1/4	1.5-7	1.1-5.16	120-360	1.17	2.58	340	18	8431 1275 07
BCV BL-07-I06-QC	Hex 1/4	1.5-7	1.1-5.16	400-880	1.17	2.58	830	18	8431 1276 07
BCV BL-15-06	1/4	5-15	3.68-11	200-480	1.17	2.58	970	18	8431 1275 15
BCV BL-15-10	3/8	5-15	3.68-11	200-480	1.17	2.58	970	18	8431 1276 15
BCV BL-30-10	3/8	10-30	7.37-22.12	100-300	1.54	3.39	1720	36	8431 1275 30
BCV BL-45-10	3/8	20-45	14.7-33.2	50-180	1.65	3.64	1490	36	8431 1275 45

Optional Accessories

Batteries

Model	Current V	Electric charge Ah	Weight		Charge time min	Ordering No.
			kg	lb		
Li-Ion flat pack	18	1.3	0.37	0.81	35	4211 5426 82
Li-Ion big pack	18	2.6	0.63	1.39	70	4211 5426 83
Li-Ion (BVC only)	36	1.3	0.60	1.32	70	4211 5426 87



Battery for BVC only

Chargers (only for 18V batteries)

Model	V / Hz	Input/Output V / A	Weight		Ordering No.
			kg	lb	
EU-contact	230V / 50Hz	18V / 1.8A	0.61	1.34	4211 5428 80
UK-contact	230V / 50Hz	18V / 1.8A	0.61	1.34	4211 5428 81
BR-contact	230V / 60Hz	18V / 1.8A	0.61	1.34	4211 5428 83
US-contact	115V / 60Hz	18V / 1.8A	0.61	1.34	4211 5428 84



Battery Flat pack

Cover protections

Model	Ordering No.
Battery cover protection, Flat pack	4211 5601 00
Battery cover protection, Big pack	4211 5602 00
Tool cover protection (BCP only)	4211 5415 00



Battery Big pack

Colour rings

Model	Ordering No.
Red	4211 5461 02
Orange	4211 5461 03
Green	4211 5461 04
Blue	4211 5461 05
White	4211 5461 06
Purple	4211 5461 07
Grey	4211 5461 08



Battery charger 18 V.

Multicharger for BCV

Model	Ordering No.
Multicharger 18V / 36V, all regions	4211 5424 85

Miscellaneous

Model	Ordering No.
Speed setting unit (BCP only)	4211 5462 80
Speed setting unit (BCV only)	4211 5462 81
Support handle	4211 5421 80
Suspension bail	4211 5600 00
Tool holder	4220 4335 80



Battery cover Flat pack



Battery cover Big pack



Colour rings



Suspension bail



Support handle



Tool holder



Tool cover



Speed setting unit

Cordless freedom with full process control

Tensor STB battery powered nutrunners offer the same benefits in terms of process control as Tensor ST nutrunners, yet with the freedom of cordless tools. The tools have the capability to communicate with Bluetooth or W-LAN together with a Power Focus controller, for full process control.

Flexibility – no more cables

- No more cables and cable management
- No more damaged cables
- No product damage from cables
- No trip hazards from trailing cables

Productivity – save time

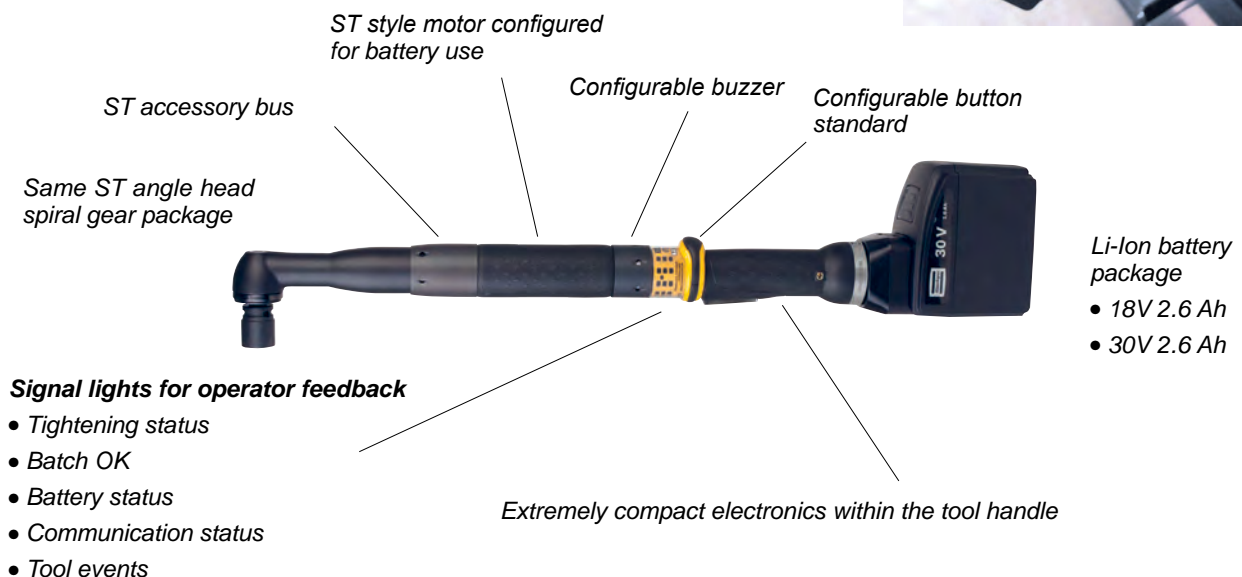
- Increased operator efficiency
- Easy to set up and replace
- Eliminate need for multiple operations
- Up to 100% faster than competing products

Ergonomics

- Reduced operator fatigue and work related health problems
- Unhindered access
- Low weight – up to 20 % lighter than competing products
- Compact size



STB Tool key features



Tensor STB offers genuine ergonomic and flexibility advantages for the operator which, in turn, raises operator efficiency.

- Low tool weight and high spindle speed reduce cycle time.
- Freedom of movement in all working positions.
- Lightweight components help reduce operator fatigue.
- Torque range ETV: 2-150 Nm.
- Torque range ETP: 2-12 Nm.
- Tensor STB-B is also available with ETO and ETC models.



Model	Square drive in	Torque range		Battery	Speed r/min	Weight		Weight incl. battery		Length mm	CS distance	Height mm	Ordering No.
		Nm	ft lb			kg	lb	kg	lb				
Right-angle standard models													
ETV STB33-10-10-B	3/8	2-10	2-7.5	Li-Io 18 V	943	1.45	3.1	2.05	4.4	435.4	11	41	8433 3020 20
ETV STB33-15-10-B	3/8	4-15	3-11	Li-Io 18 V	720	1.5	3.3	2.15	4.75	435.4	11	41	8433 3020 82
ETV STB33-20-10-B	3/8	5-20	4-14.5	Li-Io 18 V	480	1.5	3.3	2.15	4.75	469.3	14	41.8	8433 3011 06
ETV STB33-30-10-B	3/8	6-30	4.5-22	Li-Io 18 V	380	1.5	3.3	2.15	4.75	470.8	15.5	41.8	8433 3011 67
ETV STB63-30-10-B	3/8	6-30	4.5-22	Li-Io 30 V	610	1.8	4	2.75	6.05	495.8	15.5	41.8	8433 3040 21
ETV STB63-40-10-B	3/8	12-40	9-29	Li-Io 30 V	450	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3041 22
ETV STB63-50-10-B	3/8	15-50	10-37	Li-Io 30 V	365	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3042 67
ETV STB63-70-13-B	1/2	15-70	10-50.7	Li-Io 30 V	265	2.45	5.4	3.4	7.5	519.6	20	58	8433 3043 05
ETV STB63-100-13-B	1/2	20-100	15-72.5	Li-Io 30 V	170	2.9	6.4	3.85	8.5	556.7	22.5	60.4	8433 3044 05
ETV STB63-150-13-TM-B	1/2	30-150	22-109	Li-Io 30 V	72	3.4	7.5	4.35	9.6	522.9	23.5	98.1	8433 3045 05
Right-angle ball retainer models													
ETV STB33-10-B10-B	3/8	2-10	2-7.5	Li-Io 18 V	943	1.4	3.1	2	4.4	435.4	11	41	8433 3020 30
ETV STB33-15-B10-B	3/8	4-15	3-11	Li-Io 18 V	720	1.5	3.3	2.15	4.75	435.4	11	41	8433 3020 96
ETV STB33-20-B10-B	3/8	5-20	4-14.5	Li-Io 18 V	480	1.5	3.3	2.15	4.75	469.3	14	41.8	8433 3011 16
ETV STB33-30-B10-B	3/8	6-30	4.5-22	Li-Io 18 V	380	1.5	3.3	2.15	4.75	470.8	15.5	41.8	8433 3021 76
ETV STB63-40-B10-B	3/8	12-40	9-29	Li-Io 30 V	450	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3041 39
ETV STB63-50-B10-B	3/8	15-50	10-37	Li-Io 30 V	365	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3042 75
ETV STB63-70-B13-B	1/2	15-70	10-50.7	Li-Io 30 V	265	2.45	5.4	3.4	7.5	519.6	20	58	8433 3043 15
ETV STB63-100-B13-B	1/2	20-100	15-72.5	Li-Io 30 V	170	2.9	6.4	3.85	8.5	556.7	22.5	60.4	8433 3044 15
Right-angle barcode reader models													
ETV STB33-10-10-BCR-B	3/8	2-10	2-7.5	Li-Io 18 V	943	1.6	3.55	2.2	4.85	435.4	11	41	8433 3020 25
ETV STB33-15-10-BCR-B	3/8	4-15	3-11	Li-Io 18 V	720	1.65	3.65	2.3	5.1	435.4	11	41	8433 3020 89
ETV STB33-20-10-BCR-B	3/8	5-20	4-14.5	Li-Io 18 V	480	1.65	3.65	2.3	5.1	469.3	14	41.8	8433 3011 11
ETV STB33-30-10-BCR-B	3/8	6-30	4.5-22	Li-Io 18 V	380	1.65	3.65	2.3	5.1	470.8	15.5	41.8	8433 3021 69
ETV STB63-30-10-BCR-B	3/8	6-30	4.5-22	Li-Io 30 V	610	1.95	4.3	2.9	6.4	495.8	15.5	41.8	8433 3040 28
ETV STB63-40-10-BCR-B	3/8	12-40	9-29	Li-Io 30 V	450	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3041 28
ETV STB63-50-10-BCR-B	3/8	15-50	10-37	Li-Io 30 V	365	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3042 68
ETV STB63-70-13-BCR-B	1/2	15-70	10-50.7	Li-Io 30 V	265	2.65	5.85	3.6	7.9	519.6	20	58	8433 3043 10
ETV STB63-100-13-BCR-B	1/2	20-100	15-72.5	Li-Io 30 V	170	3.05	6.7	4	8.8	556.7	22.5	60.4	8433 3044 10
Right-angle with ball retainer and barcode reader models													
ETV STB33-10-B10-BCR-B	3/8	2-10	2-7.5	Li-Io 18 V	943	1.6	3.55	2.2	4.85	435.4	11	41	8433 3020 35
ETV STB33-15-B10-BCR-B	3/8	4-15	3-11	Li-Io 18 V	720	1.65	3.65	2.3	5.1	435.4	11	41	8433 3020 99
ETV STB33-20-B10-BCR-B	3/8	5-20	4-14.5	Li-Io 18 V	480	1.65	3.65	2.3	5.1	469.3	14	41.8	8433 3011 21
ETV STB33-30-B10-BCR-B	3/8	6-30	4.5-22	Li-Io 18 V	380	1.65	3.65	2.3	5.1	470.8	15.5	41.8	8433 3021 79
ETV STB63-30-B10-BCR-B	3/8	6-30	4.5-22	Li-Io 30 V	610	1.95	4.3	2.9	6.4	495.8	15.5	41.8	8433 3040 38
ETV STB63-40-B10-BCR-B	3/8	12-40	9-29	Li-Io 30 V	450	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 304148
ETV STB63-50-B10-BCR-B	3/8	15-50	10-37	Li-Io 30 V	365	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3042 78
ETV STB63-70-B13-BCR-B	1/2	15-70	10-50.7	Li-Io 30 V	265	2.65	5.85	3.6	7.9	519.6	20	58	8433 3043 20
ETV STB63-100-B13-BCR-B	1/2	20-100	15-72.5	Li-Io 30 V	170	3.05	6.7	4	8.8	556.7	22.5	60.4	8433 3044 20
Pistol-grip standard models													
ETP STB33-06-10-B	3/8	2-6	2-4	Li-Io 18 V	1500	0.95	2.1	1.55	3.4	216	—	208	8433 3120 25
ETP STB33-12-10-B	3/8	4-12	3-9	Li-Io 18 V	750	0.95	2.1	1.55	3.4	216	—	208	8433 3121 35
Pistol-grip female hex models													
ETP STB33-06-I06-B	1/4	2-6	2-4	Li-Io 18 V	1500	0.95	2.1	1.55	3.4	216	—	208	8433 3120 37
ETP STB33-12-I06-B	1/4	4-12	3-9	Li-Io 18 V	750	0.95	2.1	1.55	3.4	216	—	208	8433 3121 48
Pistol-grip barcode reader models													
ETP STB33-06-10-BCR-B	3/8	2-6	2-4	Li-Io 18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3120 28
ETP STB33-12-10-BCR-B	3/8	4-12	3-9	Li-Io 18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3121 38
Pistol-grip female hex with barcode reader models													
ETP STB33-06-I06-BCR-B	1/4	2-6	2-4	Li-Io 18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3120 38
ETP STB33-12-I06-BCR-B	1/4	4-12	3-9	Li-Io 18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3121 58

Tensor STB offers genuine ergonomic and flexibility advantages for the operator which, in turn, raises operator efficiency.

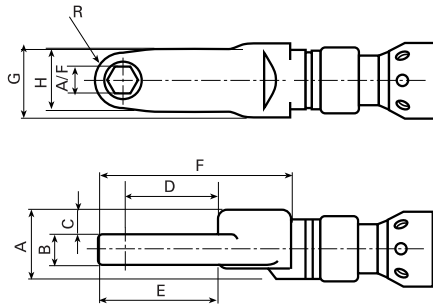
- Low tool weight and high spindle speed reduce cycle time.
- Freedom of movement in all working positions.
- Lightweight components help reduce operator fatigue.
- Torque range ETV: 2-100 Nm.
- Torque range ETP: 2-12 Nm.
- Supports 2.4 and 5.0 Ghz.



Model	Square drive in	Torque range		Battery	Speed r/min	Weight		Weight incl. battery		Length mm	CS distance	Height mm	Ordering No.
		Nm	ft lb			kg	lb	kg	lb				
Right-angle standard models													
ETV STB33-10-10-W	3/8	2-10	2-7.5	Li-Io 18 V	943	1.45	3.1	2.05	4.4	435.4	11	41	8433 3019 00
ETV STB33-15-10-W	3/8	4-15	3-11	Li-Io 18 V	720	1.5	3.3	2.15	4.75	435.4	11	41	8433 3019 08
ETV STB33-20-10-W	3/8	5-20	4-14.5	Li-Io 18 V	480	1.5	3.3	2.15	4.75	469.3	14	41.8	8433 3019 20
ETV STB33-30-10-W	3/8	6-30	4.5-22	Li-Io 18 V	380	1.5	3.3	2.15	4.75	470.8	15.5	41.8	8433 3019 28
ETV STB63-30-10-W	3/8	6-30	4.5-22	Li-Io 30 V	610	1.8	4	2.75	6.05	495.8	15.5	41.8	8433 3019 42
ETV STB63-40-10-W	3/8	12-40	9-29	Li-Io 30 V	450	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3019 50
ETV STB63-50-10-W	3/8	15-50	10-37	Li-Io 30 V	365	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3019 58
ETV STB63-70-13-W	1/2	15-70	10-50.7	Li-Io 30 V	265	2.45	5.4	3.4	7.5	519.6	20	58	8433 3019 66
ETV STB63-100-13-W	1/2	20-100	15-72.5	Li-Io 30 V	170	2.9	6.4	3.85	8.5	556.7	22.5	60.4	8433 3019 74
Right-angle ball retainer models													
ETV STB33-10-B10-W	3/8	2-10	2-7.5	Li-Io 18 V	943	1.4	3.1	2	4.4	435.4	11	41	8433 3019 04
ETV STB33-15-B10-W	3/8	4-15	3-11	Li-Io 18 V	720	1.5	3.3	2.15	4.75	435.4	11	41	8433 3019 16
ETV STB33-20-B10-W	3/8	5-20	4-14.5	Li-Io 18 V	480	1.5	3.3	2.15	4.75	469.3	14	41.8	8433 3019 24
ETV STB33-30-B10-W	3/8	6-30	4.5-22	Li-Io 18 V	380	1.5	3.3	2.15	4.75	470.8	15.5	41.8	8433 3019 32
ETV STB63-40-B10-W	3/8	12-40	9-29	Li-Io 30 V	450	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3019 54
ETV STB63-50-B10-W	3/8	15-50	10-37	Li-Io 30 V	365	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3019 62
ETV STB63-70-B13-W	1/2	15-70	10-50.7	Li-Io 30 V	265	2.45	5.4	3.4	7.5	519.6	20	58	8433 3019 70
ETV STB63-100-B13-W	1/2	20-100	15-72.5	Li-Io 30 V	170	2.9	6.4	3.85	8.5	556.7	22.5	60.4	8433 3019 78
Right-angle barcode reader models													
ETV STB33-10-10-BCR-W	3/8	2-10	2-7.5	Li-Io 18 V	943	1.6	3.55	2.2	4.85	435.4	11	41	8433 3019 02
ETV STB33-20-10-BCR-W	3/8	5-20	4-14.5	Li-Io 18 V	480	1.65	3.65	2.3	5.1	469.3	14	41.8	8433 3019 22
ETV STB33-30-10-BCR-W	3/8	6-30	4.5-22	Li-Io 18 V	380	1.65	3.65	2.3	5.1	470.8	15.5	41.8	8433 3019 44
ETV STB63-40-10-BCR-W	3/8	12-40	9-29	Li-Io 30 V	450	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3019 52
ETV STB63-50-10-BCR-W	3/8	15-50	10-37	Li-Io 30 V	365	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3019 60
ETV STB63-70-13-BCR-W	1/2	15-70	10-50.7	Li-Io 30 V	265	2.65	5.85	3.6	7.9	519.6	20	58	8433 3019 68
ETV STB63-100-13-BCR-W	1/2	20-100	15-72.5	Li-Io 30 V	170	3.05	6.7	4	8.8	556.7	22.5	60.4	8433 3019 76
Right-angle with ball retainer and barcode reader models													
ETV STB33-10-B10-BCR-W	3/8	2-10	2-7.5	Li-Io 18 V	943	1.6	3.55	2.2	4.85	435.4	11	41	8433 3019 06
ETV STB33-15-B10-BCR-W	3/8	4-15	3-11	Li-Io 18 V	720	1.65	3.65	2.3	5.1	435.4	11	41	8433 3019 18
ETV STB33-20-B10-BCR-W	3/8	5-20	4-14.5	Li-Io 18 V	480	1.65	3.65	2.3	5.1	469.3	14	41.8	8433 3019 26
ETV STB33-30-B10-BCR-W	3/8	6-30	4.5-22	Li-Io 18 V	380	1.65	3.65	2.3	5.1	470.8	15.5	41.8	8433 3019 34
ETV STB63-30-B10-BCR-W	3/8	6-30	4.5-22	Li-Io 30 V	610	1.95	4.3	2.9	6.4	495.8	15.5	41.8	8433 3019 48
ETV STB63-50-B10-BCR-W	3/8	15-50	10-37	Li-Io 30 V	365	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3019 64
ETV STB63-70-B13-BCR-W	1/2	15-70	10-50.7	Li-Io 30 V	265	2.65	5.85	3.6	7.9	519.6	20	58	8433 3019 72
ETV STB63-100-B13-BCR-W	1/2	20-100	15-72.5	Li-Io 30 V	170	3.05	6.7	4	8.8	556.7	22.5	60.4	8433 3019 80
Pistol-grip standard models													
ETP STB33-06-10-W	3/8	2-6	2-4	Li-Io 18 V	1500	0.95	2.1	1.55	3.4	216	—	208	8433 3019 82
ETP STB33-12-10-W	3/8	4-12	3-9	Li-Io 18 V	750	0.95	2.1	1.55	3.4	216	—	208	8433 3019 90
Pistol-grip female hex models													
ETP STB33-06-106-W	1/4	2-6	2-4	Li-Io 18 V	1500	0.95	2.1	1.55	3.4	216	—	208	8433 3019 86
ETP STB33-12-106-W	1/4	4-12	3-9	Li-Io 18 V	750	0.95	2.1	1.55	3.4	216	—	208	8433 3019 94
Pistol-grip barcode reader models													
ETP STB33-06-10-BCR-W	3/8	2-6	2-4	Li-Io 18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3019 84
ETP STB33-12-10-BCR-W	3/8	4-12	3-9	Li-Io 18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3019 92
Pistol-grip female hex with barcode reader models													
ETP STB33-06-106-BCR-W	1/4	2-6	2-4	Li-Io 18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3019 88
ETP STB33-12-106-BCR-W	1/4	4-12	3-9	Li-Io 18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3019 96
Pistol-grip with P-Set selector													
ETP STB33-12-10-SEL-W	1/4	4-12	3-9	Li-Io 18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3019 91

In-Line crowfoot tools

Dimensions

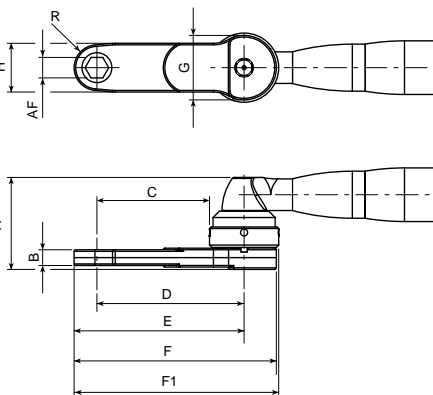


ETC STB

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
ETC STB63-18-10-LI3	4-18	3-13	470	2.7	5.9	646	10	34	15	12.5	36.7	59.2	82	35	22	10	8433 2316 04
ETC STB63-20-12-LI3	6-23	4-17	226	2.7	5.9	676	12	34	10	15	51.9	54.3	102	35	31	14.5	8433 2316 10
ETC STB63-28-12-LI3	7-28	5-20	226	2.7	5.9	647	12	34	15	12.5	45.5	71	94	35	30	13	8433 2316 07

Offset crowfoot tools

Dimensions

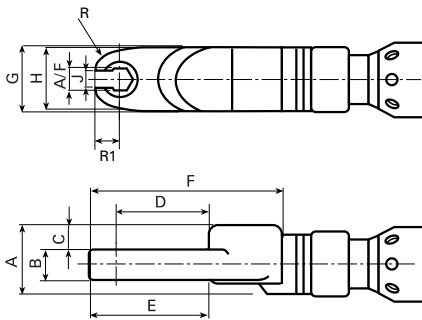


ETC STB

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb													
ETC STB63-18-10-LO3	5-18	4-13	610	2.3	5.1	564	10	60.3	15	14.6	32.8	42.8	57.8	36.5	22	10	61.1	8433 2315 02
ETC STB63-20-13-LO5	5-23	4-17	610	2.6	5.7	657	13	58.5	10	71.6	93.6	108.1	128.6	44	31	14.5	130.1	8433 2315 08
ETC STB63-28-12-LO5	6-28	5-20	465	2.9	6.4	656	12	69.5	15	62	84	97	117.5	44	30	13	119	8433 2315 05
ETC STB63-40-14-LO3	8-44	6-32	375	2.8	6.2	620	14	69.5	18	24.8	46.8	61.3	81.8	44	31	14.5	83.3	8433 2315 11
ETC STB63-40-3/8-LO3	8-40	6-29	375	3	6.6	609	3/8	90.3	36	18.2	40.2	50.5	71	44	29	10.3	72.5	8433 2315 17
ETC STB63-50-16-LO3	12-64	8-47	265	3.4	7.5	635	16	78.3	24	27	51	66	88.5	48	30	15	90	8433 2315 20

In-Line tube nut tools

Dimensions

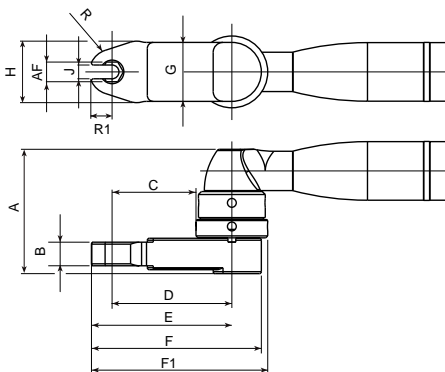


ETO STB

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R1 mm	R mm	Ordering No.
	Nm	ft lb		kg	lb														
ETO STB63-8-8-LI3	3-8	2-6	945	2.6	5.7	622	8	32	11	12.3	22.7	21.6	60	33.5	29	6	7.8	10	8433 2316 46
ETO STB63-12-8-LI3	4-12	3-9	723	2.6	5.7	628	8	32	10	13	27.3	25.4	66	33.5	31	7	9.8	11.5	8433 2316 49
ETO STB63-15-10-LI3	4-15	3-11	589	2.6	5.7	629	10	32	12	11	27.9	26.1	68	33.5	32	8	10.3	14	8433 2316 55

Offset tube nut tools

Dimensions



ETO STB

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R1 mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb															
ETO STB33																				
ETO STB33-12-10-LO5	3-12	2-9	480	2.3	5.1	596	10	62	10	42.7	60.9	70.7	85.7	36.5	31	7	9.8	11.5	89	8433 2315 59
ETO STB33-15-10-LO3	4-14	3-10	480	2.3	5.1	560	10	63.3	12	7	25.1	34.9	49.9	36.5	31	7	9.8	11.5	53.2	8433 2315 56
ETO STB63																				
ETO STB63-18-12-LO5	4-18	3-13	610	2.6	5.7	634	12	62	11	51	73	84.9	105.4	44	38	8	11.9	15	107	8433 2315 68
ETO STB63-20-12-LO3	5-20	3-15	610	2.4	5.3	589	12	64	14	7	29	40.2	60.7	44	38	8	11.2	14	62.2	8433 2315 65
ETO STB63-30-13-LO5	10-33	7-24	265	3.8	8.4	647	13	72.5	18	53.3	75.3	87.7	108.2	44	40	10.4	12.4	25	109.7	8433 2315 74
ETO STB63-28-13-LO3	6-28	4-21	465	2.8	6.2	611	13	65	11	12.8	36.8	51.8	74.3	48	50	10.4	15	31	75.8	8433 2315 77
ETO STB63-40-17-LO5	10-50	7-37	265	3.6	7.9	675	17	80.5	18	66.8	90.8	105.8	128.3	48	50	12	15	31	129.8	8433 2315 80
ETO STB63-50-17-LO3	11-60	8-44	265	3.6	7.9	628	17	77.8	18	11.1	42.4	59.6	85.6	62.5	59	14	17.2	32	90.9	8433 2315 83
ETO STB63-50-21-LO3	11-55	8-40	265	3.6	7.9	638	21	73.8	12	18	49.2	69.3	96.8	62.5	59	16	20.1	32	100.6	8433 2315 86

Optional Accessories

Controller hardware

Model	Ordering No.
Power Focus 4000 W 10	
PF 4000-G-HW	8433 7100 00
PF 4000-C-HW	8433 7100 05
PF 4000-G-DN- HW	8433 7140 00
PF 4000-C-DN-HW	8433 7140 05
PF 4000-G-FLN-HW	8433 7141 00
PF 4000-C-FLN-HW	8433 7141 05
PF 4000-G-PB-HW	8433 7142 00
PF 4000-C-PB-HW	8433 7142 05
PF 4000-G-CC-HW	8433 7143 00
PF 4000-C-CC-HW	8433 7143 05
PF 4000-G-IB-HW	8433 7145 00
PF 4000-C-IB-HW	8433 7145 05
PF 4000-G-MB-HW	8433 7147 00
PF 4000-C-MB-HW	8433 7147 05
PF 4000-G-PN-HW	8433 7148 00
PF 4000-C-PN-HW	8433 7148 05
PF 4000-G-EIP-HW	8433 7149 00
PF 4000-C-EIP-HW	8433 7149 05
IRC Focus W 10 Bluetooth*	
IRC FOCUS-B-G-HW	8433 6500 00
IRC FOCUS-B-C-HW	8433 6500 02
IRC FOCUS-B-G-DN-HW	8433 6500 04
IRC FOCUS-B-C-DN-HW	8433 6500 06
IRC FOCUS-B-G-FLN-HW	8433 6500 08
IRC FOCUS-B-C-FLN-HW	8433 6500 10
IRC FOCUS-B-G-PB-HW	8433 6500 12
IRC FOCUS-B-C-PB-HW	8433 6500 14
IRC FOCUS-B-G-IB-HW	8433 6500 16
IRC FOCUS-B-C-IB-HW	8433 6500 18
IRC FOCUS-B-G-MB-HW	8433 6500 20
IRC FOCUS-B-C-MB-HW	8433 6500 22
IRC FOCUS-B-G-PN-HW	8433 6500 24
IRC FOCUS-B-C-PN-HW	8433 6500 26
IRC FOCUS-B-G-EIP-HW	8433 6500 28
IRC FOCUS-B-C-EIP-HW	8433 6500 30

*) IRC Focus Communication kit is not needed. The IRC Focus is specially designed for the Tensor STB. The benefit is that the IRC Radio is integrated inside the IRC Focus. The IRC Focus has all the features of a Power Focus, with the exception that it cannot be used with cabled tools. IRC FOCUS it's only available for Bluetooth tools.

ToolsTalk PF

No. of users	Ordering No.
Basic version W 7	
1-user license	8092 1183 01
5-user license	8092 1183 05
10-user license	8092 1183 10
Plant license	8092 1183 99
Basic version W 10	
1-user license	8092 1190 01
5-user license	8092 1190 05
10-user license	8092 1190 10
Plant license	8092 1190 99
Upgrade from W 7 to W 10	
1-user license	8092 1190 31
5-user license	8092 1190 35
10-user license	8092 1190 40
Plant license	8092 1190 49

Com kit

	Ordering No.
Com kit (minimum PF SW 7.5)	
Com kit IRC-B (Bluetooth)	8433 3900 20
Com kit IRC-W (W-LAN)	8433 3900 35

NOTE: Kit includes: Serial port adapter, I/O cable, 3 m serial cable and power cable.

Controller software

Controller software	Ordering No.
RBU-Bronze	8433 0010 10
RBU-Silver	8433 0015 20
RBU-Gold	8433 0020 20

Chargers

Chargers	Voltage	Region	Ordering No.
18 V	230V/50Hz	EU	4211 5428 80
18 V	230V/50Hz	UK	4211 5428 81
18 V	115V/60Hz	US/JPN	4211 5428 84
18 V	230V/60V	BRA	4211 5428 83
30 V	230V/50Hz	EU	4211 5424 80
30 V	230V/50Hz	UK	4211 5424 81
30 V	120V/60Hz	US/JPN	4211 5424 84
30 V	230V/60V	BRA	4211 5424 83

Battery – Li-Io

Voltage	Capacity	Weight kg	Ordering No.
18 V	2.6 Ah	0.60	4211 5426 83
30 V	2.6 Ah	0.85	4211 5426 86

Accessories for IRC and Power Focus 4000 controller

	Ordering No.
Operator panel advanced	8433 0565 00
Stacklight ESL04	8433 0570 13
Selector 4	8433 0610 04

Tool accessories

	Ordering No.
ETV STB33 (10/15/20/30 Nm models)	
ETV STB63 (30/40/50 Nm models)	
Barcode scanner	8433 0615 10
Parameter set selector	8433 0616 05
I/O Device module	8433 0617 12
Adjustable headlights	4220 3292 94
Lever trigger 135	4220 3311 90
Lever trigger on top	4220 3186 90
Front button	4220 3184 90
Scanner protective cover	4220 2761 10
ETV STB63 (70/100 Nm models)	
Barcode scanner	8433 0615 20
Parameter set selector	8433 0616 15
I/O Device module	8433 0617 22
Adjustable headlights	4220 3292 95
Lever trigger 135	4220 3311 91
Lever trigger on top	4220 3186 91
Front button	4220 3184 91
ETP STB33 (06/12 Nm models)	
Barcode scanner	4220 3507 90
Parameter set selector	4220 3507 81
Scanner protective cover	4220 2761 10



Stacklight ESL-04



Operator panel advanced



Selector 4



Tool holder



Lever trigger top



Lever trigger 135 deg.



Adjustable headlights



Front trigger button



Barcode scanner



Parameter set selector

Tensor SB is Atlas Copco's response to customers who demand a truly superior industrial battery nutrunner. This user-friendly tool is characterized by a combination of quality in every tightening, operator mobility and long-lasting durability. Together these advantages give Tensor SB a unique position on the market.

- Low tool weight and high spindle speed increases productivity.
- Durable metal housing.
- Freedom of working freely in any position.
- Torque range ETV: 2-100 Nm.
- Torque range ETP: 2-12 Nm.
- Connects through Bluetooth.



Model	Square drive in	Torque range		Battery	Free speed r/min	Weight		Weight incl. battery		Length mm	CS distance	Height mm	Ordering No.
		Nm	ft lb			kg	lb	kg	lb				
Angle													
ETV SB33-10-10-B	3/8	2-10	2-7.5	Li-Io 18 V	975	1.3	2.9	1.9	4.2	455	14	42	8433 3031 20
ETV SB33-15-10-B	3/8	4-15	3-11	Li-Io 18 V	720	1.3	2.9	1.9	4.2	455	14	42	8433 3031 82
ETV SB33-30-10-B	3/8	6-30	4.5-22	Li-Io 18 V	380	1.6	3.55	2.2	4.85	471	15.5	42	8433 3031 66
ETV SB63-40-10-B	3/8	12-40	9-29	Li-Io 30 V	450	1.85	4.1	2.8	6.15	508	18	47.5	8433 3031 23
ETV SB63-50-10-B	3/8	15-50	10-37	Li-Io 30 V	360	1.85	4.1	2.8	6.15	508	18	47.5	8433 3031 67
ETV SB63-70-13-B	1/2	15-70	10-50.7	Li-Io 30 V	265	2.9	6.4	3.85	8.45	533	20	58	8433 3031 05
ETV SB63-100-13-B	1/2	20-100	15-72.5	Li-Io 30 V	170	3	6.6	3.95	8.7	557	22.5	60.5	8433 3031 10
Pistol													
ETP SB33-12-I06-B	1/4	4-12	3-9	Li-Io 18 V	750	0.95	2.1	1.6	3.55	216	—	208	8433 3031 49

Optional Accessories

Controller hardware

Model	Ordering No.
Power Focus 4000 W 10	
PF 4000-G-HW	8433 7100 00
PF 4000-C-HW	8433 7100 05
IRC Focus W 07 Bluetooth*	
IRC FOCUS-B-G-HW	8433 6500 00
IRC FOCUS-B-C-HW	8433 6500 02

*) IRC Focus Communication kit is not needed.

ToolsTalk Power Focus

No. of users	Ordering No.
Basic version W 10	
1-user license	8092 1190 01

Battery – Li-Io

Voltage	Capacity	Weight kg	Ordering No.
18 V	2.6 Ah	0.60	4211 5426 83
30 V	2.6 Ah	0.85	4211 5426 86

Com kit

	Ordering No.
Com kit (minimum PF SW 7.5)	
Com kit IRC-B (Bluetooth)	8433 3900 20

NOTE: Kit includes: Serial port adapter, I/O cable, 3 m serial cable and power cable.

Controller software

Controller software	Ordering No.
RBU SB	8433 0081 00

Chargers

Chargers	Voltage	Region	Ordering No.
18 V	230V/50Hz	EU	4211 5428 80
18 V	230V/50Hz	UK	4211 5428 81
18 V	115V/60Hz	US/JPN	4211 5428 84
18 V	230V/60V	BRA	4211 5428 83
30 V	230V/50Hz	EU	4211 5424 80
30 V	230V/50Hz	UK	4211 5424 81
30 V	120V/60Hz	US/JPN	4211 5424 84
30 V	230V/60V	BRA	4211 5424 83



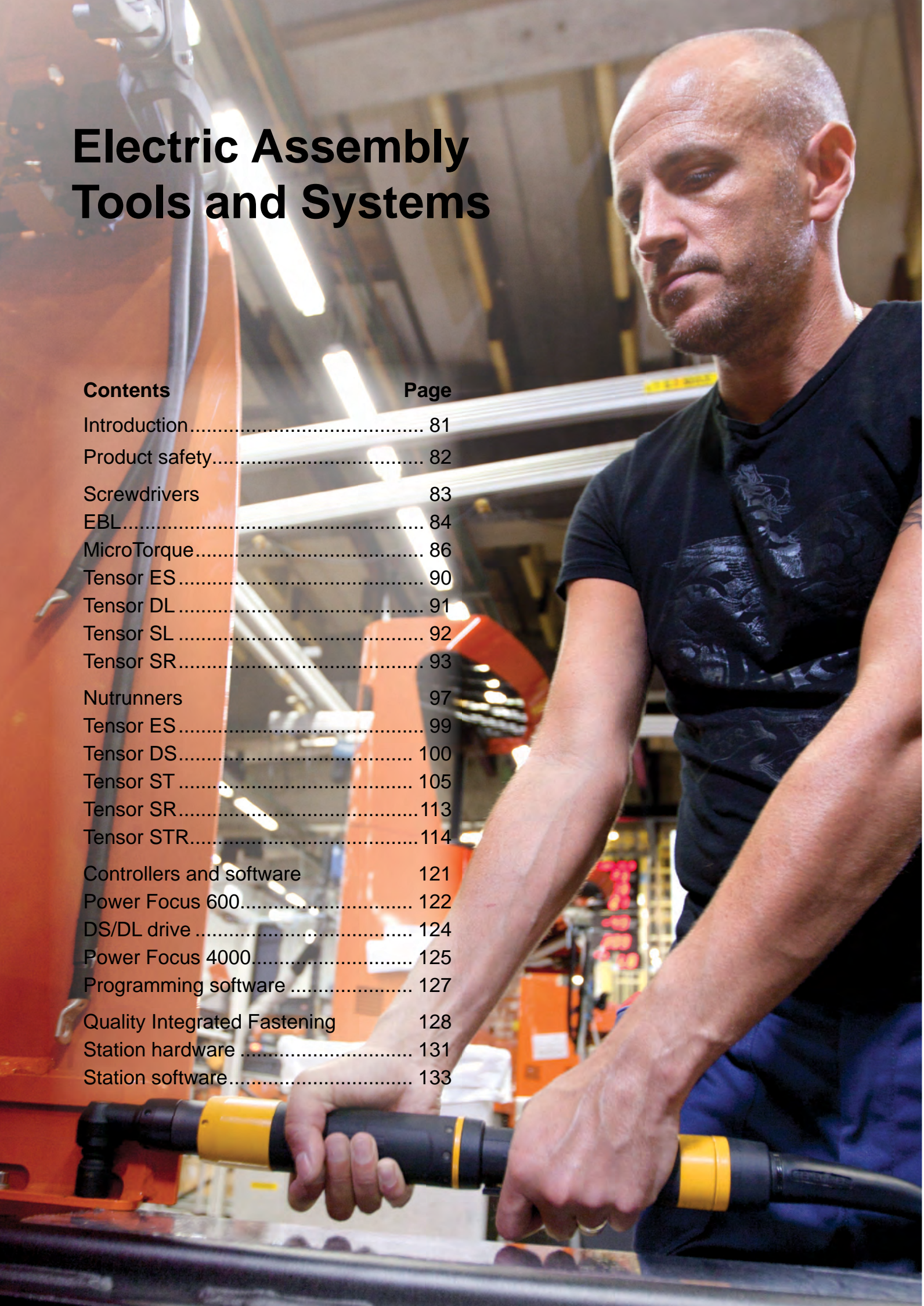
Battery
Big pack



Battery charger
18 V.

Electric Assembly Tools and Systems

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Highest productivity with lowest life-cycle cost

Atlas Copco supplies a comprehensive range of high productivity assembly tools with intelligent controllers and a sharp focus on ergonomics. Our many product lines were developed to meet all your tightening needs and give you lowest life-cycle cost. Products range from low torque MicroTorque tools providing 0.5 Ncm of torque, to high torque Tensor ST tools, offering up to 4,000 Nm.

EBL Screwdriver

Low voltage, brushless screwdriver for demanding applications, with shut-off clutch for high fastening precision, time after time.

MicroTorque Ultra low torque screwdriver

Ultra low torque intelligent screwdrivers that ensure joint integrity in high volume consumer applications and high value critical products.

Power Focus 4000 controller

The Power Focus is the market-leading controller for handheld tools and has the capability to run fixtured tools. Power Focus is a modular range of controllers with full flexibility and connectivity to fit your production infrastructure. The Power Focus 4000 controls tools in the Tensor ST, STB, DS, SL and ETX family. The Power Focus 4002 controls Tensor SL tools.

Power Focus 600 controller

The Power Focus 600 is compatible with the Tensor ES tools and is the perfect choice for quality critical assembly. It comes in one single hardware version regardless of which tool model or functionality level is used. Its powerful industrial design gives a reliable process that will speed up your tightening operations.

DS/DL controller

The DS/DL system offers a quick and easy route to improved process monitoring in your assembly operations. With a range of alternative drives, you can choose the functionality best suited for your operations. The DS drive runs Tensor DS tools and exists as Box, Basic or Advanced version. The DL drive runs Tensor DL tools and is available as Basic or Advanced models.

Tensor Tools

The Tensor tool range covers all assembly requirements for safety critical and quality critical applications.

Tensor ES: Quality critical applications with high demands on productivity, ergonomics and error proofing.

Tensor SL: Safety-critical low torque tools for small screw applications. It offers compact screwdriver ergonomics with traceability and error proofing capability.

Tensor ST: The second generation of Tensor tools was developed with the focus on reducing tool weight and increasing productivity. Tensor ST has an internal bus connection for intelligent accessories such as a barcode reader and P-selector switch.

Tensor STR, SR: The latest generation of Tensor tools where ergonomics and productivity are taken to a new level.

Tensor DS: Quality critical applications where demands on accuracy and ergonomics are high.

Tensor DL: Quality critical applications with high demands on quality assurance.

Tensor STB: The battery version of Tensor ST for safety critical applications.



Product Safety

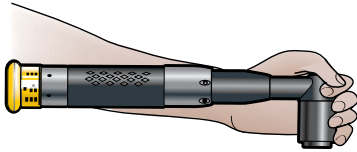
Safety guidelines

At Atlas Copco we want you to operate our tools safely. Always read and follow all operating and safety instructions, and comply with local safety regulations. There is a range of accessories for Atlas Copco tools. They are intended to reduce the risk of injury during certain assembly processes.

HOW TO MAKE TOOL OPERATION SAFER

1 Entanglement hazard

- Hands and other objects (long hair, necklaces etc.) can get entangled with the rotating drive, causing severed or broken fingers.
- Do not use gloves.
- Never hold the drive, socket or extension with your hands.



5 Reaction bar

- When a reaction bar is used, keep hands away from the reaction bar while tightening a joint, otherwise hands may get squeezed.



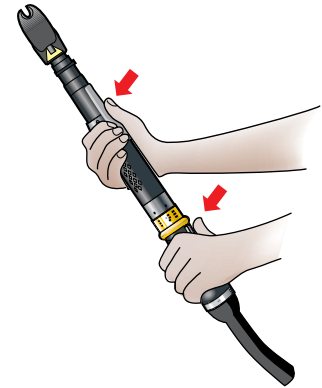
2 Hold the tool correctly

- Keep hands and other objects (long hair, necklace, etc.) away from the rotating drive, socket or extension.
- Hold the tool correctly with one hand on the handle of the tool and the other hand on the top of the angle head.



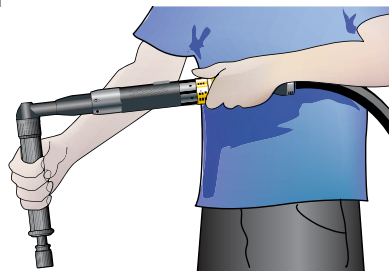
6 Open end tools

- Never put your finger into the open end of a tool, even if a dual action trigger is used.
- To avoid accidents, to activate the tool, both triggers must be pressed within 500 ms.



3 Supported extensions

- If you use an extension, never hold the extension with your hand while it is rotating. If you need to guide the extension, in order to locate the socket quickly and accurately, use an accessory to reduce the risk of entanglement.

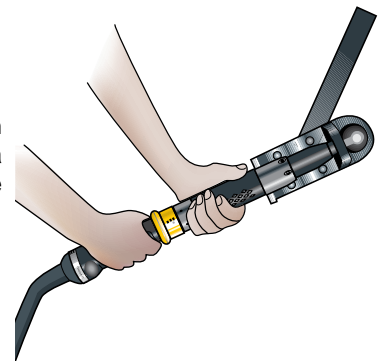


Other advantages are:

- Longer life for angle gear.
- More uniform tightening results.

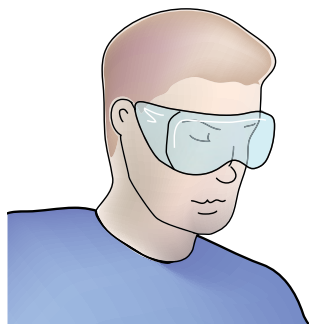
7 Angle nutrunners with reaction bar

- Use reaction bar at high torque. For soft joints, a reaction bar should be used at >60 Nm.



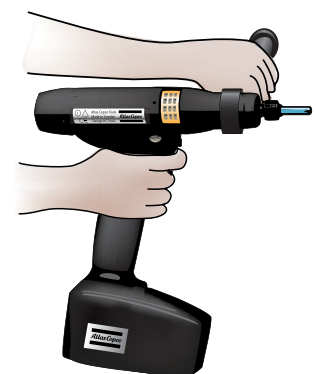
4 Use goggles

- Always use goggles to protect your eyes from objects that might accidentally fly into your face.



8 Screwdrivers

- Consider using a support handle or support arms, particularly for straight versions and for torques of 6 Nm and upwards.



If you're looking for quality, you've found it

Atlas Copco supplies a complete range of advanced electric screwdrivers to match your needs. If it's cutting-edge ergonomics you want, true reliability, or long-life, low maintenance motors, we have them. Models range from EBL and MicroTorque low-torque tools up to Tensor tools with torques of up to 20 Nm. They all have one thing in common – quality.

EBL screwdrivers

Atlas Copco's EBL screwdriver sets new standards for electric low-torque screwdrivers. The brushless motor offers prolonged tool working lifetime and the patented ergonomics provide a high level of operator comfort.

MicroTorque

Whether you are manufacturing high-value consumer goods or sensitive electronics, with torques starting at 0.5 Ncm, MicroTorque electric screwdrivers are designed to perform consistently and precisely, time after time.

The MicroTorque screwdriver system is available in two different versions.

The MicroTorque Focus 400 controller is compatible with fixtured and handheld Digitork screwdrivers. The system provides precision tightening with clear operator feedback, is ergonomic and easy to set up.

The MicroTorque G4 controller is compatible with fixtured transducerized screwdrivers and fixtured and handheld Digitork screwdrivers. The system provides precision tightening and is capable of handling even the most demanding low torque applications.

Tensor SR tools

ESD certified, Tensor SR angle tools are fast, compact and easy to operate. They feature an easy-to-configure function button and front LED's for clear operator feedback.

With a push-to-start mechanism and an integrated front guide light, STR straight tools are suitable for both hand-held and fixtured applications

Tensor DL

Optimized for small screw assembly, Tensor DL non-transducerized screwdrivers are available in straight, right angle and pistol grip versions. There are

also Tensor DL straight screwdrivers for fixtured applications. All models have good ergonomic designs and brushless motors offering low maintenance costs.

Tensor SL

Tensor SL transducerized screwdrivers are available in straight, right angle and pistol grip versions, with a straight model for fixtured applications that is very light and compact. All the tools offer high power-to-weight ratios, good ergonomic designs and clear operator feedback via LED's lights and buzzers (depending on the model).

Tensor ES

Tensor ES transducerized screwdrivers for quality critical applications are available in straight and right angle versions. All models have a sealed design for robustness and offer high productivity with improved ergonomics.



ESD certified screwdrivers

Atlas Copco offers ESD certified tools in the standard range of screwdriver models most frequently used in the electronics industries. ESD certification means a guarantee against damage of electronic components by an uncontrolled electrostatic discharge (ESD) from the tools.

Conformity to the requirements of IEC 61340-5-1 standard proposal is approved by SP, the Swedish National Testing and Research Institute. In practice it certifies that at no point will the material of the equipment hold an electrostatic potential above 100 V for more than 2 seconds.



Designed for low-torque assembly operations

Featuring superior ergonomics and the latest technology, Atlas Copco's EBL screwdriver is setting new standards for electric low-torque screwdrivers.

- Brushless motor provides long working life, extended service intervals, low maintenance requirements.
- Good ergonomics mean maximum operator comfort: comfortable grip, low tool weight and lower noise level due to the brushless motor.
- Reporting tool models have a batch count feature that ensures that all screws have been tightened.
- Soft-stop feature on certain models prevents damage to sensitive electronics and plastic assembly components.



Model	Screw capacity	Torque range soft joint		Free speed r/min	Weight		Length mm	Bit drive	Ordering No.
		Nm	in lb		kg	lb			
Standard models									
EBL03	M1-2	0.05-0.3	0.4-2.7	870	0.3	0.7	185	Wing type 4 mm	8431 0170 02
EBL03-Q	M1-2	0.05-0.3	0.4-2.7	870	0.3	0.7	185	1/4" Hex	8431 0170 04
EBL12	M2-3	0.2-1.2	1.8-10.6	910	0.5	1.1	215	1/4" Hex	8431 0170 11
EBL12-1500	M2-3	0.2-1.2	1.8-10.6	1500	0.5	1.1	215	1/4" Hex	8431 0170 41
EBL20	M2-3	0.5-2.0	4.5-18	750	0.5	1.1	215	1/4" Hex	8431 0170 16
EBL21-1500	M2-3	0.5-2.1	4.5-19	1500	0.8	1.8	235	1/4" Hex	8431 0170 43
EBL25	M2.5-4	1.0-2.5	8.8-22.1	930	0.8	1.8	235	1/4" Hex	8431 0170 23
EBL25-1500 ^a	M2.5-4	1.0-2.5	8.8-22.1	1500	0.8	1.8	235	1/4" Hex	8431 0170 25
EBL35	M2.5-4	1.0-3.5	8.8-31	700	0.8	1.8	235	1/4" Hex	8431 0170 33
EBL45 ^a	M2.5-5	1.0-4.5	8.8-40	700	0.8	1.8	235	1/4" Hex	8431 0170 40
EBL55 ^a	M2.5-5	1.0-5.5	8.8-48	600	0.8	1.8	235	1/4" Hex	8431 0170 44
Soft-stop models									
EBL03-SS	M1-2	0.05-0.3	0.4-2.7	870	0.3	0.7	185	Wing type 4 mm	8431 0170 07
EBL12-SS	M2-3	0.2-1.2	1.8-10.6	910	0.5	1.1	215	1/4" Hex	8431 0170 15
EBL20-SS	M2-3	0.5-2.0	4.5-18	750	0.5	1.1	215	1/4" Hex	8431 0170 20
EBL25-SS	M2.5-4	1.0-2.5	8.8-22.1	930	0.8	1.8	235	1/4" Hex	8431 0170 28
EBL35-SS	M2.5-4	1.0-3.5	8.8-31	700	0.8	1.8	235	1/4" Hex	8431 0170 38
Reporting									
EBL03-RE	M1-2	0.05-0.3	0.4-2.7	870	0.3	0.7	185	Wing type 4 mm	8431 0170 55
EBL03-Q-RE	M1-2	0.05-0.3	0.4-2.7	870	0.3	0.7	185	1/4" Hex	8431 0170 06
EBL12-RE	M2-3	0.2-1.2	1.8-10.6	910	0.5	1.1	215	1/4" Hex	8431 0170 13
EBL12-1500-RE	M2-3	0.2-1.2	1.8-10.6	1500	0.5	1.1	215	1/4" Hex	8431 0170 18
EBL20-RE	M2-3	0.5-2.0	4.5-18	750	0.5	1.1	215	1/4" Hex	8431 0170 19
EBL21-1500-RE	M2-3	0.5-2.1	4.5-19	1500	0.8	1.8	235	1/4" Hex	8431 0170 47
EBL25-RE	M2.5-4	1.0-2.5	8.8-22.1	930	0.8	1.8	235	1/4" Hex	8431 0170 26
EBL25-1500-RE ^b	M2.5-4	1.0-2.5	8.8-22.1	1500	0.8	1.8	235	1/4" Hex	8431 0170 22
EBL35-RE	M2.5-4	1.0-3.5	8.8-31	700	0.8	1.8	235	1/4" Hex	8431 0170 36
EBL45-RE ^b	M2.5-5	1.0-4.5	8.8-40	700	0.8	1.8	235	1/4" Hex	8431 0170 42
EBL55-RE ^b	M2.5-5	1.0-5.5	8.8-48	600	0.8	1.8	235	1/4" Hex	8431 0170 45
Soft-stop Reporting models									
EBL03-SS-RE	M1-2	0.05-0.3	0.4-2.7	870	0.3	0.7	185	Wing type 4 mm	8431 0170 08
EBL12-SS-RE	M2-3	0.2-1.2	1.8-10.6	910	0.5	1.1	215	1/4" Hex	8431 0170 17
EBL20-SS-RE	M2-3	0.5-2.0	4.5-18	750	0.5	1.1	215	1/4" Hex	8431 0170 21
EBL25-SS-RE	M2.5-4	1.0-2.5	8.8-22.1	930	0.8	1.8	235	1/4" Hex	8431 0170 29
EBL35-SS-RE	M2.5-4	1.0-3.5	8.8-31	700	0.8	1.8	235	1/4" Hex	8431 0170 39
Soft-start									
EBL12 ST	M2-3	0.2-1.2	1.8-10.6	910	0.5	1.1	215	1/4" Hex	8431 0170 14
EBL25 ST	M2.5-4	1.0-2.5	8.8-22.1	930	0.8	1.8	235	1/4" Hex	8431 0170 24
EBL35 ST	M2.5-4	1.0-3.5	8.8-31	700	0.8	1.8	235	1/4" Hex	8431 0170 37

^a EBL 45, 55 and EBL 25-1500 to be used with EBL Drive Plus.

^b EBL 45/55 -RE and EBL 25-1500-RE to be used with EBL Drive Plus and EBL RE module.

All tools models, drives and cables are ESD and UL certified.

Tool box include cable for drive connection (standard models with 5 pins cable and reporting models with 6 pins cable)

All the models are push-to-start or lever start configurable.

Optional Accessories

Drives

Model		Ordering No.
EBL Drive	For standard models and soft-stop models	8431 0170 70
EBL RE-Drive	For reporting models and soft-stop + reporting models	8431 0170 75
EBL Drive Plus	For all standard models and soft-stop models	8431 0170 85



EBL Drive

EBL Soft-start controller

Model	Ordering No.
EBL ST controller (ESD approved)	8431 0170 80

- EBL ST controller to be used in applications that require slow start speed.
- EBL ST controller to be connected between ST tool and drive.



EBL RE-Drive

EBL Reporting module

Model	Ordering No.
EBL RE module	8431 0170 76

RE module to be connected between EBL Drive or EBL Drive Plus and RE tool.



EBL Drive Plus

Vacuum pick-up accessories

Accessories (not ESD approved)	Ordering No.
Vacuum pump – 220V	4220 0062 00
Vacuum pump – 115V	4220 0062 05
Nozzle blank Ø 8 mm for EBL 03	4220 0067 03
Nozzle blank Ø 8 mm for EBL 12, 20, 21, 25, 35	4220 0070 03
Nozzle blank Ø 14 mm for EBL 12, 20, 21, 25, 35	4220 0072 03
Vacuum pick-up adapter for EBL 03	4220 0080 30
Vacuum pick-up adapter for EBL 12, 20	4220 0080 31
Vacuum pick-up adapter for EBL 21, 25, 35	4220 0080 33



EBL RE module

Cables

	Ordering No.
Cable (not ESD approved)	
Spiral cable, 1.3 m (5 pin)	4220 0347 00
Spiral cable, 1.3 m (6 pin)	4220 0349 00
Heavy duty, cable 2.0 m (5 pin)	4216 0132 00
Heavy duty, cable 2.0 m (6 pin)	4216 0133 00
Cable (ESD approved)	
Extension cable ^b 3.0 m (5 pin)	4220 0138 01
Extension cable ^b 3.0 m (6 pin)	4216 0115 00



EBL Soft start controller

^b Maximum total length 8 m.

Screw dispenser

Model	Ordering No.
SDS Screw dispenser	8432 0830 00

Pistol grip

Model	Ordering No.
EBL 12, 20	4220 0051 04
EBL 21, 25, 35, 45, 55 (ESD approved)	4220 0051 05



Pistol grip



Vacuum pick-up system

Angle head

Model	Ordering No.
Angle head	
Front part square drive 1/4" (06)	4210 4033 90
Hex bit drive 1/4" (42)	4210 4033 81
Hex quick change 1/4" (Q)	4210 4033 82
Adapter	
Adapter EBL 12, 20	4210 4609 85
Adapter EBL 21/25/35/45/55	4210 4609 81



Angle head, EBL



Screw dispenser

Both angle head and adapter needs to be ordered for mounting on EBL.

Ultra low-torque applications, starting at 0.5 Ncm, don't need to be demanding. Electric screwdrivers in the MicroTorque range from Atlas Copco are designed to perform consistently and precisely, time after time.

- MT Focus 400 used with DigiTork controlled tools.
- Available in Advanced version (MT Focus 400 A) with 3 psets and Basic version with 1 pset (MT Focus 400 B).
- Tightening strategy with torque and angle control for detecting assembly problems.
- Possible to program via controller interface or via PC software interface ToolsTalk MT
- "Complete system" (single ordering number) includes: Controller, screwdriver, tool cable, ToolsTalk MT, USB communication cable, controller stand and power supply.



ETD M 120-250 ABL 400A/B



ETD M 50-80 ABL 400A/B



ETD M 20-27 ABL 400A/B



MT Focus 400 controller



ETF M 5-20 400A/B



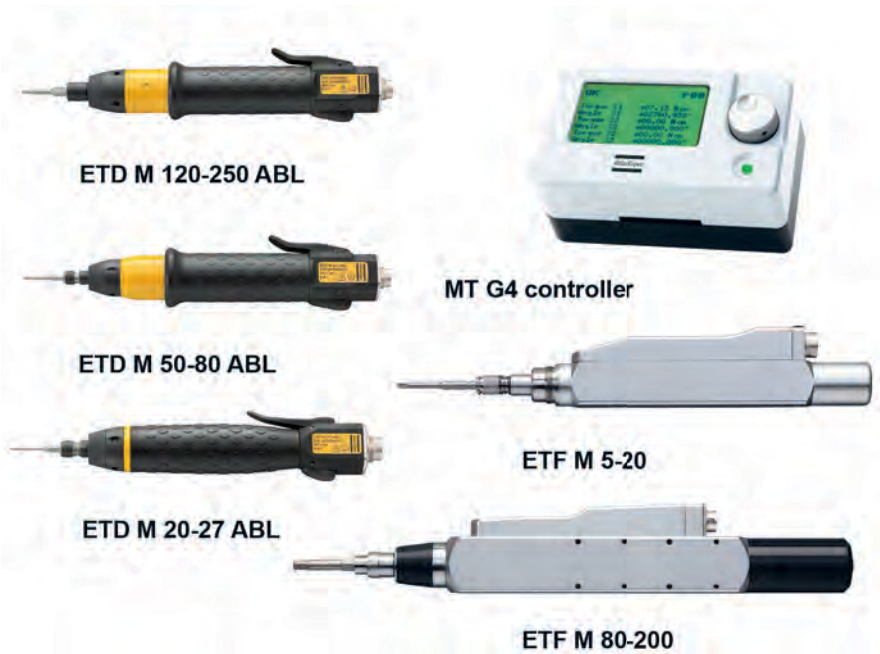
ETF M 80-200 400A/B

Model	Torque range		Speed r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Hand-held "Digitork", without push-to-start MT Focus 400A									
ETD M 20 ABL 400A	5-20	0.44-1.77	950	185	29	0.26	0.57	HM 4 mm	8432 0816 00
ETD M 27 ABL 400A	7.5-27	0.66-2.4	950	185	29	0.26	0.57	HM 4 mm	8432 0816 02
ETD M 03 A 400A	0.5-2.5	0.04-0.2	1000	132	16	0.1	0.22	Ø 2 mm	8432 0816 05
ETD M 10 A 400A	3-10	0.27-0.9	750	132	16	0.1	0.22	Ø 2 mm	8432 0816 07
ETD M 25 AVB 400A	7.5-25	0.66-2.2	950	174	22	0.25	0.55	HM 4 mm	8432 0816 09
Hand-held "Digitork", without push-to-start MT Focus 400B									
ETD M 20 ABL 400B	5-20	0.44-1.77	950	185	29	0.26	0.57	HM 4 mm	8432 0817 00
ETD M 27 ABL 400B	7.5-27	0.66-2.4	950	185	29	0.26	0.57	HM 4 mm	8432 0817 02
ETD M 03 A 400B	0.5-2.5	0.04-0.2	1000	132	16	0.1	0.22	Ø 2 mm	8432 0817 05
ETD M 10 A 400B	3-10	0.27-0.9	750	132	16	0.1	0.22	Ø 2 mm	8432 0817 07
ETD M 25 AVB 400B	7.5-25	0.66-2.2	950	174	22	0.25	0.55	HM 4 mm	8432 0817 09
Hand-held "Digitork", configurable push-start MT Focus 400A									
ETD M 50 ABL 400A	15-50	1.33-4.4	1000	238	36	0.56	1.23	HM 4 mm	8432 0816 08
ETD M 80 ABL 400A	20-80	1.77-7.1	1100	238	36	0.56	1.23	HM 4 mm	8432 0816 11
ETD M 120 ABL 400A	30-120	2.7-10.6	950	240	43	0.65	1.43	1/4" Hex	8432 0816 12
ETD M 200 ABL 400A	50-200	4.42-17.7	750	240	43	0.65	1.43	1/4" Hex	8432 0816 20
ETD M 250 ABL 400A	75-250	6.64-22.13	700	240	43	0.65	1.43	1/4" Hex	8432 0816 25
Hand-held "Digitork", configurable push-start MT Focus 400B									
ETD M 50 ABL 400B	15-50	1.33-4.4	1000	238	36	0.56	1.23	HM 4 mm	8432 0817 08
ETD M 80 ABL 400B	20-80	1.77-7.1	1100	238	36	0.56	1.23	HM 4 mm	8432 0817 11
ETD M 120 ABL 400B	30-120	2.7-10.6	950	240	43	0.65	1.43	1/4" Hex	8432 0817 12
ETD M 200 ABL 400B	50-200	4.42-17.7	750	240	43	0.65	1.43	1/4" Hex	8432 0817 20
ETD M 250 ABL 400B	75-250	6.64-22.13	700	240	43	0.65	1.43	1/4" Hex	8432 0817 25
Fixtured "Digitork" MT Focus 400A									
ETF M 05 400A	1.5-5	0.13-0.4	750	183	20	0.4	0.9	HM 4 mm	8432 0818 15
ETF M 20 400A	5-20	0.44-1.8	650	183	20	0.4	0.9	HM 4 mm	8432 0818 17
ETF M 50 400A	15-50	1.33-4.4	850	269	30	1.1	2.42	HM 4 mm	8432 0818 18
ETF M 80 400A	20-80	1.77-7.1	850	269	30	1.2	2.64	HM 4 mm	8432 0818 19
ETF M 100 400A	25-100	2.21-8.8	700	272	30	1.2	2.64	1/4" HEX	8432 0818 20
ETF M 200 400A	50-200	4.42-17.7	600	272	30	1.2	2.64	1/4" HEX	8432 0818 21
ETF S25 400A	5.5-25	0.49-2.2	1000	125	65	0.3	0.68	HM 4mm	8432 0818 24
Fixtured "Digitork" MT Focus 400B									
ETF M 05 400B	1.5-5	0.13-0.4	750	183	20	0.4	0.9	HM 4 mm	8432 0819 15
ETF M 20 400B	5-20	0.44-1.8	650	183	20	0.4	0.9	HM 4 mm	8432 0819 17
ETF M 50 400B	15-50	1.33-4.4	850	269	30	1.1	2.42	HM 4 mm	8432 0819 18
ETF M 80 400B	20-80	1.77-7.1	850	269	30	1.2	2.64	HM 4 mm	8432 0819 19
ETF M 100 400B	25-100	2.21-8.8	700	272	30	1.2	2.64	1/4" HEX	8432 0819 20
ETF M 200 400B	50-200	4.42-17.7	600	272	30	1.2	2.64	1/4" HEX	8432 0819 21
ETF S25 400B	5.5-25	0.49-2.2	1000	125	65	0.3	0.68	HM 4mm	8432 0819 25

ETD M: V - vacuum through the tool cable, B - reverse button

Ultra low-torque applications, starting at 0.5 Ncm, don't need to be demanding. Electric screwdrivers in the MicroTorque range from Atlas Copco are designed to perform consistently and precisely, time after time.

- MT G4 used with DigiTork controlled tools and transducerized tools.
- Possible to program 64 P-sets and 15 jobs, for full flexibility.
- Tightening strategy with torque and angle control for detecting assembly problems.
- Easily programmed via PC software interface, ToolsTalk MT.
- "Complete system" (single ordering number) includes: Controller, screwdriver, tool cable, ToolsTalk MT, USB communication cable and power supply.



Model	Torque range		Speed ^a r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Fixtured transducerized									
ETF MT 5	0.5-5	0.04-0.4	1300	183	20	0.4	0.9	HM 4 mm	8432 0800 10
ETF MT 10	1-10	0.09-0.9	900	183	20	0.4	0.9	HM 4 mm	8432 0800 11
ETF MT 20	2-20	0.18-1.8	900	183	20	0.4	0.9	HM 4 mm	8432 0800 12
ETF MT 50	5-50	0.44-4.4	1300	269	30	1.1	2.42	HM 4 mm	8432 0800 13
ETF MT 50 F	5-50	0.44-4.4	1300	218	30	1.0	2.20	HM 4 mm	8432 0800 20
ETF MT 80	8-80	0.71-7.1	1300	269	30	1.2	2.65	HM 4 mm	8432 0800 14
ETF MT 100	10-100	0.88-8.8	1300	272	30	1.2	2.65	1/4" HEX	8432 0800 15
ETF MT 100 HM4	10-100	0.88-8.8	1300	269	30	1.2	2.65	HM 4 mm	8432 0800 21
ETF MT 200	20-200	1.77-17.7	800	272	30	1.2	2.65	1/4" HEX	8432 0800 16
ETF MT 500	50-500	4.42-44.2	500	258	40	1.84	4.05	1/4" HEX	8432 0800 17
Hand-held "Digitork", without push-to-start									
ETD M 03 A	0.5-2.5	0.04-0.2	1350	132	16	0.1	0.22	Ø 2 mm	8432 0810 05
ETD M 10 A	3-10	0.27-0.9	1350	132	16	0.1	0.22	Ø 2 mm	8432 0810 08
ETD M 25 AVB	7.5-25	0.66-2.2	900	174	22	0.25	0.55	HM 4 mm	8432 0810 09
ETD M 20 ABL	5-20	0.44-1.77	900	185	29	0.26	0.57	HM 4 mm	8432 0815 00
ETD M 27 ABL	7.5-27	0.66-2.4	900	185	29	0.26	0.57	HM 4 mm	8432 0815 02
Hand-held "Digitork", push-start configurable									
ETD M 50 ABL	15-50	1.33-4.4	1300	238	36	0.56	1.23	HM 4 mm	8432 0815 08
ETD M 80 ABL	20-80	1.77-7.1	1300	238	36	0.56	1.23	HM 4 mm	8432 0815 11
ETD M 120 ABL	30-120	2.7-10.6	900	240	43	0.65	1.43	1/4" Hex	8432 0815 12
ETD M 200 ABL	50-200	4.42-17.7	700	240	43	0.65	1.43	1/4" Hex	8432 0815 20
ETD M 250 ABL	75-250	6.64-22.13	700	240	43	0.65	1.43	1/4" Hex	8432 0815 25
Fixtured "Digitork"									
ETF M 05	1.5-5	0.13-0.4	1300	183	20	0.4	0.9	HM 4 mm	8432 0810 15
ETF M 10	3-10	0.27-0.9	900	183	20	0.4	0.9	HM 4 mm	8432 0810 16
ETF M 20	5-20	0.44-1.8	900	183	20	0.4	0.9	HM 4 mm	8432 0810 17
ETF M 50	15-50	1.33-4.4	1300	269	30	1.1	2.42	HM 4 mm	8432 0810 18
ETF M 80	20-80	1.77-7.1	1300	269	30	1.2	2.64	HM 4 mm	8432 0810 19
ETF M 100	25-100	2.21-8.8	900	272	30	1.2	2.64	1/4" HEX	8432 0810 20
ETF M 200	50-200	4.42-17.7	650	272	30	1.2	2.64	1/4" HEX	8432 0810 21
ETF M 400	150-400	13.27-35.4	320	258	40	1.8	3.96	1/4" HEX	8432 0810 22
ETF M 800	300-800	26.55-70.8	300	322	45	2.6	5.73	1/4" HEX	8432 0810 23

^a Free running speed during angle step

ETD M: V - vacuum through the tool cable, B - reverse button

Optional Accessories

Software

Model	Ordering No.
ToolsTalk MT (for programming)	8432 0830 30
ToolsTalk MT Analysis (for graph analysis)	8432 0830 31
ToolsTalk MT Analysis/Net (for graph analysis and data collection)	8432 0830 45
ToolsTalk MT (for MTF 400)	8432 0831 30
MT TN Adapter ToolsNet 4000	8432 0832 98



Digital program selector



G4 controller fixture wall

Controller accessories

Model	Ordering No.
Combi (Remote control + program selector)	8432 0830 88
Remote control	8432 0830 08
Digital program selector	8432 0830 34
Controller fixture table	8432 0830 84
Controller fixture wall	8432 0830 32
Footswitch	8432 0830 07
Y cable for I/O connector ^a	8432 0831 99
Adapter ^b , (15 pin/26 pin d-sub)	4216 2179 80
Desktop socket (with screwdriver presence sensor)	8432 0831 89



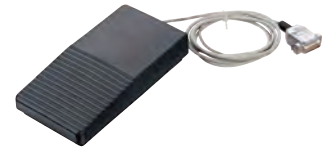
Remote control



Controller fixture table



Desktop socket



Footswitch

^a Y cable suitable when two I/O accessories are required.

^b For MT Focus 400 connection to I/O accessories.

Stacklights

Model	Ordering No.
Table stand	8432 0830 97
Wall mount	8432 0830 99

Tool cable

Model	Length	Ordering No.
M-(AB)L	2 m	8432 0830 37
MT/M/M-AXXX	2 m	8432 0830 36
M-(AB)L	3.5 m	8432 0831 02
MT/M/M-AXXX	3.5 m	8432 0831 01
MT/M/M-AXXX, angle 90 deg	2 m	8432 0831 15



Stacklight wall mount



Stacklight table stand

Cable accessories

Model	Ordering No.
Cable, RS232	8432 0830 38
Cable, USB	8432 0830 39
Transducer cable	8432 0830 35
Cable bracket	8432 0830 91



Tool cable



Tool cable, 90 deg

Optional Accessories

Vacuum adapter

Model	Bit mm / Nozzle Ø mm	Blank nozzle Ordering No.	Vacuum adapter Ordering No.
ETD 03-25 xVx	36-44 / 6	4216 1189 00	8432 0770 03
ETD 20-80 ABL	64 / 6	4216 1189 00	8432 0770 12
ETD 20-80 ABL	44 / 6	4216 1189 00	8432 0770 13
ETD 20-80 ABL	64 / 6	4216 1189 00	8432 0770 15
ETD 20-80 ABL	44 / 8	4216 1190 00	8432 0770 17
ETD 20-80 ABL	64 / 8	4216 1190 00	8432 0770 05
ETD 100-250 ABL	50 / 8	4216 1190 00	8432 0770 27
ETD 100-250 ABL	70 / 8	4216 1190 00	8432 0770 30
ETF 5-80, 100 HM4	44 / 6	4216 1189 00	8432 0770 33
ETF 5-80, 100 HM4	64 / 6	4216 1189 00	8432 0770 35
ETF 5-80, 100 HM4	44 / 8	4216 1190 00	8432 0770 38
ETF 5-80, 100 HM4	64 / 8	4216 1190 00	8432 0770 40
ETF 100-200	70 / 8	4216 2066 00	8432 0770 43
ETF 400-800	70 / 10	4216 1164 00	8432 0770 45
ETD M 120-250 ABL	70 / 8	4216 1190 00	8432 0770 55



Vacuum adapter



Blank nozzles

Vacuum pump

Model	Ordering No.
Vacuum pump, VPX 6	8432 0830 06



VPX 6 vacuum pump

Screw dispenser

Model	Ordering No.
SDS screw dispenser	8432 0830 00



Screw dispenser

Shaker tray

Type	Slot mm	Ordering No.	Type	Slot mm	Ordering No.
SGQ Large^a (110x110x35 mm)			MSG Small^b (70x70x15 mm)		
SGQ 15	1.5	8432 0830 09	MSG 06	0.6	8432 0830 20
SGQ 20	2	8432 0830 10	MSG 07	0.7	8432 0830 21
SGQ 25	2.5	8432 0830 11	MSG 08	0.8	8432 0830 22
SGQ 30	3	8432 0830 12	MSG 09	0.9	8432 0830 23
SGQ 35	3.5	8432 0830 13	MSG 10	1.0	8432 0830 24
SGQ 40	4	8432 0830 14	MSG 11	1.1	8432 0830 25
SGQ 45	4.5	8432 0830 15	MSG 12	1.2	8432 0830 26
SGQ 50	5	8432 0830 16	MSG 13	1.3	8432 0830 27
SGQ 55	5.5	8432 0830 17	MSG 14	1.4	8432 0830 28
SGQ 60	6	8432 0830 18	MSG 15	1.5	8432 0830 29



Shaker tray box

^a SGQ type (big version): For screws up to 30 mm length. From Ø 1.5 up to Ø 6 mm.

^b MSG type (small version): For screws up to 10 mm length. From Ø 0.6 up to Ø 1.5 mm.

Tensor ES

Tensor ES

- Torque transducer with an accuracy of $\pm 7.5\%$ over six sigma.
- Robust, sealed design with one single extruded aluminum body protecting internal components from dust and oil.
- New durable motor with higher speeds.
- Engineered in modules with component commonality.
- Clear LEDs visible through 360°.
- Hot swap.



ETV ES



ETD ES

Check with your local Atlas Copco Tools representative regarding availability in your market.

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spine/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
Angle models										
ETV ES21-04-06	1/4	1.6-4.5	1.2-3.3	1909	0.85	1.9	284	9.5	–	8436 0120 04
ETV ES21-07-06	1/4	2.8-7	2.1-5.2	1147	0.85	1.9	284	9.5	–	8436 0120 07
ETV ES21-12-06	1/4	4.8-12	3.5-8.9	718	0.95	2.1	304	11	–	8436 0120 12
ETV ES61-25-10	3/8	10-25	7.4-18.4	1378	1.8	4.0	419	14	–	8436 0160 25
ETV ES61-30-10	3/8	12-30	8.9-22.1	1160	1.8	4.0	421	15.5	–	8436 0160 30
ETV ES61-40-10	3/8	16-40	11.8-29.5	1153	1.9	4.2	441	18	–	8436 0160 40
ETV ES61-50-10	3/8	20-50	14.8-36.9	692	1.9	4.2	441	18	–	8436 0160 50
ETV ES61-70-13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	–	8436 0160 70
ETV ES61-100-13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	–	8436 0160 10
Straight models										
ETD ES21-02-I06-PS	–	0.8-2	0.6-1.5	4471	0.75	1.7	267	19.5	–	8436 0220 02
ETD ES21-04-I06-PS	–	1.6-4.5	1.2-3.3	1909	0.8	1.8	267	19.5	–	8436 0220 04
ETD ES21-07-I06-PS	–	2.8-7	2.1-5.2	1147	0.8	1.8	267	19.5	–	8436 0220 07
ETD ES21-12-I06-PS	–	4.8-12	3.5-8.9	745	0.8	1.8	267	19.5	–	8436 0220 12
ETD ES61-18-10-T25	3/8	7.2-18	5.3-13.3	2129	1.85	4.1	456	23	2/2	8436 0260 18
ETD ES61-25-10-T25	3/8	10-25	7.4-18.4	1793	1.85	4.1	456	23	2/2	8436 0260 25
ETD ES61-30-10-T25	3/8	12-30	8.9-22.1	1077	1.85	4.1	456	23	2/2	8436 0260 30
ETD ES61-50-13-T25	1/2	20-50	14.8-36.9	679	3.05	6.7	521	29	3/5	8436 0260 50

Tensor DL non-transducerized screwdrivers exist in four different tool configurations:

ETD – Straight screwdrivers with configurable function button. Available as lever and push to start.

ETV – Right angle screwdrivers with lever start and configurable function button.

ETP – Pistol grip handle screwdriver with configurable function button. Available as lever and push to start.

ETF – Straight screwdrivers for fixtured applications. Configurable lever or remote start.

- The DL screwdriver range has been optimized for small screw assembly.
- Torque range up to 12 Nm.
- All tools have ESD certification.
- Ergonomic design promotes operator safety.
- Brushless motor gives long service intervals and low maintenance costs.
- Signal lights ensure detection of incorrectly tightened fasteners.



Model	Torque range		Speed r/min	Weight		Length mm	CS distance ^a mm	Ordering No.
	Nm	in lb		kg	lb			
Straight tools, lever start								
ETD DL21-04-I06	1-4	8.8-35.4	1600	0.6	1.3	235	18 / 19.5	8433 4014 25
ETD DL21-07-I06	2.2-7.5	19.5-66	970	0.6	1.3	235	18 / 19.5	8433 4017 31
ETD DL21-10-I06	3-10	26.6-88.5	720	0.6	1.3	235	18 / 19.5	8433 4019 10
Straight tools, push-to-start and front lights								
ETD DL21-01-I06-PS	0.3-1.2	2.6-10	2200	0.6	1.3	243	18 / 19.5	8433 4010 89
ETD DL21-04-I06-PS	1-4	8.8-35.4	1600	0.6	1.3	243	18 / 19.5	8433 4014 91
ETD DL21-07-I06-PS	2.2-7.5	19.5-66	970	0.6	1.3	243	18 / 19.5	8433 4017 69
ETD DL21-10-I06-PS	3-10	26.6-88.5	720	0.6	1.3	243	18 / 19.5	8433 4019 25
Right angle tools, lever start								
ETV DL21-04-I06	1-4	8.8-35.4	1600	0.7	1.5	268	9	8433 4004 47
ETV DL21-04-I06-QC	1-4	8.8-35.4	1600	0.7	1.5	268	9	8433 4004 73
ETV DL21-04-I06	1-4	8.8-35.4	1600	0.7	1.5	268	9	8433 4004 91
ETV DL21-07-I06	2.2-7.5	19.5-66	970	0.7	1.5	268	9	8433 4007 66
ETV DL21-07-I06-QC	2.2-7.5	19.5-66	970	0.7	1.5	268	9	8433 4007 79
ETV DL21-07-I06	2.2-7.5	19.5-66	970	0.7	1.5	268	9	8433 4007 94
ETV DL21-10-I06	3-12	26.6-106.4	610	0.7	1.5	282	11	8433 4009 34
ETV DL21-10-I06-QC	3-12	26.6-106.4	610	0.7	1.5	282	11	8433 4009 61
ETV DL21-10-I06	3-12	26.6-106.4	610	0.7	1.5	282	11	8433 4009 77
Pistol grip, lever start								
ETP DL21-04-I06	1-4	8.8-35.4	1600	0.6	1.3	235	20	8433 4024 19
ETP DL21-07-I06	2.2-7.5	19.5-66	970	0.6	1.3	235	20	8433 4027 26
ETP DL21-10-I06	3-10	26.6-88.5	720	0.6	1.3	235	20	8433 4029 13
Pistol grip, push-to-start and front lights								
ETP DL21-01-I06-PS-H	0.3-1.2	2.6-10	2200	0.6	1.3	243	20	8433 4020 77
ETP DL21-04-I06-PS-H	1-4	8.8-35.4	1600	0.6	1.3	243	20	8433 4024 66
ETP DL21-07-I06-PS-H	2.2-7.5	19.5-66	970	0.6	1.3	243	20	8433 4027 53
ETP DL21-10-I06-PS-H	3-10	26.6-88.5	720	0.6	1.3	243	20	8433 4029 28
Fixtured tools, lever start or remote start								
ETF DL21-01-I06-T25	0.3-1.2	2.6-10	2200	0.7	1.5	328	18 / 19.5	8433 4040 04
ETF DL21-04-I06-T25	1-4	8.8-35.4	1600	0.7	1.5	328	18 / 19.5	8433 4042 13
ETF DL21-07-I06-T25	2.2-7.5	19.5-66	970	0.7	1.5	328	18 / 19.5	8433 4043 22
ETF DL21-10-I06-T25	3-10	26.6-88.5	720	0.7	1.5	328	18 / 19.5	8433 4044 11

^a For ETV, CS distance over angle head.

Tensor SL

ETD SL

- ETD SL is a very compact screwdriver with excellent power to weight ratio.
- Torque range from 0.3 to 10 Nm.
- Push-to-start function and front lights.
- Small center-to-side distance.
- Ergonomic design.
- Buzzer and additional blue LED for better operator support.



ETD SL



ETP SL



ETV SL



ETF SL

ETV SL

- ETV SL is the most compact transducerised angle screwdriver in the Tensor range.
- Torque range from 0.8 to 20 Nm.
- High durability with spiral angle gears.
- Ergonomic design.
- Buzzer and additional blue LED for better operator support.

ETP SL

- ETP SL is our first push-to-start pistol tool.
- Torque range from 0.3 to 10 Nm.
- Ergonomic, balanced pistol tool.
- Front lights for dark applications.
- Blue light and buzzer.

ETF SL

- ETF SL is the smallest and lightest fixtured tool.
- Torque range from 0.3 to 10 Nm.
- Stroke with 25 mm suspension.
- Small center-to-side distance.

Model	Torque range		Speed r/min	Weight		Length mm	CS distance ^a mm	Stroke mm	Ordering No.
	Nm	in lb		kg	lb				
Straight tools, push-to-start and front lights									
ETD SL21-01-I06-PS	0.3-1.2	2.7-10	2950	0.7	1.6	246	18/19.5	—	8433 2102 92
ETD SL21-04-I06-PS	0.8-4	7-35	1600	0.7	1.6	246	18/19.5	—	8433 2104 91
ETD SL21-07-I06-PS	1.5-7.5	13-66	970	0.7	1.6	246	18/19.5	—	8433 2107 69
ETD SL21-10-I06-PS	2.0-10	18-89	720	0.7	1.6	246	18/19.5	—	8433 2108 25
Right angle tools, lever start									
ETV SL21-04-I06	0.8-4	7-35	1600	0.75	1.7	279	9	—	8433 2004 47
ETV SL21-04-I06-QC	0.8-4	8-35	1600	0.75	1.7	279	9	—	8433 2004 73
ETV SL21-04-06	0.8-4	9-35	1600	0.75	1.7	279	9	—	8433 2004 91
ETV SL21-07-I06	1.5-7.5	13-66	970	0.75	1.7	279	9	—	8433 2007 66
ETV SL21-07-I06-QC	1.5-7.5	14-66	970	0.75	1.7	279	9	—	8433 2007 79
ETV SL21-07-06	1.5-7.5	15-66	970	0.75	1.7	279	9	—	8433 2007 94
ETV SL21-12-I06	2.5-12	22-106	610	0.8	1.8	282	11	—	8433 2008 34
ETV SL21-12-I06-QC	2.5-12	23-106	610	0.8	1.8	282	11	—	8433 2008 61
ETV SL21-12-06	2.5-12	24-106	610	0.8	1.8	282	11	—	8433 2008 77
ETV SL21-20-10	4-20	36-180	465	0.95	2.1	285	14	—	8433 2009 55
ETV SL21-20-B10	4-20	36-180	465	0.95	2.1	285	14	—	8433 2009 60
Pistol grip, push-to-start									
ETP SL21-01-I06-PS	0.3-1.2	2.7-10	3000	0.85	1.9	246	20.5	—	8433 2201 16
ETP SL21-04-PS	0.8-4	7-35	1600	0.85	1.9	246	20.5	—	8433 2204 66
ETP SL21-07-PS	1.5-7.5	13-66	970	0.85	1.9	246	20.5	—	8433 2207 53
ETP SL21-10-PS	2-10	18-89	720	0.85	1.9	246	20.5	—	8433 2208 28
Fixtured tools, lever start or remote start									
ETF SL21-01-I06-T25	0.3-1.2	2.7-10	3000	0.95	2.1	322	18	25	8433 2404 13
ETF SL21-04-I06-T25	0.8-4	7-35	1600	0.95	2.1	322	18	25	8433 2404 19
ETF SL21-07-I06-T25	1.5-7.5	13-66	970	0.95	2.1	322	18	25	8433 2407 26
ETF SL21-10-I06-T25	2-10	18-89	720	0.95	2.1	322	18	25	8433 2408 13

^a For ETV, CS distance over angle head.

ETV SR

- SR Angle tools are extremely fast, compact and easy to operate.
- ESD certified.
- Easy to configure the function button.
- Front LED's gives better operator feedback.
- Torque range from 2.5 to 25 Nm.



ETV SR

ETD SR

- SR Straight tools are ideal for hand-held applications and fixture applications.
- Torque range from 1.4 to 16 Nm.
- Front light guide is integrated.
- Push-to-start mechanism.



ETD SR

Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
	Nm	ft lb		kg	lb				
Angle models									
ETV SR21-12-10	2.5-12	1.9-8.9	1350	1.1	2.4	297	14	-	8436 4120 12
ETV SR21-25-10	5-25	3.7-18.5	1000	1.2	2.6	297	14	-	8436 4120 25
Straight models									
ETD SR21-07-I06-PS	1.5-7	1.0-5.2	2090	0.9	1.9	259	24	-	8436 4220 07
ETD SR21-16-I06-PS	3.5-16	2.6-11.8	1460	1.0	2.2	276	24	-	8436 4220 16

Optional Accessories

Supported extensions (~154 mm)

Model	Ordering No.
SR21, ETV SL21	4220 3868 90



Supported extensions

Covers for standard sockets

Model	Ordering No.
ETD ES61-18/ 25/ 30	4220 3251 02
ETD ES61-50	4220 3251 03
ETV ES61-30	4220 3154 04
ETV ES61-100	4220 3154 05
ETV ES61-40/50	4220 1995 05
ETV ES61-70	4220 1993 03
ETV SL21, ETV ES61-25	4220 3154 03



Cover for standard sockets

Pistol grip Tensor DL / SL

Model	Ordering No.
Tensor DL	4220 2743 90
Tensor SL	4220 3516 80

Pistol grip can be mounted on all straight DL tools.



Pistol grip
Tensor DL/SL

Tool holder DL / SL

Model	Ordering No.
ETP / ETD	4220 3584 80

Support handle

Model	Ordering No.
ETV/ETD ES21	4220 2725 83
ETD SR21	4220 4347 80



Tool holder

Lever

Model	Ordering No.
Lever, DL/SL	4220 2540 81
Extended lever, DL/SL	4220 2540 89
Spoon lever, SR21	4220 4338 83
Short lever ETV/ETD ES21	4220 4366 86

Suspension yokes DL/SL/SR

Model	Type	Assembly	Ordering No.
ETD/ETV DL/SL21	Horizontal	Motor	4220 0987 81
SR21	For rear		4220 4410 80
SR21	For front		4220 4409 80



Support handle

Optional Accessories

Cables Tensor ES

Model	Ordering No.
Round cables for ES21	
2 m	4220 4204 02
3 m	4220 4204 03
5 m	4220 4204 05
7 m	4220 4204 07
10 m	4220 4204 10
15 m	4220 4204 15
Flat cables for ES61	
3 m	4220 4339 03
5 m	4220 4339 05
7 m	4220 4339 07
10 m	4220 4339 10
15 m	4220 4339 15
Extension cables for all cables	
3 m	4220 4393 03
5 m	4220 4393 05
10 m	4220 4393 10
15 m	4220 4393 15
25 m	4220 4393 25

Cables Tensor DL

Model	Ordering No.
Tool cable	
3 m	4220 2604 03
5 m	4220 2604 05
10 m	4220 2604 10
15 m	4220 2604 15
20 m	4220 2604 20
Heavy duty cable	
3 m	4220 3265 03
5 m	4220 3265 05
10 m	4220 3265 10
15 m	4220 3265 15
20 m	4220 3265 20
Cables with 90 degrees connector	
3 m	4220 3705 03
5 m	4220 3705 05
10 m	4220 3705 10
15 m	4220 3705 15
20 m	4220 3705 20
Spiral cable straight	
5 m	4220 3240 05
Spiral cable with 90 degrees connector	
5 m	4220 3706 05
Extension cable	
3 m	4220 2795 03
5 m	4220 2795 05
10 m	4220 2795 10



DL Cable



DL cable with 90 degrees connector



DL spiral cable

Optional Accessories

Cables Tensor SL

Model	Ordering No.
Tool cable	
3 m	4220 3319 03
5 m	4220 3319 05
10 m	4220 3319 10
15 m	4220 3319 15
20 m	4220 3319 20
Heavy duty cable	
3 m	4220 3378 03
5 m	4220 3378 05
10 m	4220 3378 10
15 m	4220 3378 15
20 m	4220 3378 20
Cables with 90 degrees connector	
3 m	4220 3607 03
5 m	4220 3607 05
10 m	4220 3607 10
15 m	4220 3607 15
20 m	4220 3607 20
Spiral cable straight	
5 m	4220 3746 05
Spiral cable with 90 degrees connector	
5 m	4220 3617 05
Extension cable	
3 m	4220 2795 03
5 m	4220 2795 05
10 m	4220 2795 10



SL Cable



SL Cable with 90 degrees connector



SL Spiral cable



SR Cable



SR Cable with 90 degrees connector



SR Spiral cable



SR Cable protection

Cables Tensor SR

Model	Ordering No.
Tool cable	
2 m	4220 2636 02
3 m	4220 2636 03
5 m	4220 2636 05
7 m	4220 2636 07
10 m	4220 2636 10
15 m	4220 2636 15
Cables with 90 degrees connector	
2 m	4220 3891 02
3 m	4220 3891 03
5 m	4220 3891 05
7 m	4220 3891 07
10 m	4220 3891 10
15 m	4221 3891 15
Extension cable	
5 m	4220 1007 05
10 m	4220 1007 10
15 m	4220 1007 15
Extension cables for fixtured applications	
5 m	4220 1563 05
10 m	4220 1563 10
15 m	4220 1563 15
Spiral cable (length/stretched length)	
3 m / 4 m	4220 2757 03
7 m / 8 m	4220 2757 07
10 m / 12 m	4220 2757 10
Cable protection	
	4220 2977 90

Tensor – the operators' choice

The Tensor range of electric assembly tools covers all station and assembly line requirements for safety critical and quality critical fastening applications. At Atlas Copco we have a proud legacy of putting the operator first and we continuously improve the ergonomic features on each new generation of Tensor tools. Tensor is also one of the most advanced tool ranges on the market in terms of high power-to-weight ratios and operator guidance in the form of clear result feedback via LED's or audio signals.

Productivity gains

Atlas Copco's unique Tensor motors give the Tensor range outstanding spindle speeds and, thus, help you achieve lower cycle times in your operation. Exceptional ergonomics in terms of balance, grip and low weight make the tools a favorite of the operators and increase individual productivity.

Operator feedback

All Tensor tools are equipped with LED's that will indicate the tightening result, green light for tightening OK and red light for NOK. Tensor ST and STR have configurable LED's and an integrated speaker for indicating results via audio signals.

Lowest cost of operation

At Atlas Copco we believe that quality is the road to lowest cost of operation over time. A maintained Tensor tool produces the same performance year after year at minimum and predictable costs while ensuring highest possible uptime.

Tensor DL: quality critical

The Tensor DL range is used for quality critical screws. Optimized for small screw assembly, the DL is the electric choice in the low torque segment.

Tensor SL: low torque safety critical, configurable tool functions

The Tensor SL range is optimized for safety critical small screw assembly. It offers compact screwdriver ergonomics, combined with traceability and error proofing capabilities.

Tensor DS: quality critical

Tensor DS is used for quality critical applications not requiring traceable measured torque value. DS offers major productivity and quality gains compared with conventional tooling.

Tensor ST: safety critical, configurable tool functions

The second generation of Tensor tools was developed with low weight and productivity in mind. Tensor ST has an internal bus connection for intelligent accessories such as a barcode reader and torque selector switch.

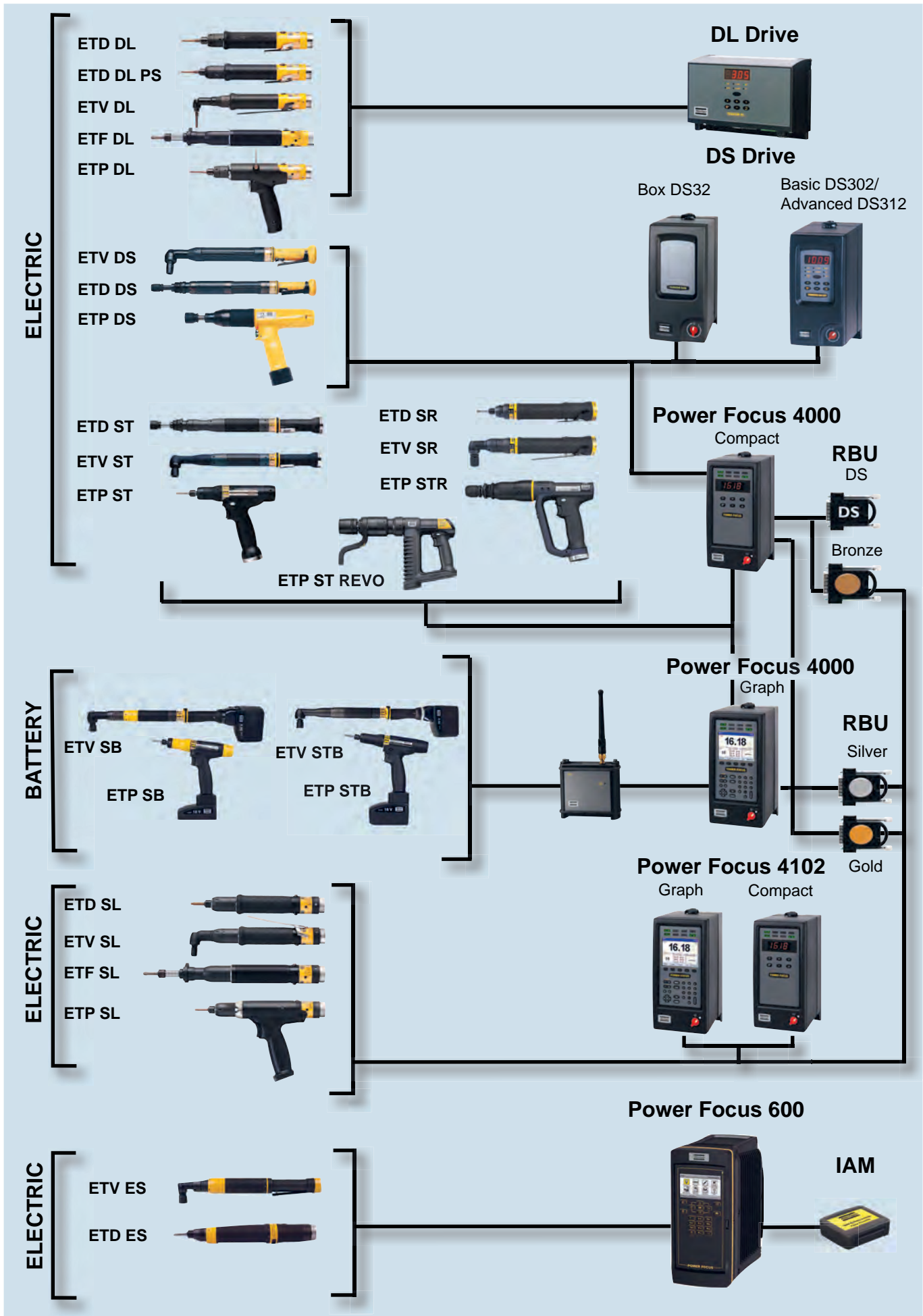
Tensor STR, SR: safety critical, configurable tool functions

The latest generation of Tensor tools where ergonomics and productivity are taken to a new level.

Tensor ES

Tensor ES transducerized nutrunners for quality critical applications are available in straight and right angle versions. All models have a sealed design for robustness and offer high productivity with improved ergonomics.





ETV ES

- Torque transducer with an accuracy of $\pm 7.5\%$ over six sigma.
- Robust, sealed design.
- New durable motor with higher speeds.
- Engineered in modules with component commonality.
- Clear LEDs visible through 360°.
- Hot swap.



ETV ES

Check with your local Atlas Copco Tools representative regarding availability in your market.

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETV ES21-04-06	1/4	1.6-4.5	1.2-3.3	1909	0.85	1.9	284	9.5	8436 0120 04
ETV ES21-07-06	1/4	2.8-7	2.1-5.2	1147	0.85	1.9	284	9.5	8436 0120 07
ETV ES21-12-06	1/4	4.8-12	3.5-8.9	718	0.95	2.1	304	11	8436 0120 12
ETV ES61-25-10	3/8	10-25	7.4-18.4	1378	1.8	4.0	419	14	8436 0160 25
ETV ES61-30-10	3/8	12-30	8.9-22.1	1160	1.8	4.0	421	15.5	8436 0160 30
ETV ES61-40-10	3/8	16-40	11.8-29.5	1153	1.9	4.2	441	18	8436 0160 40
ETV ES61-50-10	3/8	20-50	14.8-36.9	692	1.9	4.2	441	18	8436 0160 50
ETV ES61-70-13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	8436 0160 70
ETV ES61-100-13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	8436 0160 10

Straight Models

Tensor ES

ETD ES

- Torque transducer with an accuracy of $\pm 7.5\%$ over six sigma.
- Robust, sealed design.
- New durable motor with higher speeds.
- Engineered in modules with component commonality.
- Clear LEDs visible through 360°.
- Hot swap.



ETD ES

Check with your local Atlas Copco Tools representative regarding availability in your market.

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Splines/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETD ES21-02-I06-PS	–	0.8-2	0.6-1.5	4471	0.75	1.7	267	19.5	–	8436 0220 02
ETD ES21-04-I06-PS	–	1.6-4.5	1.2-3.3	1909	0.8	1.8	267	19.5	–	8436 0220 04
ETD ES21-07-I06-PS	–	2.8-7	2.1-5.2	1147	0.8	1.8	267	19.5	–	8436 0220 07
ETD ES21-12-I06-PS	–	4.8-12	3.5-8.9	745	0.8	1.8	267	19.5	–	8436 0220 12
ETD ES61-18-10-T25	3/8	7.2-18	5.3-13.3	2129	1.85	4.1	456	23	2/2	8436 0260 18
ETD ES61-25-10-T25	3/8	10-25	7.4-18.4	1793	1.85	4.1	456	23	2/2	8436 0260 25
ETD ES61-30-10-T25	3/8	12-30	8.9-22.1	1077	1.85	4.1	456	23	2/2	8436 0260 30
ETD ES61-50-13-T25	1/2	20-50	14.8-36.9	679	3.05	6.7	521	29	3/5	8436 0260 50

ETV DS

Tensor DS non-transducerized angle tool is equipped with spiral gears in the angle heads with improved contact ratio: This allows for smoother tightening and improved accuracy throughout the service life of the tool. The new molded ergonomic motor sleeve improves grip and comfort for the operator.

- Angle tools are ideal for hand-held operations.
- Torque range from 2 to 4000 Nm.
- Flush Socket and Hold & Drive tools.
- Ball retainer models for easy socket changes.



Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETV DS42									
ETV DS42-05-06	1/4	1.5-6	1.1-4.4	1488	1.2	2.6	381	11	8433 1705 31
ETV DS42-05-10	3/8	1.5-6	1.1-4.4	1488	1.2	2.6	381	13.5	8433 1705 49
ETV DS42-08-06	1/4	2-8	1.5-5.9	1105	1.2	2.6	381	11	8433 1706 10
ETV DS42-10-06	1/4	3-12	2.2-8.8	762	1.3	2.9	381	11	8433 1706 14
ETV DS42-10-10	3/8	3-12	2.2-8.8	762	1.3	2.9	381	13.5	8433 1706 21
ETV DS42-20-10	3/8	5-20	3.7-14	401	1.3	2.9	381	13.5	8433 1706 49
ETV DS42 Ball retainer									
ETV DS42-10-B10	3/8	3-12	2.2-8.8	762	1.3	2.9	381	13.5	8433 1706 31
ETV DS42-20-B10	3/8	5-20	3.7-14	401	1.3	2.9	381	13.5	8433 1706 51
ETV DS72									
ETV DS72-15-10	3/8	4.5-17	3.3-12	1525	1.4	3.1	412	13.5	8433 1720 10
ETV DS72-28-10	3/8	7-28	5.1-20	1171	1.4	3.1	412	13.5	8433 1720 28
ETV DS72-30-10	3/8	9-35	6.6-25	800	1.4	3.1	412	13.5	8433 1721 42
ETV DS72-40-10	3/8	10-40	7.4-29	800	1.6	3.5	434	18	8433 1721 94
ETV DS72-50-10	3/8	14-55	11-40	480	1.6	3.5	434	18	8433 1722 58
ETV DS72-70-13	1/2	20-80	15-59	348	2.1	4.6	461	20	8433 1723 16
ETV DS72-100-13	1/2	28-110	21-81	229	2.3	5.1	482	20	8433 1723 70
ETV DS72-160-13	1/2	40-160	30-118	152	2.8	6.2	525	25.5	8433 1723 98
ETV DS72-180-13	1/2	45-180	34-133	123	2.8	6.2	525	25.5	8433 1724 15
ETV DS72-200-20	3/4	53-210	39-155	123	3.0	6.6	525	27	8433 1724 40
ETV DS72 Flush Socket									
ETV DS72-30-FS	-	9-35	6.6-25	800	1.4	3.1	412	13.5	8433 1721 65
ETV DS72-70-FS	-	20-80	15-59	345	2.1	4.6	461	20	8433 1723 26
ETV DS72-160-FS	-	40-160	36-118	152	2.8	6.2	525	25.5	8433 1724 00
ETV DS72-200-FS	-	50-200	37-147	137	3.5	7.7	527	28	8433 1725 05
ETV DS72 Hold & Drive									
ETV DS72-50-HAD	-	14-55	11-40	480	3.0	6.6	504	26	8433 1722 60
ETV DS72-70-HAD	-	20-80	15-59	348	3.1	6.8	479	26	8433 1723 30
ETV DS72-100-HAD	-	28-110	21-81	229	3.2	7.1	525	26	8433 1723 73
ETV DS72-160-HAD	-	40-160	30-118	152	3.3	7.3	525	26	8433 1724 02
ETV DS72-200-HAD	-	50-200	37-148	123	3.5	7.7	525	26	8433 1724 45
ETV DS72 Ball retainer									
ETV DS72-30-B10	3/8	9-35	6.7-25	800	1.4	3.1	412	13.5	8433 1721 54
ETV DS72-40-B10	3/8	10-40	7.4-29	800	1.6	3.5	434	18	8433 1721 99
ETV DS72-50-B10	3/8	14-55	11-40	480	1.6	3.5	434	18	8433 1722 63
ETV DS72-70-B13	1/2	20-80	15-59	348	2.1	4.6	461	20	8433 1723 21
ETV DS72-100-B13	1/2	28-110	21-81	240	2.3	5.1	482	20	8433 1723 68
ETV DS72-160-B13	1/2	40-160	36-118	152	2.8	6.2	525	25.5	8433 1724 12
ETV DS72-180-B13	1/2	45-180	34-133	123	2.8	6.2	525	25.5	8433 1724 20
ETV DS92									
ETV DS92-100-13	1/2	25-100	19-74	642	3.3	7.3	534	20	8433 1750 21
ETV DS92-180-13	1/2	45-180	34-113	395	3.8	8.4	578	25.5	8433 1750 68
ETV DS92-270-20	3/4	70-270	52-199	240	7.0	15.4	661	33.5	8433 1751 38
ETV DS92-370-20	3/4	95-370	70-273	152	7.1	15.7	661	33.5	8433 1751 86
ETV DS92-450-20	3/4	115-450	85-333	131	11.6	25.6	702	54	8433 1752 04
ETV DS92-600-25	1	150-600	111-444	112	11.6	25.6	702	54	8433 1752 63
ETV DS92-600-20TM	3/4	150-600	111-444	97	9.7	21.4	603	26.3	8433 1752 40
ETV DS92-1000-25TM	1 1/2	250-1000	185-740	60	12.0	26.5	666	32	8433 1752 90
ETV DS92-2000-38TM	1 1/2	500-2000	370-1480	30	17.0	37.5	706	63.5	8433 1752 96
ETV DS92-4000-38TM	1 1/2	1000-4000	740-2960	14	21.0	46.3	615	71	8433 1753 25

ETD DS

- ETD DS inline non-transducerized tools. The low torque series is ideal for hand-held bench assembly. The high torque tools are well suited for fixtured applications.
- Torque range from 1 to 4000 Nm.
- Telescopic spindles for fixtured applications.
- Female hex drives for bits.
- Swivelling front parts for easy positioning of reaction force.



ETD DS

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Splines/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETD DS4										
ETD DS4-05-10S	3/8	2-5	1.5-3.6	1315	1.1	2.5	380	28	- / 1	8433 0710 29
ETD DS4-10-10S	3/8	4-14	3-10	620	1.1	2.5	380	28	- / 1	8433 0710 52
ETD DS42-20-10	3/8	5-20	3.7-15	390	1.1	2.5	380	28	- / 1	8433 1711 16
ETD DS4 Telescopic										
ETD DS4-05-10ST	3/8	2-5	1.5-3.6	1315	1.3	2.9	418	28	2 / 2	8433 0710 37
ETD DS4-10-10ST	3/8	4-14	3-10	620	1.3	2.9	418	28	2 / 2	8433 0710 73
ETD DS4 Female Hex										
ETD DS4-02-106S	1/4	1-2.5	0.7-1.8	2942	1.1	2.5	371	28	- / 1	8433 0710 22
ETD DS4-05-106S	1/4	2-5	1.5-3.6	1310	1.1	2.5	371	28	- / 1	8433 0710 26
ETD DS4-10-106S	1/4	4-14	3-10	620	1.1	2.5	371	28	- / 1	8433 0710 46
ETD DS7										
ETD DS7-20-10S	3/8	6-20	4.4-14.5	1240	1.4	3.1	411	28	- / 1	8433 0730 23
ETD DS72-30-10S	3/8	10-35	7.3-25	745	1.4	3.1	411	28	- / 1	8433 1730 88
ETD DS72-50-13S	1/2	17-55	12-40	540	1.9	4.2	456	28	2 / 2	8433 1731 12
ETD DS7-70-13S	1/2	21-70	15-51	370	2.2	4.9	477	28	2 / 2	8433 0731 31
ETD DS7-90-13S	1/2	28-95	21-69	275	2.2	4.9	477	28	2 / 2	8433 0731 45
ETD DS7-120-13S	1/2	38-125	28-91	225	2.2	4.9	477	28	2 / 2	8433 0731 84
ETD DS7 Telescopic										
ETD DS7-20-10ST	3/8	6-20	4.4-14.5	1240	1.5	3.3	449	28	2 / 2	8433 0730 44
ETD DS7-30-10ST	3/8	10-35	7.3-25	745	1.5	3.3	449	28	2 / 2	8433 0731 05
ETD DS7-50-13ST	1/2	17-55	12-40	540	2.1	4.7	483	28	3 / 5	8433 0731 24
ETD DS7-50-13ST50	1/2	17-55	12-40	540	2.2	4.8	540	28	3 / 5	8433 0731 22
ETD DS7-70-13ST	1/2	21-70	15-51	370	2.4	5.4	504	29.5	3 / 5	8433 0731 40
ETD DS72-70-13ST75	1/2	21-70	15-51	370	2.5	5.5	645	29.5	3 / 5	8433 1731 39
ETD DS7-90-13ST	1/2	28-95	21-69	275	2.9	6.5	504	29.5	3 / 5	8433 0731 52
ETD DS7-120-13ST	1/2	38-125	28-91	225	3.0	6.6	504	29.5	3 / 5	8433 0731 96
ETD DS7-120-13ST50	1/2	38-125	28-91	225	3.1	6.8	562	29.5	3 / 5	8433 0731 99
ETD DS7-200-13ST	1/2	50-200	37-146	225	3.2	7.1	616	29.5	3 / 5	8433 0732 10
ETV DS72 Ball retainer										
ETD DS7-50-B13S	1/2	17-55	12-40	540	1.9	4.2	456	28	2 / 2	8433 0731 20
ETD DS9										
ETD DS9-100-13S	1/2	40-100	29-73	715	3.0	6.7	529	32	2 / 2	8433 0756 42
ETD DS9-150-13S	1/2	60-150	44-110	455	3.2	7.1	544	32	2 / 2	8433 0757 54
ETD DS9-200-13S	1/2	80-200	58-146	340	3.2	7.1	544	32	2 / 2	8433 0758 71
ETD DS9-270-20S	3/4	68-270	50-199	220	6.2	14	603	36	6 / 8	8433 0760 53
ETD DS9-450-20S	3/4	115-450	85-328	125	7.4	16	639	40.5	6 / 8	8433 0760 71
ETD DS9-1000-25S	1	250-1000	184-730	68	12.3	27	769	47	7 / 11	8433 0763 60
ETD DS9-1200-25S	1	300-1200	220-880	55	12.3	27	769	47	7 / 11	8433 0763 80
ETD DS9-2000-38S	1 1/2	600-2000	440-1475	34	20.5	45	725	68	8 / 12	8433 0764 05
ETD DS9-3000-38S	1 1/2	750-3000	550-2200	21	21.7	47.8	809	68	8 / 12	8433 0764 23
ETD DS9-4000-38S	1 1/2	1000-4000	730-2950	17	21.7	47.8	809	68	8 / 12	8433 0764 37
ETD DS92-4000-38S	1 1/2	1000-4000	730-2950	17	21.7	48	809	68	8 / 12	8433 1764 37
ETD DS9 Telescopic										
ETD DS9-100-13ST	1/2	40-100	29-73	715	3.2	7.1	557	32	3 / 5	8433 0756 92
ETD DS9-150-13ST	1/2	60-150	44-110	455	3.4	7.6	572	32	3 / 5	8433 0758 03
ETD DS9-200-13ST	1/2	80-200	58-146	340	3.4	7.6	572	32	3 / 5	8433 0759 11
ETD DS9-270-20ST	3/4	108-270	79-197	225	6.0	13	653	36	6 / 8	8433 0760 55
ETD DS9-450-20ST	3/4	115-450	85-328	125	7.6	17	689	40.5	6 / 8	8433 0760 88
ETD DS9-600-20ST	3/4	150-600	110-438	110	7.6	17	689	40.5	6 / 8	8433 0761 35
ETD DS9-1000-25ST	1	250-1000	184-730	68	12.5	28	824	47	7 / 11	8433 0763 63
ETD DS9-1200-25ST	1	300-1200	220-880	55	12.5	28	824	47	7 / 11	8433 0763 83
ETD DS9-1500-38ST	1 1/2	375-1500	280-1100	42	17	37.5	824	68	8 / 12	8433 0763 93
ETD DS9-2000-38ST	1 1/2	600-2000	440-1475	34	21	47	824	68	8 / 12	8433 0764 20
ETD DS92-3000-38ST	1 1/2	750-3000	550-2200	21	21.9	48.3	904	68	8 / 12	8433 1764 25
ETD DS9 Swivelling										
ETD DS92-1000-25SSW	1	250-1000	185-737	68	12.3	27	769	47	7/11	8433 0763 70
ETD DS92-2000-25SSW	1 1/2	500-2000	370-1480	34	20.5	45	725	68	8/12	8433 0764 10

ETP DS

- ETP DS pistol grip tool for both hand-held and fixtured applications.
- Torque range from 2 to 4000 Nm.
- Telescopic spindles for fixtured applications.
- Swivelling front parts for easy positioning of reaction force.
- Female hex drives for bits.
- Swivelling tools are equipped with non-reversible start button, for operator safety.

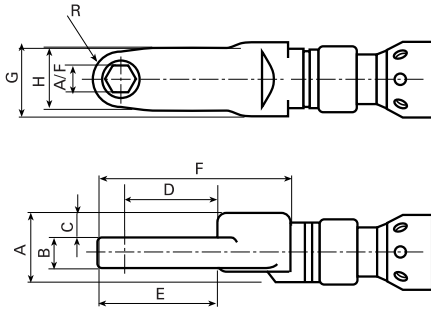


Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spine/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETP DS4										
ETP DS4-05-06S	1/4	2-5	1.5-3.6	1310	1.1	2.5	193	21.5	-/-	8433 0708 76
ETP DS4-10-06S	1/4	3.5-12	2.5-8.8	660	1.1	2.5	193	21.5	-/-	8433 0708 92
ETP DS42-10-10S	3/8	3.5-12	2.5-8.8	905	1.0	2.2	188	21.3	-/-	8433 0709 11
ETP DS4 Female Hex										
ETP DS42-02-106	1/4	1.0-2.5	0.7-1.8	2950	0.9	2.0	188	21.3	-/-	8433 0708 40
ETP DS42-05-106	1/4	2-5	1.5-3.6	1770	0.9	2.0	188	21.3	-/-	8433 0708 69
ETP DS4-07-106S	1/4	2.1-7	1.5-5.1	905	1.1	2.5	201	21.5	-/-	8433 0708 80
ETP DS42-10-106	1/4	3.5-12	2.5-8.8	905	1.0	2.2	188	21.3	-/-	8433 0708 87
ETP DS42-20-106	1/4	6-20	4.4-14.5	471	1.0	2.2	188	21.3	-/-	8433 0709 34
ETP DS7										
ETP DS7-20-10S	3/8	6-20	4.4-14.5	1240	1.6	3.6	273	21.5	-/1	8433 0726 36
ETP DS7-30-10S	3/8	10-35	7.3-25	750	1.6	3.6	273	21.5	-/1	8433 0726 53
ETP DS7-50-13S	1/2	17-55	12-40	540	1.9	4.2	318	21.5	2/2	8433 0726 87
ETP DS7-70-13S	1/2	21-70	15-51	370	2.1	4.7	340	21.5	2/2	8433 0727 01
ETP DS7-90-13S	1/2	28-95	21-69	275	2.1	4.7	340	21.5	2/2	8433 0727 19
ETP DS7-120-13S	1/2	38-125	28-91	220	2.1	4.7	340	21.5	2/2	8433 0727 47
ETP DS7 Telescopic										
ETP DS7-30-10ST	3/8	10-35	7.3-25	750	1.7	3.7	313	21.5	2/2	8433 0726 55
ETP DS7-50-13ST	1/2	17-55	12-40	540	2.1	4.6	350	21.5	2/2	8433 0726 92
ETP DS7-70-13ST	1/2	21-70	15-51	370	2.2	4.9	367	22.5	3/5	8433 0727 05
ETP DS7 Female Hex										
ETP DS7-20-106	1/4	6-20	4.4-14.5	1240	1.6	3.6	273	21.5	-/1	8433 0726 38
ETP DS7 Swivelling^a										
ETP DS7-70-13SSW	1/2	21-70	15-51	370	2.2	4.9	339	29.5	2/4	8433 0727 09
ETP DS7-90-13SSW	1/2	28-95	21-69	275	2.2	4.9	339	29.5	2/4	8433 0727 28
ETP DS7-120-13SSW	1/2	38-125	28-91	220	2.2	4.9	339	29.5	2/4	8433 0727 84
ETP DS9										
ETP DS9-100-13S	1/2	40-100	29-73	790	3.8	8.5	378	32	2/2	8433 0765 39
ETP DS9-150-13S	1/2	60-150	44-110	510	3.8	8.5	392	32	2/2	8433 0765 58
ETP DS9-200-13S	1/2	80-200	58-146	375	3.8	8.5	392	32	2/2	8433 0766 05
ETP DS9-270-20S	3/4	108-270	79-197	250	5.8	12.9	451	36	6/8	8433 0766 49
ETP DS9-450-20S	3/4	115-450	85-328	140	7.4	16.5	487	40.5	6/8	8433 0767 52
ETP DS9-600-20S	3/4	150-600	110-438	120	7.4	16.5	487	40.5	6/8	8433 0768 08
ETP DS9-1000-25S	1	250-1000	184-730	68	12.1	26.7	620	47	7/11	8433 0768 66
ETP DS9-2000-38S	1 1/2	500-2000	440-1475	34	16.8	37	574	68	8/12	8433 0769 10
ETP DS9-4000-38S	1 1/2	1000-4000	730-2950	17	21.7	47.8	654	68	8/12	8433 0769 50
ETP DS9 Telescopic										
ETP DS9-1000-25ST	1	250-1000	184-730	68	12.3	27.1	672	47	7/11	8433 0768 79
ETP DS9-2000-38ST	1 1/2	500-2000	440-1475	34	17	37.5	672	68	8/12	8433 0769 20
ETP DS9-4000-38ST	1 1/2	1000-4000	730-2950	17	21.9	48.3	753	68	8/12	8433 0769 60
ETP DS9 Swivelling^a										
ETP DS9-150-13SSW	1/2	60-150	44-110	510	3.9	8.7	394	32	2/4	8433 0765 69
ETP DS9-200-13SSW	1/2	80-200	58-146	375	3.9	8.7	394	32	2/4	8433 0766 12
ETP DS9-350-20SSW	3/4	100-370	75-270	180	5.2	11.5	387	35	4	8433 0766 56
ETP DS9-500-20SSW	3/4	140-530	105-390	125	5.2	11.5	387	35	4	8433 0767 71
ETP DS9-750-25SSW	1	220-750	162-553	84	5.5	12.1	428	47	5	8433 0768 24
ETP DS9-1000-25SSW	1	250-1000	184-730	68	12.1	26.7	620	47	7/11	8433 0768 76
ETP DS9-1500-25SSW	1	375-1500	280-1100	45	8.5	18.8	450	46	9	8433 0768 99
ETP DS9-2000-38SSW	1 1/2	500-2000	440-1475	34	16.8	37	574	68	8/12	8433 0769 15

^a Non-reversible start button as standard.

In-Line crowfoot tools

Dimensions

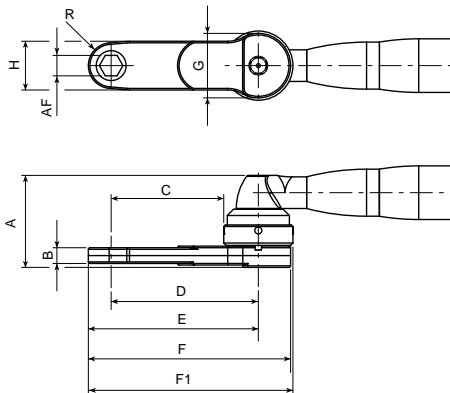


ETC DS

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
ETC DS72																	
ETC DS72-25-13-LI3	10-28	7.3-21	560	1.9	4.2	507	13	34	15	12.5	45.5	70.7	94	35	30	13	8433 1701 90

Offset crowfoot tools

Dimensions

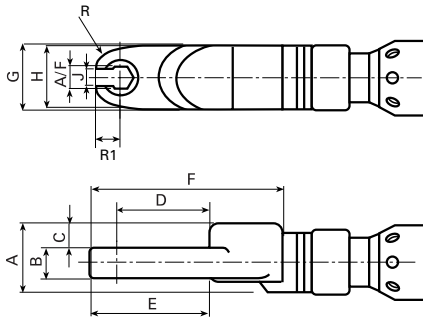


ETC DS

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb													
ETC DS72																		
ETC DS72-18-10-LO5	6.3-18	4.7-13.2	800	1.7	3.7	475	10	61.8	15	47.4	65.6	75.6	90.6	36.5	22	10	94	8433 1701 12
ETC DS72-25-13-LO5	6.3-24	4.7-17.7	800	1.9	4.2	496	13	63	15	62	84	97	117.5	44	30	13	119	8433 1701 29
ETC DS72-35-13-LO5	9.8-38.5	7.2-28.4	480	2.2	4.8	525	13	70.5	18	71.6	93.6	108.1	128.6	44	31	14.5	130.1	8433 1701 38
ETC DS72-40-17-LO3	11.2-44	8.3-32.4	480	2.1	4.6	507	17	77	24	27	51	66	88.5	48	30	15	90	8433 1701 46
ETC DS72-50-19-LO5	14-56	10.3-41.3	348	3.5	7.7	581	19	84	28	91.2	122.4	140.4	166.4	62.5	36	18	172	8433 1701 49
ETC DS72-80-21-LO3	22-88	16.2-64.9	229	3.1	6.8	553	21	78.9	20	35	66	86	112	62.5	40	20	117.3	8433 1701 60
ETC DS72-80-21-LO5	19-77	14-56.7	229	3.5	7.7	619	21	84.9	20	101	132	152	178	62.5	40	20	183.3	8433 1701 65
ETC DS92																		
ETC DS92-140-18-LO7	65-145	48-107	240	10	22	831	18	144.3	37	148.1	186.6	205.1	239.1	77	37	18.5	242	8433 1703 95

In-Line tube nut tools

Dimensions

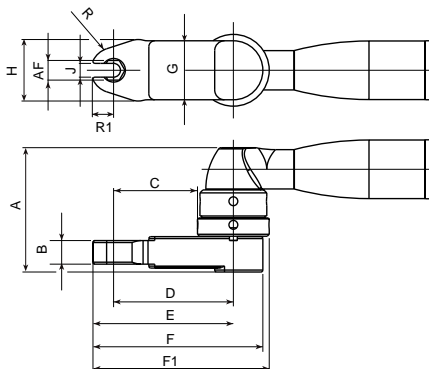


ETO DS

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R1 mm	R mm	Ordering No.
	Nm	ft lb		kg	lb														
ETO DS72																			
ETO DS72-15-10-LI3	6-15	4.4-11	898	1.8	4	479	10	32	12	11	27.9	26.1	68	33.5	32	8	10.3	14	8433 1703 10
ETO DS72-30-13-LI3	9.9-33	7.3-24	564	2.3	5.1	526	13	43	18	14	34.3	31.4	83	40	40	10.4	12.4	25	8433 1703 21
ETO DS72-50-17-LI3	18-55	13.2-41	370	3	6.6	620	17	46	12	20	60.3	38.8	126	45	59	16	20.1	32	8433 1703 35
ETO DS72-80-19-LI3	29-80	21-59	195	3.9	8.6	650	19	46	18	17	53.8	38.8	137	64	59	17	20.1	32	8433 1703 40

Offset tube nut tools

Dimensions



ETO DS

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R1 mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb															
ETO DS72																				
ETO DS72-28-13-LO3	7.5-28	5.5-21	800	2	4.4	469	13	65	11	12.8	36.8	51.8	74.3	48	50	10.4	15	31	75.8	8433 1703 75
ETO DS72-50-17-LO3	15-55	11-41	348	2.8	6.2	510	17	73.5	12	18	49.2	69.3	96.8	62.5	59	16	20.1	32	100.6	8433 1703 80
ETO DS72-80-22-LO3	22-80	16.2-59	229	3.1	6.8	536	22	79.9	18	18	49.2	69.3	96.8	62.5	59	17	20.1	32	100.6	8433 1703 85
ETO DS72-100-24-LO3	30-110	22-81	152	4.2	9.2	584	24	97.1	20	23.2	60	84.6	118.6	73.5	77	20.5	24.6	33	121.4	8433 1703 90

ETV ST

- ETV ST right angle tools are ideal for hand-held and fixtured applications.
- Torque range from 1 to 4000 Nm.
- Tensor ST complements the S range by:
 - Extremely high productivity.
 - More ergonomic benefits.
 - Better operator feedback.
- The ETV ST ATEX tools are certified to be used in environments with hazardous gases and liquids.



Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Height mm	Ordering No.
		Nm	ft lb		kg	lb				
ETV ST31										
ETV ST31-05-10	3/8	1-5	0.7-3.6	2390	1.0	2.2	381	11	39	8433 2011 21
ETV ST31-10-10	3/8	3-12	2.2-8.8	1020	1.0	2.2	381	11	39	8433 2013 66
ETV ST31-15-10	3/8	5-15	3.6-10	755	1.0	2.2	381	11	39	8433 2015 98
ETV ST31-20-10	3/8	5-22	3.7-16.1	545	1.2	2.6	415	14	42	8433 2017 10
ETV ST31 Ball Retainer										
ETV ST31-05-B10	3/8	1-5	0.7-3.6	2390	1.0	2.2	381	11	39	8433 2011 87
ETV ST31-10-B10	3/8	3-12	2.2-8.8	1020	1.0	2.2	381	11	39	8433 2014 12
ETV ST31-15-B10	3/8	5-15	3.6-10	755	1.0	2.2	381	11	39	8433 2016 36
ETV ST31-20-B10	3/8	5-22	3.7-16.1	545	1.2	2.6	415	14	42	8433 2018 23
ETV ST31 Female Hex										
ETV ST31-05-I06-QC	–	1-5	0.7-3.6	2390	1.0	2.2	381	11	39	8433 2011 95
ETV ST31-10-I06-QC	–	3-12	2.2-8.8	1020	1.0	2.2	381	11	39	8433 2014 21
ETV ST61										
ETV ST61-28-10	3/8	6-29	4-21	1450	1.3	2.9	440	14	42	8433 2021 76
ETV ST61-30-10	3/8	7-35	5-25	1090	1.3	2.9	440	15.5	42	8433 2023 92
ETV ST61-40-10	3/8	8-40	6-29	1090	1.5	3.3	454	18	47	8433 2027 85
ETV ST61-50-10	3/8	10-55	7-40	655	1.5	3.3	454	18	47	8433 2031 58
ETV ST61-70-13	1/2	15-80	10-58	475	2.0	4.5	466	20	58	8433 2035 30
ETV ST61-100-13	1/2	20-100	15-80	350	2.5	5.5	502	22.5	60	8433 2039 02
ETV ST61-150-13	1/2	30-160	22-117	227	3.0	6.6	536	25.5	65	8433 2042 70
ETV ST61-180-13	1/2	35-180	26-133	190	3.0	6.6	536	25.5	65	8433 2045 53
ETV ST61-200-20	3/4	40-200	30-154	185	3.0	6.6	537	27	70	8433 2046 39
ETV ST61 ATEX										
ETV ST61-28-10-ATEX	3/8	6-29	4-21	1450	1.3	2.9	440	14	42	8433 2023 76
ETV ST61-30-10-ATEX	3/8	7-35	5-25	1090	1.3	2.9	440	15.5	42	8433 2026 92
ETV ST61-40-10-ATEX	3/8	8-40	6-29	1090	1.5	3.3	454	18	47	8433 2030 85
ETV ST61-50-10-ATEX	3/8	10-55	7-40	655	1.5	3.3	454	18	47	8433 2034 98
ETV ST61-70-13-ATEX	1/2	15-80	10-58	475	2.0	4.5	466	20	58	8433 2037 90
ETV ST61-150-13-ATEX	1/2	30-160	22-117	230	3.0	6.6	536	25.5	65	8433 2045 20
ETV ST61-200-20-ATEX	3/4	40-200	30-154	185	3.0	6.6	537	27	70	8433 2048 49
ETV ST61 Ball Retainer										
ETV ST61-28-B10	3/8	6-29	4-21	1450	1.3	2.9	440	14	42	8433 2022 32
ETV ST61-30-B10	3/8	7-35	5-25	1090	1.3	2.9	440	15.5	42	8433 2025 09
ETV ST61-40-B10	3/8	8-40	6-29	1090	1.5	3.3	454	18	47	8433 2029 13
ETV ST61-50-B10	3/8	10-55	7-40	655	1.5	3.3	454	18	47	8433 2032 87
ETV ST61-70-B13	1/2	15-80	10-58	475	2.0	4.5	466	20	60	8433 2036 93
ETV ST61-100-B13	1/2	20-100	15-80	350	2.5	5.5	502	22.5	58	8433 2040 70
ETV ST61-150-B13	1/2	30-160	22-117	230	3.0	6.6	536	25.5	65	8433 2043 62
ETV ST61-180-B13	1/2	35-180	26-133	190	3.0	6.6	536	25.5	65	8433 2045 61

Continued...

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Height mm	Ordering No.
		Nm	ft lb		kg	lb				
ETV ST61 Flush Socket										
ETV ST61-30-FS	-	7-35	5-25	1090	1.3	2.9	440	16	32	8433 2025 50
ETV ST61-40-FS	-	8-40	6-29	1090	1.5	3.3	454	18	39	8433 2029 50
ETV ST61-50-FS	-	10-55	7-40	655	1.5	3.3	454	18	39	8433 2033 15
ETV ST61-70-FS	-	15-80	10-58	475	2.0	4.5	466	20	50	8433 2037 36
ETV ST61-100-FS	-	20-110	15-80	350	2.5	5.5	502	23	51	8433 2040 75
ETV ST61-150-FS	-	30-160	22-117	220	3.0	6.6	539	26	58	8433 2044 14
ETV ST61-180-FS	1/2	35-180	26-133	190	3.0	6.6	539	26	58	8433 2045 72
ETV ST61-200-FS	-	40-200	30-154	185	3.0	6.6	541	27	58	8433 2047 21
ETV ST61 Hold & Drive										
ETV ST61-28-HAD	-	6-29	4-21	1450	1.9	4.2	463	18.3	80	8433 2023 21
ETV ST61-30-HAD	-	7-35	5-25	1090	1.9	4.2	463	18.3	80	8433 2026 25
ETV ST61-40-HAD	-	8-40	6-29	1090	2.0	4.4	440	18.3	80	8433 2030 08
ETV ST61-50-HAD	-	10-55	7-40	655	2.0	4.4	440	18.3	80	8433 2033 92
ETV ST61-90-HAD-S	-	20-95	15-70	400	2.1	4.5	522	26	80	8433 2038 25
ETV ST61-120-HAD	-	30-130	22-100	350	2.6	5.5	540	26	80	8433 2041 53
ETV ST61-150-HAD	-	30-160	22-117	220	3.1	6.6	540	26	80	8433 2044 80
ETV ST61-180-HAD	-	35-180	26-133	190	3.1	6.6	540	26	80	8433 2045 80
ETV ST61-200-HAD	-	40-200	30-154	185	3.1	6.6	541	26	80	8433 2048 27
ETV ST61 with Barcode Scanner										
ETV ST61-28-10-BCR	3/8	6-29	4-21	1450	1.4	3.2	440	14	42	8433 2023 46
ETV ST61-28-B10-BCR	3/8	6-29	4-21	1450	1.4	3.2	440	14	42	8433 2023 55
ETV ST61-30-10-BCR	3/8	7-35	5-25	1090	1.4	3.2	440	15.5	42	8433 2026 66
ETV ST61-30-B10-BCR	3/8	7-35	5-25	1090	1.4	3.2	440	15.5	42	8433 2026 72
ETV ST61-50-10-BCR	3/8	10-55	7-40	655	1.6	3.6	454	18	47	8433 2034 67
ETV ST61-50-B10-BCR	3/8	10-55	7-40	655	1.6	3.6	454	18	47	8433 2034 75
ETV ST61-70-10-BCR	1/2	15-80	10-58	475	2.1	4.8	466	20	58	8433 2037 55
ETV ST61-70-B10-BCR	1/2	15-80	10-58	475	2.1	4.8	466	20	58	8433 2037 61
ETV ST81										
ETV ST81-50-10	3/8	16-55	12-40	1090	1.8	3.9	473	18	48	8433 2051 55
ETV ST81-70-13	1/2	20-80	15-58	790	2.3	5.0	485	20	58	8433 2053 48
ETV ST81-100-13	1/2	20-100	15-80	540	2.7	5.9	522	22.5	60	8433 2056 82
ETV ST81-150-13	1/2	30-160	22-117	380	3.2	7.0	555	26	65	8433 2060 12
ETV ST81-180-13	1/2	35-180	26-133	310	3.2	7.0	555	26	65	8433 2062 31
ETV ST81-200-20	3/4	40-200	30-154	300	3.2	7.0	556	27	70	8433 2063 42
ETV ST81 Ball Retainer										
ETV ST81-50-B10	3/8	16-55	12-40	1090	1.8	3.9	473	18	48	8433 2052 36
ETV ST81-70-B13	1/2	20-80	15-58	790	2.3	5.0	485	20	58	8433 2054 62
ETV ST81-100-B13	1/2	20-100	15-80	540	2.7	5.9	522	22.5	60	8433 2058 24
ETV ST81-150-B13	1/2	30-160	22-117	380	3.3	7.0	555	25.5	65	8433 2060 97
ETV ST81-180-B13	1/2	35-180	26-133	310	3.2	7.0	555	25.5	65	8433 2062 43
ETV ST81 Flush Socket										
ETV ST81-100-FS	-	20-100	15-80	540	2.7	5.9	522	23	51	8433 2058 68
ETV ST81-180-FS	-	35-180	26-133	310	3.2	7.0	555	26	58	8433 2062 50
ETV ST81-200-FS	-	40-200	30-154	300	3.2	7.0	557	28	58	8433 2064 59
ETV ST81 Hold & Drive										
ETV ST81-50-HAD	-	16-55	12-40	1090	2.3	5.0	473	18.5	80	8433 2052 80
ETV ST81-90-HAD	-	20-95	15-70	665	2.4	5.1	540	26	80	8433 2056 03
ETV ST81-120-HAD	-	30-130	22-100	540	2.8	6.0	560	26	80	8433 2058 65
ETV ST81-150-HAD	-	30-160	22-117	365	3.3	7.0	560	26	80	8433 2061 81
ETV ST81-180-HAD	-	35-180	26-133	310	3.3	7.0	560	26	80	8433 2062 60
ETV ST81-200-HAD	-	40-200	30-154	300	3.3	7.0	561	28	81	8433 2065 09
ETV ST81 Extended										
ETV ST81-100-13-L150	1/2	20-110	15-80	540	2.7	5.9	672	22.5	60	8433 2059 36
ETV ST81-200-20-L150	3/4	40-200	30-154	300	3.2	7.0	708	27	70	8433 2065 29

Continued....

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Height mm	Ordering No.
		Nm	ft lb		kg	lb				
ETV ST101										
ETV ST101-100-13	1/2	20-100	15-74	920	4.2	9.3	572	22.5	44	8433 2080 10
ETV ST101-180-13	1/2	50-180	37-133	575	4.2	9.3	600	25.3	47	8433 2080 52
ETV ST101-200-20	3/4	50-200	37-147	485	4.4	9.7	602	27.5	47	8433 2080 92
ETV ST101-270-20	3/4	65-270	48-199	380	7.3	16.1	672	32.9	62	8433 2081 23
ETV ST101-370-20	3/4	90-370	66-273	280	7.3	16.1	672	32.9	62	8433 2082 26
ETV ST101-450-20	3/4	110-450	81-332	230	10.6	23.4	715	54.0	76	8433 2082 81
ETV ST101-600-25	1	150-600	111-443	151	10.6	23.4	715	54.0	76	8433 2083 56
ETV ST101 Fan										
ETV ST101-100-13-F	1/2	20-100	15-74	920	4.2	9.3	572	23	44	8433 2080 30
ETV ST101-180-13-F	1/2	50-180	37-133	575	4.2	9.3	600	25	47	8433 2080 63
ETV ST101-200-20-F	3/4	50-200	37-147	485	4.4	9.7	602	28	47	8433 2080 93
ETV ST101-270-20-F	3/4	65-270	48-199	380	7.3	16.1	672	33	62	8433 2081 45
ETV ST101-370-20-F	3/4	90-370	66-273	280	7.3	16.1	672	33	62	8433 2082 48
ETV ST101-450-20-F	3/4	110-450	81-332	230	10.6	23.4	715	54	76	8433 2082 90
ETV ST101-600-25-F	1	150-600	111-443	150	10.6	23.4	715	54	76	8433 2083 69
ETV ST101 Torque Multiplier										
ETV ST101-600-TM	3/4	150-600	111-443	132	7.6	16.8	613	34	143	8433 2083 62
ETV ST101-1000-TM	1	250-1000	184-734	77	11.3	24.3	679	40	191	8433 2084 05
ETV ST101-1500-25-TM	1	325-1500	240-1100	23	12	26	625	43	257	8433 2084 65
ETV ST101-1500-38-TM	1 1/2	325-1500	240-1100	48	19	42	719	71	233	8433 2084 70
ETV ST101-2000-38-TM	1 1/2	500-2000	370-1475	35	19	42	719	71	231	8433 2084 80
ETV ST101-4000-38-TM	1 1/2	1131-4000	834-2950	21.8	21.5	47	710	71	350	8433 2084 90
ETV ST101 Torque Multiplier/Fan										
ETV ST101-600-TM-F	3/4	150-600	111-443	132	7.6	16.8	613	34	143	8433 2083 96
ETV ST101-1000-TM-F	1	250-1000	184-734	77	11.3	24.3	679	40	191	8433 2084 10

ETD ST

- ETD ST inline tools.
- Torque range from 1 to 4000 Nm.
- Tensor ST complements the S range by ensuring extremely high levels of productivity and better operator feedback.



ETD ST

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Splines/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETD ST31										
ETD ST31-05-10	3/8	1-5	1.1-3.6	2825	0.9	2.0	388	24	- / 1	8433 2112 42
ETD ST31-10-10	3/8	2-10	2.2-7.2	1200	1.1	2.4	388	24	- / 1	8433 2114 86
ETD ST31 Telescopic										
ETD ST31-05-10-T25	3/8	1-5	1.1-3.6	2825	0.9	2.0	437	24	- / 13	8433 2111 34
ETD ST31-10-10-T25	3/8	2-10	2.2-7.2	1200	1.1	2.4	437	24	- / 13	8433 2113 79
ETD ST31 Ball Retainer Telescopic										
ETD ST31-05-B10-T25	3/8	1-5	1.1-3.6	2825	1.1	2.4	437	24	- / 13	8433 2113 44
ETD ST31 Female Hex										
ETD ST31-05-I06	1/4	1-5	1.1-3.6	2825	0.9	2.0	350	24	- / 14	8433 2112 87
ETD ST61										
ETD ST61-15-10	3/8	4-16	3-12	2250	1.4	3.1	438	24	- / 1	8433 2120 91
ETD ST61-20-10	3/8	5-22	3.6-16	1700	1.4	3.1	438	24	- / 1	8433 2122 62
ETD ST61-30-10	3/8	6-35	4.4-25	1020	1.4	3.1	429	24	- / 1	8433 2125 06
ETD ST61-50-13	1/2	10-55	7.3-40	740	1.9	4.2	474	24	2 / 2	8433 2128 79
ETD ST61-70-13	1/2	15-80	12-58	505	2.3	5.0	491	26.5	2 / 2	8433 2132 51
ETD ST61-90-13	1/2	20-95	15-70	410	2.3	5.0	491	26.5	2 / 2	8433 2136 22
ETD ST61 Telescopic										
ETD ST61-15-10-T25	3/8	4-16	3-12	2250	1.5	3.3	477	24	2 / 2	8433 2120 43
ETD ST61-20-10-T25	3/8	5-20	3.6-15	1700	1.5	3.3	477	24	2 / 2	8433 2121 55
ETD ST61-30-10-T25	3/8	6-35	4.4-25	1020	1.5	3.3	468	24	2 / 2	8433 2123 80
ETD ST61-50-13-T25	1/2	10-55	7.3-40	740	2.1	4.6	501	24	3 / 5	8433 2127 54
ETD ST61-70-13-T25	1/2	15-80	12-58	505	2.4	5.4	518	26.5	3 / 5	8433 2131 27
ETD ST61-90-13-T25	1/2	20-95	15-70	410	2.4	5.4	518	26.5	3 / 5	8433 2134 99
ETD ST61-120-13-T25	1/2	25-125	19-95	305	2.4	5.4	518	26.5	3 / 5	8433 2138 68
ETD ST61 Female Hex										
ETD ST61-15-I06	1/4	4-16	3-12	2250	1.4	3.1	430	24	- / 1	8433 2121 36
ETD ST81										
ETD ST81-30-10	1/2	10-30	7-22	1700	1.8	4.0	450	24	- / 1	8433 2151 93
ETD ST81-50-13	1/2	16-50	12-37	1230	2.1	4.6	493	24	2 / 2	8433 2153 34
ETD ST81-70-13	1/2	15-70	12-51	880	2.5	5.5	510	26.5	2 / 2	8433 2156 03
ETD ST81-90-13	1/2	20-95	15-70	675	2.5	5.5	510	26.5	2 / 2	8433 2158 14
ETD ST81-120-13	1/2	25-125	19-91	505	2.5	5.5	510	26.5	2 / 2	8433 2160 25
ETD ST81 Telescopic										
ETD ST81-30-10-T25	3/8	10-30	7-22	1700	1.9	4.2	488	24	2 / 2	8433 2151 21
ETD ST81-50-13-T25	1/2	16-50	12-37	1230	2.3	5.0	520	24	3 / 5	8433 2152 72
ETD ST81-70-13-T25	1/2	15-70	12-51	880	2.6	5.8	538	26.5	3 / 5	8433 2154 98
ETD ST81-90-13-T25	1/2	20-95	15-70	675	2.6	5.8	538	26.5	3 / 5	8433 2157 25
ETD ST81-120-13-T25	1/2	25-125	19-91	505	2.6	5.8	538	26.5	3 / 5	8433 2159 53

Continued...

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETD ST101										
ETD ST101-100-13	1/2	25-100	18-73	1043	3.8	8.4	631	30.5	-	8433 2179 00
ETD ST101-120-13	1/2	30-120	22-88	875	3.8	8.4	631	30.5	-	8433 2180 22
ETD ST101-150-20	3/4	30-150	22-109	685	7.5	16.5	706	33	-	8433 2181 36
ETD ST101-200-20	3/4	50-200	36-146	500	7.5	16.5	706	33	-	8433 2182 05
ETD ST101-300-20	3/4	70-300	51-221	345	7.5	16.5	706	33	-	8433 2182 70
ETD ST101-500-20	3/4	120-500	88-368	204	8.3	18.5	717	33	-	8433 2183 28
ETD ST101-750-25	1	150-750	109-553	143	9.1	20.3	681	45	-	8433 2184 40
ETD ST101-1000-25	1	250-1000	184-737	100	9.7	21.6	708	45	-	8433 2185 60
ETD ST101-1200-25-S	1	300-1200	220-885	81	12	26	787	47	7	8433 2196 10
ETD ST101 Fan										
ETD ST101-100-13-F	1/2	25-100	18-73	1043	3.8	8.4	631	30.5	-	8433 2179 05
ETD ST101-120-13-F	1/2	30-120	22-88	875	3.8	8.4	631	30.5	-	8433 2180 28
ETD ST101-150-20-F	3/4	30-150	22-109	685	7.5	16.5	706	33	-	8433 2181 40
ETD ST101-200-20-F	3/4	50-200	36-146	500	7.5	16.5	706	33	-	8433 2182 10
ETD ST101-300-20-F	3/4	70-300	51-221	345	7.5	16.5	706	33	-	8433 2182 72
ETD ST101-500-20-F	3/4	120-500	88-368	204	8.3	18.5	717	33	-	8433 2183 30
ETD ST101-750-25-F	1	150-750	109-553	143	9.1	20.3	681	45	-	8433 2184 50
ETD ST101-1000-25-F	1	250-1000	184-737	100	9.7	21.6	708	45	-	8433 2185 70
ETD ST101-1200-25-F	1	300-1200	220-885	81	12	26	787	47	-	8433 2186 10
ETD ST101-2000-38-F	1 1/2	500-2000	370-1475	48	17	37	742	68	-	8433 2187 22
ETD ST101-2000-38-S-F	1 1/2	500-2000	370-1475	48	17	37	742	68	8	8433 2197 22
ETD ST101-4000-38-F	1 1/2	1000-4000	735-2950	25	22	48	823	68	-	8433 2187 40
ETD ST101-4000-38-S-F	1 1/2	1000-4000	735-2950	25	22	48	823	68	8	8433 2197 40
ETD ST101 Telescopic										
ETD ST101-100-13-T25	1/2	25-100	18-73	1043	3.9	8.6	656	30.5	-	8433 2179 10
ETD ST101-120-13-T25	1/2	30-120	22-88	873	3.9	8.6	656	30.5	-	8433 2180 32
ETD ST101-150-20-T40	3/4	30-150	22-109	685	7.6	16.8	656	30.5	-	8433 2181 46
ETD ST101-200-20-T40	3/4	50-200	36-146	500	7.6	16.8	756	33	-	8433 2182 23
ETD ST101-300-20-T40	3/4	70-300	51-221	345	7.6	16.8	756	33	-	8433 2182 82
ETD ST101-500-20-T40	3/4	120-500	88-368	204	8.4	18.5	768	37	-	8433 2183 38
ETD ST101-750-25-T50	1	150-750	109-553	143	9.2	20.3	727	45	-	8433 2184 56
ETD ST101-1000-25-T50	1	250-1000	184-737	100	9.8	21.6	754	45	-	8433 2185 78
ETD ST101 Telescopic Fan										
ETD ST101-100-13-T25-F	1/2	25-100	18-73	1043	3.9	8.6	656	30.5	-	8433 2179 15
ETD ST101-120-13-T25-F	1/2	30-120	22-88	873	3.9	8.6	656	30.5	-	8433 2180 48
ETD ST101-150-20-T40-F	3/4	30-150	22-109	685	7.6	16.8	656	30.5	-	8433 2181 59
ETD ST101-200-20-T40-F	3/4	50-200	36-146	500	7.6	16.8	756	33	-	8433 2182 45
ETD ST101-300-20-T40-F	3/4	70-300	51-221	345	7.6	16.8	756	33	-	8433 2182 91
ETD ST101-500-20-T40-F	3/4	120-500	88-368	204	8.4	18.5	769	37	-	8433 2183 49
ETD ST101-750-25-T50-F	1	150-750	109-553	143	9.2	20.3	769	45	-	8433 2184 69
ETD ST101-1000-25-T50-F	1	250-1000	184-737	100	9.8	21.6	755	45	-	8433 2185 89
ETD ST101-1200-25-T50-F	1	300-1200	220-885	81	12	26	844	47	-	8433 2186 12
ETD ST101-1200-25-T50-S-F	1	300-1200	220-885	81	12	26	844	47	7	8433 2196 12
ETD ST101-2000-38-T50-F	1 1/2	500-2000	370-1475	48	17	37	840	68	-	8433 2187 20
ETD ST101-2000-38-T50-S-F	1 1/2	500-2000	370-1475	48	17	37	840	68	8	8433 2197 20
ETD ST101-4000-38-T50-F	1 1/2	1000-4000	735-2950	25	22	48	921	68	-	8433 2187 42
ETD ST101-4000-38-T50-S-F	1 1/2	1000-4000	735-2950	25	22	48	921	68	8	8433 2197 42

ETP ST

- ETP ST is a pistol grip model for hand-held applications.
- Torque range from 1 to 20 Nm.
- Female hex drive for bits.
- Low weight and ergonomic grip.
- Easy to access, reverse button.
- Operator friendly, feedback signals with sound and lights.



ETP ST

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	Height mm	Ordering No.
		Nm	ft lb		kg	lb			
ETP ST32									
ETP ST32-05-10	3/8	1-5	0.7-3.6	2820	0.75	1.7	197	179	8433 2211 03
ETP ST32-05-106	1/4	1-5	0.7-3.6	2820	0.75	1.7	197	179	8433 2212 19
ETP ST32-10-10	3/8	3-11	2.2-8.0	1210	0.8	1.8	197	179	8433 2213 48
ETP ST32-10-106	1/4	3-11	2.2-8.0	1210	0.8	1.8	197	179	8433 2214 63
ETP ST32-20-10	3/8	5-20	3.6-15.0	677	0.91	2	235	179	8433 2216 95
ETP ST32-20-106	1/4	5-20	3.6-15.0	677	0.91	2	235	179	8433 2217 11
ETP ST32 with Barcode Scanner									
ETP ST32-05-10BCR	3/8	1-5	0.7-3.6	2820	0.87	2	197	205	8433 2211 13
ETP ST32-05-106BCR	1/4	1-5	0.7-3.7	2820	0.87	2	197	205	8433 2212 29
ETP ST32-10-10BCR	3/8	3-11	2.2-8.0	1210	0.92	2.1	197	205	8433 2213 58
ETP ST32-10-106BCR	1/4	3-11	2.2-8.0	1210	0.92	2.1	197	205	8433 2214 73
ETP ST32-20-10BCR	3/8	5-20	3.6-15.0	677	1.03	2.3	237	205	8433 2217 05
ETP ST32-20-106BCR	1/4	5-20	3.6-15.0	677	1.03	2.3	237	205	8433 2217 26

Tensor ST Rev0

Pistol Grip Models

ST Rev0

- Unique and patented 360° swivel with transducer.
- Ultra-compact size improves access.
- Reduced weight means less need for fixtures.
- Display on tool gives direct feedback of tightening result.
- Program selection is made directly on tool.
- Ideal for handheld application or fixtures with reduced space.
- Torque range from 60-4000 Nm.



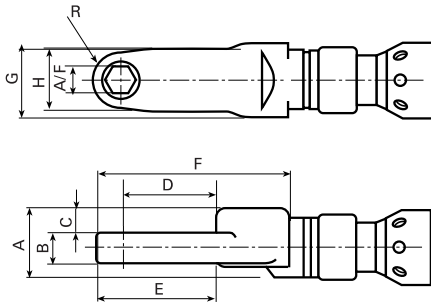
ETP ST Rev0

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Splines	Ordering No.
		Nm	ft lb		kg	lb				
Model with fan										
ETP ST101-200-20-F	3/4	60-200	45-145	396	5.2	11.5	303	32.5	3	8433 2302 02
ETP ST101-500-20-F	3/4	150-500	110-365	186	5.9	13	334	33.5	4	8433 2305 02
ETP ST101-750-25-F	1	220-750	160-550	132	6.2	13.7	353	33.5	5	8433 2307 52
ETP ST101-1000-25-F	1	300-1000	220-735	99	6.4	14.1	364	33.5	5	8433 2310 02
ETP ST101-1500-25-F	1	450-1500	332-1106	47	8.8	19.4	402	43.5	9	8433 2321 52
ETP ST101-2000-38-F	1 1/2	600-2000	442-1475	38	11.5	25.4	454	48	7	8433 2322 02
ETP ST101-3000-38-F	1 1/2	900-3000	664-2212	24	14.8	33	476	59	8	8433 2323 02
ETP ST101-4000-38-F	1 1/2	1200-4000	885-2950	20	15	33	481	59	8	8433 2324 02

Reaction bar not included for ETP ST101. See accessory pages.

In-Line crowfoot tools

Dimensions

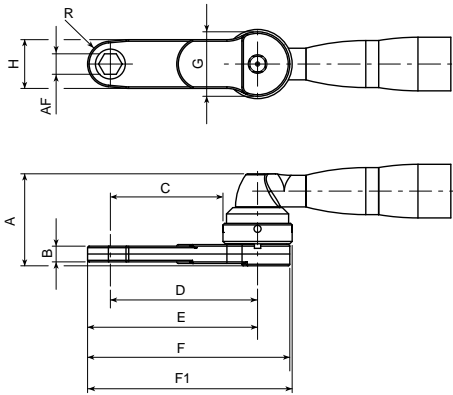


ETC ST

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
ETC ST61																	
ETC ST61-18-10-LI3	5-18	4-13	1429	1.9	4.2	523	10	34	15	12.5	36.7	59.2	82.2	35	22	10	8433 2311 11
ETC ST61-20-12-LI3	6-23	4-17	1189	1.8	4	542	12	34	10	15	51.9	54.3	102	35	31	14.5	8433 2311 17
ETC ST61-28-12-LI3	6-28	4-20	767	1.9	4.2	526	12	34	15	12.5	45.5	71	94	35	30	13	8433 2311 14
ETC ST61-90-21-LI3	20-90	14-66	316	4.1	9	684	21	46	20	16	74.5	44	158.8	64	40	20	8433 2311 44
ETC ST61-120-18-LI3	30-136	22-100	217	4.3	9.5	684	18	46	32	11.5	74.8	146.5	157.8	64	38	19	8433 2311 38
ETC ST61-100-19-LI3	26-110	19-81	250	4.2	9.2	678	19	46	28	13.5	69.6	74.9	151.6	64	36	18	8433 2311 35
ETC ST61-100-20-LI3	23-105	17-77	256	4.2	9.2	695	20	46	20	17.5	82.5	49.6	169	64	45	22.5	8433 2311 50
ETC ST61-150-22-LI3	33-150	24-110	197	4.4	9.7	688	22	48	33	14	77.5	84	161.5	64	40	20	8433 2311 47

Offset crowfoot tools

Dimensions

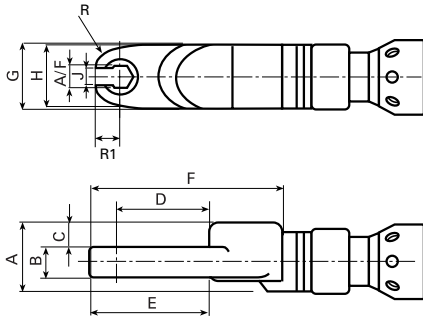


ETC ST

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb													
ETC ST61																		
ETC ST61-18-10-LO3	4-18	3-13	1450	1.5	3.3	469	10	60.3	15	14.55	32.8	42.8	57.8	36.5	22	10	61.1	8433 2310 09
ETC ST61-28-12-LO5	5-28	4-20	1090	2	4.4	533	12	69.5	15	62	84	97	117.5	44	30	13	119	8433 2310 12
ETC ST61-20-13-LO5	5-23	4-17	1090	1.7	3.7	534	13	57.5	10	71.6	93.6	108.1	128.6	44	31	14.5	130.1	8433 2310 15
ETC ST61-40-14-LO3	8-44	6-32	655	2	4.4	497	14	69.5	18	24.8	46.8	61.3	81.8	44	31	14.5	83.3	8433 2310 18
ETC ST61-40-3/8-LO3	8-40	6-29	655	2.1	4.6	486	3/8	90.3	36	18.2	40.2	50.5	71	44	29	10.3	72.5	8433 2310 24
ETC ST61-50-16-LO3	12-64	9-47	475	2.5	5.5	512	16	77.8	24	27	51	66	88.5	48	30	15	90	8433 2310 27
ETC ST61-80-17-LO3	16-80	12-59	350	3.1	6.8	534	17	81	27	31.8	55.8	72.3	94.8	48	33	16.5	96.3	8433 2310 30
ETC ST61-90-21-LO5	24-90	17-66	227	4.2	9.2	664	21	89.4	20	100.8	132	152	178	62.5	40	20	183.3	8433 2310 45
ETC ST61-100-19-LO5	21-110	15-81	227	4.4	9.7	653	19	96.9	28	91.2	122.4	140.4	166.4	62.5	36	18	171.7	8433 2310 36
ETC ST61-140-18-LO3	28-140	20-103	190	4	8.8	595	18	96.9	32	32	63.2	82.2	108.2	62.5	38	19	113.5	8433 2310 39
ETC ST61-150-21-LO3	32-150	23-110	185	4	8.8	596	21	99.7	33	34.8	66	86	112	62.5	40	20	117.3	8433 2310 48
ETC ST101																		
ETC ST101-200-21-LO3	52-215	38-158	380	9.3	20.5	731	21	148.8	40	32.75	70.4	91.4	125.4	75.3	42	21	128.2	8433 2310 51
ETC ST101-200-22-LO3	52-200	38-147	380	9.3	20.5	738	22	139.8	37	38.55	76.2	98.7	132.7	75.3	45	22.5	135.5	8433 2310 57

In-Line tube nut tools

Dimensions

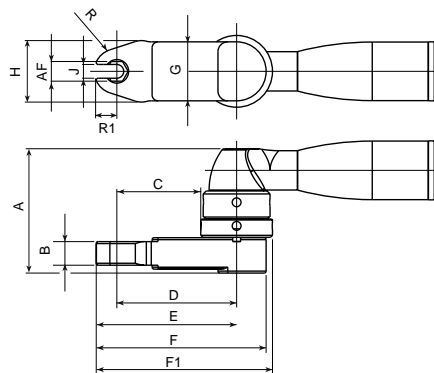


ETO ST

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R mm	R1 mm	Ordering No.
	Nm	ft lb		kg	lb														
ETO ST61																			
ETO ST61-8-8-LI3	3-8.5	2.2-6.2	2250	1.7	3.7	499	8	32	11	12.25	22.7	21.6	60	33.5	29	6	7.8	10	8433 2311 53
ETO ST61-12-8-LI3	4-12	3-9	1705	1.7	3.7	505	8	32	10	13	27.3	25.4	66.6	33.5	31	7	9.8	11.5	8433 2311 56
ETO ST61-15-8-LI3	4-14	3-10	1705	1.8	4	505	8	32	12	11	27.3	25.4	66.6	33.5	31	7	9.8	11.5	8433 2311 59
ETO ST61-15-10-LI3	4-15	3-11	1630	1.8	4	506	10	32	12	11	27.9	26.1	67.8	33.5	32	8	10.3	14	8433 2311 62
ETO ST61-18-10-LI3	5-18	3.6-13	1278	1.8	4	522	10	34	11	14.5	34.1	31.1	81.5	35	38	8	11.9	15	8433 2311 68
ETO ST61-20-10-LI3	5-20	3.7-14.7	1278	1.9	4.2	519	10	34	14	13	31.9	29.7	78.6	35	38	8	11.2	14	8433 2311 64
ETO ST61-28-12-LI3	6-28	4.4-20.6	767	2.3	5.1	558	12	43	11	17.5	43.7	29.3	96.5	40	50	10.4	15	31	8433 2311 77
ETO ST61-30-12-LI3	6-33	4.4-24.3	772	2.3	5.1	544	12	43	18	14	34.3	31.4	83	40	40	10.4	12.4	25	8433 2311 74
ETO ST61-35-16-LI3	6-35	4.4-25.8	761	2.5	5.5	578	16	46	11	20.8	52	47.3	113.7	45	55	12.5	17.2	32	8433 2311 83
ETO ST61-50-19-LI3	15-60	11-44	371	3.6	7.9	638	19	46	18	17	49.3	44.6	111	45	59	14	17.2	32	8433 2311 86
ETO ST61-80-19-LI3	21-80	15-59	267	4.1	9	662	19	46	18	17	53.8	38.8	137.2	64	59	17	20.1	32	8433 2311 92
ETO ST61-100-21-LI3	21-100	15.5-73.7	267	4.4	9.7	674	21	46	20	16	64.4	56.5	148.9	64	76	18	22.3	32	8433 2311 95
ETO ST81																			
ETO ST81-100-24-LI3	39-110	28-81	240	4.6	10.1	706	24	46	20	16	71.3	50.6	160.4	64	77	20.5	24.6	33	8433 2311 98

Offset tube nut tools

Dimensions



ETO ST

Model	Torque range		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R1 mm	R mm	F1 mm	Ordering No.
	Nm	ft lb		kg	lb															
ETO ST31																				
ETO ST31-12-10-LO3	4-14	1.5-10.3	545	1.4	3.1	437	10	63.3	12	6.9	25.1	34.9	49.9	36.5	31	7	9.8	11.5	53.2	8433 2310 63
ETO ST31-12-10-LO5	3-12	2.2-8.8	545	1.5	3.3	473	10	61.8	10	42.7	60.9	70.7	85.7	36.5	31	7	9.8	11.5	89	8433 2310 66
ETO ST61																				
ETO ST61-18-12-LO5	4-18	3-13.2	1450	1.8	4	511	12	62	11	51	73	84.9	105.4	44	38	8	11.9	15	106.9	8433 2310 75
ETO ST61-18-12-LO3	5-18	3.7-13.2	1090	1.6	3.5	470	12	64	11	9.4	31.4	43.8	64.3	44	38	8.5	12.4	16	65.8	8433 2310 78
ETO ST61-20-12-LO3	5-20	3.7-14.7	1450	1.6	3.5	466	12	64	14	7	29	40.2	60.7	44	38	8	11.2	14	62.2	8433 2310 72
ETO ST61-28-13-LO3	6-28	4.4-20.6	1090	1.9	4.2	488	13	65	11	12.8	36.8	51.8	74.3	48	50	10.4	15	31	75.8	8433 2310 84
ETO ST61-33-13-LO5	7-33	5.2-24.3	655	2.1	4.6	524	13	72.5	18	53.3	75.3	87.7	108.2	44	40	10.4	12.4	25	109.7	8433 2310 81
ETO ST61-50-17-LO5	10-50	7.3-37	475	2.8	6.2	552	17	80	18	66.8	90.8	105.8	128.3	48	50	12	15	31	129.8	8433 2310 87
ETO ST61-55-21-LO3	11-55	8.1-40.5	475	2.7	5.9	515	21	73.8	12	18	49.2	69.3	96.8	62.5	59	16	20.1	32	100.6	8433 2310 93
ETO ST61-100-21-LO3	23-100	17-74	227	4.4	9.7	588	21	97.8	20	20.6	54.6	76.9	110.9	75.3	76	18	22.3	32	114.6	8433 2310 99
ETO ST61-100-27-LO3	23-100	17-74	227	4.5	9.9	597	27	95.8	20	23.2	60	84.6	118.6	73.5	77	20.5	24.6	33	121.4	8433 2311 02

ETV SR

- SR Angle tools are extremely fast, compact and easy to operate.
- ESD certified.
- Easy to configure the function button.
- Front LED's give better operator feedback.
- Torque range from 2.5 to 25 Nm.



ETV SR

Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
	Nm	ft lb		kg	lb				
ETV SR21-12-10	2.5-12	1.9-8.9	1350	1.1	2.4	297	14	-	8436 4120 12
ETV SR21-25-10	5-25	3.7-18.5	1000	1.2	2.6	297	14	-	8436 4120 25

Straight Models

Tensor SR

ETD SR

- SR Straight tools are ideal for hand-held applications and fixtured applications.
- Torque range from 1.4 to 16 Nm.
- Front light guide is integrated.
- Push-to-start mechanism.



ETD SR

Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
	Nm	ft lb		kg	lb				
ETD SR21-07-I06-PS	1.5-7	1.0-5.2	2090	0.9	1.9	259	24	-	8436 4220 07
ETD SR21-16-I06-PS	3.5-16	2.6-11.8	1460	1.0	2.2	276	24	-	8436 4220 16

ETP STR

- The STR61 is available in two models, Standard tool and Cable on Top tool.
- New D-grip handle gives more robustness, safety and less heat transfer.
- Speed increased by up to 45% compared to Tensor S range.
- Weight reduced by up to 45% compared to Tensor S pistol grip range.
- Torque range from 5 to 125 Nm.
- Easy to mount tool accessories such as scanner and parameter selector.
- Optional operation handle is available.



Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
	Nm	ft lb		kg	lb			
ETP STR61-20-10	5-22	3.7-16.2	2100	2.87	1.3	244	24	8436 6360 20
ETP STR61-30-10	6-32	4.4-23.5	1530	2.87	1.3	244	24	8436 6360 30
ETP STR61-50-13	10-55	7.4-40.6	820	3.75	1.7	282	24	8436 6360 50
ETP STR61-70-13	14-80	10.3-59	560	4.41	2.0	298	26.5	8436 6360 70
ETP STR61-90-13	20-95	14.7-70.4	450	4.41	2.0	298	26.5	8436 6360 90
ETP STR61-120-13	24-125	17.7-89.4	380	4.41	2.0	298	26.5	8436 6360 12
COT-version								
ETP STR61-20-10 COT	5-22	3.7-16.2	2100	3.75	1.7	296	24	8436 6368 20
ETP STR61-30-10 COT	6-32	4.4-23.5	1530	3.75	1.7	296	24	8436 6368 30
ETP STR61-50-13 COT	10-55	7.4-40.6	820	4.63	2.1	334	24	8436 6368 50
ETP STR61-70-13 COT	14-80	10.3-59	560	5.29	2.4	350	26.5	8436 6368 70
ETP STR61-90-13 COT	20-95	14.7-70.4	450	5.29	2.4	350	26.5	8436 6368 90
ETP STR61-120-13 COT	24-125	17.7-89.4	380	5.29	2.4	350	26.5	8436 6368 12

For reaction bars and mounting brackets, see accessory pages.

Optional Accessories

Tensor ST/SR/STR

Model	Ordering No.
Tool cable	
2 m	4220 2636 02
3 m	4220 2636 03
5 m	4220 2636 05
7 m	4220 2636 07
10 m	4220 2636 10
15 m	4220 2636 15
Cables with 90 degrees connector	
2 m	4220 3891 02
3 m	4220 3891 03
5 m	4220 3891 05
7 m	4220 3891 07
10 m	4220 3891 10
15 m	4221 3891 15
Spiral cable (length/stretched length)	
3 m / 4 m	4220 2757 03
7 m / 8 m	4220 2757 07
10 m / 12 m	4220 2757 10
Cable protection	
	4220 2977 90
Extension cable	
5 m	4220 1007 05
10 m	4220 1007 10
15 m	4220 1007 15
Extension cables for fixtured applications	
5 m	4220 1563 05
10 m	4220 1563 10
15 m	4220 1563 15



ST/SR/STR Cable



ST/SR/STR Cable protection



ST/SR/STR Spiral cable



ST/SR/STR Cable with 90 degrees connector

Tensor DS

Model	Ordering No.
Tool cable	
2 m	4220 4380 02
3 m	4220 4380 03
5 m	4220 4380 05
7 m	4220 4380 07
10 m	4220 4380 10
15 m	4220 4380 15
Extension cable	
5 m	4220 2047 05
10 m	4220 2047 10
15 m	4220 2047 15



DS Tool cable

Tensor ES

Model	Ordering No.
Round cables for ES21	
2 m	4220 4204 02
3 m	4220 4204 03
5 m	4220 4204 05
7 m	4220 4204 07
10 m	4220 4204 10
15 m	4220 4204 15
Flat cables for ES61	
3 m	4220 4339 03
5 m	4220 4339 05
7 m	4220 4339 07
10 m	4220 4339 10
15 m	4220 4339 15
Extension cables for all cables	
3 m	4220 4393 03
5 m	4220 4393 05
10 m	4220 4393 10
15 m	4220 4393 15
25 m	4220 4393 25
Suspension yoke cable for ES21	
Suspension yoke cable	4210 1810 00

Optional Accessories

Tool extensions

Model	Length	Ordering No.
ETV ES61-70/100	150	4220 1132 80
ETD/ETV DS4, ETV ES61-25/30/40/50	150	4220 1131 80
ETD DS7 20-30	150	4220 1131 80
ETV DS7 30-50	150	4220 1131 80
ETD/ETV DS4	100	4220 1131 86
ETD/ETV DS7 50-200	150	4220 1714 80
ETD/ETV DS9 270-370, ST101 270-1000	150	4220 1585 80
ETD DS9 450-600, ST101 600	150	4220 1585 85
ETV ST31 15-20	150	4220 2903 80
ETV ST61 20-30	150	4220 2903 96
ETV ST61 40-50	150	4220 2903 95
ETV ST61 70	150	4220 2903 97
ETV ST61 100-200	150	4220 2903 91



Tool extension

Supported extensions (~154 mm)

Tensor ST/SR	Tensor DS	Tensor ES	Ordering No.
SR21, ETV ST31 20, ST61 28-30	ETV DS2/DS7 20-30	ETV ES61-25/ 30	4220 3869 90 4220 3868 90
ETV ST61/ST81 40-50	ETV DS7/DS9 40-50	ETV ES61-40/50	4220 2209 91
ETV ST61/ST81 70	ETV DS7/DS9 70	ETV ES61-70	4220 2596 91
ETV ST61/81/101 150-180			4220 4125 90
ETV ST61 200			4220 4125 82
ETV ST81/101 200		ETV ES61-100	4220 4125 91



Supported extensions

Reaction plate for fixturing

Model	Ordering No.
ETV ES61-40/50	4220 1677 92
ETV ES61-70/100	4220 4722 80
ETV ST61 30, ETV ST61/81 200	4220 1677 91
ETV ST61 40-50	4220 1677 93
ETV ST61/81 70	4220 1677 95
ETV ST61/81 100	4220 1678 97
ETV ST61/81 150-180	4220 1678 90
ETV ST10 180	4220 1677 99
ETV ST10 200-600	Included
ETP ST32 20 106BCR	4220 3491 00



Reaction plate

Covers for standard sockets

Model	Ordering No
ETD ES61-18/ 25/ 30	4220 3251 02
ETD ES61-50	4220 3251 03
ETV ST61 28, ETV ES61-25	4220 3154 03
ETV ST61 30, ETV ES61-30	4220 3154 04
ETV ST 100, ETV ES61-100	4220 3154 05
ETV ST 150-180	4220 3154 06
ETV ST 40-50, ETV ES61-40/50	4220 1995 05
ETV ST 70, ETV ES61-70	4220 1993 03
ETV ST 61/81/101 200, DS7 200	4220 3154 07
ETV DS9/ST101 270-370	4220 3154 08
ETD DS7 50-120, ETV ST61/81 50-120	4220 3251 00
ETD DS7 20/30/120, ETV ST61 15/20/30	4220 3251 02
ETV ST31 20, SR21	4220 3154 03



Cover for standard sockets

Optional Accessories

Lever Tensor DS / ST / SR

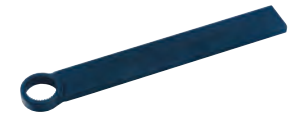
Model	Ordering No.
Lever, DS	4220 1642 80
Lever, ST	4220 3511 81
Spoon lever, SR21	4220 4338 83
Extended lever, DS	4220 1642 85
Extended lever, ST	4220 3511 85
Lock-off lever, DS	4220 2356 80
Lock-off lever, ST	4220 3511 83



Lock-off lever

Reaction bars and mounting brackets

Number	Spline type	Type	L / W / H	Ordering No.
1	–	Bracket	100/60/8	4220 1029 00
2	Spline type 2	Bracket	70/41/14	4210 2134 02
3	–	Triangular	73/72/14	4220 2137 02
4	–	Bar	270/35/14	4220 1903 00
5	Spline type 3	Bracket	100/50/12	4210 2219 03
6	–	Triangular	82/80/12	4220 2137 03
7	–	Bar	400/29/12	4210 2219 80
8	Spline type 6	Bracket	200/100/15	4220 1200 00
9	–	Triangular	112/109/15	4220 2137 06
10	–	Bar	560/80/15	4220 1200 01
11	Spline type 7	Bracket	250/150/20	4220 1445 00
12	Spline type 8	Bracket	250/160/20	4220 1972 00
13	–	Bracket	100/60/8	4220 1029 01
14	–	Bracket	100/60/8	4220 1029 02
For model				
ETD ST10 120	–	Bracket	150/100/16	4220 3677 00
ETD ST10 200/300/500	–	Bracket	200/150/16	4220 3677 01
ETD ST10 750/1000	–	Bracket	200/150/20	4220 3677 02
ETP STR61 20/30	–	Bar	250/15/8	4220 4495 00
ETP STR61 50/70/90/120,	–	Bar	270/35/14	4220 1903 00
ETD ES61-18/25/30	–	–	–	–
ETD ES61-50	–	Bar	–	4210 2219 80



Reaction bar



Mounting bracket



Triangular

Mounting bracket is included for some tool models.
Please match the number from the table with the tool tables.

Suspension yokes

Model	Type	Assembly	Ordering No.
ETV/ETD ES21	Horizontal	Motor	4220 0987 82
ETV/ETD ES61	Horizontal	Motor	4220 4586 90
ETD/ETV DS9	Horizontal	Motor	4220 1418 96
ETD/ETV DS4/DS7	Horizontal	Motor	4220 0987 85
ETD/ETV DS4/DS7/DS9	Vertical	Handle	4220 1417 80
ETD/ETV DS9	Horizontal	Motor	4220 1418 93
ETP DS4/DS7	Horizontal	Motor	4220 1154 90
ETD/ETV DS4	Fixed	Motor front nut	4220 1675 86
ETD/ETV DS4/DS7	Horizontal	Motor	4220 0987 90
ETV/ETD ST31/61	Horizontal	Motor	4220 2657 90
ETV/ETD ST31/61	Fixed	Motor	4220 2843 92
ETV/ETD ST81	Horizontal	Motor	4220 0987 90
ETV/ETD ST81	Fixed	Motor	4220 2843 91
ETV/ETD ST31/61	Vertical	Handle	4220 1417 95
ETD ST10 120-300,	Vertical	Planetary gear	4220 1418 91
ETV ST10 270-600	–	–	–
ETD ST10 500-1000	Vertical	Planetary gear	4220 1418 90
ETV ST10 100-200	Vertical	Planetary gear	4220 1418 92
ETP DS9 350/500	Swivelling	–	4210 3088 86
ETP DS9 750	Swivelling	–	4210 3088 83
ETP DS9 1500	Swivelling	–	4210 3088 81
ETP STR61	Tool upside down	–	4220 3037 00
ETP STR61	Fixed, one side	–	4220 4334 00
ETP STR61	Fixed, both sides	–	4220 4399 80
ETP STR61 20/30/50	Swivelling	–	4220 4381 80
ETP STR61 70/90/120	Swivelling	–	4220 4394 80
ETV ST101 ^a	Horizontal	Motor	4220 3930 90
ETP ST101 200-1000	Adjustable	Motor	4220 4075 90
ETP ST101 BCR 200-1000 ^b	Adjustable	Motor	4220 4075 91
ETP ST101 750-2000	Swivelling	Gear	4210 3088 87
ETP ST101 3000-4000	Swivelling	Gear	4210 3088 81
SR21	For rear	–	4220 4410 80
SR21	For front	–	4220 4409 80



Suspension yokes

^a Not telescopic.

^b To be used if barcode scanner is mounted.

Optional Accessories

Dual trigger for open end

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 05-50	ST31, ST61 15-30	4220 3186 90
ST61-L	ST61 70-200	ST61 50-120	4220 3186 91
ST81-S	ST81 50	ST81 30	4220 3186 92
ST81-L	ST81 70-180	ST81 50-120	4220 3186 93
ST101	ST10 100-1000	ST10 100-1000	4220 3186 96



Lever trigger top

Dual trigger for open end 135 deg.

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	4220 3311 90
ST61-L	ST61 70-200	ST61 50-120	4220 3311 91
ST81-S	ST81 50	ST81 30	4220 3311 92
ST81-L	ST81 70-200	ST81 50-120	4220 3311 93
ST101	ST10 100-1000	ST10 100-1000	4220 3311 94



Lever trigger 135 deg.

Fixtured extensions

Model	For ext + nut Ordering No.	For nut only Ordering No.
ETV ES61-25/30/40/50	4220 2579 90	
ETV ES61-70/100	4220 2469 90	
ETV ST10 100, 150, 180, ETD ST10 120	4220 3571 90	Included
ETD ST10 150, 200, 300	4220 3572 90	
ETD ST10 500	4220 3573 90	Included



Fixtured extension

Protective covers

Model	Ordering No.
ETV ST31 5-15	4220 2744 05
ETV ST31/ST61 20-30, ETV ST31 200	4220 2744 03
ETV ST61 40-50/ST81 50	4220 2744 02
ETV ST61 70/ST81 70	4220 2744 04
ETP ST31-05	4220 2744 06
ETP ST31-10	4220 2744 07
ETV ST81/ST10 150-180	4220 2744 10
ETV ST81/ST10 100	4220 2744 09
ETP ST101 (included)	4220 4299 00



Protective cover Tensor ST

Torque multiplier (reaction bar included)

Model	Max. torque Nm	Gear ratio	Square in	Square out	Ordering No.
T-Mult 120	30	4.54	3/8	1/2	8431 0453 53
T-Mult 200	50	4.62	3/8	3/4	8433 0310 07
T-Mult 400	100	4.10	1/2	3/4	8431 0493 65
T-Mult 500	30	16.11	3/8	3/4	8433 0310 28
T-Mult 800	45	18.50	1/2	1	8433 0311 81
T-Mult 1000	250	4.00	3/4	1	8433 0312 16
T-Mult 1500	72	21.10	1/2	1	8433 0312 20



Operator handle

Operator handle

Model	Ordering No.
ETP STR61	4220 4487 80
ETP ST101	4220 4522 82

Support handle

Model	Ordering No.
ETV/ETD ES21	4220 2725 83
ETP DS9 350/500/750/1500	4220 4374 90
ETP ST31/32 5-10	4220 3517 80
ETP STR61	4220 4343 80
ETD SR21	4220 4347 80
ETP ST101 200/500 (included)	4220 4001 84
ETP ST101 750/1000 (included)	4220 4001 83



Support handle

Optional Accessories

Tool holder

Model	Ordering No.
ETP ST32	4220 3584 80



Tool holder

Barcode scanner



CAUTION: This device emits CDRH/IEC Class 2 laser radiation. Do not stare into beam.

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	8433 0615 10
ST61-L	ST61 70-200	ST61 50-120	8433 0615 20
ST81-S	ST81 50	ST81 30	8433 0615 30
ST81-L	ST81 70-200	ST81 50-120	8433 0615 40
ETP STR61			8436 0999 90
ETP ST101			8433 0615 50



Barcode scanner

Parameter set selector

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	8433 0616 05
ST61-L	ST61 70-200	ST61 50-120	8433 0616 15
ST81-S	ST81 50	ST81 30	8433 0616 25
ST81-L	ST81 70-200	ST81 50-120	8433 0616 35
ST101	ST10	ST10	8433 0616 45
ETP STR61			8436 0999 91



Parameter set selector

I/O device module

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	8433 0617 12
ST61-L	ST61 70-200	ST61 50-120	8433 0617 22
ST81-S	ST81 50	ST81 30	8433 0617 32
ST81-L	ST81 70-200	ST81 50-120	8433 0617 42
ST101	ST10	ST10	8433 0617 52



I/O device module

Protection

Model	Ordering No.
Scanner protection ST61-S >50, ST31/ST32	4220 2762 10
Selector protection	4220 2917 06
I/O device protection	4220 2917 06



Scanner protection

Front button

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	4220 3184 90
ST61-L	ST61 70-200	ST61 50-120	4220 3184 91
ST81-S	ST81 50	ST81 30	4220 3184 92
ST81-L	ST81 70-200	ST81 50-120	4220 3184 93
ST101	ST10	ST10	4220 3184 94



Front button

Adjustable headlights

Model	ETV	ETD	Ordering No.
ST61-S	ST31, ST61 28-50	ST31, ST61 15-30	4220 3292 94
ST61-L	ST61 70-200	ST61 50-120	4220 3292 95
ST81-S	ST81 50	ST81 30	4220 3292 96
ST81-L	ST81 70-100	ST81 50-120	4220 3292 97
ST101	ST10	-	4220 3292 98



Adjustable headlights

Telescopic front part

Model	mm	Ordering No.
ETP ST101 -200	25	4220 4592 80
ETP ST101 -500	40	4210 3781 81
ETP ST101 -750/1000	50	4210 3788 80
ETP ST101 -1500	50	4210 3788 81

Optional Accessories

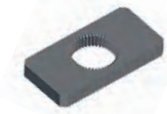
Reaction bars

Spline dia mm	Square drive size mm/in	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
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
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
Straight aluminum bar			
Spline 3	L = 400		4210 2219 01
Extended sliding drive reaction bar			
Spline 5	1	68-112	4210 4498 80
Extended sliding tube reaction bar			
Spline 5	1	68-112	4210 4498 82
Bracket stepped			
Spline 1	70/36/13		4210 1798 02
Spline 2	70/41/14		4210 2134 02

Steel bar



Square steel bracket



Triangular steel bracket



Sliding drive reaction bar



S-Type reaction bar



L-Type aluminum bar



Straight aluminum bar



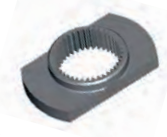
Extended sliding drive reaction bar



Extended sliding tube reaction bar



Bracket stepped



Error-proofing through intuitive control of the assembly process

Atlas Copco advanced controllers and software provide intuitive monitoring and control of tightening operations performed using Atlas Copco electric assembly tools. Assembly process control and quality assurance is made easy by advanced control functions. The system guides the operator through the assembly process, avoiding mistakes that can result in costly quality problems.

Power Focus 4000

The Power Focus range controls tools from the Tensor DS, ST, SR, STR, STB and ETX families. With its built-in functions, it also participates in controlling the station or line segment. The Power Focus and associated software packages provide easy-to-understand information for everyone, from operators to plant managers.

The Power Focus is based on standard hardware and software components which, when combined, will fulfill all demands, from the most basic stand-alone installation to full integration into the factory network. The modules fit together using the “plug-and-play” concept.

Assembly process control and quality assurance is made easy by advanced control functions. On receipt of assembly information, the Power Focus automatically selects the correct tightening sequence and parameters. The operator is guided through the process, avoiding mistakes that can result in costly quality problems.

Programming software ToolsTalk PF

ToolsTalk PF is the user-friendly tool that enables you to communicate with your Power Focus tool controller. It makes programming and process analysis of a tightening station simple.

Power Focus 600

The Power Focus 600 is compatible with the Tensor ES tools and is the perfect choice for quality critical assembly. It comes in one single hardware version regardless of which tool model or functionality level is used. Its powerful industrial design gives a reliable process that will speed up your tightening operations.

Thanks to the intuitive interface and the fact that it's so easy to use you can set up and run a new system from the box in minutes. External computer soft-

ware is no longer required since you can browse in using a web HMI. The intuitive interface and color screen provide clear operator feedback.

Smart software management will guarantee highest possible uptime. Upgrade your controller in a few seconds using only a USB stick.

Tensor DS/DL Drives

Tensor DS nutrunners and DL screwdrivers have been developed to give you the benefits of controlled tightening and advanced electric systems throughout your assembly operations.

Their simplicity, reliability, outstanding flexibility and accuracy, can significantly reduce your assembly costs and improve overall productivity.

A suitable choice for quality critical applications, the Tensor DS and DL series have a proven track record in many industries, including aerospace, automotive, construction, white goods and electronics.



Power Focus 600

The Power Focus 600 controller takes quality critical assembly to the next level. Setting up and using an electric system has never been easier. And, by switching from pneumatic tools, you can reduce your energy consumption by up to 85%. Unbelievable but true – we call it easy transformation!

Easy

Set up and run a new system from the box in minutes. Computer software is no longer required. Intuitive interfaces enable real-time analysis and fast reaction if needed.

Efficient

Same controller hardware regardless of tool model. Powerful industrial design gives a reliable process to maximize up-time and speed up your tightening operations.

Ergonomic

Both hardware and software is intuitive, giving clear operator feedback on the screen.



Power Focus 600

Check with your local Atlas Copco Tools representative regarding availability in your market.

Model	Ordering No.
Drive unit	
Power Focus 600	8436 2700 01
IAM	
IAM Joint Control	8436 0900 01
IAM Station Control	8436 0900 05

Functionality overview

	IAM Joint Control	IAM Station Control
Functionality		
Number of Psets	1	16
Batch sequence	-	x
Lock on reject	x	x
Strategies and options		
Torque control	x	x
Torque control and angle monitoring	x	x
Configurable limits for torque and angle	x	x
Rotate spindle forward/reverse	x	x
TurboTight	-	x
Two Step	x	x
Quick Step	x	x
Three Step	x	x
CW / CCW operation	x	x
Complete re-hit detection	x	x
Self tap	x	x
Process information and service		
Tightening data storage (Torque, Status OK/NOK, NOK reason)	30	1000
Torque-time trace	x	x
Event log	1000	1000
Hardware and connectivity		
Web-browser client programming	x	x
Read and write programming via remote Ethernet	-	x
Tightening data via local USB	x	x
Tightening data via remote Ethernet	-	x
Controller SW upgrade via local USB	x	x
Controller SW upgrade via remote Ethernet	-	x
1D/2D Barcode reader for selection	-	x
Configurable I/O	-	x
Stacklight	-	x
Socket selector	-	x
Operator panel	-	x
I/O expander	-	x

General Functionality Level / RBU Runs Tool Types	DS / DL			Power Focus 4000				
	Box DS	Basic DS / DL	Advanced DS / DL	DS DS	Bronze ST/SR/STR	Silver ST/SR/STR	Gold ST/SR/STR	X ETX
Tensor controllers								
Compact hardware	x	x	x	x	x	x	x	x
LED display		x	x	x	x	x	x	x
6 button keyboard		x	x	x	x	x	x	x
Graph hardware						x	x	x
LCD display						x	x	x
Full keyboard						x	x	x
Functionality								
Number of tools	1	1	1	1	1	1	1	1
Number of Psets	1	1	10	64	64	250	250	250
Batch count	x	x	x	x	x	x	x	x
Open end spanner	x	DS only	DS only	x	x	x	x	x
Quick programming	x	x	x	x	x	x	x	x
Cross thread / Rehit detection	x	x	x	x	x	x	x	x
Tool service indicator	x	x	x	x	x	x	x	x
Autoset	x	x	x	x	x	x	x	x
Lock on reject	x	x	x	x	x	x	x	x
Line control			x	x		x	x	x
Transducer torque traceability					x	x	x	x
Tightening status storage (default)				5 000	5 000	5 000	5 000	5 000
Tightening data storage (default)					5 000	5 000	5 000	5 000
MultiStages				8		8	8	8
Trace storage					8	8	8	8
Real time statistics					x	x	x	x
SPC					x	x	x	x
RBU				x	x	x	x	x
Bar code reading				x		x	x	x
ID input to select Pset				x		x	x	x
Job function				x		x	x	x
Number of jobs (default)				32		99	99	99
ID input to select job				x		x	x	x
Logic Configurator (4000 only)				x		x	x	x
Cell programming				x		x	x	x
Label printer (via Open protocol)				x		x	x	x
Cell Job							x	x
Strategies and options								
Two stage/Quick step/Ergoramp	x	x	x	x	x	x	x	x
Torque control and angle monitoring	x	x	x	x	x	x	x	x
DS control	x	x	x	x		x	x	x
Auto zoom step	x	x	x	x	x	x	x	x
CW / CCW operation	x	x	x	x	x	x	x	x
Rundown angle monitoring	x	x	x	x	x	x	x	x
Self tap / PVT monitoring	x	x	x	x	x	x	x	x
Reverse angle	x	x	x	x	x	x	x	x
Rotate spindle	x	x	x	x	x	x	x	x
Click wrench input					x	x	x	x
Torque and angle control					x	x	x	x
Angle control and torque monitoring					x	x	x	x
Current monitoring					x	x	x	x
Post view torque						x	x	x
Yield control (PF 4000 and ETX combination only)							x	x
StepSync, SynchroTork (PF 4000 only)							x	x
Home position							x	x
Snug gradient							x	x
I/O								
RS232 programming port	x	x	x	x	x	x	x	x
USB port (PF 4000 only)				x	x	x	x	x
Discrete I/O	x	x	x	x	x	x	x	x
Remote start	x	x	x	x	x	x	x	x
Socket selector (optional)			x	x	x	x	x	x
RE Alarm (optional)			x	x	x	x	x	x
Parallel printer port				x	x	x	x	x
I/O Expander (optional)				x	x	x	x	x
Expandable I/O (up to 124 in / 124 out)				x	x	x	x	x
Operator ID card input				x		x	x	x
Fieldbus card				Optional		Optional	Optional	Optional
RS232 bar code reader port				x		x	x	x
Easily programmed fieldbus protocol				x		x	x	x
Ethernet port for remote prog				x		x	x	x
Ethernet port for data collection				OK-NOK		x	x	x
Protocols								
Open protocol serial				x	x	x	x	x
Open protocol Siemens 3964R serial				x	x	x	x	x
Open protocol Ethernet				x		x	x	x

Drive functionality overview

Used to control and monitor tools, the DS and DL drives provide a high degree of functionality with minimal setup and configuration. The DS drive runs with the Tensor DS nutrunners and the DL drive is used together with Tensor DL screwdrivers.

Tensor DS and DL reduce costs

The Tensor DS and DL systems reduce costs by offering three major benefits:

Elimination of assembly problems

Through its control and monitoring functionality, Tensor DS/DL will bring you closer to zero-fault production. By alerting the operator to the most common errors before they continue down the line, the system ensures high-quality end products, and saves you a fortune in re-working costs.

One tool for several applications

The Tensor DS/DL can be set with up to 10 different torque settings making it possible to use the same tool for several applications. This reduces operating costs and allows a cleaner design of the work area.

Tensor DS/DL improves productivity

Tensor DS/DL tools shorten the cycle times through high speed and power. The controller calculates and monitors torque through the highly accurate DigiTork algorithm. The tools are equipped with angle encoders monitoring the rundown angle as well as the tightening angle. Combining torque and angle monitoring you will detect if something is wrong with the joint, guaranteeing quality.



DS Drive



DL Drive

Model	Ordering No.
DL Drive	
D303-DL Basic	8433 4850 48
D313-DL Advanced	8433 4850 33
DS Drive	
D32-DS4 Box	8433 0820 66
D302-DS4 Basic	8433 0820 48
D312-DS4 Advanced	8433 0820 33
D32-DS7 Box	8433 0822 66
D302-DS7 Basic	8433 0822 48
D312-DS7 Advanced	8433 0822 33
D32-DS9 Box	8433 0824 66
D302-DS9 Basic	8433 0824 48
D312-DS9 Advanced	8433 0824 33

Advanced process control and monitoring functions

Power Focus is a modular range of controllers, with full flexibility, designed for applications ranging from single spindle hand-held operations to fixtured multiple nutrunning systems. Advanced process control and monitoring functions make it easy to view and collect data using the Internet infrastructure.

- Choose your controller – either Graph or Compact.
- Choose your RBU software key to run a tool.
- Choose from various ways to use the controller, as a stand-alone or in a network.
- Run many different kinds of tool, standard, FS, crowfoot or open tools.
- Realtime statistics analysis.
- Error-proofing solution.
- Advanced tightening control and/or monitoring method.
- Trace view.
- Logic configurator.
- Can handle different level of communication.

The Power Focus 4000 is available in two versions, Compact and Graph. The difference between them is the user interface, where the Graph features the color display and a full keyboard.

Compact

This version offers full functionality at a lower cost, but requires a PC with the ToolsTalk PF software for process set-up.

Graph

With the Graph hardware, you have full stand-alone programming possibilities. When networked, the Graph can function as a programming terminal for other Power Focus units.

RBU cuts downtime

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



Compact



Graph

Power Focus 4000 for Tensor DS, ST, SR, STR, STB and ETX

Model	Ordering No.
Power Focus 4000 W 10	
PF 4000-G-HW	8433 7100 00
PF 4000-C-HW	8433 7100 05
PF 4000-G-DN- HW	8433 7140 00
PF 4000-C-DN-HW	8433 7140 05
PF 4000-G-FLN-HW	8433 7141 00
PF 4000-C-FLN-HW	8433 7141 05
PF 4000-G-PB-HW	8433 7142 00
PF 4000-C-PB-HW	8433 7142 05
PF 4000-G-CC-HW	8433 7143 00
PF 4000-C-CC-HW	8433 7143 05
PF 4000-G-IB-HW	8433 7145 00
PF 4000-C-IB-HW	8433 7145 05
PF 4000-G-MB-HW	8433 7147 00
PF 4000-C-MB-HW	8433 7147 05
PF 4000-G-PN-HW	8433 7148 00
PF 4000-C-PN-HW	8433 7148 05
PF 4000-G-EIP-HW	8433 7149 00
PF 4000-C-EIP-HW	8433 7149 05

Controller functionality

Hardware key	Ordering No.
RBU-Bronze	8433 0010 10
RBU-Silver	8433 0015 20
RBU-Gold	8433 0020 20
RBU-DS	8433 0005 10
RBU-X	8433 0080 20



RBU

Power Focus 4002 for Tensor SL

Model	Ordering No.
Power Focus 4002 W 07	
PF 4002-G-HW	8433 3100 00
PF 4002-C-HW	8433 3100 05
PF 4002-G-DN-HW	8433 3140 00
PF 4002-C-DN-HW	8433 3140 05
PF 4002-G-PB-HW	8433 3142 00
PF 4002-C-PB-HW	8433 3142 05
PF 4002-G-IB-HW	8433 3145 00
PF 4002-C-IB-HW	8433 3145 05
PF 4002-G-MB-HW	8433 3147 00
PF 4002-C-MB-HW	8433 3147 05
PF 4002-G-PN-HW	8433 3148 00
PF 4002-C-PN-HW	8433 3148 05
PF 4002-G-EIP-HW	8433 3149 00
PF 4002-C-EIP-HW	8433 3149 05

IRC Focus for STwrench and Tensor STB

Model	Ordering No.
IRC Focus W 10	
IRC FOCUS-B-G-HW	8433 6500 00
IRC FOCUS-B-C-HW	8433 6500 02
IRC FOCUS-B-G-DN-HW	8433 6500 04
IRC FOCUS-B-C-DN-HW	8433 6500 06
IRC FOCUS-B-G-FLN-HW	8433 6500 08
IRC FOCUS-B-C-FLN-HW	8433 6500 10
IRC FOCUS-B-G-PB-HW	8433 6500 12
IRC FOCUS-B-C-PB-HW	8433 6500 14
IRC FOCUS-B-G-IB-HW	8433 6500 16
IRC FOCUS-B-C-IB-HW	8433 6500 18
IRC FOCUS-B-G-MB-HW	8433 6500 20
IRC FOCUS-B-C-MB-HW	8433 6500 22
IRC FOCUS-B-G-PN-HW	8433 6500 24
IRC FOCUS-B-C-PN-HW	8433 6500 26
IRC FOCUS-B-G-EIP-HW	8433 6500 28
IRC FOCUS-B-C-EIP-HW	8433 6500 30

Spindle synchronization

All Atlas Copco tightening spindles are easily fixtured using our standard range of Express mechanics. The StepSync and SynchroTork tightening strategies give various levels of spindle synchronization during clamp force build-up. Communication between the controllers in the cell or group takes place via the I/O bus. Depending on user-interface preferences and budget, the SyncMaster may be a Compact or Graph hardware unit.

MultiStage functionality reduces relaxation

The inherent "MultiStage" functionality permits the combination of up to eight different parameter sets in a linear sequence. The entire process is activated with just one press of the tool trigger. For joint conditioning, fasteners can be run down to a pre-torque value, backed off by a configurable number of degrees and then re-tightened to the desired final torque. This advanced functionality is ideal for reducing relaxation in a joint.

Cell networking gives process security

The Cell concept allows for Ethernet networking without a PC, and offers overall station process control at a lower cost. A Cell consists of up to 20 units, where



Tensor spindles are easily fixtured using our standard range of Express mechanics. The control strategies StepSync and SynchroTork synchronize Tensor spindles to provide consistent clamp forces over the entire component mating face.

the Master controls the process of all Members in the tightening station, and communicates process data as a single interface point.

Advanced statistics for better quality control

Data is continuously collected and analyzed, and can be presented as statistics on, e.g., the Graph color display. Diagnostics and statistical alarms such as

SPC monitor charts, and capability (Cpk) alarms highlight changes and trends in the assembly process. Effective information and SPC are good motivators, and encourage operators to adopt a proactive approach to monitoring the quality of the assembly process.

Integrated ways to communicate

Controller level

Realtime communication over I/O bus independent of the factory net.

Fieldbus level

The common industry field buses are supported, for example Profibus, Ethernet IP and FL-Net.

Cell level

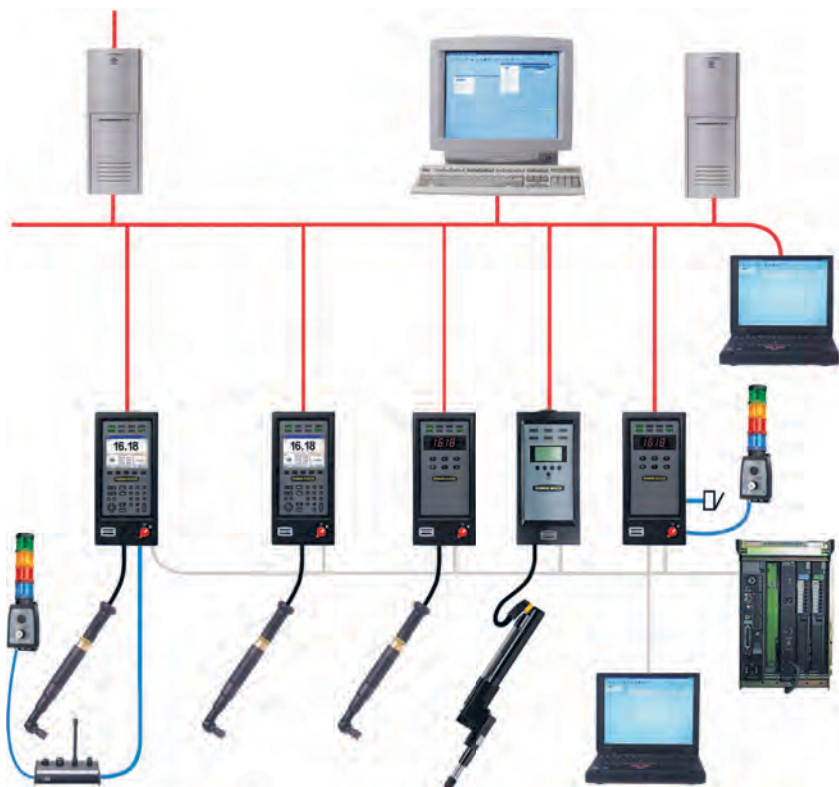
The cell is a key concept in the system design. It is a cluster of max. 20 controllers networked together via built-in Ethernet TCP/IP. No need for use of a PC.

Factory level

Power Focus can be integrated with the factory Ethernet network which enables easy access and reporting anywhere in the plant.

Internet level

Worldwide communication is a matter of giving access through a factory network gateway to Power Focus.



Discrete I/O, I/O bus, Fieldbus, Compact, Graph, PC, access router, host database.

ToolsTalk PF

ToolsTalk PF provides tightening parameter set-up, fieldbus and Logic Configurator set-up, plus customized reporting and presentation of statistics. With a simple click, results can be exported into other commercial file formats.

ToolsTalk communicates with the PowerFocus via Ethernet, USB or serial RS232. If you are networking from your office desk, ToolsTalk PF allows for quickest access to the different control units connected.



ToolsTalk Power Focus

Model	Ordering No.
ToolsTalk PF W10	
1-user license	8092 1190 01
5-user license	8092 1190 05
10-user license	8092 1190 10
Plant license	8092 1190 99
ToolsTalk PF W07	
1-user license	8092 1183 01
5-user license	8092 1183 05
10-user license	8092 1183 10
Plant license	8092 1183 99
ToolsTalk PF W05 upgrade to W07	
1-user license	8092 1183 31
5-user license	8092 1183 35
10-user license	8092 1183 40
Plant license	8092 1183 49
ToolsTalk PF W05 upgrade to W10	
1-user license	8092 1190 51
5-user license	8092 1190 55
10-user license	8092 1190 60
Plant license	8092 1190 69
ToolsTalk PF W07 upgrade to W10	
1-user license	8092 1190 31
5-user license	8092 1190 35
10-user license	8092 1190 40
Plant license	8092 1190 49

Model	Ordering No.
ToolsTalk DS/DL	
Swedish	8092 1138 60
English	8092 1138 62
German	8092 1138 64
French	8092 1138 66
Spanish	8092 1138 68
Italian	8092 1138 70
Power Focus controller software	
PF World 07 sticker, (12 package)	4222 0820 20
PF World 10 sticker, (12 package)	4222 0820 25

ToolsTalk PF Functionality

General				
Functionality Level of RBU	DS	Bronze	Silver	Gold
Serial connection	x	x	x	x
Off line programming	x	x	x	x
Real time analysis	x	x	x	x
Tightening database to PC (Excel)	x	x	x	x
Tightening simulation	x	x	x	x
Operator monitor	x	x	x	x
Picture monitor	x	x	x	x
Fieldbus quick set-up	x		x	x
Job monitor	x		x	x
Bar code reader configuration	x		x	x
Ethernet connection	x		x	x
Remote programming	x		x	x
View tightening traces		x	x	x
Overlay traces		x	x	x
Logic Configurator (PF 4000 only)	x		x	x
Multiple identifiers			x	x
Tensor ST sound files			x	x

ToolsTalk PF can connect with Power Focus 4000, IRC Focus, Power Focus 4002

QIF error-proofing stations reduce costs and ensure quality

As part of Atlas Copco's Quality Integrated Fastening (QIF) concept we offer complete error proofing stations. These are created by combining our advanced tightening equipment with standard Atlas Copco hardware and software components. Integrated error-proofing assembly stations help you avoid costly reworking, raise productivity and ensure quality on your production line.

Atlas Copco is one of the few suppliers able to offer a range of products comprehensive enough to build a fully integrated assembly station. QIF error-proofing stations offer the following benefits:

- Increased product quality.
- Standard modules reduce project and set-up time.
- Fast line re-balancing with standard interfaces.
- Higher productivity due to improved operator guidance.
- Full after sales support from Atlas Copco.

Atlas Copco is one of a few supplier able to offer such a large range of products to build a fully integrated assembly station.

Fast, easy set-up

Most QIF products can easily be connected to Power Focus and Pulsor Focus using one I/O Bus cable, and to Power MACS using one MACS I/O cable. They can be configured using standard Atlas Copco software ToolsTalk. This user-friendly PC software makes programming very simple.

A key factor that makes QIF products so well accepted by users is their logical and intuitive set-up. By combining QIF products with ToolsTalk Logic Configurator, it is possible to make logical diagrams with inputs and outputs that further enhance the flexibility of the products.



TLS technology takes error-proofing to the next level



What is TLS?

The Tool Location System (TLS) is like a small-scale GPS. Instead of having satellites you have sensors that monitor your plant. Assets, products and/or tools, can be located by placing tags on them. Using ultra wideband (UWB) radio frequency technology, TLS delivers reliable asset location up to 50 cm.

Major benefits for your operation

On static assembly lines, virtual workstations can be created and tools linked to them, guaranteeing that only the correct tools work in the correct workstation. Once a user informs the system that a product will be assembled in a workstation, a Product Identifier can be sent to the tightening controller. If the product is always placed in the same position, different product areas can also be defined to select PSets or Jobs. This application does not require a Tag on the product.

On moving assembly lines, virtual product areas can be created that move with the product. Tools can also be linked to them, guaranteeing that only the correct tools will work in the correct product area. Once the tool enters this area a Product Identifier (ID) can be sent to the tightening controller. Different product areas can also be defined to select PSets or Jobs. A virtual workstation can also be used in this case to limit the operators' working area..

This application requires a Tag on the product.

Fast return on investment

For a larger assembly line, a fast return on investment is achieved due to the TLS system's positive impact on quality, productivity and costs (for instance, by eliminating the need for manual barcode readers and RFID systems).

You will also find it easier to identify areas for process optimization on the line, thus cutting costs even further.!

The most reliable system out there

Tracking products and assets needs to be done in a reliable way that gives minimal cost of ownership and an effective error-proofing system. TLS has been successfully installed on MVI assembly lines where the requirements have been reliability of 99.98%, year in year out.

Please contact your nearest Atlas Copco representative for more information about Tool Location System (TLS).



A complete offering

Feedback

Higher quality can be achieved by giving audio and/or visual feedback about the assembly process to the operators. Time and costs can be saved by reducing reworking and avoiding faulty products leaving the production line. For feedback use Atlas Copco's Stacklights.



ESL-04 Standard and ESL-04 Compact

Variance support

Productive assembly lines demand efficient operators. These should be supported with appropriate tools providing feedback for all actions. This will save time changing program settings and when performing reworkings in station. For variance support use Atlas Copco's Selectors and Operator Panels.



Selector 4, selector for Large Sockets and Operator Panel Advanced

Operator guidance

Flexible assembly lines demand different products to be assembled at the same station. It is possible to reduce the number of decisions taken by the operator by providing direct instructions on a screen with photos and texts of the assembly process. For operator guidance use Atlas Copco's HMI's (Human Machine Interface).



MaxiDisplay 3 and MiniDisplay MD-01

Process monitoring

Storing production data for documentation and further analysis is a key factor for traceability. Process improvements can be made by analyzing data. This contributes to increasing quality and boosting productivity by minimizing the number of recalls. For process monitoring use Atlas Copco's ToolsNet 4000.



ComNode 3

Reducing the cost of peripherals



Selectors

Socket and bit selectors minimize the risk of errors relating to product diversity by automatically selecting correct torque according to the socket or bit selected.

Stacklights

Lamps and a buzzer give clear feedback and a key switch can be used to acknowledge errors. This arrangement enables you to detect errors at the workstation and correct them in station instead of further down the line.

Operator Panels

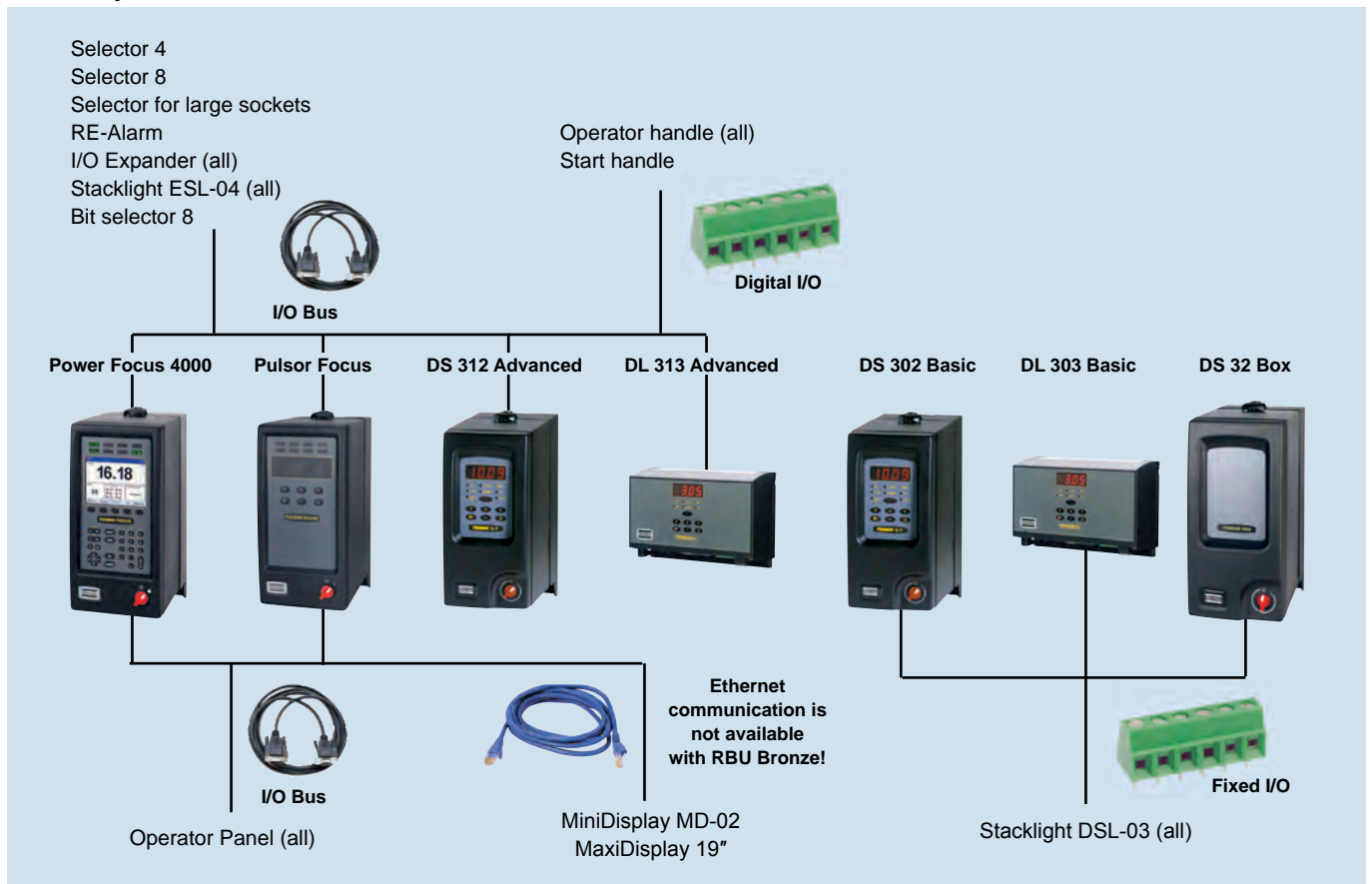
Command buttons and integrated lamps provide a highly effective operator interface and enable manual selection of various program settings.

HMI's

Mini/Maxi display with Operator Guidance software shows photo of the product on the screen, clearly indicating joints to be tightened and giving build instructions.



Modularity



Model	Ordering No.
Remote Start	
Selector 4	8433 0610 04
Selector 8	8433 0610 08
Selector for large sockets	8433 0610 44
Rotary selector	8433 0606 15
Bit selector 8	8433 0612 08
double ^a	4222 0933 92
single ^b	4222 0933 91
^a Only compatible with Bit selector.	
^b Only compatible with Socket selector 4 and 8.	
I/O Expanders	
Open	8433 0564 39
Sealed	8433 0564 45
Stacklights	
ESL-04 Standard	8433 0570 13
Rotating red	8433 0570 30
Rotating yellow	8433 0570 35
Siren	8433 0570 40
Compact	8433 0570 16
DSL-03 with push button	8433 0570 10
with blanking plugs	8433 0570 11
Operator panel	
Advanced	8433 0565 00
Basic	8433 0565 10
HMI's (Human Machine Interface)	
MiniDisplay -2 6.5", incl. Operator Guidance	8435 3071 00
MaxiDisplay 3 (19")	8435 3070 20
ComNode 3	
ComNode 3 Touch (15")	8433 2712 00
Communication	
WEAFlex - LAN	8433 1010 00
Remote Start	
Operator handle (ball joint/handle)	
- front/plastic	8435 3030 00
- front/rubber	8435 3030 01
- rear/plastic	8435 3030 02
- rear/rubber	8435 3030 03
Start handle	4220 1391 91

Cables

Model	Ordering No.
Accessory cables	
I/O bus cable 0.5 m	4222 0917 00
1 m	4222 0917 01
3 m	4222 0917 03
5 m	4222 0917 05
10 m	4222 0917 10
15 m	4222 0917 15
I/O Termination plug	4222 0443 00
M12-4 pin	
Female - Open end 5 m	4243 0166 05
Male - Female 5 m	4243 0167 05
10 m	4243 0167 10
15 m	4243 0167 15
Cables for WEAFlex (1 m)	
Power24vDC, M12-5 pin	4243 0286 80
EthernetRJ45, M12-4 pin	4222 1540 01
Cables Ethernet	
Crossed 0.5 m	4222 0682 00
1 m	4222 0682 01
3 m	4222 0682 03
5 m	4222 0682 05
10 m	4222 0682 10
15 m	4222 0682 15
25 m	4222 0682 25
50 m	4222 0682 50
Straight 0.5 m	4222 0754 00
1 m	4222 0754 01
3 m	4222 0754 03
5 m	4222 0754 05
10 m	4222 0754 10
15 m	4222 0754 15
25 m	4222 0754 25
50 m	4222 0754 50



I/O expander sealed



Operator panel Advanced



Stacklight DSL-03



Operator handle



Start handle



WEAFlex



Selector 4

ToolsNet 4000 is a data collection and process improvement software application for use with Power Focus, Pulsor Focus, PowerMACS and STWrench. Combined, these products provide total control of the assembly process, providing a platform for quality improvements. Historical data, statistics and capability indexes can be accessed at any time via a standard web browser such as Microsoft Internet Explorer. ToolsNet is the complete assembly process improvement tool.

Traceability minimizes recall costs

The production can be followed in real-time or monitored through different reports such as the Result List report or Product List report which provides information of every tightening related to a specified period or product. In the event of warranty recalls, the result database provides access to critical information which can easily minimize the extent of any recall leading to an overnight pay-back on your investment.



The right solution for your needs

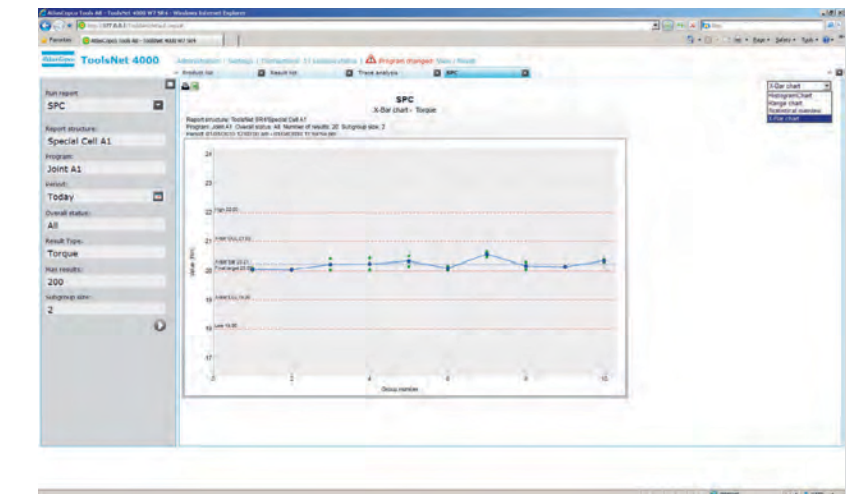
ToolsNet 4000 is divided in three different packages to cover different needs.

Reports

Take the first step in traceability by collecting all tightening results and storing them in a secure database system. Legal documentation and process improvements can be handled by running several pre-formatted reports specially designed to save user time and effort.

Alert

Extend the usage of available information by collecting all events as they occur on the assembly line, in real time. Generate reports to identify events that are happening often and trigger emails to the right personnel based on event distribution rules you create. Be always on the alert for quality variation and workstations that require preventative or corrective tool maintenance.



History

Full traceability of programming changes. Any change that may be done on the controller will be reported to the ToolsNet database. Super users can approve or

not approve the change and later on cross check which products were built with detailed information.

Software	Ordering No.
ToolsNet W05	
5 Spindle license	8092 1166 05
10 Spindle license	8092 1166 10
25 Spindle license	8092 1166 25
50 Spindle license	8092 1166 50
75 Spindle license	8092 1166 75
125 Spindle license	8092 1166 80
200 Spindle license	8092 1166 85
350 Spindle license	8092 1166 90
500 Spindle license	8092 1166 95
Event Monitor W05	
5 Spindle license	8092 1167 05
10 Spindle license	8092 1167 10
25 Spindle license	8092 1167 25
50 Spindle license	8092 1167 50
75 Spindle license	8092 1167 75
125 Spindle license	8092 1167 80
200 Spindle license	8092 1167 85
350 Spindle license	8092 1167 90
500 Spindle license	8092 1167 95
Factory Overview W05	
5 Spindle license	8092 1168 05
10 Spindle license	8092 1168 10
25 Spindle license	8092 1168 25
50 Spindle license	8092 1168 50
75 Spindle license	8092 1168 75
125 Spindle license	8092 1168 80
200 Spindle license	8092 1168 85
350 Spindle license	8092 1168 90
500 Spindle license	8092 1168 95
Program History W05	
05 Spindle license	8092 1175 05
10 Spindle license	8092 1175 10
25 Spindle license	8092 1175 25
50 Spindle license	8092 1175 50
125 Spindle license	8092 1175 80
200 Spindle license	8092 1175 85
350 Spindle license	8092 1175 90
500 Spindle license	8092 1175 95
E-mail Module	
5 Spindle license	8092 1178 05
10 Spindle license	8092 1178 10
25 Spindle license	8092 1178 25
50 Spindle license	8092 1178 50
75 Spindle license	8092 1178 75
125 Spindle license	8092 1178 80
200 Spindle license	8092 1178 85
350 Spindle license	8092 1178 90
500 Spindle license	8092 1178 95

Software	Ordering No.	Upgrade Ordering No.
ToolsNet 4000 - Reports		
5 Spindle license	8092 1410 05	8092 1510 05
10 Spindle license	8092 1410 10	8092 1510 10
25 Spindle license	8092 1410 25	8092 1510 25
50 Spindle license	8092 1410 50	8092 1510 50
75 Spindle license	8092 1410 75	8092 1510 75
125 Spindle license	8092 1410 80	8092 1510 80
200 Spindle license	8092 1410 85	8092 1510 85
350 Spindle license	8092 1410 90	8092 1510 90
500 Spindle license	8092 1410 95	8092 1510 95
Plant Spindle license	8092 1410 00	8092 1510 00
ToolsNet 4000 - Alerts		
5 Spindle license	8092 1411 05	8092 1511 05
10 Spindle license	8092 1411 10	8092 1511 10
25 Spindle license	8092 1411 25	8092 1511 25
50 Spindle license	8092 1411 50	8092 1511 50
75 Spindle license	8092 1411 75	8092 1511 75
125 Spindle license	8092 1411 80	8092 1511 80
200 Spindle license	8092 1411 85	8092 1511 85
350 Spindle license	8092 1411 90	8092 1511 90
500 Spindle license	8092 1411 95	8092 1511 95
Plant Spindle license	8092 1411 00	8092 1511 00
ToolsNet 4000 - History		
5 Spindle license	8092 1412 05	8092 1512 05
10 Spindle license	8092 1412 10	8092 1512 10
25 Spindle license	8092 1412 25	8092 1512 25
50 Spindle license	8092 1412 50	8092 1512 50
75 Spindle license	8092 1412 75	8092 1512 75
125 Spindle license	8092 1412 80	8092 1512 80
200 Spindle license	8092 1412 85	8092 1512 85
350 Spindle license	8092 1412 90	8092 1512 90
500 Spindle license	8092 1412 95	8092 1512 95
Plant Spindle license	8092 1412 00	8092 1512 00
Operator guidance		
1 User license	8092 1185 01	

¹ ToolsNet 3000 W5 is required

² ToolsNet 3000 W5, Event Monitor W5 and E-mail module are required.

³ ToolsNet 3000 W5, Event Monitor W5, E-Mail module and Program History are required.



Software

Tool Accessories



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Protect your most valuable resource

Operator health is important. If your operators work with hand-held electric or pneumatic tools, the last thing you want is for their health to suffer. However light the tool, when an operator performs repetitive tasks daily, often with incorrect posture, the tool seems to grow heavier by the hour. Add torque reaction from the tightening process, and the result can be hand-arm-shoulder disorders that may lead to injury and even premature retirement.

Give your operators an extra arm! Atlas Copco torque arms are labour-saving extensions of Atlas Copco hand-held tools that ensure accurate tightening, and raise individual productivity in your plant. Available for torques of up to 1000 Nm, these ingenious constructions are the perfect way to lighten the load when performing repetitive tasks on lines or benches.

Ease the strain

Atlas Copco torque arms take the strain off your operators, and allow maximum freedom of movement and flexibility. Wide fields of reach mean that the operator has a large working area without stretching.

Fast payback

Investing in torque arms is not such a major decision. With their benefits in terms of increased productivity and improved employee health, payback time is short.

Linear torque arms raise productivity in Germany

At its plant in Alpen, in the lower Rhine area of Germany, Lemken GmbH & Co. KG manufactures agricultural machinery. Previously, a safety critical bearing block joint was tightened using an impact wrench, followed by a torque wrench to reach final torque. The torque values required were between 300 and 500 Nm.

SML torque arms absorb reaction forces

To improve productivity, Lemken installed an Atlas Copco Tensor DS electric angle nutrunner, mounted on SML 500 linear torque arms, to handle the task. The bolt is tightened to 300 Nm, then loosened 15 degrees and finally tightened to 300 Nm again. The SML 500 absorbs all reaction forces, and enables fast, accurate tightening, with good ergonomics for the operator.

Payback within one year

Although the plant only operates on a single-shift basis, Lemken recouped its investment within one year. The company is satisfied with the equipment and enthusiastic about the flexibility of Atlas Copco tools.

Basic guidelines for torque arms

Tools used full days with a torque capacity shown in the table should always be used together with a torque arm in order to prevent work related injuries.

	Straight	Pistol	Angle
Ergonomical optimized*	> 4 Nm	> 7 Nm	> 30 Nm
Conventional tools	> 3 Nm	> 5 Nm	> 20 Nm

* Ergonomically optimized tools is electric tools with two step softstop, turbotight or fast clutch pneumatic tool on a hard joint.

To consider

- However light or low torque, daily use of tools for repetitive tasks can result in hand-arm-shoulder disorders.
- On average a female operator can take 2/3 of the same force as her male colleague.
- Is there enough space for a torque arm at the workplace.
- Finished product quality improvement.
- With the use of a torque arm the arm will absorb all the reaction force from the tool and prevent the tool from spinning around its axis. To ensure highest possible accuracy of the clamp force a torque arm should be used to prevent movement of the tool.



How to order torque arm

The max torque and weight of the tool determine the size of the torque arm. All tool holders are ordered separately. Choose a suitable tool holder for the torque arm and the tool to be used.

TPS – Tool Positioning System

Control the sequence and the position

Control the sequence and the position

With a TPS controller you are always sure that the operators tighten the joints in the correct sequence and the correct position. The TPS controller works together with the SML/SMS T-series positioning torque arms or the SMC POSI L/LA torque arms and tool controller. The torque arms are equipped with encoders, SMS T-series have 2 angle encoders and SML T-series have 1 linear encoder and 1 angle encoder. The SMC POSI L is equipped with 1 linear encoder to measure the distance the arm travels. SMC POSI LA is equipped with 2 encoders, to measure the distance the arm travel and the angle. The TPS works with digital I/Os for OK or NOK signals to the tool controller to determine the sequence and position of the tool, if the tool is out of position the tool will not start and when the tool is in position it will be able to start. After a correct tightening with OK signal from tool/controller the operator will receive an OK signal from the TPS and is able to start in the next position.

Easy programming

The TPS can use self learning programming, position the tool in the arm over the selected joint and confirm position, go to next joint with the tool/arm and do the same procedure. When all joints are selected validate the job sequence and the TPS is ready for its new job.

50 jobs – 500 positions

The TPS can have up to 50 jobs and up to 500 positions (sequences). The TPS can send information to the tool controller to change Pset in the same job which means that it can be different torque settings in the same job and that the same joint can be tightened several times in the same job. When programming the TPS it can also be with different Psets for different jobs so that the operator always has the correct Pset from tool controller when the TPS job is selected.

Fast and smooth to start to increase productivity

A job can be started by the operator by pressing the start button on the TPS control and if the TPS is set to Level in



job start the operator only needs to push the start button once, when the job is finished with Level setting the same job starts automatically again. Jobs can also be started by a switch button, from tool controller or on timer from previous job.

Stand alone system

The TPS is a stand alone system that works together with Power Focus, Tensor DL/DS Drive D312/D31, Micro Torque controllers and EBL RE driver. A pneumatic license and air tool package is available to make the TPS work with RE controlled air tools.

Options

All options are activated by a license code and needs to be ordered separately.

Barcode reader license option

Use a barcode reader to start job and/or identify job for the TPS to selected the correct Pset.

Result report function option

Save the results to a PC. The results can be saved in two ways, report on job or report on sequence and job.

Pneumatic tool license option

The pneumatic tool license also includes the necessary valves and hoses for a correct set up of RE controlled air tools.

TPS Controller

TPS Controller – Control the sequence and the position

With a TPS controller you are always sure that the operator tightens the joints in the correct sequence and in the correct position.

- 50 jobs and 500 positions available.
- OK/NOK signal on position.
- The tool will not start when it is out of position.
- Batch count together with OK/NOK on position.
- Works together with Atlas Copco electric tools and RE controlled pneumatic tools.
- Possibility to save and upload set up through a PC.
- Easy and fast set up and programming.
- Error proofing solution.
- ESD approved.



How to order

1. TPS Controller
2. Select positioning torque arm by style (T-series linear or swivel, or SMC telescopic) and torque arm capacity
3. Cable TPS to tool controller
4. Power supply - optional.
(Order power cord separately)
5. Select other options if applicable

TPS Controller

Model	Ordering No.
TPS Controller	8202 9004 10

Controller accessory

Model	Ordering No.
I/O Extension TPS	4390 2049 00

Cables

Model	Ordering No.
Cable TPS to controller Power Focus/Tensor	
3 m	4222 1715 03
10 m	4222 1715 10
Cable TPS to EBL RE driver	
1.5 m	4222 1733 01
3 m	4222 1733 03
Cable TPS to controller G4	
1.5 m	4222 1734 01
3 m	4222 1734 03
Cable TPS to controller MTF400	
1.5 m	4222 1735 01
3 m	4222 1735 03
TPS Open End cable	
3 m	4222 1743 03
10 m	4222 1743 10

Options

Model	Ordering No.
Barcode license	4390 2045 00
Pneumatic license	4390 2046 00
Reporting license	4390 2047 00

Power supply/cord

Model	Ordering No.
Power supply	
24VDC 30W	4222 1728 50
Power cord	
EU	4222 1371 02
US	4222 1372 02
UK	4222 1373 02
India	4222 1374 02
Switzerland	4222 1375 02
Italy	4222 1376 02
Australia	4222 1377 02
Denmark	4222 1378 02

SMC POSI L

SMC carbon arms with 1 encoder to measure the distance the arm travels. With this arm and encoder it is possible to verify the position due to the distance the arm travel. The encoder is mounted inside the arm to safe guard that nothing can interfere with the distance measurements. The SMC POSI L arm can work in both horizontal and vertical position and thus be roof or wall mounted. The accuracy of the encoder is 0.32 mm and the arm together with a TPS controller control the sequence and position.

- Carbon arm with position control up to 200 Nm.
- Encoder measure the distance the arm travel.
- Verify position due to distance.
- Can be mounted both in horizontal and vertical position for maximum flexibility.
- Accuracy of encoder 0.32 mm.
- Control the sequence and position together with TPS controller.

SMC POSI LA

SMC carbon arms with 2 encoders to measure the length the arm travel and the angle of the arm to determine the position of the arm/tool. With this SMC carbon arm it is possible to verify the position due to the length the arm travel together with an encoder that measure the angle of the arm. The length encoder is mounted inside the arm to safe guard that nothing can interfere with the length measurement and the angle encoder is mounted at the top of the arm. The SMC POSI LA can work in both horizontal and vertical position and thus be roof or wall mounted. The accuracy of the encoders is 0.32 mm and the arm together with a TPS controller will control the sequence and position.

- Carbon arm with 2 encoders to control position.
- Encoders to measure length arm travel and the angle the arm is in to determine the position.
- Can be mounted both in horizontal and vertical position for maximum flexibility.
- Accuracy of encoder is 0.32 mm.
- Control the sequence and position together with the TPS controller.
- Arms available up to 200 Nm.

SML/SMS T-serie positioning arms

The Atlas Copco T-series of arms are built to handle the most demanding industrial situation when you need to control the sequence and the position. The T-serie arms are equipped with two encoders, SMS T-serie have 2 angle en-

coders to determine the position and SML T-serie have 1 linear encoder and 1 angle encoder to determine the position. The arms are delivered with balancer, encoders and encoder cables ready to be plugged into the TPS controller.

- Control the sequence and position together with TPS controller.
- Excellent working area for work bench assembly stations.
- Available up to 100 Nm.



SMC carbon arms with 1 encoder

Model	Ordering No.
SMC 12 1150 POSI L	4390 1510 77
SMC 12 1600 POSI L	4390 1511 87
SMC 12 2100 POSI L	4390 1512 87
SMC 25 1150 POSI L	4390 1514 77
SMC 25 1600 POSI L	4390 1515 87
SMC 25 2100 POSI L	4390 1516 87
SMC 25 2600 POSI L	4390 1517 87
SMC 50 1600 POSI L	4390 1518 77
SMC 50 2100 POSI L	4390 1519 87
SMC 50 2600 POSI L	4390 1520 87
SMC 100 1600 POSI L	4390 1522 87
SMC 100 2100 POSI L	4390 1523 77
SMC 100 2600 POSI L	4390 1524 87
SMC 200 1600 POSI L	4390 1526 87
SMC 200 2100 POSI L	4390 1527 87
SMC 200 2600 POSI L	4390 1528 87

SML / SMS T arms with 2 encoders

Model	Ordering No.
SML T-5 Position	4390 2030 00
SML T-12 Position	4390 2031 00
SML T-25 Position	4390 2032 00
SML T-50 Position	4390 2034 00
SML T-100 Position	4390 2035 00
SMS T-5 Position	4390 2036 00
SMS T-12 Position	4390 2037 00
SMS T-25 Position	4390 2038 00
SMS T-50 Position	4390 2039 00
SMS T-100 Position	4390 2040 00

SMC carbon arms with 2 encoders

Model	Ordering No.
SMC 12 1150 POSI LA	4390 1510 79
SMC 12 1600 POSI LA	4390 1511 79
SMC 12 2100 POSI LA	4390 1512 79
SMC 25 1150 POSI LA	4390 1514 79
SMC 25 1600 POSI LA	4390 1515 79
SMC 25 2100 POSI LA	4390 1516 79
SMC 25 2600 POSI LA	4390 1517 79
SMC 50 1600 POSI LA	4390 1518 79
SMC 50 2100 POSI LA	4390 1519 79
SMC 50 2600 POSI LA	4390 1520 79
SMC 100 1600 POSI LA	4390 1522 79
SMC 100 2100 POSI LA	4390 1523 79
SMC 100 2600 POSI LA	4390 1524 79
SMC 200 1600 POSI LA	4390 1526 79
SMC 200 2100 POSI LA	4390 1527 79
SMC 200 2600 POSI LA	4390 1528 79

NOTE: Tool holder need to be ordered separately. SML/SMS T-serie are equipped with balancer.

Choose the appropriate balancer for SMC arms depending of tool weight and order the balancer kit for easy and fast assembly if the arm is roof mounted.

SML T – Series torque arms

The Atlas Copco linear arms are built to handle the most demanding industrial situations. The robust design offers unmatched user friendliness. The linear arms are equipped with ball bearings for smooth operation, and an adjustable plate for maximum adjustment of minimum and maximum working area. The linear arms have balancer included that will absorb the weight of the arm and tool combination to reduce the weight for the operator. The arms minimize the reaction force of the tool to prevent hand-arm-shoulder disorders. With minimized reaction force of the tool, finished product quality is also higher since there is no movement of the tool and all torque is absorbed in the joint.

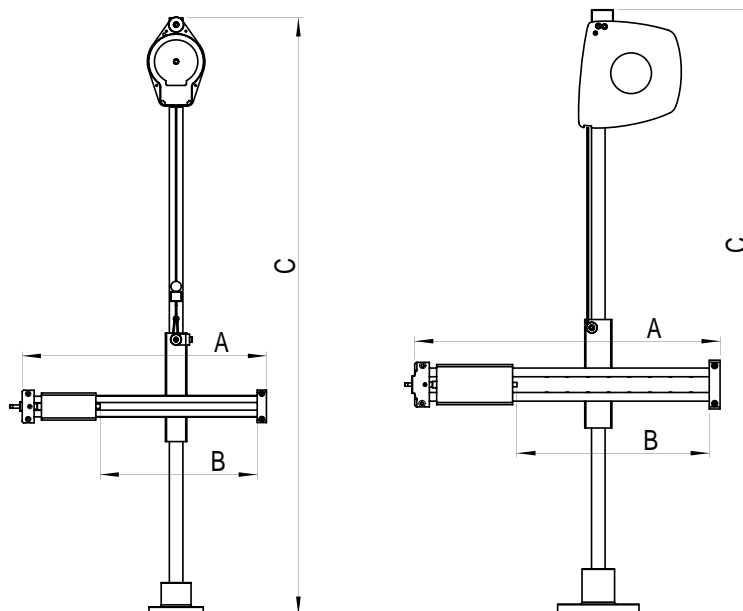
- Robust construction for long life and no force transferred to operator.
- Balancer included to remove the tool and arm weight from the operator.
- Available from 5 Nm up to 100 Nm.
- Minimizes reaction force to prevent hand-arm-shoulder disorders.
- Improves finished product quality with all torque absorbed in the joint and no movement of tool.



Model	Max tool weight		Max torque		Min width without tool holder mm	A Max reach without tool holder mm	B		C Height mm	Tool holder interface type	Ordering No.
	kg	lb	Nm	ft lb			Horizontal stroke mm	Vertical stroke mm			
SML T-5	0.8	1.7	5	3.7	158	530	205	310	732	A	4390 2000 00
SML T-12	1.5	3.3	12	8.8	198	648	255	465	888	A	4390 2001 00
SML T-25	2.2	4.8	25	18.4	167	732	290	615	1100	A	4390 2002 00
SML T-50	5	11	50	36.9	267	887	355	515	1116	B	4390 2004 00
SML T-100	6	13.2	100	73.8	255	914	395	515	1116	B	4390 2005 00

Tool holder is ordered separately.

Dimensions



SMS T – Series torque arms

The Atlas Copco linear arms are built to handle the most demanding industrial situations. The robust design offers unmatched user friendliness and, due to the swivel function, a wide working area is covered with the SMS T-series. The swivel arms are equipped with ball bearings for smooth operation, and an adjustable plate for maximum adjustment of minimum and maximum working area. The swivel arms have a balancer included that will absorb the weight of the arm and tool combination to reduce the weight for the operator. The arms minimize reaction force of the tool to prevent hand-arm-shoulder disorders. With minimized reaction force of the tool, finished product quality is also higher since there is no movement of the tool and all torque is absorbed in the joint.

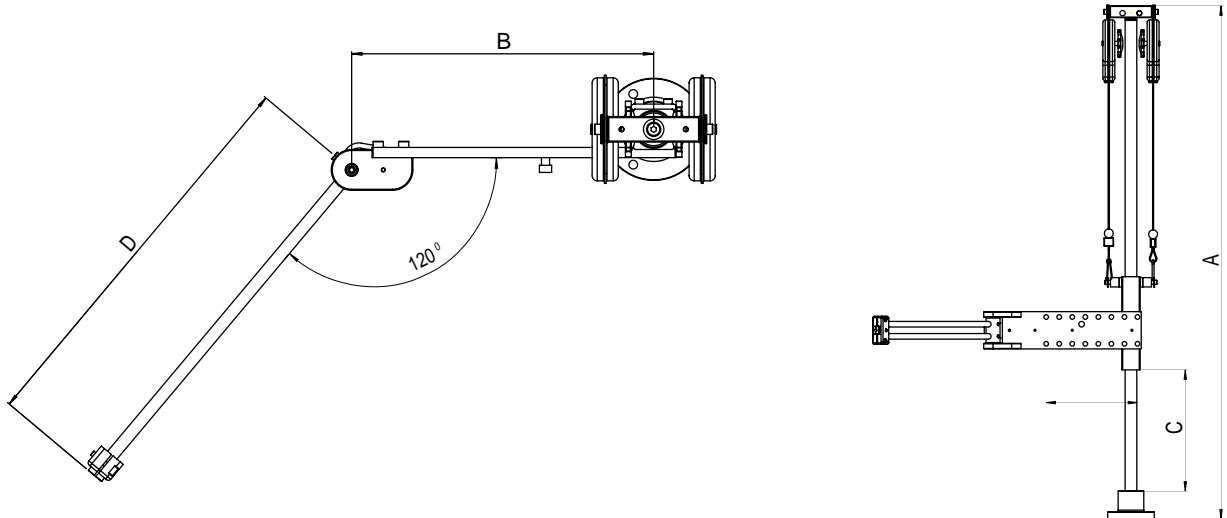
- Robust construction for long life and no force transferred to operator.
- Balancer included to remove the tool and arm weight from the operator.
- Available from 5 Nm up to 100 Nm.
- Minimizes reaction force to prevent hand-arm-shoulder disorders.
- Improves finished product quality with all torque absorbed in the joint and no movement of the tool.



Model	Max tool weight		Max torque		D	B+D	C	A	B	Tool holder interface type	Ordering No.
	kg	lb	Nm	ft lb	Swivel rods width without tool holder mm	Max reach without tool holder mm	Vertical stroke mm	Height mm	Width mm		
SMS T-5	0.8	1.7	5	3.7	292	582	270	732	290	A	4390 2006 00
SMS T-12	1.5	3.3	12	8.8	342	682	425	888	340	A	4390 2007 00
SMS T-25	2.5	5.5	25	18.4	392	732	580	1100	340	A	4390 2008 00
SMS T-50	5	11	50	36.9	440	825	520	1116	385	B	4390 2009 00
SMS T-100	6	13.2	100	73.8	490	930	500	1116	440	B	4390 2010 00

Tool holder is ordered separately.

Dimensions



SMC – Carbon arms

The Atlas Copco carbon arms have a telescopic design for maximum flexibility in the workplace. The carbon arms are light weight with smooth movements to reduce the operator force to use the arms. Together with a balancer the carbon arms can either retract up or be used in a weightless position to improve operator comfort. The carbon arms minimize reaction force to prevent hand-arm-shoulder disorders. With minimized reaction force of the tool you will also improve finished product quality because there is no movement of the tool and all torque is absorbed in the joint.

- Telescopic design for maximum flexibility in the workplace.
- Light weight and smooth movements for operator comfort.
- Easy to use together with balancer to create weightless solution to improve ergonomics.
- Minimizes reaction force to prevent hand-arm-shoulder disorders.
- Minimizes pinching and can replace reaction bars.
- Improve finished product quality with all torque absorbed in the joint and no movement of the tool.

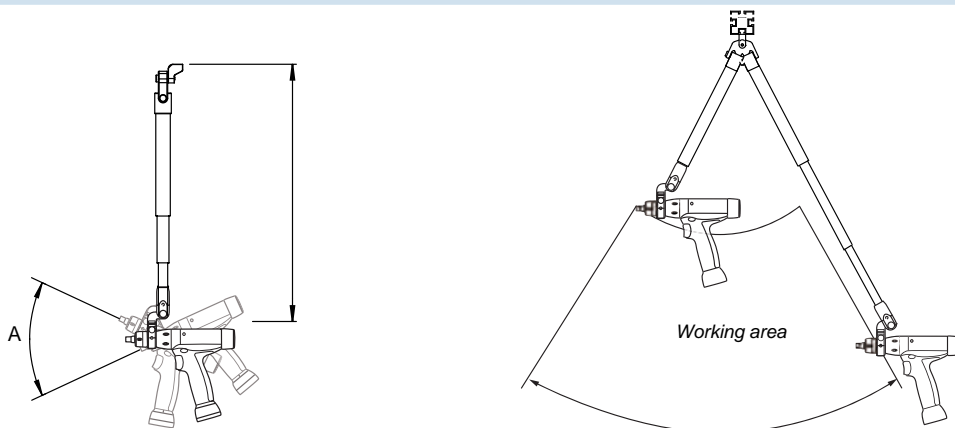


Model	Max torque		Min length mm	Max length mm	A Max tool holder swivel angle [deg]	Weight		Tool holder interface type	Ordering No.
	Nm	ft lb				kg	lb		
SMC 12 1150	12	8.9	516	1128	60	0.37	0.816	A	4390 1510 85
SMC 12 1600	12	8.9	666	1578	60	0.42	0.926	A	4390 1511 85
SMC 12 2100	12	8.9	835	2083	60	0.48	1.06	A	4390 1512 85
SMC 25 1150	25	18.4	524	1124	50	0.51	1.12	A	4390 1514 85
SMC 25 1600	25	18.4	674	1574	50	0.61	1.34	A	4390 1515 85
SMC 25 2100	25	18.4	841	2075	50	0.68	1.5	A	4390 1516 85
SMC 25 2600	25	18.4	1007	2573	50	0.77	1.7	A	4390 1517 85
SMC 50 1600	50	36.9	712	1624	40	0.95	2.09	B	4390 1518 85
SMC 50 2100	50	36.9	878	2125	40	1.05	2.31	B	4390 1519 85
SMC 50 2600	50	36.9	1045	2626	40	1.15	2.54	B	4390 1520 85
SMC 100 1600	100	73.8	722	1628	30	1.28	2.82	B	4390 1522 85
SMC 100 2100	100	73.8	889	2129	30	1.41	3.11	B	4390 1523 85
SMC 100 2600	100	73.8	1056	2630	30	1.53	3.37	B	4390 1524 85
SMC 200 1600	200	148	726	1628	20	1.98	4.37	-	4390 1526 85
SMC 200 2100	200	148	893	2129	20	2.18	4.81	-	4390 1527 85
SMC 200 2600	200	148	1060	2630	20	2.39	5.27	-	4390 1528 85

Tool holder is ordered separately. Choose the appropriate balancer depending on tool weight. Order the balancer kit for easy and fast assembly.

NOTE: A: 17 mm square interface, B: 32 mm square interface. For SMC 200 the tool holders connect directly to the clevis of the arm.

Dimensions



Torque arm SML MK II

By mounting your assembly tool on a SML MK II torque arm you will immediately increase the productivity and reduce muscular stress from your operators. All arms are delivered with integrated balancer, 3-axis movement and the Atlas Copco interface for tool holders. The 3-axis movement allows the operator to ease the arm effortlessly around the workstation.

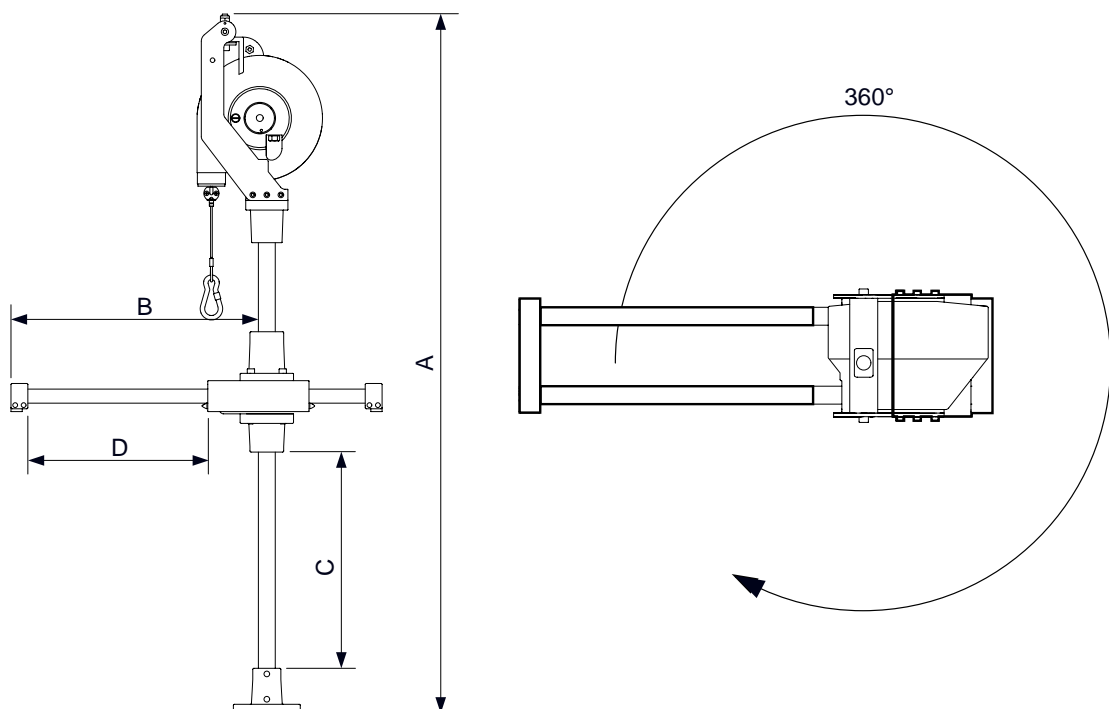
- 3-axis movement for maximum flexibility.
- Strong and durable desing.
- Integrated balancer to support tool and arm weight.
- High torque capacity, up to 1000 Nm.
- Same tool holder interface as SML T / SMS T / SMC for arms up to 150 Nm.



Model	Max tool weight		Max torque		D Horizontal stroke mm	C Vertical stroke mm	A Height mm	Tool holder interface type	Ordering No.
	kg	lb	Nm	ft lb					
SML 10 MK II	1	2.2	10	7.4	240	220	680	A	8202 9003 20
SML 40 MK II	2.3	5.1	40	29.5	280	290	834	B	8202 9003 21
SML 80 MK II	5.2	11.5	80	59	320	360	964	B	8202 9003 22
SML 150 MK II	7	15.4	150	110.7	360	430	1049	C	8202 9003 23
SML 300 MK II	14	30.9	300	221.4	400	500	1231	C	8202 9003 24
SML 500 MK II	10	22	500	369	440	570	1361	C	8202 9003 25
SML 1000 MK II	11.3	24.9	1000	738	480	640	1571	C	8202 9003 26

Tool holder is ordered separately.

Dimensions



GHP – Torque arm for MicroTorque range

Atlas Copco GHP torque arm is an excellent means of assistance when using hand-held or fixtured straight microtorque screwdrivers.

Torque arm GHP Mini is recommended with screwdrivers below 100 Ncm, and GHP Small below 200 Ncm.

The GHP torque arms is exceptionally easy to position and handle. The design is intended for low torque applications and work tasks over a long period of time. Comes with appropriate balancing system to support the weight of the tool.

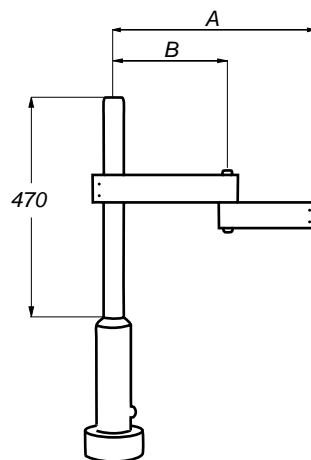


Model	Stroke mm	alfa	Ordering No.
GHP Mini	200	270°	8432 0830 02
GHP Small	400	270°	8432 0830 03
GHP Large	730	270°	8432 0830 04

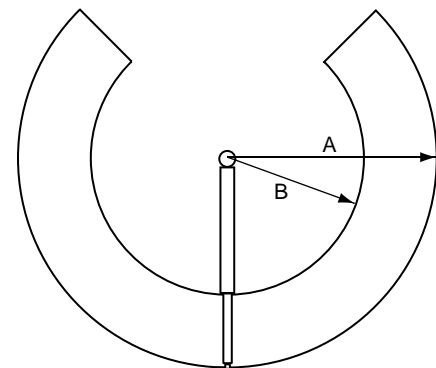
Tool holder is ordered separately.

Dimensions

Model	Working range, mm	
	A	B
GHP Mini	280	150
GHP Small	460	250
GHP Large	500	250



GHP Mini



GHP Small/GHP Large

Optional Accessories

Tool holder guide

Atlas Copco tool holders are designed to optimize your workplace solution. Depending on tool, torque arm and application you can choose from a wide range of tool holders; universal holder, specific diameter holders, spline holders, mounting plates with spine or hole, pistol tool holders or angle tool holders. A tool specific tool holder is always better than a universal holder.

How to build your workplace solution

- 1) Tool
- 2) Torque arm
 - Torque range
 - Work area
 - Tool weight
- 3) Tool holder
 - Arm - Tool holder interface type (or mounting on arm clevis, as for SMC angle tool holders)
 - Tool interface: eg. Spline, Diameter or Angle
- 4) Accessories
- 5) For SMC - Balancer

Tool holders for torque arms with tool holder interface type A SMC 12/25 and SMS/L T 5/12/25 and SML MK II 10

Model	Tool dia. mm	Spline type	Arm interface		Description	Ordering No.
			type	type		
Universal holder	26 - 49	-	-	A	Max tool torque 25 Nm	4390 1510 86
Holder, Spline 1	-	1	-	A		4390 1513 07
Holder, diameter 30.5	30 - 30.5	-	-	A		4390 1513 80
Holder, diameter 34	33.5 - 34	-	-	A		4390 1513 81
Holder diameter 36.5	36 - 36.5	-	-	A		4390 1513 82
Holder diameter 38	37.5 - 38	-	-	A		4390 1513 83
Holder diameter 44	43.5 - 44	-	-	A		4390 1513 84
Holder diameter 46	45.5 - 46	-	-	A	To be used with adapter	4390 1513 85
Special adapters to be used with dia 46 mm tool holder						
					LUM10 PR	4390 1734 09
					ELI	4390 1734 08
					LUM21 PR-P	4390 1735 44
					LUM12 SR	4390 1735 52
					LUM12 PR	4390 1735 53
					LUM22 PR	4390 1735 54
Holder diameter 56	55.5-56	-	-	A	To be used with adapter	4390 1513 86
Special adapters to be used with dia 56 mm tool holder						
					LUM21 SR	4390 1735 45
					LUM22 SR	4390 1735 51
Mounting plate, Spline 1	-	1	-	A		4390 2020 00
Mounting plate, Spline 2	-	2	-	A		4390 2020 01
Mounting plate, hole 24	24	-	-	A		4390 2020 02
Mounting plate, hole 26	26	-	-	A		4390 2020 03
Mounting plate, hole 28	28	-	-	A		4390 2020 04
Mounting plate, blank	-	-	-	A		4390 2020 05



Universal tool holder



Tool holder, diameter



Mounting plate



Tool holder, Spline

Tool holders for torque arms with tool holder interface type B, SMC 50/100 and SMS/L T 50/100 and SML MK II 40/80

Model	Tool dia. mm	Spline type	Arm interface		Description	Ordering No.
			type	type		
Holder, Spline 1	-	1	-	B		4390 1513 08
Holder, Spline 2	-	2	-	B		4390 1513 09
Holder, Spline 3	-	3	-	B		4390 1513 10
Holder, hole 24	24	-	-	B		4390 1518 22
Mounting plate, Spline 1	-	1	-	B		4390 2021 00
Mounting plate, Spline 2	-	2	-	B		4390 2021 01
Mounting plate, Spline 3	-	3	-	B		4390 2021 02
Mounting plate, hole 24	24	-	-	B		4390 2021 03
Mounting plate, hole 26	26	-	-	B		4390 2021 04
Mounting plate, hole 28	28	-	-	B		4390 2021 05
Mounting plate, blank	-	-	-	B		4390 2021 06

Torque Arm Accessories

Optional Accessories

Mounting plates for SML MK II 150/300/500/1000 torque arms, tool holder interface type C

Model	Tool dia. mm	Spline type	Arm interface type	Description	Ordering No.
Mounting plate, Spline 1	-	1	C		4390 1760 00
Mounting plate, Spline 2	-	2	C		4390 1761 00
Mounting plate, Spline 3	-	3	C		4390 1762 00
Mounting plate, Spline 4	-	4	C		4390 1763 00
Mounting plate, Spline 5	-	5	C		4390 1764 00
Mounting plate, Spline 6	-	6	C		4390 1765 00
Mounting plate, Spline 7	-	7	C		4390 1766 00
Mounting plate, QMX/ETX50	-	-	C		4390 1782 00
Mounting plate, QMX/ETX62	-	-	C		4390 1783 00
Mounting plate, QMX90/ETX90	-	-	C		4390 1785 00
Extension mounting plate	-	-	C		4390 1768 00



Mounting plate



Extension mounting plate

Pistol tool holders for SMC carbon arms

Model	Tool dia. mm	Spline type	Arm interface type	Description	Ordering No.
Pistol holder, hole 24	24	-	-	For SMC 50	4390 1518 18
Pistol holder, Spline 2	-	2	-	For SMC 100	4390 1522 18
Pistol holder, Spline 2	-	2	-	For SMC 200	4390 1526 18
Pistol holder, Spline 3	-	3	-	For SMC 200	4390 1513 11

Tool holder connects directly to the clevis of the arm.



Pistol holder

Angle tool holders for SMC carbon arms, SMC 50

Model	Description	Ordering No.
Angle tool holder for	LTV38-R50-13, LTV38-R42-13	4390 2062 80
	LTV38-R50-HAD, LTV38-R42-HAD	4390 2062 81
	LTV38-R50-10, LTV38-R42-10	4390 2062 82
	LTV39-2 R30-10, LTV39-2 R37-10, LTV39-2 R48-10	4390 2062 83
	ETV ST61-40-10, ETV ST61-40-HAD, ETV STB62-40-10, ETV STB62-50-10	4390 2062 84
	ETV STB32-30-10, ETV ST61-30-10, ETV STB62-30-10	4390 2062 85
	LTV39-2 R48-13	4390 2062 86
	LTV29-2 R30-10	4390 2062 87
	ETV S72-30-10, ETV S42-30-10	4390 2062 88
	ETV S72-40-10	4390 2062 89
	ETV DS72-40-10	4390 2062 90

Tool holder connects directly to the clevis of the arm.

NOTE: 4390 2062 88 is attached to the arm by the arm tool holder interface B.



Angle tool holder

Angle tool holders for SMC carbon arms, SMC 100

Model	Description	Ordering No.
Angle tool holder	ETV ST81-100-13, ETV ST61-100-13, ETV STB62-100-13	4390 2061 80
	ETV DS72-70-HAD	4390 2061 81
	ETV STB62-70-13, ETV ST81-70-13-L150, ETV ST81-70-13, ETV ST61-70-13, ETV ST81-90-HAD, ETV ST61-90-HAD	4390 2061 82
	ETV S72-50-10/B10, LTV39-2 R70-13, LTV39-2 R56-13, ETV S7-50-10	4390 2061 83
	LTV39-2 R85-13	4390 2061 84
	LTV38-R85-13	4390 2061 85
	LTV38 R85-HAD	4390 2061 86
	ETV ST81-50-10, ETV ST61-50-HAD, ETV ST61-50-10, LTV39-2 R56-10	4390 2061 87
	ETV ST101-100-HAD, ETV ST101-100-13, ETV ST101-100-INTEL, ETV S72-100-13	4390 2061 88
	LTV38 R70-13	4390 2061 89
	LTV38 R57-13	4390 2061 90
	ETV DS72-70-13	4390 2061 91
	ETV DS92-100-13	4390 2061 92
	ETV S72-70-13	4390 2061 93
	ETV DS72-50-HAD, ETV DS72-50-10	4390 2061 94

Tool holder connects directly to the clevis of the arm.

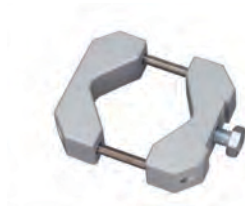


Angle tool holder

Optional Accessories



Bench stand



Holder for bench stand



Table clamp



Horizontal adapter



Vertical adapter



Start handle

Angle tool holders for SMC carbon arms, SMC 200

Model	Description	Ordering No.
Angle tool holder	ETV ST61-200, ETV ST81-200	4390 1513 87
	ETV ST101-180-13 / 13-F / 13-M / 13-M-F, ETV ST101-180-B13 / B13-F, ETV S72-150-13 / B13, ETV S72-180-13 / B13, ETV S92-180-13,	4390 2060 80
	ETV ST61-150-13 / B13 / 13-ATEX, ETV ST61-180-13 / B13 / 13-ATEX, ETV ST81-150-13 / B13, ETV ST81-180-13 / B13	4390 2060 81
	ETV DS92-180-13	4390 2060 82
	ETV DS72-160-13 / B13, ETV DS72-180-13 / B13	4390 2060 83
	LTV48 R120-L13 / R150-L13 / R200-L13	4390 2060 84
	LTV69 R180-13, LTV69 N180-13	4390 2060 85
	LTV48 R120-HAD / R150-HAD / R200-HAD LTV48 R120-FS / R150-FS / R200-FS	4390 2060 86
	ETV ST61-150-FS / 180-FS ETV ST61-120-HAD / 150-HAD / 180-HAD ETV ST81-120-HAD / 150-HAD / 180-HAD ETV ST81-150-FS / 180-FS	4390 2060 87
	ETV ST101-180-FS / FS-F ETV ST101-180-Intel / Intel-F ETV ST101-180-HAD / HAD-F	4390 2060 88
	ETV DS72-160-FS ETV DS72-100-HAD / 160-HAD	4390 2060 89
	ETV DS72-100-13 / B13	4390 2060 90

Tool holder connects directly to the clevis of the arm.

Optional accessories for SMC carbon arms

Model	Description	Ordering No.
Bench stand	Bench stand with height 753 mm. Holder must be ordered separately	4390 1728 00
Holder for bench stand	Stand attachment 12-25 Nm Stand attachment 50-100 Nm SMC 200 should not be used with table stand	4390 1510 88 4390 1518 88
Table clamp	Clamp for heavy duty applications, 22-82 mm	4390 1734 02
Balancer kit	SMC Balancer adaptor kit for RIL 1C-5C and WP10 SMC Balancer adaptor kit for WP05	4390 2050 00 4390 2078 80

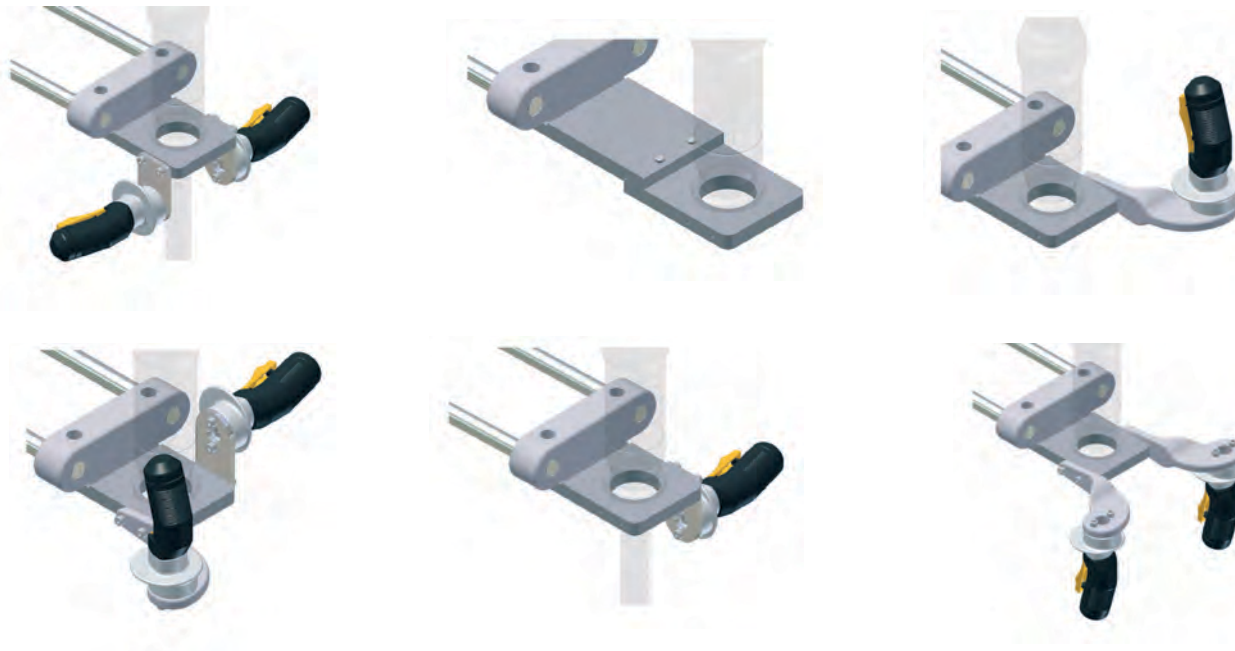
Optional accessories for SML/SMS T-series and SML MK II

Description	Ordering No.
Horizontal adapter (handle mount)	4390 1770 00
Vertical adapter (handle mount)	4390 1769 00
Start handle	(electric, 1 signal) 4390 1772 00 (electric, 2 signal) 4390 1773 00 (pneumatic) 4390 1771 00
Heavy duty start handles	(electric, 1 signal) 4390 1772 01 (electric, 2 signal) 4390 1773 01 (pneumatic) 4390 1771 01
Heavy duty handgrip (dead)	4390 1786 01
Handgrip (dead handle)	4390 1786 00
Remote start cable	3 m 4390 1774 00 5 m 4390 1775 00 10 m 4390 1776 00
Extension remote start cable	10 m 4390 1778 00 15 m 4390 1779 00
Y- piece connector (for 2 x electric handles)	4390 1777 00

NOTE: – For forward and reverse tool operation, a 2 signal handle is required (electric tools only).

Torque Arm Accessories

Installation Proposals for SML



Optional Accessories for GHP MicroTorque

Description	Ordering No.
Adapter	
Adapter between GHP Mini and ETF 5, 10, 20	8432 0830 70
Adapter between GHP Mini and ETD M 03/05/10A	8432 0831 81
Adapter between GHP Mini and ETD M25AVB	8432 0830 83
Adapter between GHP Small and ETF 50-200	8432 0830 72
Adapter between GHP Small and ETD M-40-250 L	8432 0830 73
Adapter between GHP Large and ETF 400, 500, 800	8432 0830 74
Universal adapter for GHP Small (LUM, EBL, DL, SL)	8432 0831 80
Handle	
Handle between GHP Mini and ETF 05, 10, 20	8432 0830 90
Handle between GHP Small and ETF 50, 100, 200	8432 0830 53
Handle between GHP Large and ETF 400, 500, 800	8432 0830 54

Optional Accessories

Tool holster for pistol grip and straight tools

Model	Max tool width, mm	Ordering No.
Tool holster small	45	4220 3584 82



Tool holster

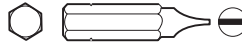
Screwdriver Bits – Hexagon Drive

DRIVE SYSTEM: 1/4" HEXAGON, STYLE C 6.3

SCREW PROFILE:



Slotted bits



Application: For slotted screws
Drive: 1/4" Hexagon, Style C 6.3

Blade thickness mm	Blade width mm	Length mm	Ordering No.
0.55	3.5	25	4023 1400 21
0.6	4	25	4023 1400 22
0.8	5.5	25	4023 1400 26

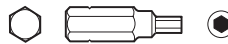
Phillips bits



Application: For Phillips screws
Drive: 1/4" Hexagon, Style C 6.3

Point	Length mm	Ordering No.
PH0	25	4023 1326 00
PH1	25	4023 0696 01
PH2	25	4023 0697 01
PH3	25	4023 0698 01

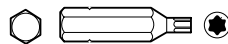
Hex bits



Application: For Hex-socket screws
Drive: 1/4" Hexagon, Style C 6.3

Point	Length mm	Ordering No.
2	25	4023 1318 00
2.5	25	4023 1319 00
3	25	4023 0819 00
4	25	4023 1320 00
5	25	4023 0820 00
6	25	4023 0821 00
7	25	4023 1430 00
8	25	4023 0905 00

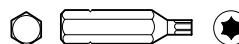
TorxPlus bits



Application: For TorxPlus screws
Drive: 1/4" Hexagon, Style C 6.3

Point	Length mm	Ordering No.
IP6	25	4023 0001 70
IP8	25	4023 0001 74
IP10	25	4023 0001 78

Torx bits



Application: For Torx screws
Drive: 1/4" Hexagon, Style C 6.3

Point	Length mm	Ordering No.
TX6	25	4023 0001 60
TX8	25	4023 1329 00
TX9	25	4023 1330 00
TX10	25	4023 1321 00
TX15	25	4023 1331 00
TX20	25	4023 1322 00
TX25	25	4023 1332 00
TX27	25	4023 1333 00
TX30	25	4023 1323 00
TX40	25	4023 1334 00

Pozidriv bits



Application: For Pozidriv screws
Drive: 1/4" Hexagon, Style C 6.3

Point	Length mm	Ordering No.
PZ1	25	4023 1101 11
PZ2	25	4023 1101 12
PZ3	25	4023 1101 13

DRIVE SYSTEM: 5/16" HEXAGON, STYLE C 8

SCREW PROFILE:



Hex Bits



Application: For Hex-socket screws
Drive: 5/16" Hexagon, Style C 8

Point mm	Length mm	Ordering No.
5	34	4023 1215 00
6	25	4023 1216 00
7	25	4023 1219 00
8	25	4023 1217 00
10	25	4023 1218 00

DRIVE SYSTEM: 3 MM HEXAGON

SCREW PROFILE:



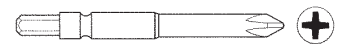
Slotted bits



Application: For slotted screws
Drive: 3 mm Hexagon

Blade thickness mm	Blade width mm	Length mm	Ordering No.
0.3	1.8	50	4023 0004 03
0.4	2	50	4023 0004 04
0.4	2.5	50	4023 0004 05
0.5	3	50	4023 0004 06
0.5	4	50	4023 0004 07
0.5	3.5	50	4023 0004 08
0.5	4.5	50	4023 0004 09
0.8	4	50	4023 0004 10
0.8	5.5	50	4023 0004 11

Phillips bits



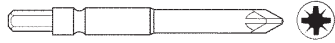
Application: For Phillips screws
Drive: 3 mm Hexagon

Point	Length mm	Ordering No.
00	50	4023 0004 00
0	50	4023 0004 01
1	50	4023 0004 02

Bits and Power Sockets

Torx bits

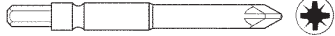
Application: For Torx screws
Drive: 3 mm Hexagon



Point	Length mm	Ordering No.
T6	50	4023 0004 14
T7	50	4023 0004 15
T8	50	4023 0004 16
T10	50	4023 0004 17

Pozidriv bits

Application: For Pozidriv screws
Drive: 3 mm Hexagon



Point	Length mm	Ordering No.
PZ0	50	4023 0004 12
PZ1	50	4023 0004 13

DRIVE SYSTEM: 1/4" HEXAGON, STYLE E 6.3

SCREW PROFILE:



Slotted bits

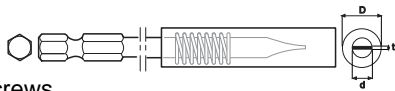
Application: For slotted screws
Drive: 1/4" Hexagon, Style E 6.3



Blade thickness mm	Blade width mm	Length mm	Ordering No.
3.2	0.7	49	4023 2020 21
3.9	0.8	49	4023 2020 23
4.7	0.9	49	4023 2020 24
6.3	1	49	4023 2020 26
7	1.1	49	4023 2020 27
7.9	1.2	49	4023 2020 28
9.1	1.3	49	4023 2020 29
3.2	0.7	76	4023 2030 21
3.9	0.8	76	4023 2030 23
4.7	0.9	76	4023 2030 24

Slotted bits with finder

Application: For slotted screws
Drive: 1/4" Hexagon, Style E 6.3



Outside dia (D) mm	Blade thickness (t) mm	Blade width (d) mm	Length mm	Ordering No.
9.5	0.9	4.9	95	4023 0683 00
11.1	1	6.1	93	4023 1313 00
12.7	1.1	7.4	93	4023 0684 00
14.3	1.2	8.9	96	4023 0949 00
15.9	1.3	10.0	95	4023 0685 00

Hex bits

Application: For Hex-socket screws
Drive: 1/4" Hexagon, Style E 6.3



Point mm	Length mm	Ordering No.
2	49	4023 1311 00
2.5	49	4023 1312 00
3	49	4023 0710 00
4	49	4023 0711 00
5	49	4023 0712 00
6.35	49	4023 0906 00
8	49	4023 1369 00
10	49	4023 1370 00

Phillips bits

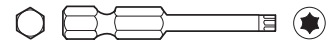
Application: For Phillips screws
Drive: 1/4" Hexagon, Style E 6.3



Point	Length mm	Ordering No.
PH00	50	4023 0001 51
PH00	70	4023 0001 52
PH00	90	4023 0001 53
PH0	50	4023 1325 00
PH1	50	4023 2320 21
PH1	70	4023 2327 21
PH1	89	4023 2335 21
PH1	152	4023 2360 21
PH2	50	4023 2320 22
PH2	70	4023 2327 22
PH2	89	4023 2335 22
PH2	152	4023 2360 22
PH3	50	4023 2320 23
PH3	70	4023 2327 23
PH3	89	4023 2335 23
PH3	152	4023 2360 23

Torx bits

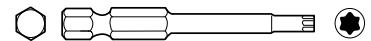
Application: For Torx screws
Drive: 1/4" Hexagon, Style E 6.3



Point	Length mm	Ordering No.
TX5	49	4023 0002 16
TX5	70	4023 0002 17
TX6	49	4023 0001 61
TX6	70	4023 0001 62
TX6	90	4023 0001 63
TX7	49	4023 0002 18
TX7	70	4023 0002 19
TX8	49	4023 2220 21
TX8	90	4023 2235 21
TX9	49	4023 2220 22
TX9	90	4023 2235 22
TX10	49	4023 2220 23
TX10	90	4023 2235 23
TX15	49	4023 2220 24
TX15	90	4023 2235 24
TX20	49	4023 2220 25
TX20	90	4023 2235 25
TX25	49	4023 2220 26
TX25	90	4023 2235 26
TX27	49	4023 2220 27
TX27	90	4023 2235 27
TX30	49	4023 2220 28
TX30	90	4023 2235 28
TX40	90	4023 2235 29

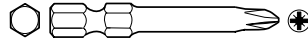
TorxPlus bits

Application: For TorxPlus screws
Drive: 1/4" Hexagon, Style E 6.3



Point	Length mm	Ordering No.
IP5	50	4023 0002 20
IP5	70	4023 0002 21
IP6	50	4023 0001 71
IP6	70	4023 0001 72
IP6	90	4023 0001 73
IP7	50	4023 0002 23
IP7	70	4023 0002 24
IP7	90	4023 0002 25
IP8	50	4023 0001 75
IP8	70	4023 0001 76
IP8	90	4023 0001 77
IP10	50	4023 0001 79
IP10	70	4023 0001 80
IP10	90	4023 0001 81

Pozidriv bits



Application: For Pozidriv screws
Drive: 1/4" Hexagon, Style E 6.3

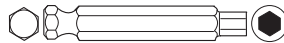
Point	Length mm	Ordering No.
PZ0	50	4023 0001 41
PZ0	70	4023 0001 42
PZ1	50	4023 2420 21
PZ1	70	4023 2427 21
PZ1	89	4023 2435 21
PZ2	50	4023 2420 22
PZ2	70	4023 2427 22
PZ2	70	4023 2435 22
PZ3	50	4023 2420 23
PZ3	89	4023 2435 23

DRIVE SYSTEM: 7/16" HEXAGON, STYLE E 11.2

SCREW PROFILE:



Hex bits



Application: For Hex-socket screws
Drive: 7/16" Hexagon, Style E 11.2

Point mm	Length mm	Ordering No.
5	70	4023 0800 00
6	70	4023 0801 00
8	70	4023 0802 00
10	70	4023 0760 00

Bit Holders

DRIVE SYSTEM: 1/4" HEXAGON, STYLE E 6.3

**APPLICATION: SUITABLE FOR BITS WITH
1/4" HEXAGON DRIVE**



Standard type

Hex- drive	Hex- female	Dia- meter (D) mm	Length L mm	Length L1 mm	Magnetic	Ordering No.
1/4"	1/4"	11.1	46.5	28.5	Yes	4023 1208 01
1/4"	1/4"	11.1	46.5	55.5	Yes	4023 1208 02
1/4"	1/4"	11.1	46.5	103.7	Yes	4023 1209 00



Quick release type

Hex- drive	Hex- female	Dia- meter (D) mm	Length L mm	Length L1 mm	Magnetic	Ordering No.
1/4"	1/4"	9.4	35.7	25.4	Yes	4023 1353 00
1/4"	1/4"	9.4	50	25.4	Yes	4023 0707 00

Adapters

DRIVE SYSTEM: 1/4" HEXAGON, STYLE E 6.3

APPLICATION: FOR BITS WITH WING-SHANK 4 MM DRIVE



Adapters

Ordering No.	
Adapter	4220 0105 00

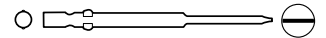
Screwdriver Bits – Wing-shank Drive

DRIVE SYSTEM: 4 MM WING-SHANK

SCREW PROFILE:



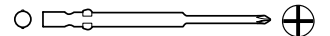
Slotted bits



Application: For Slotted screws
Drive: Wing-shank 4 mm

Blade thickness mm	Blade width mm	Length mm	Ordering No.
0.28	1.3	60	4023 1327 01
0.30	1.7	60	4023 1327 02
0.3	2.0	60	4023 1327 03
0.3	2.5	60	4023 1327 04

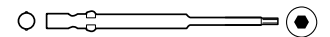
Phillips bits



Application: For Phillips screws
Drive: Wing-shank 4 mm

Point	Length mm	Ordering No.
PH00	40	4023 0002 56
PH0	40	4023 0002 57
PH0	60	4023 0002 03
PH1	40	4023 0002 58
PH2	40	4023 0002 59

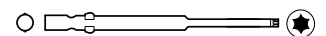
Hex bits



Application: For Hex screws
Drive: Wing-shank 4 mm

Point	Length mm	Ordering No.
1.5	60	4023 0002 60
2	60	4023 0002 61
2.5	60	4023 0002 62
3	60	4023 0002 63

Torx bits

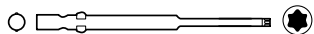


Application: For Torx screws
Drive: Wing-shank 4 mm

Point	Length mm	Ordering No.
TX1	40	4023 0002 52
TX2	60	4023 0002 53
TX3	60	4023 0002 54
TX4	60	4023 0001 90
TX5	60	4023 0001 91
TX6	60	4023 0001 92
TX8	60	4023 0001 93
TX10	60	4023 0001 94

Bits and Power Sockets

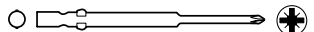
TorxPlus bits



Application: For TorxPlus screws
Drive: Wing-shank 4 mm

Point	Length mm	Ordering No.
IP4	60	4023 0002 10
IP5	60	4023 0002 11
IP6	60	4023 0002 12
IP8	60	4023 0002 13
IP10	60	4023 0002 14

Pozidriv bits



Application: For Pozidriv screws
Drive: Wing-shank 4 mm

Point	Length mm	Ordering No.
PZ0	60	4023 0002 03
PZ1	60	4023 0002 04
PZ2	60	4023 0002 55

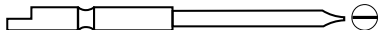
Screwdriver Bits – Halfmoon Drive

DRIVE SYSTEM: 4 MM HALFMOON

SCREW PROFILE:



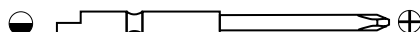
Slotted bits



Application: For slotted screws
Drive: Halfmoon 4 mm

Blade width mm	Blade thickness mm	Length mm	Ordering No.
2	0.3	44	4023 0002 37
2.5	0.3	44	4023 0002 38
3	0.4	44	4023 0002 39
4	0.5	44	4023 0002 40

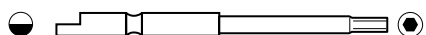
Phillips bits



Application: For Phillips screws
Drive: Halfmoon 4 mm

Point	Length mm	Ordering No.
PH000	44	4023 0001 10
PH000	64	4023 0001 11
PH00	44	4023 0001 12
PH00	64	4023 0001 13
PH0	44	4023 0001 14
PH0	64	4023 0001 15
PH1	44	4023 0001 16
PH1	64	4023 0001 17
PH1	90	4023 0001 18
PH2	44	4023 0002 30
PH2	64	4023 0002 31

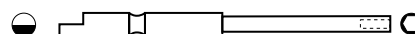
Hex bits



Application: For Hex-socket screws
Drive: Halfmoon 4 mm

Point	Length mm	Ordering No.
1.5	44	4023 0002 41
2	44	4023 0002 42
2.5	44	4023 0002 43
3	44	4023 0002 44

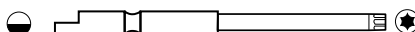
Hex-socket bits



Nutsetter. Application: For nuts and thread-headed screws
Drive: Halfmoon 4 mm

Point	Length mm	Ordering No.
2.3	44	4023 0002 45
2.5	44	4023 0002 46
3	44	4023 0002 47
4	44	4023 0002 48
4.5	44	4023 0002 49
5	44	4023 0002 50
5.5	44	4023 0002 51

Torx bits



Application: For Torx screws
Drive: Halfmoon 4 mm

Point	Length mm	Ordering No.
TX1	44	4023 0002 32
TX2	44	4023 0001 06
TX3	44	4023 0001 08
TX3	64	4023 0001 09
TX4	44	4023 0001 20
TX4	64	4023 0001 21
TX5	44	4023 0001 22
TX5	64	4023 0001 23
TX6	44	4023 0001 24
TX6	64	4023 0001 25
TX8	44	4023 0001 26
TX8	64	4023 0001 27
TX10	44	4023 0001 28
TX10	64	4023 0001 29

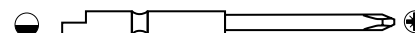
TorxPlus bits



Application: For TorxPlus screws
Drive: Halfmoon 4 mm

Point	Length mm	Ordering No.
IP2	44	4023 0002 35
IP3	44	4023 0002 36
IP4	44	4023 0001 30
IP4	64	4023 0001 31
IP5	44	4023 0001 32
IP5	64	4023 0001 33
IP6	44	4023 0001 34
IP6	64	4023 0001 35
IP8	44	4023 0001 36
IP8	64	4023 0001 37
IP10	44	4023 0001 38
IP10	64	4023 0001 39

Pozidriv bits



Application: For Pozidriv screws
Drive: Halfmoon 4 mm

Point	Length mm	Ordering No.
PZ0	44	4023 0002 26
PZ0	64	4023 0002 27
PZ1	44	4023 0002 28
PZ1	64	4023 0002 29

Adapters

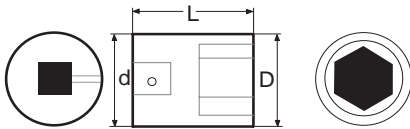
DRIVE SYSTEM: 4 MM HALFMOON
APPLICATION: SUITABLE FOR BITS WITH
1/4" HEXAGON DRIVE

Adapters

	Ordering No.
Magnetic	4023 0002 15

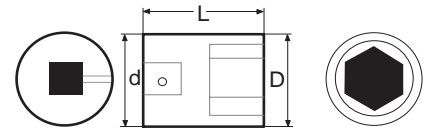
Power sockets

Power socket 1/4" square drive



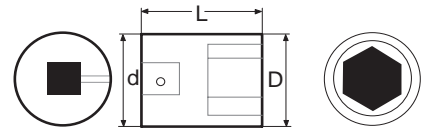
1/4"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	
mm	4	7.5	13	25	4026 0604 00	
	5	8.5	13	25	4026 0605 00	
	5.5	9	13	25	4026 0605 50	
	6	9.5	13	25	4026 0606 00	
	7	11	13	25	4026 0607 00	
	8	12	13	25	4026 0608 00	
	9	13	13	25	4026 0609 00	
	10	14.5	13	25	4026 0610 00	
	11	16	13	25	4026 0611 00	
	12	17	13	25	4026 0612 00	
	13	18	13	25	4026 0613 00	
	14	19	13	25	4026 0614 00	
	in	7/32	9	13	25	4026 0605 50
		1/4	9.5	13	25	4026 0708 00
9/32		11	13	25	4026 0607 00	
5/16		12	13	25	4026 0608 00	
3/8		14.5	13	25	4026 0712 00	
13/32		14.5	13	25	4026 0610 00	
7/16		16	13	25	4026 0611 00	
15/32		17	13	25	4026 0612 00	
1/2		18	13	25	4026 0716 00	
9/16	19	13	25	4026 0614 00		

Power socket 3/8" square drive



3/8"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	
mm	7	12.5	19	30	4026 0907 00	
	8	14	19	30	4026 0908 00	
	9	15	19	30	4026 0909 00	
	10	16	19	30	4026 0910 00	
	11	17.5	19	30	4026 0911 00	
	12	19	19	30	4026 0912 00	
	13	20	22	30	4026 0913 00	
	14	21	22	30	4026 0914 00	
	16	24	22	30	4026 0916 00	
	17	25	22	30	4026 0917 00	
	18	26	22	30	4026 0918 00	
	19	27.5	22	30	4026 0919 00	
	in	5/16	12.5	19	30	4026 0908 00
		3/8	14.5	19	30	4026 1012 00
		13/32	15	19	30	4026 0910 00
		7/16	17	19	30	4026 0911 00
		15/32	18	19	30	4026 0912 00
		1/2	19	19	30	4026 1016 00
		9/16	20	20	30	4026 1018 00
3/4		26	26	34	4026 0919 00	

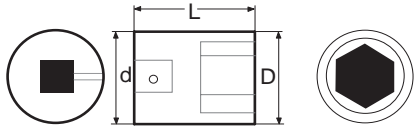
Power socket 1/2" square drive



1/2"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	
mm	10	17	25	38	4026 1210 00	
	11	19	25	38	4026 1211 00	
	12	20	25	38	4026 1212 00	
	13	21	25	38	4026 1213 00	
	14	22	25	38	4026 1214 00	
	16	25	30	38	4026 1216 00	
	17	26	30	38	4026 1217 00	
	18	27.5	30	38	4026 1218 00	
	19	29	30	38	4026 1219 00	
	21	32	30	38	4026 1221 00	
	22	32	30	38	4026 1222 00	
	24	35	30	45	4026 1224 00	
	27	39	30	50	4026 1227 00	
	in	3/8	16	22	38	4026 1312 00
		7/16	18	22	38	4026 1211 00
		1/2	20	22	38	4026 1316 00
		9/16	22	24	38	4026 1318 00
		3/4	28	28	38	4026 1219 00
		15/16	35	30	45	4026 1224 00
1 1/8		40	38	40	4026 1336 00	

Bits and Power Sockets

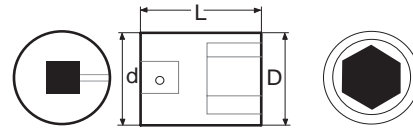
Power socket 3/4" square drive



3/4"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin ^a and O-ring ref. letter	
mm	18	32	44	50	4026 1918 00	A	
	19	33	44	50	4026 1919 00	A	
	21	36	44	50	4026 1921 00	A	
	22	37	44	50	4026 1922 00	A	
	24	40	44	52	4026 1924 00	A	
	27	43	44	54	4026 1927 00	A	
	30	47	44	54	4026 1930 00	A	
	32	49	44	56	4026 1932 00	A	
	34	52	44	56	4026 1934 00	A	
	36	54	44	55	4026 1936 00	A	
	in	3/4	33	44	50	4026 1919 00	A
		15/16	40	44	52	4026 1924 00	A
1 1/8		42	44	52	4026 2036 00	A	
1 5/16		47	44	56	4026 2042 00	A	
1 1/2		53	44	56	4026 2048 00	A	

^a See table for pin and o-ring.

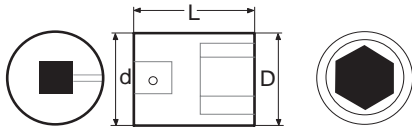
Power socket 1 1/2" square drive



1 1/2"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin ^a and O-ring ref. letter
mm	50	81.5	86	87	4026 3850 00	F
	55	87.5	86	90	4026 3855 00	F
	60	94	86	95	4026 3860 00	F
	65	100	86	100	4026 3865 00	F
	70	106	86	105	4026 3870 00	F
	75	112	86	110	4026 3875 00	F
	80	119	86	116	4026 3880 00	F

^a See table for pin and o-ring.

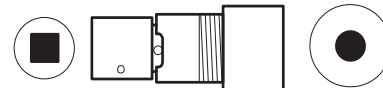
Power socket 1" square drive



1"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin ^a and O-ring ref. letter	
mm	24	42	54	58	4026 2524 00	C	
	27	46	54	58	4026 2527 00	C	
	30	50	54	60	4026 2530 00	C	
	32	52	54	60	4026 2532 00	C	
	34	55	54	60	4026 2534 00	C	
	36	57	54	65	4026 2536 00	C	
	41	64	54	67	4026 2541 00	C	
	46	69.5	54	74	4026 2546 00	C	
	50	75	54	80	4026 2550 00	C	
	55	81	54	84	4026 2555 00	C	
	60	87	54	87	4026 2560 00	C	
	65	93	54	90	4026 2565 00	C	
	in	15/16	42	54	58	4026 2524 00	C
		1 1/8	46	54	58	4026 2636 00	C
1 5/16		53	51	62	4026 2642 00	C	
1 11/16		65	52	64	4026 2654 00	C	
1 7/8	70	58	66	4026 2660 00	C		

^a See table for pin and o-ring.

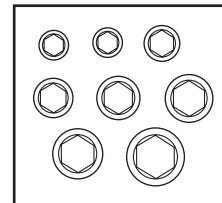
Stud setter



Square drive in	Ordering No.	Holder drive nut	Ordering No.
1/2	4023 0752 80	M6	4023 0761 00
		M8	4023 0762 00
		M10	4023 0756 00
		M12	4023 0757 00

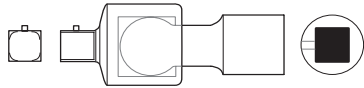
Power socket sets

A complete kit, containing 8 power sockets with 1/2" square drive, delivered in a handy box.



Square drive in	Width across flats	Ordering No.
1/2	13, 16, 17, 18, 19, 21, 22, 24	4112 0607 80

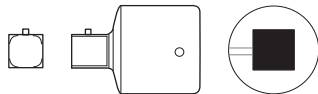
Universal joints



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin ^a and O-ring ref. letter
3/8	3/8	23	60	4023 1182 00	
1/2	1/2	29	76	4023 0745 00	
5/8	5/8	38	69	4023 0875 00	
3/4	3/4	46	89	4023 0857 00	B
1	1	60	112	4023 1060 00	C
1 1/2	1 1/2	84	162	4023 1316 00	F

^a See table for pin and o-ring.

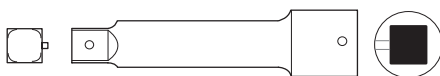
Socket adapters



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin ^a and O-ring ref. letter
1/2	3/8	23	35	4023 1153 00	
3/8	1/2	24	39	4023 1154 00	
5/8	1/2	29	43	4023 1155 00	
1/2	5/8	32	49	4023 0733 00	
3/4	5/8	38	54	4023 1156 00	
1/2	3/4	38	57	4023 0909 00	A
1	3/4	44	65	4023 1157 00	B
3/4	1	54	75	4023 0868 00	C
1	1 1/2	83	100	4023 1314 00	F

^a See table for pin and o-ring.

Extensions



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin ^a and O-ring ref. letter
3/8	3/8	21	152	4023 1164 06	
1/2	1/2	27	127	4023 0734 00	
1/2	1/2	27	254	4023 0735 00	
5/8	5/8	33	152	4023 0749 00	
3/4	3/4	38.5	178	4023 0854 00	A
3/4	3/4	38.5	330	4023 0855 00	A
1	1	54	178	4023 0751 00	C
1	1	54	330	4023 0867 00	C
1 1/2	1 1/2	88	330	4023 1315 00	G

^a See table for pin and o-ring.

Locking pins and O-rings



Ref. letter	Locking pin		O-ring		Pin and O-ring Ordering No.
	Diameter mm	Length mm	Diameter mm	Inner diameter mm	
A ^b	4	35	5	33	4026 5000 90
B	4	45	5	33	4026 5000 91
C	5	45	6	44	4026 5000 92
D	5	60	6	59	4026 5000 93
E	5	70	6	65	4026 5000 94
F	6	75	6	65	4026 5000 95
G	6	75	6	79	4026 5000 96
H	6	95	6	94	4026 5000 97

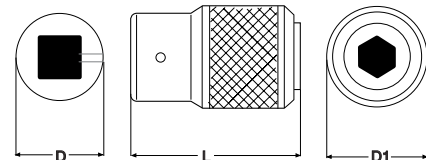
^b B type pin also included.

Power socket holders



Hex in	Square in	Length mm	Ordering No.
1/4	1/4	50.8	4023 0686 00
1/4	1/4	76.2	9721 4234 00
1/4	1/4	101.6	4023 0687 00
1/4	1/4	152.4	4023 1203 00
1/4	3/8	50.8	4023 0907 00
1/4	3/8	76.2	9721 4235 00
1/4	3/8	101.6	4023 1204 00
7/16	3/8	76.2	4023 1210 03
7/16	1/2	70.0	4023 1211 03

Quick change chuck for power bits



Square drive in	Female hex in	Diameter		Length L mm	Ordering No.
		D mm	D1 mm		
3/8	1/4	22	20	45	4023 1380 00
3/8	5/16	22	33	55	4023 1382 00
3/8	7/16	22	33	55	4023 1317 80
1/2	7/16	29	33	55	4023 0737 00

Fixtured Applications

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With our vast experience, we are a supplier you can rely on

Atlas Copco is the world-leading supplier of fixtured nutrunner systems. Our vast experience of designing components for multiple nutrunner systems, combined with knowledge of building, commissioning and maintaining fixtured solutions, makes Atlas Copco a supplier you can rely on.

For fixtured nutrunner systems, Atlas Copco offers a complete portfolio of products designed to satisfy your needs. These range from individual components to operator controlled Multiples by Express® stations and demanding stitching applications. There are two different systems designed for fixtured applications, as well as user-friendly controller software.

Please contact your local Atlas Copco sales representative who will be pleased to discuss your needs.

Power MACS 4000 and QST nutrunners

A state-of-the-art, stand-alone system offering high reliability, accuracy and capability. The system is designed with user friendliness in mind and is easy to build and integrate into production lines.

Power Focus 4000 and ETX nutrunners

A flexible solution that makes it possible to run durable and accurate fixtured nutrunners on the Power Focus controller designed for hand-held tools.

ToolsTalk software

ToolsTalk software for Power MACS 4000 has been developed with user-friendliness and customer adaptation in mind. This Window-based program can be installed on a station PC, a laptop or a back office PC.



Power MACS 4000 stand alone system – small, cost efficient and powerful. No need for bulky cabinets.



A vertical two channel Multiple by Express® fixture with QST spindles.

Nutrunners to match your needs

The QST nutrunner is a true state-of-the-art product. Partnered with the Power MACS 4000 tightening controller, QST offers one of the most advanced and reliable tightening solutions on the market. ETX nutrunners are compact, durable and easy to integrate. Since ETX is controlled by the Power Focus, like the Tensor S and Tensor ST tools, it is possible to achieve 100% controller commonality in a line.

QST and ETX nutrunners – common features

Designed specifically for fixtured systems, these two reliable, durable nutrunners have many common features.

With QST and ETX nutrunners pilot mount or sandwich are possible. Different socket holder lengths (0-200 mm) permit access to applications or parts with tight clearances. For longer bolt lengths, spring travel can be increased from the standard 50 mm to 76 or 100 mm on request.

A built-in memory chip in QST and ETX nutrunners stores calibration values and general tool and service data. Both tools are ISO certified to +/- 2.5% accuracy and 1 million duty cycles on hard and soft joints.

QST and ETX – different features

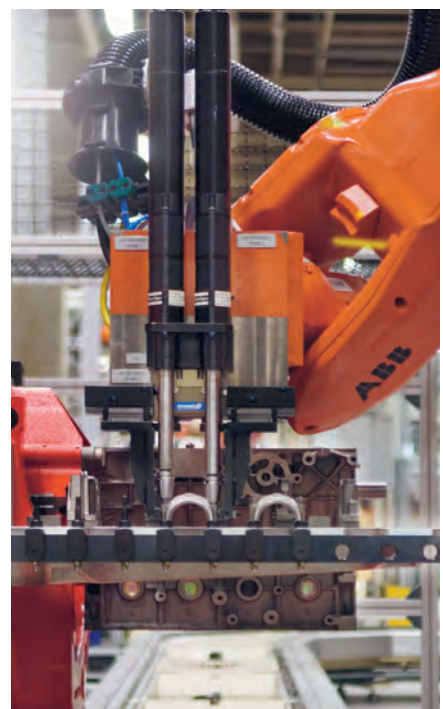
The QST nutrunner is available in inline, off-set, angle head, angle head travel, U-shaped, angle, SPN and co-axial designs. The ETX comes in inline, offset and angle head versions.

Connectors on both tools are designed to provide cable management flexibility. The robust connector and pin design on the QST is adjustable in 2 DOF. The ETX has a rotatable single connector.

QST offers a standard torque range of 2-1,750 Nm (up to 8,000 on request) and has a 60 m cable. ETX has a torque range of 6-950 Nm and a cable length of 25 m.

QST nutrunners – extra features

- Digital communication between nutrunner and controller.
- Hot Swap – replace cable or spindle without turning off the power.
- Increased speed characteristics, up to 3,000 rpm.
- Optional redundant angle encoder and transducer.
- MTBF better than 5 million cycles under normal conditions.



- Inline nutrunner, CT – Equipped with commutation sensor and transducer.
- Off-set nutrunner, COT – Comes with a commutation sensor, off-set gears for narrow bolts and transducer.
- Extended spring travel 76 mm and 100 mm – Nutrunners with extended spring travel for longer bolt lengths.
- Dual transducers, CTT – Nutrunners with dual torque transducer feedback.
- Dual transducers and angle feedback, CATT – Nutrunners with dual angle and torque transducer feedback.
- Angle head nutrunners, CTV – Nutrunners with angle heads. Available with or without travel.



QST COT



QST CT

Model	Travel mm	Torque range		Speed r/min	Min C-C	Weight		Gear ratio	Socket holder size in	Ordering No.
		Nm	ft lb			kg	lb			
QST34-8CT-T50-L150-H6	50	2-8	1.5-6	3000	34	2	4.4	7.428	1/4	8435 6100 10
QST34-20CT-T50-L150-H10	50	4-20	2.9-14.7	1000	34	2	4.4	21.2	3/8	8435 6110 10
QST42-20CT-T50-L134-H10	50	6-20	4-14	2000	43	3.1	6.9	7.50	3/8	8435 6120 10
QST42-20COT-T50-L134-H10	50	6-20	4-14	2000	31	4.2	9.3	7.5	3/8	8435 6120 20
QST42-50CT-T50-L134-H13	50	10-50	7-35	700	43	3.8	8.4	21.33	1/2	8435 6130 10
QST42-50COT-T50-L134-H13	50	10-50	7-35	700	31	4.5	9.9	21.33	1/2	8435 6130 20
QST50-90CT-T50-L137-H13	50	20-90	15-65	650	51	5.8	12.7	18.21	1/2	8435 6140 10
QST50-90COT-T50-L137-H13	50	20-90	15-65	650	37	7.8	17.2	18.21	1/2	8435 6140 20
QST50-150CT-T50-L137-H13	50	30-150	22-110	380	51	5.8	12.8	31.24	1/2	8435 6150 10
QST50-150COT-T50-L137-H13	50	30-150	22-110	380	37	7.8	17.2	31.24	1/2	8435 6150 20
QST62-150CT-T50-L152-H13	50	30-150	22-110	450	63	10.2	22.5	13.94	1/2	8435 6160 10
QST62-150COT-T50-L152-H13	50	30-150	22-110	450	45	12.8	28.2	13.94	1/2	8435 6160 20
QST62-230CT-T50-L152-H19	50	40-230	29-170	330	63	10.2	22.5	19.04	3/4	8435 6165 10
QST62-230COT-T50-L152-H19	50	40-220	29-162	330	45	12.8	28.2	19.04	3/4	8435 6165 20
QST62-350CT-T50-L152-H19	50	50-350	37-258	220	63	10.2	22.5	28.33	3/4	8435 6170 10
QST62-350COT-T50-L152-H19	50	50-330	37-243	220	45	12.8	28.2	28.33	3/4	8435 6170 20
QST80-450CT-T50-L146-H19	50	90-450	66-332	260	81	16.7	37	22.67	3/4	8435 6175 10
QST80-450COT-T50-L146-H19	50	90-450	66-332	260	55	21	46	22.67	3/4	8435 6175 20
QST80-600CT-T50-L146-H19	50	120-600	88-442	200	81	17	37	29.56	3/4	8435 6180 10
QST80-600COT-T50-L146-H19	50	120-600	88-442	200	55	21	46	29.56	3/4	8435 6180 20
QST90-750CT-T50-L152-H25	50	150-750	111-553	150	91	25	55	38.89	1	8435 6185 10
QST90-750COT-T50-L152-H25	50	150-750	111-553	150	63	29	64	38.89	1	8435 6185 20
QST90-1000CT-T50-L152-H25	50	200-1000	147-737	130	91	26	57	46.84	1	8435 6190 10
QST90-1000COT-T50-L152-H25	50	200-1000	147-737	130	63	30	66	46.84	1	8435 6190 20
QST95-1750CT-T50-L149-H38	50	350-1750	258-1291	60	96	28	61.7	98.21	1 1/2	8435 6195 10
QST95-1750COT-T50-L155-H38	50	350-1750	258-1291	60	73	43	94.8	98.21	1 1/2	8435 6195 20

Extended spring travel 76 mm and 100 mm										
QST42-20CT-T76-L189-H10	76	6-20	4-14	2000	43	3.1	6.9	7.5	3/8	8435 6120 11
QST42-50CT-T76-L189-H13	76	10-50	7-35	700	43	3.8	8.4	21.3	1/2	8435 6130 11
QST50-90CT-T76-L200-H13	76	20-90	15-65	650	51	5.8	12.7	18.2	1/2	8435 6140 11
QST50-150CT-T76-L200-H13	76	30-150	22-110	380	51	5.8	12.8	31.2	1/2	8435 6150 11
QST62-230CT-T76-L200-H19	76	40-230	29-170	330	63	10.2	22.5	19	3/4	8435 6165 11
QST62-350CT-T76-L200-H19	76	50-350	37-258	220	63	10.2	22.5	28.3	3/4	8435 6170 11
QST80-450CT-T76-L214-H19	76	90-450	66-332	260	81	17	37	22.67	3/4	8435 6175 11
QST80-600CT-T76-L214-H19	76	120-600	88-442	200	81	17	37	29.6	3/4	8435 6180 11
QST90-750CT-T76-L176-H25	76	150-750	111-553	150	63	29	64	38.89	1	8435 6185 11
QST90-1000CT-T76-L176-H25	76	200-1000	147-737	130	91	26	57	46.8	1	8435 6190 11
QST42-50CT-T100-L191-H13	100	10-50	7-35	700	43	3.8	8.4	21.3	1/2	8435 6130 12
QST50-150CT-T100-L186-H13	100	30-150	22-110	380	51	5.8	12.8	31.2	1/2	8435 6150 12

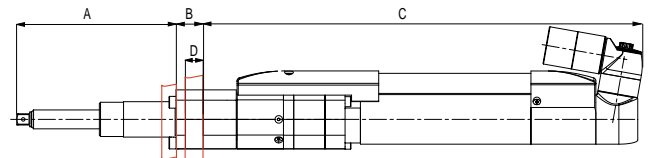
Model	Travel mm	Torque range		Speed r/min	Min C-C	Weight		Gear ratio	Socket holder size in	Ordering No.
		Nm	ft lb			kg	lb			
Dual transducers, CTT										
QST42-20CTT-T50-L134-H10	50	6-20	4-14	2000	43	3.1	6.9	7.5	3/8	8435 6120 50
QST42-20COTT-T50-L134-H10	50	6-20	4-14	2000	31	4.2	9.3	7.5	3/8	8435 6120 60
QST42-50CTT-T50-L134-H13	50	10-50	7-35	700	43	3.8	8.4	21.33	1/2	8435 6130 50
QST42-50COTT-T50-L134-H13	50	10-50	7-35	700	31	4.5	9.9	21.33	1/2	8435 6130 60
QST50-90CTT-T50-L137-H13	50	20-90	15-65	650	51	5.8	12.7	18.21	1/2	8435 6140 50
QST50-90COTT-T50-L137-H13	50	20-90	15-65	650	37	7.8	17.2	18.21	1/2	8435 6140 60
QST50-150CTT-T50-L137-H13	50	30-150	22-110	380	51	5.8	12.8	31.24	1/2	8435 6150 50
QST50-150COTT-T50-L137-H13	50	30-150	22-110	380	37	7.8	17.2	31.24	1/2	8435 6150 60
QST62-150CTT-T50-L152-H13	50	30-150	22-110	450	63	10.2	22.5	13.94	1/2	8435 6160 50
QST62-150COTT-T50-L152-H13	50	30-150	22-110	450	45	12.8	28.2	13.94	1/2	8435 6160 60
QST62-230CTT-T50-L152-H19	50	40-230	29-170	330	63	10.2	22.5	19.04	3/4	8435 6165 50
QST62-230COTT-T50-L152-H19	50	40-220	29-162	330	45	12.8	28.2	19.04	3/4	8435 6165 60
QST62-350CTT-T50-L152-H19	50	50-350	37-258	220	63	10.2	22.5	28.33	3/4	8435 6170 50
QST62-350COTT-T50-L152-H19	50	50-330	37-243	220	45	12.8	28.2	28.33	3/4	8435 6170 60
QST80-450CTT-T50-L146-H19	50	90-450	66-332	260	81	16.7	37	22.67	3/4	8435 6175 50
QST80-450COTT-T50-L146-H19	50	90-450	66-332	260	55	21	46	22.67	3/4	8435 6175 60
QST80-600CTT-T50-L146-H19	50	120-600	88-442	200	81	17	37	29.56	3/4	8435 6180 50
QST80-600COTT-T50-L146-H19	50	120-600	88-442	200	55	21	46	29.56	3/4	8435 6180 60
QST90-750CTT-T50-L152-H25	50	150-750	111-553	150	91	25	55	38.89	1	8435 6185 50
QST90-750COTT-T50-L152-H25	50	150-750	111-553	150	63	29	64	38.89	1	8435 6185 60
QST90-1000CTT-T50-L152-H25	50	200-1000	147-737	130	91	26	57	46.84	1	8435 6190 50
QST90-1000COTT-T50-L152-H25	50	200-1000	147-737	130	63	30	66	46.84	1	8435 6190 60
Dual transducers and angle feedback, CATT										
QST42-20CATT-T50-L134-H10	50	6-20	4-14	2000	43	3.1	6.9	7.5	3/8	8435 6120 70
QST42-50CATT-T50-L134-H13	50	10-50	7-35	700	43	3.8	8.4	21.33	1/2	8435 6130 70
QST50-90CATT-T50-L137-H13	50	20-90	15-65	650	51	5.8	12.7	18.21	1/2	8435 6140 70
QST50-150CATT-T50-L137-H13	50	30-150	22-110	380	51	5.8	12.8	31.24	1/2	8435 6150 70
QST62-150CATT-T50-L152-H13	50	30-150	22-110	450	63	10.2	22.5	13.94	1/2	8435 6160 70
QST62-230CATT-T50-L152-H19	50	40-230	29-170	330	63	10.2	22.5	19.04	3/4	8435 6165 70
QST62-350CATT-T50-L152-H19	50	50-350	37-258	220	63	10.2	22.5	28.33	3/4	8435 6170 70
QST80-450CATT-T50-L146-H19	50	90-450	66-332	260	81	16.7	36.9	22.67	3/4	8435 6175 70
QST80-600CATT-T50-L146-H19	50	120-600	88-442	200	81	17	37	29.56	3/4	8435 6180 70
QST90-750CATT-T50-L152-H25	50	150-750	111-553	150	91	25	55	38.89	1	8435 6185 70
QST90-1000CATT-T50-L152-H25	50	200-1000	147-737	130	91	26	57	46.84	1	8435 6190 70
Angle head, CTV										
QST42-20CTV-P10		6-20	4-14	1200	28	3.5	7	11.6	3/8	9831 4101 03
QST42-20CTV-T25-H10	25	6-20	4-14	1200	28	5	11	11.6	3/8	9831 4101 04
QST42-30CTV-P10		6-30	4.5-22	440	36	3.5	7	11.6	3/8	9831 4101 05
QST42-30CTV-T25-H10	25	6-30	4.5-22	440	36	5.5	12	33	3/8	9831 4101 06
QST42-70CTV-P13		14-70	10-52	440	40	4.5	10	33	1/2	9831 4101 07
QST42-70CTV-T25-H13	25	14-70	10-52	450	40	5.5	12	33	1/2	9831 4101 08
QST50-170CTV-P13		34-170	25-125	210	52	6.8	15	56.2	1/2	9831 4102 01
QST50-170CTV-T50-H13	50	34-170	25-125	210	48	8.6	19	56.2	1/2	9831 4102 02
QST50-200CTV-H19		40-200	29-145	210	54	7	15	56.2	3/4	9831 4102 03
QST50-200CTV-T25-H19	25	40-200	29-145	210	54	9.5	21	56.2	3/4	9831 4102 04
QST50-200CTV-T50-H19	50	40-200	29-145	210	58	10	22	56.2	3/4	9831 4102 05
QST62-350CTV-H19		60-350	44-229	175	66	13.5	30	34.3	3/4	9831 4103 07
QST62-350CTV-T25-H19	25	60-350	44-229	175	67	16.5	36	34.3	3/4	9831 4103 03
QST62-600CTV-H25		120-600	88-440	100	109	16.5	33	93.5	1	9831 4103 06

Dimensions

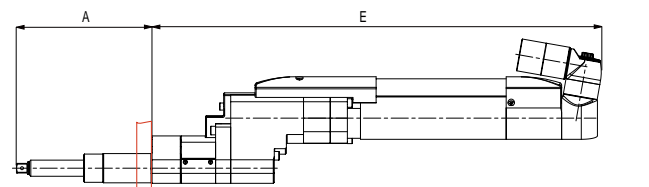
Model	A mm	B mm	C mm	D mm	E mm
Standard					
QST34-8CT-T50-L150-H6	150	16	359	10	–
QST34-20CT-T50-L150-H10	150	16	359	10	–
QST42-20CT -T50 -L134 -H10	134	23	395	15	–
QST42-20COT-T50-L134-H10	134.5	–	–	–	446
QST42-50CT-T50-L134-H13	134	23	422	15	–
QST42-50COT-T50-L134-H13	134.5	–	–	–	472
QST50-90CT-T50-L137-H13	137	23	464	15	–
QST50-90COT-T50-L137-H13	137	–	–	–	521
QST50-150CT-T50-L137-H13	137	23	464	15	–
QST50-150COT-T50-L137-H13	137	–	–	–	521
QST62-150CT-T50-L152-H13	152	25	517	15	–
QST62-150COT-T50-L152 -H13	152.5	–	–	–	586
QST62-230CT-T50-L152-H19	152	25	517	15	–
QST62-230COT-T50-L152-H19	152.5	–	–	–	586
QST62-350CT-T50-L152-H19	152	25	517	15	–
QST62-350COT-T50-L152-H19	152	–	–	–	592
QST80-450CT-T50-L146-H19	146	30	595	20	–
QST80-450COT-T50-L146-H19	146	–	–	–	685
QST80-600CT-T50-L146-H19	146	30	595	20	–
QST80-600COT-T50-L146-H19	146	–	–	–	685
QST90-750CT-T50-L152-H25	152	32	600	20	–
QST90-750COT-T50-L152-H25	153	–	–	–	705
QST90-1000CT-T50-L152-H25	152	32	600	20	–
QST90-1000COT-T50-L152-H25	153	–	–	–	710
QST95-1750CT-T50-L149-H38	149	32	651	20	–
QST95-1750COT-T50-L155-H38	155	–	–	–	796

Model	A mm	B mm	C mm	D mm	E mm
Dual transducers and angle feedback, CATT					
QST42-20CATT-T50-L134-H10	134	23	395	15	–
QST42-50CATT-T50-L134-H13	134	23	422	15	–
QST50-90CATT-T50-L137-H13	137	23	464	15	–
QST50-150CATT-T50-L137-H13	137	23	464	15	–
QST62-150CATT -T50-L152-H13	152	25	542	15	–
QST62-230CATT-T50-L152-H19	152	25	542	15	–
QST62-350CATT-T50-L152-H19	152	25	542	15	–
QST80-450CATT-T50-L146-H19	146	30	595	20	–
QST80-600CATT-T50-L146-H19	146	30	595	20	–
QST90-750CATT-T50-L152-H25	152	32	600	20	–
QST90-1000CATT-T50-L152-H25	152	32	600	20	–
Angle head					
QST42-20CTV-P10	65	–	–	8	409
QST42-20CTV-T25-H10	–	–	–	–	–
QST42-30CTV-P10	83	–	–	8	435
QST42-30CTV-T25-H10	–	–	–	–	525
QST42-70CTV-P13	84	–	–	15	432
QST42-70CTV-T25-H13	–	–	–	–	526
QST50-170CTV-P13	135	–	–	15	481
QST50-170CTV-T50-H13	–	–	–	–	–
QST50-200CTV-H19	135	–	–	15	481
QST50-200CTV-T25-H19	135	–	–	15	481
QST50-200CTV-T50-H19	135	–	–	15	481
QST62-350CTV-H19	153	–	–	14	564
QST62-350CTV-T25-H19	153	–	–	14	564
QST62-600CTV-H25	174	–	–	14	564

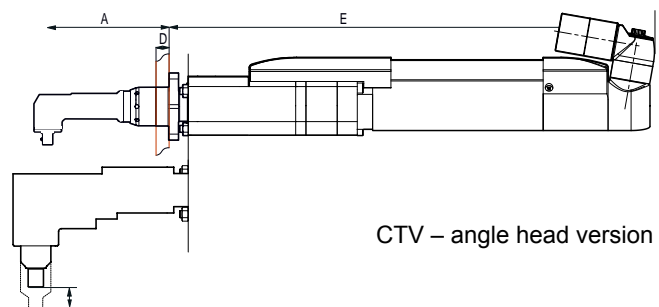
Model	A mm	B mm	C mm	D mm	E mm
Extended spring travel 76 mm and 100 mm					
QST42-20CT-T76-L189-H10	189	23	421	15	–
QST42-50CT-T76-L189-H13	189	23	447	15	–
QST50-90CT-T76-L200-H13	200	25	493	15	–
QST50-150CT-T76-L200-H13	200	25	493	15	–
QST62-230CT-T76-L200-H19	200	25	543	15	–
QST62-350CT-T76-L200-H19	200	25	543	15	–
QST80-450CT-T76-L214-H19	214	43	595	20	–
QST80-600CT-T76-L214-H19	214	43	595	20	–
QST90-750CT-T76-L176-H25	176	32	600	20	–
QST90-1000CT-T76-L176-H25	176	32	650	20	–
QST42-50CT-T100-L191-H13	191	23	519	15	–
QST50-150CT-T100-L186-H13	186	23	563	15	–
Dual transducers, CTT					
QST42-20CTT-T50-L134-H10	134	23	395	15	–
QST42-20COTT-T50-L134-H10	134	–	–	–	446
QST42-50CTT-T50-L134-H13	134	23	422	15	–
QST42-50COTT-T50-L134-H13	134	–	–	–	472
QST50-90CTT-T50-L137-H13	137	23	464	15	–
QST50-90COTT-T50-L137-H13	137	–	–	–	521
QST50-150CTT-T50-L137-H13	137	23	464	15	–
QST50-150COTT-T50-L137-H13	137	–	–	–	521
QST62-150CTT-T50-L152-H13	152	25	542	15	–
QST62-150COTT-T50-L152-H13	137	–	–	–	521
QST62-230CTT-T50-L152-H19	152	25	542	15	–
QST62-230COTT-T50-L152-H19	152.5	–	–	–	586
QST62-350CTT-T50-L152-H19	152	25	542	15	–
QST62-350COTT-T50-L152-H19	152	–	–	–	592
QST80-450CTT-T50-L146-H19	146	30	595	20	–
QST80-450COTT-T50-L146-H19	146	–	–	–	685
QST80-600CTT-T50-L146-H19	146	30	595	20	–
QST80-600COTT-T50-L146-H19	146	–	–	–	685
QST90-750CTT-T50-L152-H25	146	30	595	20	–
QST90-750COTT-T50-L152-H25	103	–	–	–	706
QST90-1000CTT-T50-L152-H25	152	32	600	20	–
QST90-1000COTT-T50-L152 -H25	153	–	–	–	710



CT – straight version



COT – off-set version



CTV – angle head version

Optional Accessories

Tool and extension cables

Length	Ordering No.
2 m	4220 3799 02
3 m	4220 3799 03
5 m	4220 3799 05
7 m	4220 3799 07
10 m	4220 3799 10
15 m	4220 3799 15
20 m	4220 3799 20
25 m	4220 3799 25
30 m	4220 3799 30
35 m	4220 3799 35
40 m	4220 3799 40



Tool and extension cable



Additional socket holder length

Additional sockets

	A mm	Product No.	Socket holder size in	Socket holder ^a Ordering No.
QST42-20CT				
	0 ^b	8435 6020 10	3/8	4230 1818 00
	50	8435 4083 08	3/8	4230 2217 00
	100	8435 4083 10	3/8	4230 2217 01
	150	8435 4083 12	3/8	4230 2217 02
	200	8435 4083 14	3/8	4230 2217 03
QST42-50CT				
	0 ^b	8435 6030 10	1/2	4230 1819 00
	50	8435 4083 19	1/2	4230 2218 00
	100	8435 4083 21	1/2	4230 2218 01
	150	8435 4083 23	1/2	4230 2218 02
	200	8435 4083 25	1/2	4230 2218 03
QST50-90CT				
	0 ^b	8435 6040 10	1/2	4230 1820 00
	50	8435 4083 28	1/2	4230 2219 00
	100	8435 4083 29	1/2	4230 2219 01
	150	8435 4083 30	1/2	4230 2219 02
	200	8435 4083 31	1/2	4230 2219 03
QST50-150CT				
	0 ^b	8435 6050 10	1/2	4230 1820 00
	50	8435 4083 68	1/2	4230 2219 00
	100	8435 4083 33	1/2	4230 2219 01
	150	8435 4083 34	1/2	4230 2219 02
	200	8435 4083 35	1/2	4230 2219 03
QST62-150CT				
	0 ^b	8435 6060 10	1/2	4230 1829 00
	50	8435 4083 37	1/2	4230 2223 00
	100	8435 4083 40	1/2	4230 2223 01
	150	8435 4083 43	1/2	4230 2223 02
	200	8435 4083 46	1/2	4230 2223 03
	0	8435 4083 70	5/8	4230 1821 00
	50	8435 4083 38	5/8	4230 2224 00
	100	8435 4083 41	5/8	4230 2224 01
	150	8435 4083 44	5/8	4230 2224 02
	200	8435 4083 47	5/8	4230 2224 03

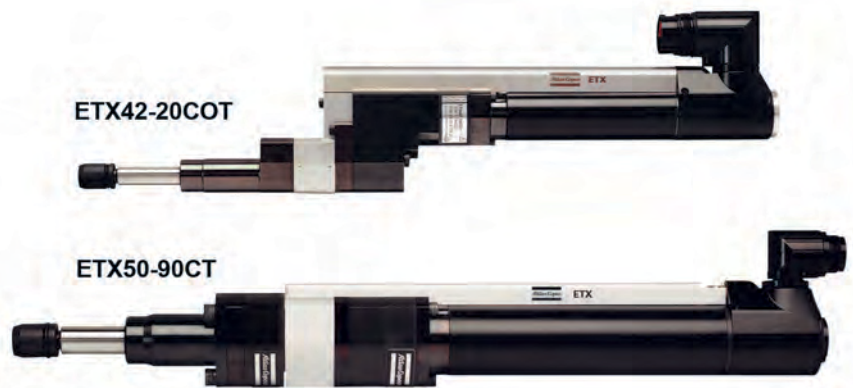
	A mm	Product No.	Socket holder size in	Socket holder ^a Ordering No.
QST62-230CT				
	0	8435 4083 81	5/8	4230 1821 00
	50	8435 4083 83	5/8	4230 2224 00
	100	8435 4083 98	5/8	4230 2224 01
	150	8435 4083 88	5/8	4230 2224 02
	200	8435 4083 91	5/8	4230 2224 03
	0 ^b	8435 5170 10	3/4	4230 1822 00
	50	8435 4083 84	3/4	4230 2226 00
	100	8435 4083 86	3/4	4230 2226 01
	150	8435 4083 89	3/4	4230 2226 02
	200	8435 4083 92	3/4	4230 2226 03
QST62-350CT				
	0	8435 4083 72	5/8	4230 1821 00
	50	8435 4083 53	5/8	4230 2224 00
	100	8435 4083 56	5/8	4230 2224 01
	150	8435 4083 59	5/8	4230 2224 02
	200	8435 4083 62	5/8	4230 2224 03
	0 ^b	8435 6070 10	3/4	4230 1822 00
	50	8435 4083 54	3/4	4230 2226 00
	100	8435 4083 57	3/4	4230 2226 01
	150	8435 4083 60	3/4	4230 2226 02
	200	8435 4083 63	3/4	4230 2226 03

^a This socket holder is included when you order the complete spindle.

^b This socket holder follows when you order the standard nutrunner.

NOTE: The spindle travel is 50 mm for all sockets holders.

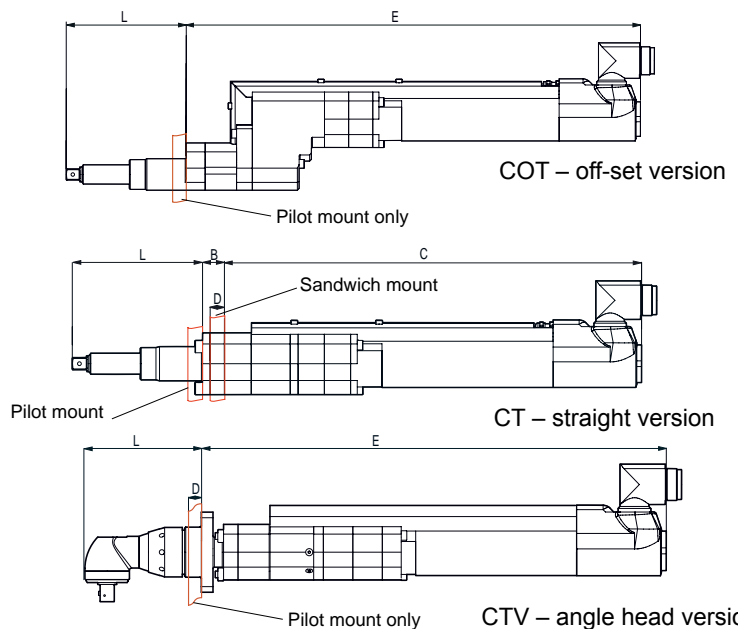
- Inline nutrunner, CT – Equipped with commutation sensor and transducer.
- Off-set nutrunner, COT – Comes with a commutation sensor, off-set gears for narrow bolts and transducer.
- Extended spring travel 76 mm and 100 mm – Nutrunners with extended spring travel for longer bolt lengths.
- Angle head nutrunners, CTV – Nutrunners with angle heads. Available with or without travel.
- Yield control is available for ETX.



Model	Travel mm	Torque range		Speed r/min	Min C-C	Weight		Gear ratio	Socket holder size in	Ordering No.
		Nm	ft lb			kg	lb			
ETX42-20CT	50	6-20	4-14	2000	43	3.2	7.1	7.50	3/8	8435 5120 10
ETX42-20COT	50	6-20	4-14	2000	31	4.3	9.5	7.50	3/8	8435 5120 20
ETX42-50CT	50	10-50	7-35	700	43	3.5	7.7	21.33	1/2	8435 5130 10
ETX42-50COT	50	10-50	7-35	700	31	4.6	10.1	21.33	1/2	8435 5130 20
ETX50-90CT	50	20-90	15-65	650	51	5.9	13.0	18.21	1/2	8435 5140 10
ETX50-90COT	50	20-90	15-65	650	37	8.1	17.9	18.21	1/2	8435 5140 20
ETX50-150CT	50	30-150	22-110	380	51	5.8	12.8	31.24	1/2	8435 5150 10
ETX50-150COT	50	30-150	22-110	380	37	8.0	17.6	31.24	1/2	8435 5150 20
ETX62-150CT	50	30-150	22-110	450	63	9.5	20.9	13.94	1/2	8435 5160 10
ETX62-150COT	50	30-150	22-110	450	46	9.5	20.9	13.94	1/2	8435 5160 20
ETX62-230CT	50	40-230	29-170	330	63	10.2	22.5	19.04	3/4	8435 5170 10
ETX62-230COT	50	40-220	29-162	330	46	12.8	28.2	19.04	3/4	8435 5170 20
ETX62-350CT	50	50-350	37-258	220	63	10.2	22.5	28.33	3/4	8435 5180 10
ETX62-350COT	50	50-330	37-243	220	50	12.9	28.4	28.33	3/4	8435 5180 20
ETX72-450CT	50	90-450	65-331	160	73	11.3	25	41.6	3/4	8435 5182 10
ETX72-600CT	50	120-600	90-441	110	73	11.3	25	58.0	3/4	8435 5183 10
ETX72-600COT	50	120-580	90-425	110	55	17	37.5	57.99	3/4	8435 5183 20
ETX90-750CT	50	150-750	110-551	90	91	17.8	39	68.3	1	8435 5184 10
ETX90-950CT	50	200-950	150-699	70	91	17.8	39	90.0	1	8435 5185 10
Angle head tools										
ETX42-70CTV	-	15-70	11-50	355	45	4.9	10.8	21.33	1/2	8435 4072 07
ETX50-170CTV	-	22-170	16-125	200	50	9.1	20	31.24	1/2	8435 4073 04
ETX62-350CTV	-	50-350	37-221	175	70	13.9	28.9	19.04	3/4	8435 4074 72

Dimensions

Model	L mm	B mm	C mm	D mm	E mm
ETX42-20CT	134	23	363	15	-
ETX42-20COT	134	-	-	-	436
ETX42-50CT	134	23	389	15	-
ETX42-50COT	134	-	-	-	463
ETX50-90CT	137	23	439	15	-
ETX50-90COT	137	-	-	-	519
ETX50-150CT	137	23	439	15	-
ETX50-150COT	137	-	-	-	519
ETX62-150CT	152	25	506	15	-
ETX62-150COT	153	-	-	-	575
ETX62-230CT	152	25	506	15	-
ETX62-230COT	152	-	-	-	575
ETX62-350CT	152	25	506	15	-
ETX62-350COT	152	-	-	-	580
ETX72-450CT	146	30	580	20	-
ETX72-600CT	146	30	580	20	-
ETX72-600COT	146	-	-	-	672
ETX90-750CT	152	32	550	20	-
ETX90-950CT	152	32	550	20	-
ETX42-70CTV	85	-	-	15	422
ETX50-170CTV	133	-	-	15	479
ETX62-350CTV	153	-	-	15	553



Optional Accessories

Cables

Model	Ordering No.
Tool cables	
2 m	4230 2195 02
5 m	4230 2195 05
7 m	4230 2195 07
10 m	4230 2195 10
15 m	4230 2195 15
20 m	4230 2195 20
Extension cables	
5 m	4220 1563 05
10 m	4220 1563 10
15 m	4220 1563 15

RBU

Model	Ordering No.
RBU-X	8433 0080 20
RBU-Gold	8433 0020 20



RBU-X



RBU-Gold

Additional socket holder length



Additional sockets

	A mm	Product No.	Socket holder size in	Socket holder ^a Ordering No.
ETX42-20CT	0 ^b	8435 5120 10	3/8	4230 1818 00
	50	8435 4063 08	3/8	4230 2217 00
	100	8435 4063 10	3/8	4230 2217 01
	150	8435 4063 12	3/8	4230 2217 02
	200	8435 4063 14	3/8	4230 2217 03
ETX42-50CT	0 ^b	8435 5130 10	1/2	4230 1819 00
	50	8435 4063 19	1/2	4230 2218 00
	100	8435 4063 21	1/2	4230 2218 01
	150	8435 4063 23	1/2	4230 2218 02
	200	8435 4063 25	1/2	4230 2218 03
ETX50-90CT	0 ^b	8435 5140 10	1/2	4230 1820 00
	50	8435 4063 28	1/2	4230 2219 00
	100	8435 4063 29	1/2	4230 2219 01
	150	8435 4063 30	1/2	4230 2219 02
	200	8435 4063 31	1/2	4230 2219 03
ETX50-150CT	0 ^b	8435 5150 10	1/2	4230 1820 00
	50	8435 4063 68	1/2	4230 2219 00
	100	8435 4063 33	1/2	4230 2219 01
	150	8435 4063 34	1/2	4230 2219 02
	200	8435 4063 35	1/2	4230 2219 03
ETX62-150CT	0 ^b	8435 5160 10	1/2	4230 1829 00
	50	8435 4063 37	1/2	4230 2223 00
	100	8435 4063 40	1/2	4230 2223 01
	150	8435 4063 43	1/2	4230 2223 02
	200	8435 4063 46	1/2	4230 2223 03
	0	8435 4063 70	5/8	4230 1821 00
	50	8435 4063 38	5/8	4230 2224 00
	100	8435 4063 41	5/8	4230 2224 01
	150	8435 4063 44	5/8	4230 2224 02
	200	8435 4063 47	5/8	4230 2224 03

	A mm	Product No.	Socket holder size in	Socket holder ^a Ordering No.
ETX62-230CT	0	8435 4063 81	5/8	4230 1821 00
	50	8435 4063 83	5/8	4230 2224 00
	100	8435 4063 98	5/8	4230 2224 01
	150	8435 4063 88	5/8	4230 2224 02
	200	8435 4063 91	5/8	4230 2224 03
	0 ^b	8435 5170 10	3/4	4230 1822 00
	50	8435 4063 84	3/4	4230 2226 00
	100	8435 4063 86	3/4	4230 2226 01
	150	8435 4063 89	3/4	4230 2226 02
	200	8435 4063 92	3/4	4230 2226 03
ETX62-350CT	0	8435 4063 72	5/8	4230 1821 00
	50	8435 4063 53	5/8	4230 2224 00
	100	8435 4063 56	5/8	4230 2224 01
	150	8435 4063 59	5/8	4230 2224 02
	200	8435 4063 62	5/8	4230 2224 03
	0 ^b	8435 5180 10	3/4	4230 1822 00
	50	8435 4063 54	3/4	4230 2226 00
	100	8435 4063 57	3/4	4230 2226 01
	150	8435 4063 60	3/4	4230 2226 02
	200	8435 4063 63	3/4	4230 2226 03

^a This socket holder is included when you order the complete nutrunner.

^b This socket holder follows when you order the standard nutrunner.

NOTE: The spindle travel is 50 mm for all sockets holders.

Advanced process control and monitoring

State-of-the-art tightening controllers Power MACS 4000 and Power Focus with their advanced process control and monitoring functions, and supported by ToolsTalk software, can put your assembly operation on the path to zero-fault production.

Power MACS 4000

Power MACS 4000 is Atlas Copco's latest, most advanced tightening controller for fixtured tools. It has effective tools for statistical process control to ensure that quality issues are identified long before they cause production problems.

The controller supports a zero-fault production philosophy with its capacity to collect tightening data for analysis, continuous improvement and traceability. Power MACS processing power and memory are designed to handle and send large amounts of data without influencing the tightening process.

Power Focus

Power Focus is a modular range of controllers, with full flexibility, designed for applications ranging from single nut-runner hand-held operations to fixtured multiple nutrunning systems. Advanced process control and monitoring functions make it easy to view and collect data using the Internet infrastructure.

The Power Focus 4000 is available in two versions, Compact and Graph. The difference between them is the user interface, where the Graph features the color display and a full keyboard.

ToolsTalk Power MACS

The new ToolsTalk software for Power MACS 4000 has been developed with user friendliness and customer adaptation in mind and can be installed on a laptop or a back office PC.



Power MACS 4000

One primary controller is needed per system. The primary controller takes care of external communication and comes with most field buses used in modern production lines (optional). A primary controller can be run as a secondary controller.

The secondary controller comes in two versions; with or without Ethernet switch in the back plate.

- One servo covers the complete torque range from 2 to 8,000 Nm.
- No external PC required, inherent back-up functionality for increased reliability.
- Define your tightening strategy based on results to make sure valuable time and resources are not wasted.
- Powerful PLC onboard.
- Reject Management enabling you to handle faulty tightening in the most efficient way.
- Extensive library of tested tightening strategies – each joint can be tightened in the best possible way in terms of cycle time and quality.
- Stand alone design (no need for bulky cabinets).
- 24V DC supply, integrated Ethernet switch, E-stop circuit.
- Informative display
- Integrated line filter.



TC-P



TC-S

Power MACS 4000 controllers

Model	Fieldbus version	Ordering No.
Primary controller		
TC-4000-P-ES	No Fieldbus	8435 6511 00
TC-4000-P-PB-ES	Profibus	8435 6511 10
TC-4000-P-DN-ES	DeviceNet	8435 6511 30
TC-4000-P-EIP-ES	Ethernet IP	8435 6511 60
TC-4000-P-MTCP-ES	ModBus TCP	8435 6511 70
TC-4000-P-PN-ES	Profi Net	8435 6511 50
TC-4000-P-CC-ES	CC link	8435 6511 80
Secondary controller		
TC-4000-S	No fieldbus, No Ethernet switch	8435 6500 00
TC-4000-S-ES	No fieldbus, Ethernet switch	8435 6501 00

Main Switch Box – MSB

The MSB is used for power distribution and makes power management easy. It is designed be fed with 380-480 V AC 3-phase without requiring an external transformer. The MSB leaves room for customer adaptations and the E-stop functionality can be upgraded from class 3 to class 4. Each MSB supplies up to 6 controllers with power.

Distribution Box – DB

The DB provides the same functionality as the MSB except for the main switch and is used as a complement to the MSB for systems with more than 6 channels.

General Box – GB

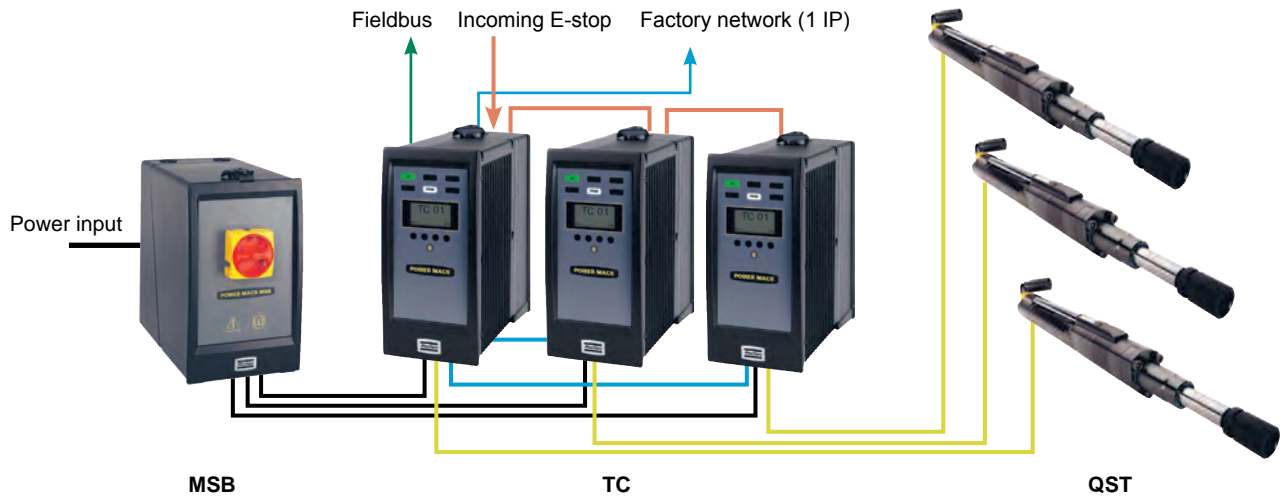
An empty DB, suitable for external system devices.



Model	Ordering No.
MSB	
Main switch box (Max 6 channels)	8435 5660 00
DB	
Distribution box (Max 6 channels) + Power cable 1800 mm	8435 6560 50
GB	
General box	4222 1249 85

Easy-to-build system

 Power cables	4222 1248 xx	 Ethernet cable	4222 1246 xx
 E-Stop cable	4222 1247 xx	 Motor cable	4220 3799 xx



With the Power MACS 4000 controller, multiple-spindle systems are easy to configure. Simply refer to the system ordering table to see which components you need.

System ordering table for a system with one station

No. of spindles	Number of				tool cables	System cable kit ^a
	TC-P	TC-S	MSB	DB		
1	1	0	1	0	1	1
2	1	1	1	0	2	1
3	1	2	1	0	3	1
4	1	3	1	0	4	1
5	1	4	1	0	5	1
6	1	5	1	0	6	1
7	1	6	1	1	7	1
8	1	7	1	1	8	1
9	1	8	1	1	9	1

No. of spindles	Number of				tool cables	System cable kit ^a
	TC-P	TC-S	MSB	DB		
10	1	9	1	1	10	1
11	1	10	1	1	11	1
12	1	11	1	1	12	1
13	1	12	1	2	13	1
14	1	13	1	2	14	1
15	1	14	1	2	15	1
16	1	15	1	2	16	1
17	1	16	1	2	17	1
18	1	17	1	2	18	1

^a See system cable kits below.

System cable kit

No. of spindles	Power cable			Ethernet cable			E-stop cable		Ethernet switch incl. Backplate 4222 0982 90	Ordering No. ^b
	1350 mm 4222 1248 13	1650 mm 4222 1248 16	1950 mm 4222 1248 19	1 m 4222 1246 01	2 m 4222 1246 02	3 m 4222 1246 03	1200 mm 4222 1247 12	3000 mm 4222 1247 30		
1	1	-	-	-	-	-	-	-	-	8435 6560 01
2	2	-	-	1	-	-	1	-	-	8435 6560 02
3	2	1	-	1	1	-	1	1	-	8435 6560 03
4	2	2	-	1	2	-	2	1	-	8435 6560 04
5	2	2	1	1	3	-	3	1	1	8435 6560 05
6	2	2	2	4	1	-	4	1	1	8435 6560 06
7	4	3	-	5	1	-	5	1	1	8435 6560 07
8	4	4	-	6	1	-	6	1	1	8435 6560 08
9	4	3	2	4	1	3	7	1	2	8435 6560 09
10	4	4	2	5	1	3	8	1	2	8435 6560 10
11	4	4	3	6	1	3	9	1	2	8435 6560 11
12	4	4	4	7	1	3	10	1	2	8435 6560 12
13	5	4	4	7	1	4	10	2	3	8435 6560 13
14	6	4	4	8	1	4	11	2	3	8435 6560 14
15	6	5	4	9	1	4	12	2	3	8435 6560 15
16	6	6	4	10	1	4	13	2	3	8435 6560 16
17	6	6	5	10	2	4	14	2	4	8435 6560 17
18	6	6	6	11	2	4	15	2	4	8435 6560 18

^b Based on Atlas Copco suggested set-up.

Optional Accessories

Ethernet cables

Length	Ordering No.
0.5 m	4222 1246 00
1 m	4222 1246 01
2 m	4222 1246 02
3 m	4222 1246 03
5 m	4222 1246 05
10 m	4222 1246 10
15 m	4222 1246 15



Ethernet cable

E-stop cables and termination

Components	Length	Ordering No.
E-stop cable	1200 mm	4222 1247 12
E-stop cable	3000 mm	4222 1247 30
E-stop termination		4222 0755 00



E-stop cable

Power cables between MSB and TC

Suitable for	Length	Ordering No.
TC1-TC2, TC7-TC8, TC13-TC14	1350 mm	4222 1248 13
TC3-TC4, TC9-TC10, TC15-TC16	1650 mm	4222 1248 16
TC5-TC6, TC11-TC12, TC17-TC18	1950 mm	4222 1248 19
For longer distances	5 m	4222 1248 50
	10 m	4222 1370 10
	15 m	4222 1370 15
	20 m	4222 1370 20



Power cable between MSB and TC

Indicator box and cable

Model	Ordering No.	
Indicator box	8435 3010 04	
Indicator box cable to PM4K, 1 m	4243 0278 80	
Open end cable 5 m	4243 0281 05	
Extension cable	3 m	4243 0282 03
	5 m	4243 0282 05
	10 m	4243 0282 10
	15 m	4243 0282 15
	20 m	4243 0282 20
25 m	4243 0282 25	



Indicator box

Operator handle

Model	Ordering No.
Operator handle (ball joint/handle)	
- front/plastic	8435 3030 00
- front/rubber	8435 3030 01
- rear/plastic	8435 3030 02
- rear/rubber	8435 3030 03



Operator handle

Advanced process control and monitoring functions

Power Focus is a modular range of controllers, with full flexibility, designed for applications ranging from single spindle hand-held operations to fixtured multiple nutrunning systems. Advanced process control and monitoring functions make it easy to view and collect data using the Ethernet infrastructure.

- Choose your controller – either Graph or Compact.
- Choose your RBU software key to run a tool.
- Choose from various ways to use the controller, as a stand-alone or in a network.
- Run many different kinds of tool, standard, FS, crowfoot or open tools.
- Realtime statistics analysis.
- Error-proofing solution.
- Advanced tightening control and/or monitoring method.
- Trace view.
- Logic configurator.
- Can handle different levels of communication.

The Power Focus 4000 is available in two versions, Compact and Graph. The difference between them is the user interface, where the Graph features the color display and a full keyboard.

Compact

This version offers full functionality at a lower cost, but requires a PC with the ToolsTalk PF software for process set-up.

Graph

With the Graph hardware, you have full stand-alone programming possibilities. When networked, the Graph can function as a programming terminal for other Power Focus units.

RBU cuts downtime

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



Compact



Graph

Power Focus 4000 and ETX

Model	Ordering No.
Power Focus 4000 W 07	
PF 4000-G	8433 6100 00
PF 4000-C	8433 6100 05
PF 4000-G-DN	8433 6140 00
PF 4000-C-DN	8433 6140 05
PF 4000-C-FLN	8433 6141 05
PF 4000-G-PB	8433 6142 00
PF 4000-C-PB	8433 6142 05
PF 4000-G-IB	8433 6145 00
PF 4000-C-IB	8433 6145 05
PF 4000-G-MB	8433 6147 00
PF 4000-C-MB	8433 6147 05
PF 4000-G-EIP	8433 6149 00
PF 4000-C-EIP	8433 6149 05

Controller functionality

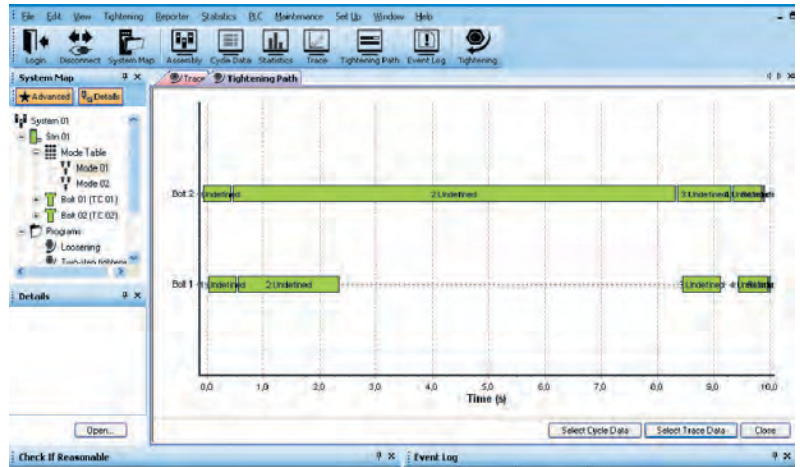
Hardware key	Ordering No.
RBU-Gold	8433 0020 20
RBU-X	8433 0080 20

Model	Ordering No.
Power Focus 4000 W 10	
PF 4000-G-HW	8433 7100 00
PF 4000-C-HW	8433 7100 05
PF 4000-G-DN- HW	8433 7140 00
PF 4000-C-DN-HW	8433 7140 05
PF 4000-G-FLN-HW	8433 7141 00
PF 4000-C-FLN-HW	8433 7141 05
PF 4000-G-PB-HW	8433 7142 00
PF 4000-C-PB-HW	8433 7142 05
PF 4000-G-CC-HW	8433 7143 00
PF 4000-C-CC-HW	8433 7143 05
PF 4000-G-IB-HW	8433 7145 00
PF 4000-C-IB-HW	8433 7145 05
PF 4000-G-MB-HW	8433 7147 00
PF 4000-C-MB-HW	8433 7147 05
PF 4000-G-PN-HW	8433 7148 00
PF 4000-C-PN-HW	8433 7148 05
PF 4000-G-EIP-HW	8433 7149 00
PF 4000-C-EIP-HW	8433 7149 05

ToolsTalk Power MACS

The new ToolsTalk software for Power MACS 4000 has been developed with user friendliness and customer adaptation in mind. This Window-based program can be installed on a station PC, a laptop or a back office PC. ToolsTalk supports off-line programming; to edit or upload programs, simply connect the PC to the Power MACS 4000 controller using an Ethernet cable.

- New user friendly Windows programming interface with “drag-and-drop” and “copy-paste” functionalities.
- 10 levels of read and write security.
- Trace reporting on torque, angle, current, current as torque and time.
- Improved read-at-a-glance graphics with actual pictures of customer parts.
- Possible to view up to 20 tightening traces simultaneously.
- Graphical system map of hardware and software.
- Configurable cycle data menu for station reporting.
- Real time SPC and TDA reporting.
- Event logging of security access, parameter changes, errors, faults, alarms and warnings.
- Maintenance menus to verify hardware and software changes without machine intervention.
- Run the program in Basic or Advanced mode depending on needs.
- New Quick-set functionality for trimming a process in seconds.
- Optimize each tightening by means of the tightening path for each bolt, including start times, stop times, and execution times for the steps.



ToolsTalk Power MACS World Release 07

	Designation	Ordering No.
1 user	English	8092 1307 01
5 user	English	8092 1307 05
10 user	English	8092 1307 10
Plant license	English	8092 1307 97
1 user	German	8092 1307 11
5 user	German	8092 1307 15
10 user	German	8092 1307 20
Plant license	German	8092 1307 98
1 user	French	8092 1307 21
5 user	French	8092 1307 25
10 user	French	8092 1307 30
Plant license	French	8092 1307 99

ToolsTalk Power MACS World Release 10

	Designation	Ordering No.
1 user	English	8092 1308 01
5 user	English	8092 1308 05
10 user	English	8092 1308 10
Plant license	English	8092 1308 97
1 user	German	8092 1308 11
5 user	German	8092 1308 15
10 user	German	8092 1308 20
Plant license	German	8092 1308 98
1 user	French	8092 1308 21
5 user	French	8092 1308 25
10 user	French	8092 1308 30
Plant license	French	8092 1308 99

ToolsTalk Power MACS World Release 10 Gauging

	Designation	Ordering No.
1 user	English	8092 1309 01
5 user	English	8092 1309 05
10 user	English	8092 1309 10
Plant license	English	8092 1309 97
1 user	German	8092 1309 11
5 user	German	8092 1309 15
10 user	German	8092 1309 20
Plant license	German	8092 1309 98
1 user	French	8092 1309 21
5 user	French	8092 1309 25
10 user	French	8092 1309 30
Plant license	French	8092 1309 99

Quality Assurance in Tightening

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Quality assurance that gives peace of mind

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

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

In this range there are products that enable you to:

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

Data analyser plus rotary and static transducer

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

STwrench

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

Benches

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

Software

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



STanalyser



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

Portable and user-friendly

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

The STanalyser's small size and features make it easy to use in the production line.

Faster set-up time

The STanalyser is designed for easy connection to Atlas Copco IRTT-B in-line transducers, SRTT-B static transducers and MRTT-B wrenchesB or MRTT-C wrenches. It is also easy to connect the STanalyser to SRTT-L by specific cradle, in order to have a compact complete solution. It provides automatic recognition and calibration, eliminating set-up errors and reducing set-up time.

Modularity – you buy what you need

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

Commonality cuts costs

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

Clear operator feedback

The STanalyser is equipped with LEDs that show the tightening result (OK, Not OK) plus an audible signal in the form of a buzzer.

The display provides comprehensive tool test information, as well as date, time and battery condition.

STanalyser without RBU

The simple solution to test your tools. Just plug in an Atlas Copco transducer, rotary or static, and you are ready to make your test.

- **Free Mode: Track and Peak test**

The track function shows the applied torque in real time. The Peak function shows maximum torque reached – useful if a quick test is needed. In free mode no statistics or data will be stored.

- **Tool Check**

By selecting the type of tool to test (Wrench, Power Tool or Pulse Tool) you can check your tool and view the Min, Max, Average and Sigma values directly on the display during the test. 5,000 results are stored.

- **Export the results**

Test Reports can be exported with ToolsTalk BLM via USB cable. ToolsTalk BLM will recognize the STanalyser without RBU version and it will not ask for registration. Data can be exported in Excel. A report can be printed or saved as a PDF, RTF, XLS, TXT or TIFF file.

STanalyser with Tool Crib T or Tool Crib T/A RBU

This more advanced solution allows you to test your installed tool base with a torque transducer or torque/angle transducer (with Tool Crib T/A RBU). Select the tool to be tested from the Tool Database, select the desired PSet and you are ready to perform your test.

- **Tool Database**

This is a list of tools you want to test (max. 1,000). It contains all information related to the tool, such as type, model, supplier, min. and max. torque, etc.

The PSet defines how the test has to be performed with acceptance limits. A maximum of 1,000 PSets can be stored and 5 max. per tool can be assigned.

Real time statics results are shown on the display in the statistical page results.

STanalyser with Residual Torque RBU

This solution allows you to test the installed torque in a joint. Our unique algorithm is able to detect the real residual torque in real time using the torque/angle signal from the MRTT-C wrench. The PSet defines the acceptance limits.

STanalyser with Production RBU

This function allows you to tight a bolt with an MRTT-C connected to the STanalyser. All known tightening methods can be programmed in the PSet like Torque, Torque Control with Angle Monitoring, Torque plus Angle, Yield or Yield plus Angle.

STanalyser with AA RBU

This system offers a solution that allows you to manage the entire quality process on one single device. Tool tests and joint tests can be performed on this system, allowing the user to compare results from both tests.

ToolsTalk BLM

Program the STanalyser with any RBU

and export the results. It is possible to select the results you are interested in and create your report to be printed or saved as a PDF, RTF, XLS, TXT or TIFF file.

Accessories

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

With IRC-W Radio Module you can send the tightening results to the ToolsNet system and with API RBU you have a remote access to the data, all in real-time.

With the Docking Station it is possible to connect the STanalyser to a PowerFocus or a PowerMacs, for their calibration.

Connectivity

Connect your STanalyser to Torque Supervisor and gain full control of your test process. The connectivity can be

performed with USB or Ethernet. Create from Torque Supervisor your route of test, send it to the STanalyser. After test execution Torque Supervisor downloads the test results.

API connectivity

Use one of the API RBU to connect the STanalyser with an external device. The API allows the customer to create his interface to the system in an easy way using standard software code.

Real-time communication

By adding a Wi-Fi module, the quality process is speeded up by real-time traces on a remote PC via TTBLM and with API RBU you can remotely access data from your STanalysers as soon as tests are completed.

Fast, easy power supply

The STanalyser is supplied with an AC power adapter for corded operation. A battery can be ordered separately as an option. The lithium-ion battery allows 10 to 16 hours of operation without charging.

STanalyser

Analyser

Model	Ordering No.
STanalyser	8059 0955 60
STa battery	8059 0955 61
Battery charger	8059 0930 88
STa battery charger adapter	8059 0955 75
STa Docking Station	8059 0955 68
STa RBU Tool Crib T	8059 0955 63
STa RBU Tool Crib TA	8059 0955 64
STa RBU Residual	8059 0955 66
STa RBU Production	8059 0955 67
STa RBU AA	8059 0955 65
STa RBU Tool Crib TA API	8059 0955 71
STa RBU Residual API	8059 0955 72
STa RBU Production API	8059 0955 74
STa RBU AA API	8059 0955 73
IRC-B Module	8059 0920 10
IRC-W Module	8059 0920 15
Bar Code Module	8059 0920 12
ACTA RS232 cable 3 m	4222 0546 03
ACTA RS232 cable 5 m	4222 0546 05



	RBU					
		Tool Crib T	Tool Crib T/A	Residual	Production	AA
Hardware capability						
Number of Channel	1	1	1	1	1	1
Torque	yes	yes	yes	yes	yes	yes
Angle (Encoder or Gyroscope)	no	no	yes	yes	yes	yes
TAG recognition	no	no	no	yes	yes	yes
Size in mm	110x200x45	110x200x45	110x200x45	110x200x45	110x200x45	110x200x45
Weight [grams]	<= 500	<= 500	<= 500	<= 500	<= 500	<= 500
Graphical Display	yes	yes	yes	yes	yes	yes
LED : OK, NOK, nxOK, Alarm	yes	yes	yes	yes	yes	yes
Keyboard	yes	yes	yes	yes	yes	yes
Results Storage	5000	5000	5000	5000	5000	5000
RBU - Rapid Backup Unit	no	yes	yes	yes	yes	yes
Direct Power Supply (slow charger 6H)	yes	yes	yes	yes	yes	yes
RJ45 (Ethernet)	Not active	yes	yes	yes	yes	yes
USB	yes	yes	yes	yes	yes	yes
Non Atlas Copco analog transducer connection	no	yes	yes	no	no	yes
Software capability - onBoard						
Languages = IT, Eng, Fr, Germ, Sp, Portuguese	yes	yes	yes	yes	yes	yes
Multi-units (Nm, Kgm, Kgcm, Ozin, Lbin, Lbft, Ncm)	yes	yes	yes	yes	yes	yes
Pset	1	1000	1000	200	200	1000
Batch Count	no	yes	yes	yes	yes	yes
Job	no	no	no	100	100	100
CW/CCW	yes	yes	yes	yes	yes	yes
Database - Tool	no	1000	1000	no	no	1000
Software Functionalities - onBoard						
Free mode						
Track torque	Torque	Torque	Torque	Torque	Torque	Torque
Peak torque	Torque	Torque	Torque/Angle	Torque/Angle	Torque/Angle	Torque/Angle
Tool Check						
Wrench testing	yes	yes	yes	no	no	yes
Power tool testing	yes	yes	yes	no	no	yes
Pulse Tool testing	yes	yes	yes	no	no	yes
Min, Max, Med, Sigma statistics	yes	Torque	Torque/Angle	no	no	Torque/Angle
Cm/Cmk	no	Torque	Torque/Angle	no	no	Torque/Angle
Joint Check						
Peak torque	no	no	no	yes	no	yes
Residual Torque/Time	no	no	no	yes	no	yes
Residual Torque/Angle	no	no	no	yes	no	yes
Loose and Tight	no	no	no	yes	no	yes
Production Strategies						
Torque	no	no	no	no	yes	no
Torque Cont & Angle Monit	no	no	no	no	yes	no
Torque Plus Angle	no	no	no	no	yes	no
Yield	no	no	no	no	yes	no
Yield plus Angle	no	no	no	no	yes	no
Loose	no	no	no	no	yes	no
Software capability - connectivity						
Viewer (PC Export) - ToolsTalk BLM	USB	no	no	no	no	no
ToolsTalk BLM to program and export data	no	USB/RJ45	USB/RJ45	USB/RJ45	USB/RJ45	USB/RJ45
TS Torque Supervisor Full	no	USB/RJ45	USB/RJ45	USB/RJ45	no	USB/RJ45
API	no	no	with API RBU	with API RBU	with API RBU	with API RBU

SRTT-L

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



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

SRTT-L Transducers

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

Test joint for SRTT-L

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

QRTT

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



Model	Drive square in	For QMX spindle	Rated capacity		Ordering No.
			Nm	ft lb	
QRTT 20 Nm kit	3/8	42	2 - 20	1.5 - 15	8092 1164 13
QRTT 75 Nm kit	3/8	42	7.5 - 75	5.5 - 55	8092 1164 18
QRTT 200 Nm kit	1/2	50	20 - 200	15 - 150	8092 1164 23
QRTT 500 Nm kit	3/4	62	50 - 500	37 - 369	8092 1164 28
QRTT 1000 Nm kit	1	80, 90	100 - 1000	75 - 750	8092 1164 33

IRTT-B

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

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



IRTT-B

Model	Drive		Rated capacity		Ordering No.	Model	Drive		Rated capacity		Ordering No.
	Hex in	Square in	Nm	ft lb			Hex in	Square in	Nm	ft lb	
Torque models						Torque/angle models					
IRTT-B 5-106	1/4		5	4	8059 0942 05	IRTT-B 1A-106	1/4		1	0.8	8059 0943 96
IRTT-B 5-06		1/4	5	4	8059 0942 07	IRTT-B-2A-106	1/4		2	1.5	8059 0943 01
IRTT-B 20-106	1/4		20	15	8059 0942 10	IRTT-B 5A-106	1/4		5	4	8059 0943 06
IRTT-B 20-06		1/4	20	15	8059 0942 15	IRTT-B 5A-06		1/4	5	4	8059 0943 08
IRTT-B 25 -10		3/8	25	18	8059 0942 20	IRTT-B 20A-106	1/4		20	15	8059 0943 11
IRTT-B 75-10		3/8	75	55	8059 0942 25	IRTT-B 20A-06		1/4	20	15	8059 0943 16
IRTT-B 180-13		1/2	180	133	8059 0942 30	IRTT-B 25A-10		3/8	25	18	8059 0943 21
IRTT-B 500-20		3/4	500	369	8059 0942 35	IRTT-B 75A-10		3/8	75	55	8059 0943 26
IRTT-B 750-25		1	750	553	8059 0942 40	IRTT-B 180A-13		1/2	180	133	8059 0943 31
IRTT-B 1400-25		1	1400	1033	8059 0942 45	IRTT-B 500A-20		3/4	500	369	8059 0943 36
IRTT-B 3000-38		1 1/2	3000	2200	8059 0942 52	IRTT-B 750A-25		1	750	553	8059 0943 41
IRTT-B 5000-38		1 1/2	5000	3685	8059 0942 56	IRTT-B 1400A-25		1	1400	1033	8059 0943 46
						IRTT-B 3000A-38		1 1/2	3000	2200	8059 0943 52
						IRTT-B 5000A-38		1 1/2	5000	3685	8059 0943 56
						IRTT-B 10000A-38		1 1/2	10000	7370	8059 0943 60

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

SRTT-B

Stationary reaction torque transducer

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

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

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



SRTT-B

Model	Drive		Rated capacity		Ordering No.
	Hex mm	Square in	Nm	ft lb	
SRTT-B 0.5-13		1/2	0.5	0.37	8059 0946 03
SRTT-B 2-13		1/2	2	1.47	8059 0946 09
SRTT-B 5-13		1/2	5	3.69	8059 0946 15
SRTT-B 25-36	36		25	18.40	8059 0946 28
SRTT-B 50-36	36		50	36.88	8059 0946 36
SRTT-B 100-36	36		100	73.76	8059 0946 45
SRTT-B 250-36	36		250	184.40	8059 0946 54
SRTT-B 500-50	50		500	368.78	8059 0946 63
SRTT-B 1000-50	50		1000	737.60	8059 0946 75
SRTT-B 2000-50	50		2000	1475.00	8059 0946 84



Test joint for SRTT-B

Test joint for SRTT-B

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

Optional Accessories



Adapter

Adapters

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

MRTT-B Screwdriver

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



MRTT-B

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

Optional Accessories

Transducer cable

The cable needed for all transducers and MRTT-B.

Cables

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

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

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

MRTT-C

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

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

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

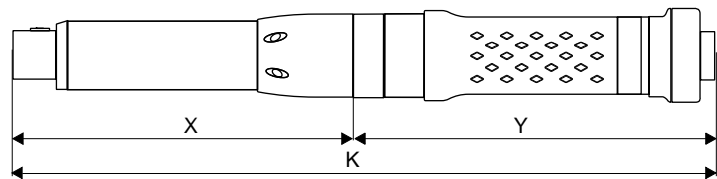


MRTT-C

Model	Ordering No.
MRTT-C	8059 0930 10

Model	Capacity		Drive mm	Weight		Length mm	Ordering No.
	Nm	ft lb		kg	lb		
smartHEAD only Torque							
smartHEAD 30	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 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	0.55	1.21	271.0	8059 0930 48
smartHEAD A250	250	185	14x18	0.78	1.72	417.0	8059 0930 54
smartHEAD A400	400	295	14x18	0.93	2.05	584.0	8059 0930 60
smartHEAD A600	600	443	21x26	1.70	3.75	1048.5	8059 0930 66
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	0.20	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	14x18	0.78	1.72	417.0	8059 0930 56
smartHEAD Asq400	400	295	14x18	0.93	2.05	584.0	8059 0930 62

Dimensions



Model	Length			Total weight	
	X mm	Y mm	K mm	kg	lb
MRTT-C 30 Nm	159	166	325	0.62	1.36
MRTT-C 80 Nm	159	166	325	0.64	1.41
MRTT-C 150 Nm	262	166	428	0.97	2.13
MRTT-C 250 Nm	408	166	574	1.20	2.64
MRTT-C 400 Nm	575	166	741	1.35	2.97
MRTT-C 600 Nm	1040	166	1206	2.12	4.67

Optional Accessories

Transducer cable

The cable needed for all transducers and MRTT-C.

Cables

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

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

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

Quality assurance system – sharpening your competitive edge

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

ACTA MT4 – smart features

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



MT TRA 500



MT TH



ACTA MT 4



MT TS

Model	Capacity		Drive	Overall length mm	Ordering No.
	Ncm	in lb			
Manual screwdriver torque transducer					
MT TH 1	1.0	0.09	Ø 3 mm	115	8432 0820 10
MT TH 2	2.0	0.18	Ø 3 mm	115	8432 0820 11
MT TH 5	5.0	0.44	Ø 3 mm	115	8432 0820 12
MT TH 10	10.0	0.88	Ø 3 mm	115	8432 0820 13
MT TH 20	20.0	1.77	1/4"	115	8432 0820 14
MT TH 50	50.0	4.42	1/4"	124	8432 0820 15
MT TH 100	100.0	8.85	1/4"	124	8432 0820 16
MT TH 200	200.0	17.70	1/4"	124	8432 0820 17
Stationary reaction torque transducer					
MT TS 1	1.0	0.09	Ø 3 mm	81	8432 0820 18
MT TS 2	2.0	0.18	Ø 3 mm	81	8432 0820 19
MT TS 5	5.0	0.44	Ø 3 mm	81	8432 0820 20
MT TS 10	10.0	0.88	Ø 3 mm	81	8432 0820 21
MT TS 20	20.0	1.77	Ø 3 mm	81	8432 0820 22
MT TS 50	50.0	4.42	1/4"	98	8432 0820 23
MT TS 100	100.0	8.85	1/4"	98	8432 0820 24
MT TS 200	200.0	17.70	1/4"	98	8432 0820 25
MT TS 500	500.0	44.25	1/4"	111	8432 0820 52
In-line rotary torque and angle transducer					
MT TRA 2	2.0	0.18	Ø 3 mm	76	8432 0820 41
MT TRA 5	5.0	0.44	Ø 3 mm	76	8432 0820 42
MT TRA 10	10.0	0.88	Ø 5 mm	76	8432 0820 43
MT TRA 20	20.0	1.77	Ø 5 mm	76	8432 0820 44
MT TRA 50	50.0	4.42	1/4"	105	8432 0820 45
MT TRA 100	100.0	8.85	1/4"	105	8432 0820 46
MT TRA 200	200.0	17.70	1/4"	105	8432 0820 47
MT TRA 500	500.0	44.25	1/4"	105	8432 0820 48

Torque analyzer

Model	Ordering No.
ACTA MT 4 ^a (programmable over keypad)	8432 0820 04
ToolsTalk MT Analysis (trace analysis)	8432 0830 31
Transducer cable	8432 0830 35
RS232 cable ACTA MT	8432 0831 39

^aToolsTalk ACTA MT (programming software) included

Test joints for calibration with MT TS

Model	Designation	Range, Ncm	Ordering No.
Test joint	M6 Soft joint 1/4" HEX	500 - 1000	8432 0833 62
	M6 Soft joint 1/4" HEX	200 - 500	8432 0833 61
	M4 Soft joint 1/4" HEX	27 - 200	8432 0833 60
	M3 Soft joint 1/4" HEX	5 - 27	8432 0833 59
	M3 Soft joint HM	5 - 27	8432 0833 58
	M2 Soft joint 1/4" HEX	0 - 10	8432 0833 57
	M2 Soft joint HM	0 - 10	8432 0833 56
	M6 Hard joint 1/4" HEX	200 - 1000	8432 0833 55
	M4 Hard joint 1/4" HEX	27 - 200	8432 0833 54
	M3 Hard joint 1/4" HEX	5 - 27	8432 0833 53
	M3 Hard joint HM	5 - 27	8432 0833 52
	M2 Hard joint 1/4" HEX	0 - 10	8432 0833 51
	M2 Hard joint HM	0 - 10	8432 0833 50



Where the joints are critical

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

STwrench

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

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

The ultimate wrench for production and quality assurance

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

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

smarHEAD

The smarHEAD has a built-in memory chip to store calibration values that are automatically recognized by the STwrench controller. Choose from six different sizes ranging from 30 to 600 Nm, which is connected to the controller by a patented system allowing a fast connection. It can be with or without

Gyroscope and the torque transducer is made to guarantee length-independent reading. TAG recognition patented solution is used to assure Poka-Yoke operations. It includes at front a Led bright light to improve visibility in dark bolt area.

STwrench Controller

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

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

STwrench RBU

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

BLM API

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



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

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

New smartHEADs and controller

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

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



STwrench

How to order your STwrench

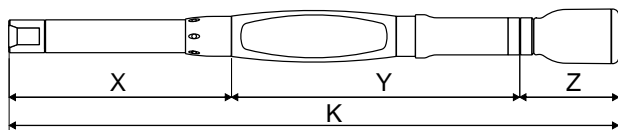
1. Take the STwrench Controller
2. Select your smartHEAD
3. Select your End fitting tool
4. Select your RBU
5. Select the Battery
6. Select if you want optional modules

Software TT BLM W09

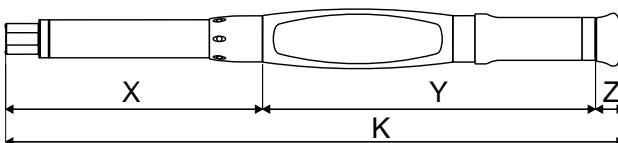
	Ordering No.
1 user license	8059 0981 10
5 user license	8059 0981 11
10 user license	8059 0981 12
Plant license	8059 0981 13

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
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 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 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	0.20	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	14x18	0.78	1.72	417.0	8059 0930 56
smartHEAD Asq400	400	295	14x18	0.93	2.05	584.0	8059 0930 62
RBU Rapid Backup unit							
STwrench RBU Quality							8059 0930 90
STwrench RBU Production							8059 0930 91
STwrench RBU Quality API							8059 0930 93
STwrench RBU Production API							8059 0930 92
Battery							
STwrench battery							8059 0930 86
STwrench battery BI							8059 0930 85
STwrench battery HD							8059 0930 83

Dimensions



STwrench



STwrench BI

Model	Length				Total weight	
	X mm	Y mm	Z mm	K mm	kg	lb
STwrench 15 Nm	139	280	96	515	0.86	1.90
STwrench 30 Nm	139	280	96	515	0.86	1.90
STwrench 80 Nm	139	280	96	515	0.87	1.91
STwrench 150 Nm	262	280	96	638	1.23	2.56
STwrench 250 Nm	408	280	96	784	1.46	3.00
STwrench 400 Nm	575	280	96	951	1.63	3.59
STwrench 600 Nm	1040	280	96	1416	2.40	5.29
STwrench BI 15 Nm	139	280	22	441	0.66	1.46
STwrench BI 30 Nm	139	280	22	441	0.66	1.46
STwrench BI 80 Nm	139	280	22	441	0.67	1.47
STwrench BI 150 Nm	262	280	22	564	1.03	2.27
STwrench BI 250 Nm	408	280	22	710	1.26	2.78
STwrench BI 400 Nm	575	280	22	877	1.43	3.15

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

IRC Modules

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

Bar Code Module

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

STwrench battery

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

STwrench cable box

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

STwrench battery charger

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

QATnode

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

QATnode P

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

QATnode I/O

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

QATnode T

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

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



IRC-module



Battery



Bar Code



Tool holder



Battery charger



QATnode

PF, IRC focus & QIF accessories

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

Tool Holder

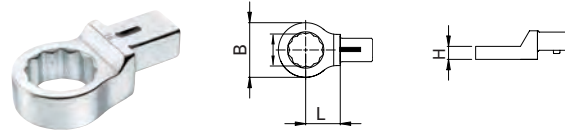
The tool holder is a cradle for the STwrench that can be mounted either on a table or on a wall, providing a safe housing for the wrench.

Rubber Protection

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

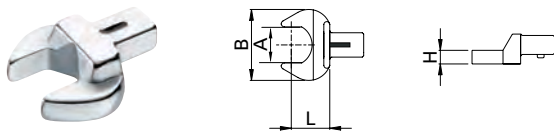
End fitting tools for wrenches

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

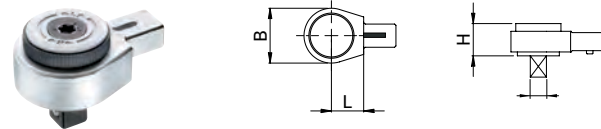


Type	Hex mm	B mm	H mm	L mm	g	Ordering No.
Ring end 9 x 12	7	13	8	17.5	37	4620 0014 00
	8	14.2	8	17.5	40	4620 0015 00
	10	17.2	9	17.5	44	4620 0016 00
	11	18.5	9	17.5	41	4620 0017 00
	12	20	12	17.5	49	4620 0018 00
	13	21.5	12	17.5	56	4620 0019 00
	14	23	12	17.5	52	4620 0020 00
	15	24.2	12	17.5	52	4620 0021 00
	16	25.7	13	17.5	54	4620 0022 00
	17	27.2	13	17.5	59	4620 0023 00
	18	28.5	13	17.5	56	4620 0024 00
	19	30.3	13	17.5	65	4620 0025 00
	21	33	15	17.5	71	4620 0026 00
	22	34.5	15	17.5	74	4620 0027 00
14 x 18	13	21.5	11	25	127	4620 0063 00
	14	23	11	25	123	4620 0064 00
	15	24.2	11	25	128	4620 0065 00
	16	25.7	12	25	133	4620 0066 00
	17	27.2	12	25	135	4620 0067 00
	18	28.5	12	25	134	4620 0068 00
	19	30.5	12	25	138	4620 0069 00
	21	33	15	25	144	4620 0070 00
	22	34.5	15	25	145	4620 0071 00
	24	37.5	15	25	153	4620 0072 00
	27	41.5	17	25	162	4620 0073 00
	30	45	19	25	182	4620 0074 00
	32	47.5	19	25	181	4620 0075 00
	34	50.5	19	28	210	4620 0076 00
36	53	19	28	203	4620 0077 00	
41	59	20	30	240	4620 0078 00	

Standard end fitting tools with TAG



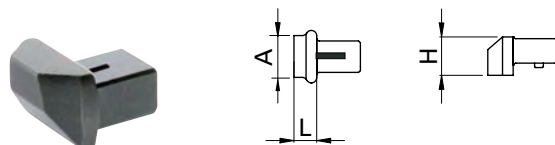
Type	A mm	B mm	H mm	L mm	g	Ordering No.
Open end 9 x 12	7	22	5	17.5	40	4620 0001 00
	8	22	5	17.5	39	4620 0002 00
	9	26	5.5	17.5	38	4620 0003 00
	10	26	5.5	17.5	42	4620 0004 00
	11	26	5.5	17.5	41	4620 0005 00
	12	30	7	17.5	43	4620 0006 00
	13	30	7	17.5	48	4620 0007 00
	14	35	8	17.5	52	4620 0008 00
	15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



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

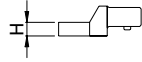
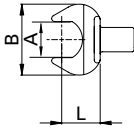
The TAG placed on the ratchet defines the Pset.

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).

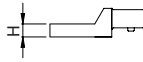
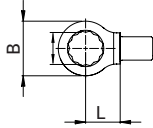


Type	A mm	H mm	L mm	g mm	Ordering No.
Blank end 9 x 12 for making up specials	8 x 14	14.5	8	30	4620 0048 00
Blank end 14 x 18	11 x 25	21.5	21	98	4620 0084 00
	21 x 26	13 x 30	30	13	220

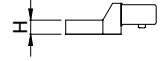
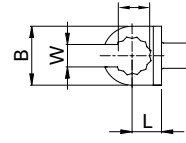
Standard end fitting tools without TAG



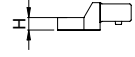
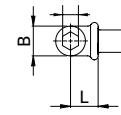
Type	A mm	B mm	H mm	L mm	g	Ordering No.
Open end 9 x 12	7	22	5	17.5	40	8059 0975 00
	8	22	5	17.5	39	8059 0975 01
	9	26	5.5	17.5	38	8059 0975 02
	10	26	5.5	17.5	42	8059 0975 03
	11	26	5.5	17.5	41	8059 0975 04
	12	30	7	17.5	43	8059 0975 05
	13	30	7	17.5	48	8059 0975 06
	14	35	8	17.5	52	8059 0975 07
	15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



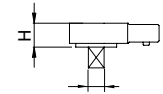
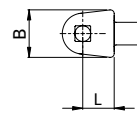
Type	Hex mm	B mm	H mm	L mm	g	Ordering No.
Ring end 9 x 12	7	13	8	17.5	37	8059 0975 13
	8	14.2	8	17.5	40	8059 0975 14
	10	17.2	9	17.5	44	8059 0975 15
	11	18.5	9	17.5	41	8059 0975 16
	12	20	12	17.5	49	8059 0975 17
	13	21.5	12	17.5	56	8059 0975 18
	14	23	12	17.5	52	8059 0975 19
	15	24.2	12	17.5	52	8059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



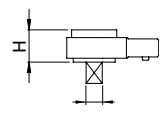
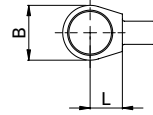
Type	Hex mm	B mm	H mm	W mm	L mm	g	Ordering No.
Flared end 9 x 12	10	22	12	7.1	17.5	57	8059 0975 27
	11	22.5	12	8.6	17.5	55	8059 0975 28
	12	23.5	12	9	17.5	59	8059 0975 29
	13	25.2	12	10	17.5	55	8059 0975 30
	14	27	13	11	17.5	60	8059 0975 31
	16	30	13	13	17.5	65	8059 0975 32
	17	31.5	13	14	17.5	65	8059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



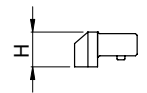
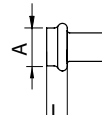
Type	Hex in	B mm	H mm	L mm	g	Ordering No.
Bits holder 9 x 12	1/4	14	10	17.5	50	8059 0975 45
	5/16	16	12.5	17.5	47	8059 0975 46
14 x 18	5/16	16	12.5	25	112	8059 0976 34



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



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



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

Friction Coefficient Analysis

The μ Tester is a complete set for measuring the friction coefficient. In addition to being used in the tool crib, it can be used along the line for a fast and easy fastener evaluation. The advantages of using a bench are many: portable measuring equipment, "all in one" complete and ready, PC with touch screen, already fixed transducer, adapter kit in the drawer. Built-in battery charger, operating time >16 hours. The μ Tester 25 and 200 can be supplied with additional transducers. It is not possible to have TPT 2000 on a bench due to high torque. If a TPT 2000 is requested, then this transducer must be mounted separately on a fixed table.

The adapter kit provides all needed accessories to test bolts of different diameters, pitches and lengths. Bolts can be tested with the original nut used in production, or with the supplied hardened threaded adapter. Spacers allow testing bolts of different lengths. For each size of bolt, there are three adapter plates available: one flat, one to be used with washers and one designed for customer made plates. Adapter kits 25 and 200 are supplied in a wooden case. For the μ Tester, the adapters are stored in the drawers. The kit for TPT 2000 is supplied in a heavy duty trolley due to the weight and size of the parts.



μ Tester

Model	Description	Ordering No.
μ Tester - 25	Mobile Bench for μ Evaluation, includes TPT and adapter kit	8059 0966 00
μ Tester - 200	Mobile Bench for μ Evaluation, includes TPT and adapter kit	8059 0966 10



Standard adapter kit

Model	Description	Ordering No.
Transducer		
TPT 25-25	Additional 25 Nm TPT for μ Tester	8059 0948 29
TPT 200-100	Additional 200 Nm TPT for μ Tester	8059 0948 51
TPT 2000-400	Additional 2000 Nm TPT for μ Tester	8059 0948 84
Accessory kit		
TPT 25-25		8059 0949 00
TPT 200-100		8059 0949 10
TPT 2000-400		8059 0949 20

Joint Simulator Bench AD

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

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

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

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



Model	Hydraulic brakes, range		ISO rig	Spindle fixture holder	Dimensions L x W x H	Ordering No.
	Nm	lb ft				
Mobile benches						
JSB AD 250	10-250	8-185	–	–	1000 x 550 x 920	8059 0962 00
JSB AD 250 ISO	10-250	8-185	yes	–	1150 x 550 x 920	8059 0962 30
JSB AD 250 slim	10-250	8-185	–	no	900 x 400 x 935	8059 0962 10
JSB AD 500 ISO	10-500	8-370	yes	–	1400 x 700 x 950	8059 0962 35
JSB AD 1000 ISO	10-1000	8-738	yes	–	1400 x 700 x 950	8059 0962 40
JSB AD 2000 ISO	10-2000	8-1475	yes	–	1400 x 700 x 950	8059 0962 50
Fix benches						
JSB AD HD 500	10-500	8-370	–	yes	2100 x 850 x 1000	8059 0963 00
JSB AD HD 2000	10-2000	8-1475	–	yes	2300 x 900 x 1000	8059 0963 50
JSB AD HD 3000	10-3000	8-2213	–	yes	2300 x 900 x 1000	8059 0963 60

Atlas Copco Static Transducer Bench

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

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

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

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

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



Model	SRTT-B range		ISO rig	Spindle fixture holder	Dimensions L x W x H	Ordering No.
	Nm	lb ft				
STB AD 500	10-500	8-365	yes	no	1000 x 550 x 920	8059 0961 00
STB AD 1000	10-1000	8-735	yes	no	1000 x 550 x 920	8059 0961 50
STB AD 2000	10-2000	8-1470	yes	no	1150 x 550 x 920	8059 0961 75

Joint Simulator Bench 3840

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

JSB 3840 includes:

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

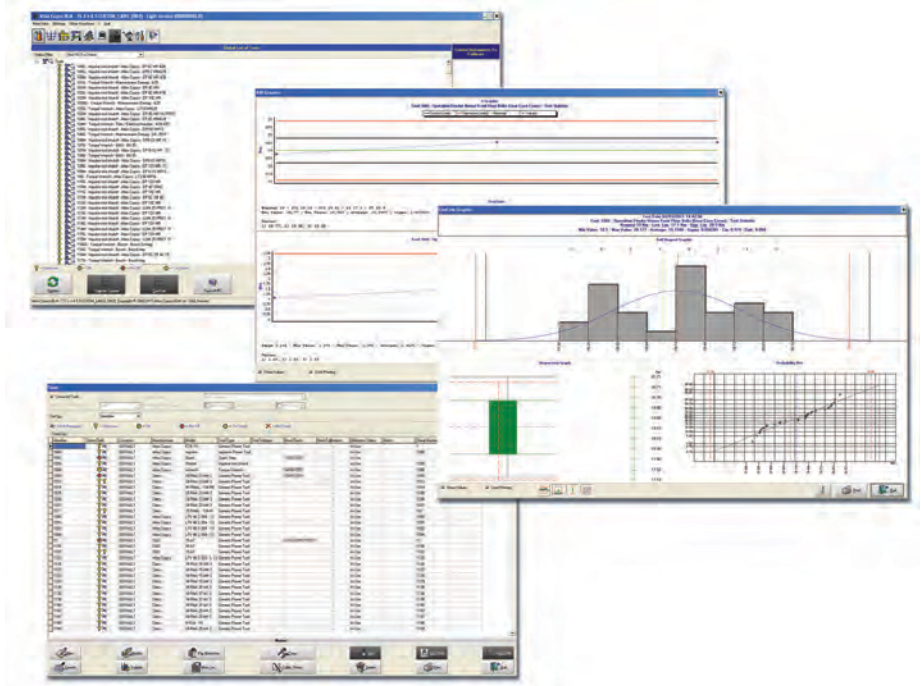


Model	Hydraulic brakes, range		Transducer SRTT+B		Dimensions L x W x H	Ordering No.
	Nm	lb ft	Nm	lb ft		
JSB 3840	5-85	3.69-62.69	25-250	18.44-184.4	1026 X 400 X 935	8059 0967 10
JSB 3840	25-250	18.44-184.4	50-500	36.88-368.8	1026 X 400 X 935	8059 0967 20

Quality Assurance in Tightening Management Software

BLM Torque Supervisor

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



Torque Supervisor

Version	Ordering No.
Full version	8059 0981 00
Light version	8059 0981 01
Client version, installed on bench	8059 0909 03
Upgrade from Light to Full version	8059 0981 06