



INDUSTRIAL TOOLS AND SOLUTIONS

2016

Atlas Copco

ATLAS COPCO TOOLS NORTH AMERICAN OFFICES

USA

The Auburn Hills facility is the new home of Atlas Copco Tools and Assembly Systems, USA. Opened in the fall of 2014, this site is frequently used to host training courses and seminars. Customers are encouraged to visit and test run our products in our state-of-the-art demonstration areas.

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CANADA

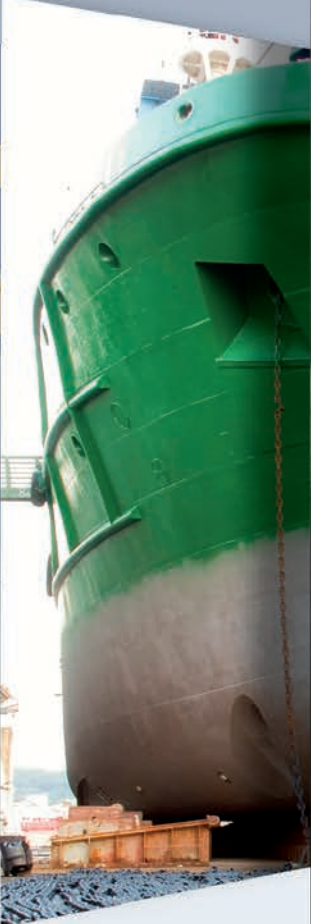
The Canadian office was opened in 1984 and is a sales and service facility. This office has had ISO 9002 approval since 1997, a quality system that is applied to sales, service, and distribution of air powered and electric hand held power tools.

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Whatever your
business
we can add **value**

From big bolts to tiny fasteners, from offroad vehicles to the electronics industry – whatever your business, Atlas Copco has the technology you need to stay ahead of the game. With advanced system, quality assurance and process software, and high-tech tools and assembly systems, our range offers solutions for durability, high quality and sustainable productivity.



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 innovative software solutions supporting tooling hardware that raises the productivity and sustainability of your operation.

We lead, others follow

We lead the world for advanced process control and quality assurance software supporting the operation of high tech operator-friendly tools. We currently have more than 4 000 tools in our range and our dynamic product development program generates a large number of new solutions every year.

Lean production

In the automotive and other industries our high-performance, hand-operated and fixtured assembly tools, advanced system, quality assurance and process software and extensive know-how make a major contribution to lean production. Every third car in the Western world

was built using our cutting-edge assembly solutions. We are also implementing lean concepts throughout our own operations worldwide.

Safety critical applications

On assembly lines in the manufacturing industries many joints are safety critical. Atlas Copco's market-leading assembly process software, controlled fastening tools, and fixtured solutions enable you to meet today's demands for joint validation, documentation and traceability. Also, with advanced operator guidance solutions built into many of our systems and products, the risk of reworking is drastically reduced.

Productivity starts with people

We continue to lead the field for ergonomically designed tools that help 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 at Atlas Copco we all do everything we can to ensure reliable, sustainable 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.

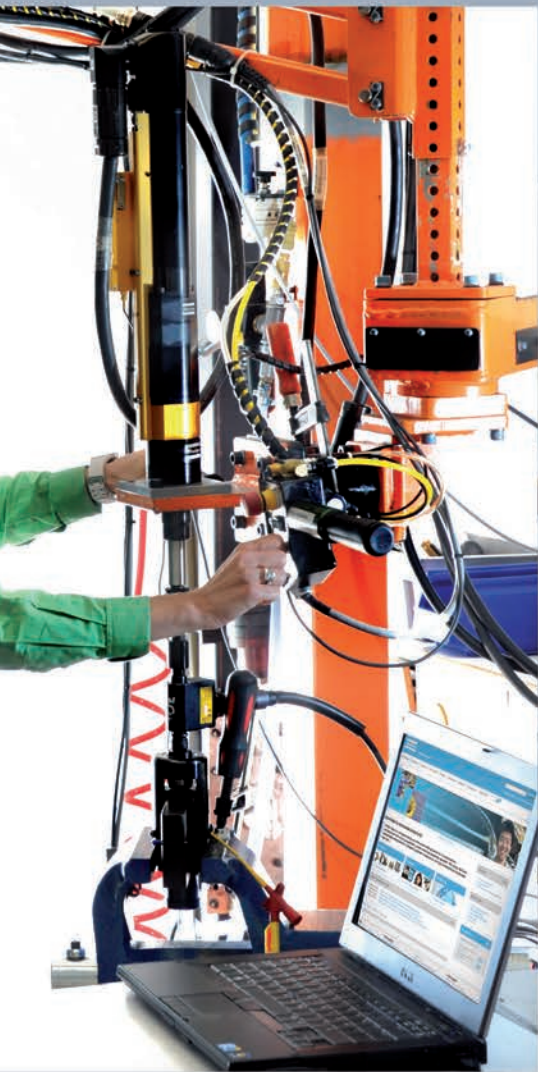
Our focus on sustainability is driven by our core values, in which we all take pride, and this is clearly reflected in our innovative portfolio. We continuously develop new system and process software solutions that assure quality and raise productivity, along with energy efficient tooling offering lowest cost of ownership. Safeguarding health and boosting productivity in your operation through better ergonomics have long been part of our business philosophy.

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



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

Keeping your production on-line around the clock is our priority. And with resources in more than 90 countries, we are never far away. Teaming up with Atlas Copco specialists, distributors and service engineers means having a global partner with a local responsibility.



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 wher-



ever you are in the world you receive the same high quality service. Take advantage of our unique Industrial Service offering, including: Calibration, Production Optimization, Production Transformation, and Customer Training. Let us show you what we can do for your bottom line.

On-site Tool Management Centers

Perhaps your operation is large enough to justify an on-site Atlas Copco Tool Management Center. Let us take care of all your day-to-day tool service and maintenance needs and free you to focus on your core business.

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, main-



tenance 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**

Maximum quality at all stages, from initial development to spare part delivery, is our target. With more than 4 000 tools and 400 patents – a steadily growing number – we can proudly call ourselves innovators. Ensuring that you'll always find a solution for your specific need.



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 catalog



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, 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.

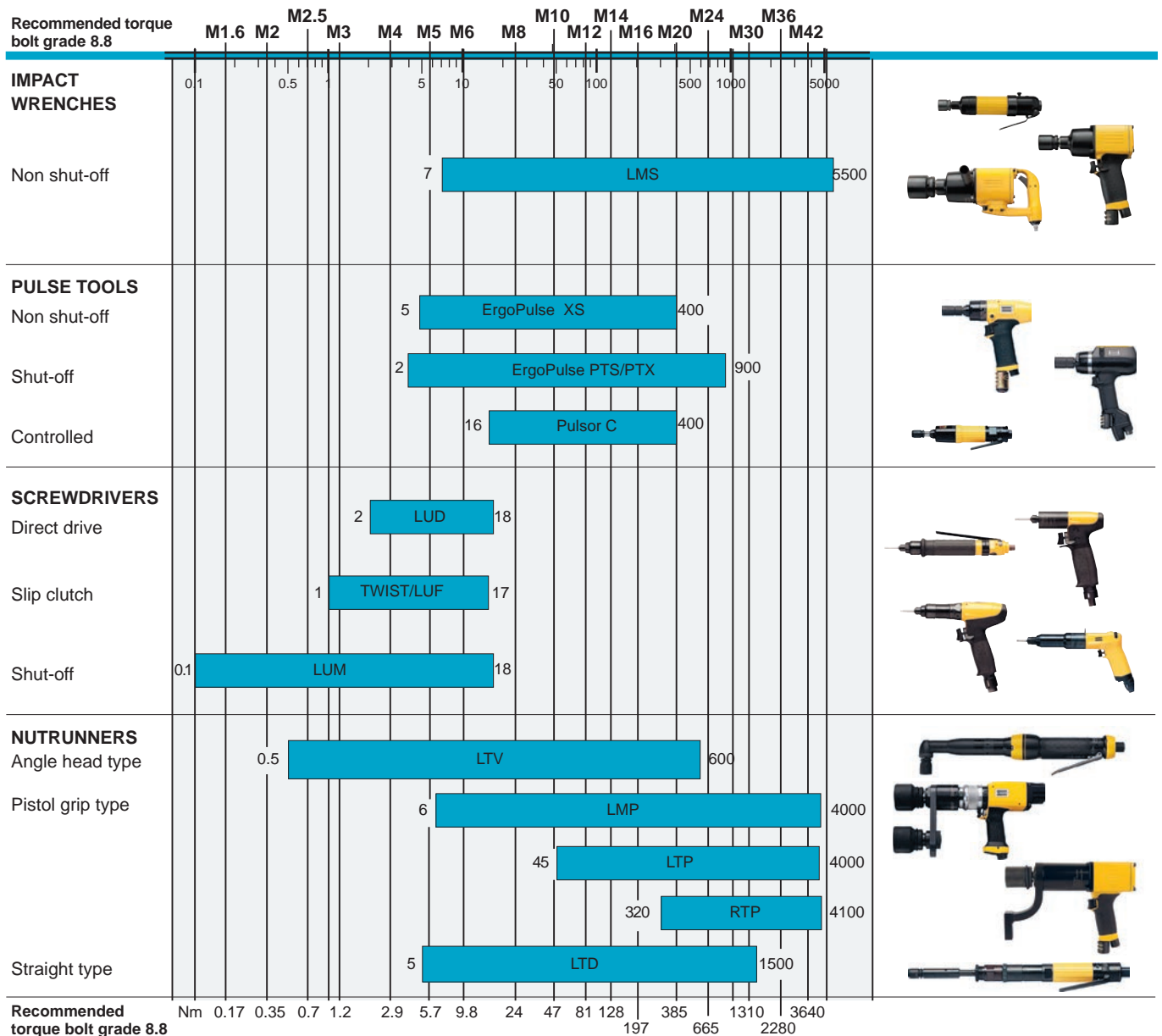
RTP NUTRUNNERS

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

Among the smallest on the market, the RTP's slim gearpack gives you effortless access to bolts in cramped spaces. Tightening accuracy and repeatability are high. Noise and vibration levels are lower than in traditional impact wrenches.



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 shut-off clutch give minimum reaction impulse, thus reducing operator strain. All Atlas Copco screwdrivers can be used as 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 is an angle tool.

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.

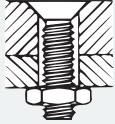
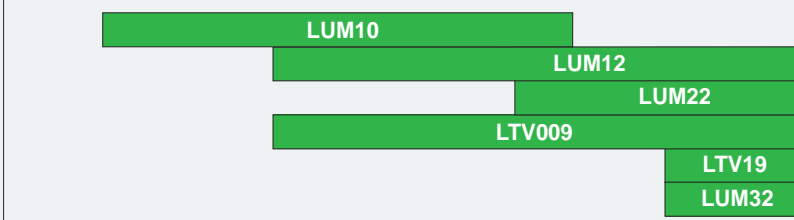
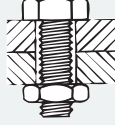
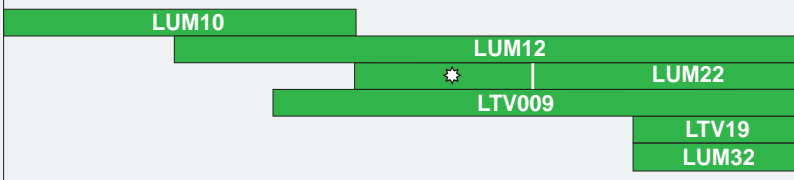
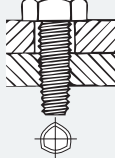
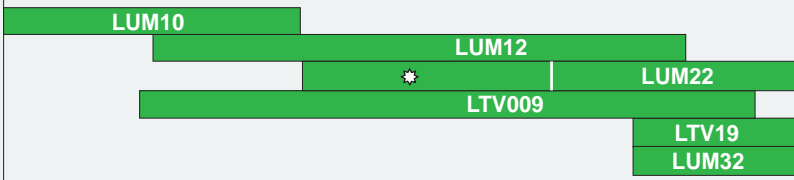
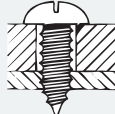
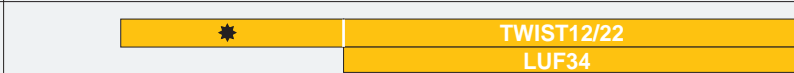
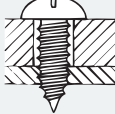
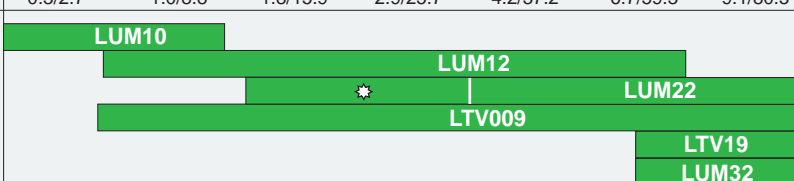
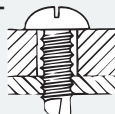
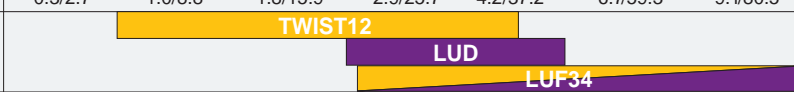

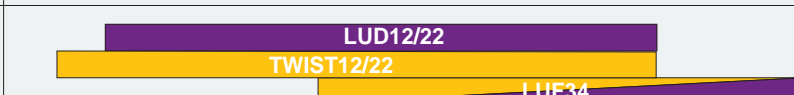
SLIP CLUTCH TYPE SCREWDRIVERS

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										
	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											
Thread rolling screw-M Property class between 8.8 and 10.9 due to case hardening. Taptite® and Swageform are examples 		Torque Nm/in lb		M2	M3	M4	M5	M6			
	Recommended tool										
	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											
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										
	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											
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										

■ 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 traditional-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.



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 HRX8-110	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	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	9.7-23	3200	0.9	2	187	18	9	19	8	1/4	8431 0278 85
LUM22 HRX3	0.6-3	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	5.3-35.4	1650	0.9	2	187	18	9	19	8	1/4	8431 0269 20
LUM22 HRX6	1.5-6.5	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	13.3-57.5	1100	0.95	2.1	197	18	9	19	8	1/4	8431 0278 71
LUM22 HRX10	3.5-10	31-88.5	800	1.1	2.4	219	18	9	19	10	1/4	8431 0269 23
LUM22 HRX10-RE	3.5-10	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	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	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	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	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	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	31-110.6	370	1.1	2.4	211	18	9	19	10	1/4	8431 0278 75
LUM22 HRX26 ^a	3-26	26.6-230	220	1.2	2.6	233	18	9	19	10	1/4	8431 0269 39
Multiple air inlet 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" 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.

Pistol Grip Models

Direct Drive

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

- HR/HRD: Model with traditional-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, taper 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.
 Are equipped with a 1/4" female hexagon drive for bits.
 Combi-tools are delivered with drill chuck and 1/4" female hex drive for bits.
 Torque range is reached by adjusting the air pressure between minimum 3 bar and maximum 6 bar.

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

- HR: Model with traditional-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 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	6.5	14	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.

Are equipped with a 1/4" female hexagon drive for bits.

Have quick change chuck.

All data at an air pressure of 6.3 bar.

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.



LUM12 PR



LUM12 SR

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												
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 lever start and reverse ring												
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

All LUM10/12/22 SR/PR: ESD approved
All data at an air pressure of 6.3 bar.

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.



TWIST12 SR

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 reverse ring												
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 and reverse button												
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

All data at an air pressure of 6.3 bar.

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			
1/4" female hexagon drive for bits													
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 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 R07-42-SH	1.1-7	9.7-61.9	500	0.7	1.5	243	25	9	6	13	6	1/8	8431 0279 29
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 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 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
LTV19 R15-42	6-15	54-133	360	1.1	2.4	309	36	11	7	15	8	1/4	8431 0279 35
1/4" square drive for sockets													
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 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-SH	1.1-7	9.7-61.9	500	0.7	1.5	243	25	9	6	13	6	1/8	8431 0279 28
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 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 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 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
LTV19 R15-6	6-15	54-133	360	1.1	2.4	309	31	11	7	15	8	1/4	8431 0279 34
3/8" square drive for sockets													
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 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 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
LTV19 R15-10	6-15	54-133	360	1.1	2.4	309	31	11	7	15	8	1/4	8431 0279 36
1/4" quick change chuck													
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-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 R07-Q-SH	1.1-7	9.7-61.9	500	0.7	1.5	243	25	9	6	13	6	1/8	8431 0279 30
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-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-Q	0.4-3.5	3.5-31	1100	0.7	1.5	266	25	9	6	13	6	1/8	8431 0278 03
LTV19 R15-Q	6-15	54-133	360	1.1	2.4	309	45	11	7	15	8	1/4	8431 0279 37
Flush socket													
LTV009 R12-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

- All models:**
- Are reversible.
 - All data at an air pressure of 6.3 bar.
 - Are ESD approved

Accessories Included

EXHAUST HOSE

Included with straight and air-on-top models

CLUTCH ADJUSTMENT KEY

Included with all shut-off and slip clutch tools



Clutch adjustment key

Optional Accessories



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	–

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



Suspension yoke



Quick change chuck kit



Angle-head for LTV009

^a Substitute for 4210 3857 XX angle heads.

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

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/R EQ08US-C06	12 cfm	Cablair 06	ErgoQIC 08US	No	8202 0850 21
MIDI Optimizer F/RD EQ08US-C06	19 cfm	Cablair 06	ErgoQIC 08US	Yes	8202 0850 22
MIDI Optimizer F/RD EQ08US-C08	19 cfm	Cablair 08	ErgoQIC 08US	Yes	8202 0850 23
MIDI Optimizer F/R EQ08US-C08	19 cfm	Cablair 08	ErgoQIC 08US	No	8202 0850 24



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
LTV19	4081 0288 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.

MINIMUM WEAR AND LOW VIBRATIONS

Each part of the durable LMS8-Series impact mechanism is produced with a very precise accuracy. This allows the maximum amount of energy to be generated in each impact. It also minimizes wear, vibration and strain on the operator.



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	LMS58	LMS58	LMS68	LMS88	LMS88	LMS88	LMS88
	LMS08	LMS18	LMS28	LMS38	LMS38	LMS48	LMS58	LMS58	LMS58	LMS68	LMS68	LMS68	LMS88	LMS88	LMS88	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	LMS58	LMS58	LMS68	LMS88	LMS88	LMS88	LMS88	
	LMS18	LMS18	LMS28	LMS38	LMS48	LMS48	LMS58	LMS68	LMS68	LMS68	LMS88	LMS88	LMS88	LMS88	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	LMS58	LMS58	LMS68	LMS88	LMS88	LMS88	LMS88		
	LMS18	LMS18	LMS28	LMS38	LMS48	LMS58	LMS68	LMS68	LMS68	LMS88	LMS88	LMS88	LMS88	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.



LMS18 HR13

LMS58 HR25

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 ^c	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 ^c	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 ^c	10-90	7-66	120	88	1650	8100	1.45	3.2	148	26	6.5	14	10	1/4	8434 1180 01
LMS18 HR13/F	10	1/2 ^e	10-110	7-81	150	110	1500	8100	1.45	3.2	144	26	8.5	18	10	1/4	8434 1180 02
LMS18 HR10/F	10	3/8 ^e	10-90	7-66	120	88	1650	8100	1.45	3.2	148	26	6.5	14	10	1/4	8434 1180 03
LMS28 HR13	12	1/2 ^c	30-210	22-155	390	287	1500	9500	1.85	4.1	146	29	8.5	18	10	3/8	8434 1280 00
LMS28 HR13/F	12	1/2 ^e	30-210	22-155	390	287	1500	9500	1.85	4.1	146	29	8.5	18	10	3/8	8434 1280 01
LMS38 HR13	14-16	1/2 ^c	40-375	29-276	850	627	1350	8000	2.6	5.7	167	29	10	21	10	3/8	8434 1380 00
LMS38 HR13/F	14-16	1/2 ^e	40-375	29-276	850	627	1350	8000	2.6	5.7	167	29	10	21	10	3/8	8434 1380 01
LMS48 HR20	16-18	3/4 ^d	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 ^d	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 ^d	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 ^d	600-1800	442-1400	4450	3282	780	5000	9.8	21.5	252	55	28	58.9	16	1/2	8434 1680 01
LMS68 HR S5	22-30	1 5/8 ^b	600-1800	442-1400	4450	3282	780	5000	9.8	21.5	252	55	28	58.9	16	1/2	8434 1680 03

^a Female hex. quick change chuck.

^b Spline drive No. 5.

^c Pin retainer

^d Through hole

^e Friction ring

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.



LMS68 GIR25



LMS08 SR10



LMS88 GIR38

Model	Bolt size mm	Square drive in	Torque range		Max torque		Impacts per min	Free speed r/min	Weight		Length excl. anvil mm	CS distance 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	5.5	9.1	6.3	1/4	8434 1081 06
LMS08 SR10	6-8	3/8 ^c	7-45	5-33	65	48	1650	12500	0.85	1.9	184	20	5.5	9.1	6.3	1/4	8434 1081 11
LMS68 GIR25	22-30	1 ^d	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 ^d	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 ^d	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 ^d	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.

^c Pin retainer

^d Through hole

GOR = Outside trigger.

GIR = Inside trigger.

Optional Accessories

MULTIFLEX SWIVEL

Model	Ordering No.
LMS08 HR10/SR10, LMS18 HR10/13	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	Hose nipple	Ordering No.
LMS08 HR10/SR10, LMS18 HR10/13	ErgoNIP 10, 1/4"	8202 1180 42
LMS28/38 HR13, LMS48/58 HR20, LMS58 HR25	ErgoNIP 10, 3/8"	8202 1180 44
LMS68 HR25, LMS68/88 GIR, LMS68/88 GOR	ErgoNIP 10, 5/8"	8202 1180 28



Whip hose

SUSPENSION YOKE

Model	Ordering No.
LMS68 GIR25/GOR25/GIRS5/GORS5/HRS5/HR25	4250 0677 81
LMS88 GIR38/GOR38/GIRS5/GORS5	0371 1102 00

Suspension yoke included LMS08-58

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
For small impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ08US-C08	19 cfm	Cablair 08	ErgoQIC 08US	Yes	8202 0850 45
For 1/2" impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ10US-C10	34 cfm	Cablair 10	ErgoQIC 10US	Yes	8202 0850 46
For impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ10US-C13	50 cfm	Cablair 13	ErgoQIC 10US	Yes	8202 0850 47
MIDI Optimizer F/RD EP EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 48

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



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 without any adjustments. The PTS/PTX 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 (22.7 lbs).

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.

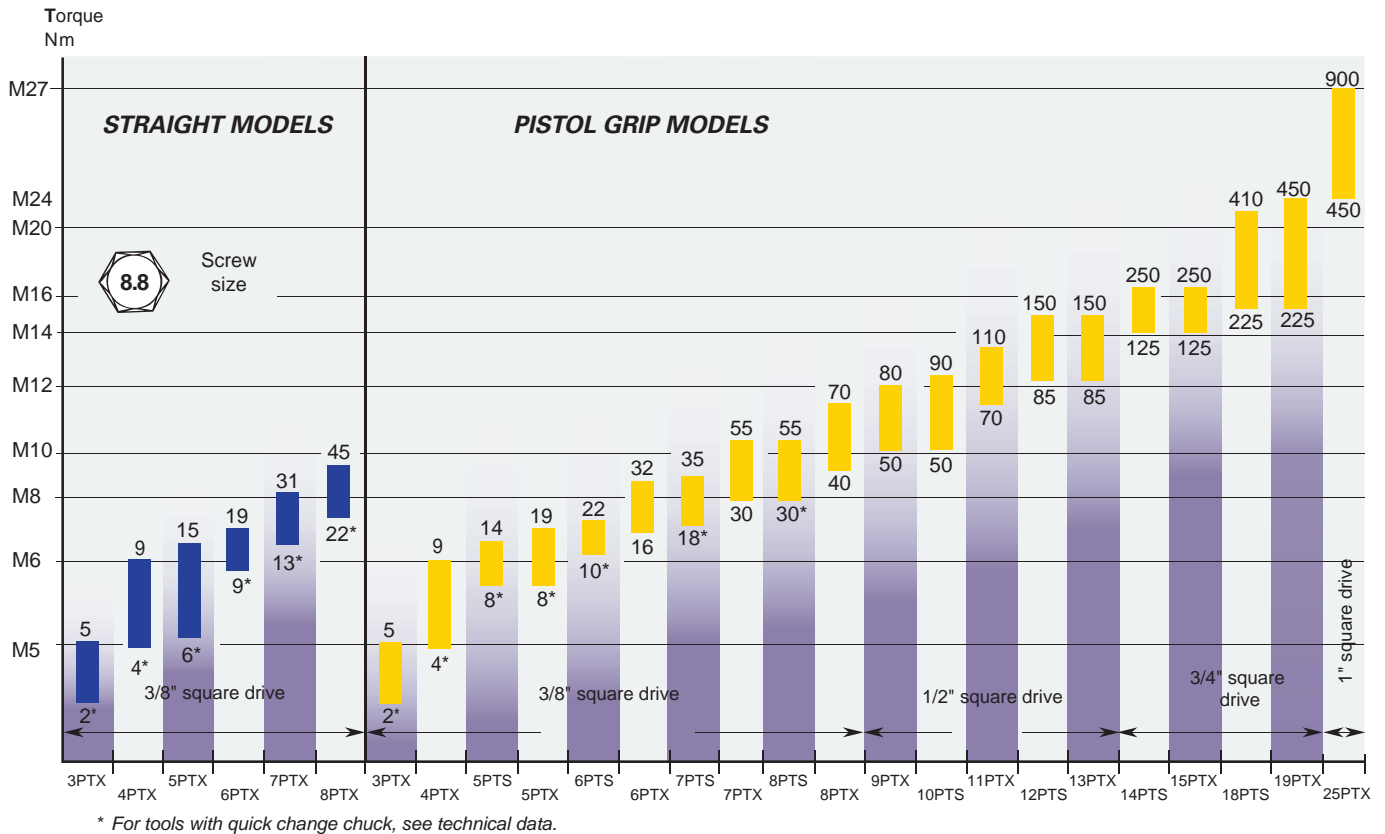
ERGOPULSE 6PS

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.



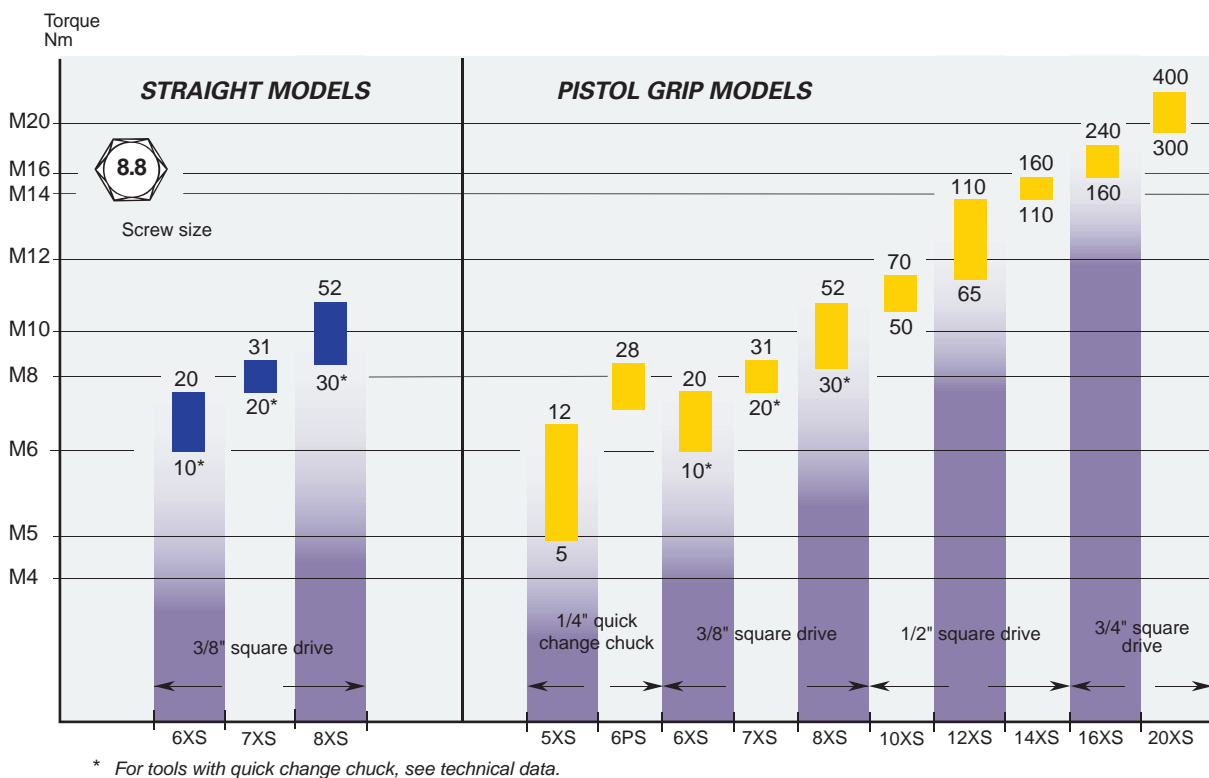
EP PTS/PTX SHUT-OFF MODELS

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	4	9	8	1/4	8431 0375 51
EP4PTX9 HR10-RE	M5	3/8	4-9	3-7	3400 ^c	0.9	1.9	164	22	4	9	8	1/4	8431 0375 54
EP4PTX9 HR42-RE	M5	1/4 ^b	4-9	3-7	3400 ^c	0.9	1.9	164	22	4	9	8	1/4	8431 0375 50
EP5PTX17 HR42-RE	M6	1/4 ^b	7-17	5-13	7000 ^c	0.9	1.9	164	22	7	15	8	1/4	8431 0375 00
EP5PTX19 HR10-RE	M6	3/8	8-19	6-14	7000 ^c	0.9	1.9	164	22	7	15	8	1/4	8431 0375 04
EP6PTX28 HR42-RE	M6-M8	1/4 ^b	15-28	11-18	8500 ^c	0.9	1.9	164	22	7	15	8	1/4	8431 0375 10
EP6PTX32 HR10-RE	M6-M8	3/8	16-32	12-23	8500 ^c	0.9	1.9	164	22	7	15	8	1/4	8431 0375 20
EP7PTX55 HR10-RE	M8-M10	3/8	30-55	22-40	7200 ^c	1.2	2.5	176	25	9	19	10	1/4	8431 0375 30
EP8PTX70 HR10-RE	M10	3/8	40-70	29-51	6900 ^c	1.2	2.5	176	25	9	19	10	1/4	8431 0375 60
EP9PTX80 HR13-RE	M10	1/2	50-80	37-59	5200 ^c	1.5	3.3	188	29	11	23	10	1/4	8431 0375 40
EP11PTX110 HR13-RE	M12	1/2	70-110	51-81	5100 ^c	1.7	3.8	196	29	12	25	10	1/4	8431 0375 50
EP13PTX150 HR13-RE	M12-M14	1/2	85-150	63-110	5300 ^c	2.3	5.1	197	33.5	15	32	13	3/8	8431 0376 60
EP15PTX250 HR20-RE	M12-M16	3/4	125-250	92-184	4300 ^c	3.1	6.8	216	36.5	21	45	13	3/8	8431 0376 70
EP19PTX450 HR20-RE	M16-M20	3/4	225-450	166-332	3300 ^c	4.2	9.2	221	44	23	49	13	3/8	8431 0376 80
Trim-RE Low pressure models														
EP5PTX HR10-RE-L	M5	3/8	7-15	5-11	5900 ^d	0.9	2.0	164	22	4	9	8	1/4	8431 0379 04
EP5PTX HR42-RE-L	M4-M5	1/4 ^b	6-13	4-10	5900 ^d	0.8	1.8	154	21	4	9	8	1/4	8431 0379 00
EP6PTX HR10-RE-L	M6	3/8	13-25	9-18	7900 ^d	0.9	2.0	164	22	7	15	8	1/4	8431 0379 20
EP6PTX HR42-RE-L	M5	1/4 ^b	11-22	8-16	7900 ^d	0.9	2.0	164	22	4	9	8	1/4	8431 0379 10
EP7PTX HR10-RE-L	M6	3/8	23-35	17-26	6200 ^d	0.9	2.0	164	22	7	15	10	1/4	8431 0379 30
EP8PTX HR10-RE-L	M6-M8	3/8	33-45	24-33	6300 ^d	0.9	2.0	164	22	7	15	10	1/4	8431 0379 60
AutoTrim														
EP3PTX5 HR42-AT	M4-M5	1/4 ^b	2-5	1.6-4	4500 ^c	0.8	1.8	154	21	4	9	8	1/4	8431 0375 53
EP4PTX9 HR10-AT	M5	3/8	4-9	3-7	3300 ^c	0.9	2.0	164	22	4	9	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	4	9	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	7	15	8	1/4	8431 0375 02
EP5PTX19 HR10-AT	M6	3/8	8-19	6-14	5400 ^c	0.9	2.0	164	22	7	15	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	7	15	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	7	15	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	9	19	10	1/4	8431 0375 32
EP8PTX70 HR10-AT	M10	3/8	40-70	29-51	6900 ^c	1.2	2.5	176	25	9	19	10	1/4	8431 0375 62
EP9PTX80 HR13-AT	M10	1/2	50-80	37-59	5100 ^c	1.5	3.4	188	29	11	23	10	1/4	8431 0375 42
EP11PTX110 HR13-AT	M12	1/2	70-110	51-81	5100 ^c	1.7	3.8	196	29	12	25	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	15	32	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	21	45	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	23	49	13	3/8	8431 0376 82
AutoTrim Low pressure models														
EP5PTX HR10-AT-L	M5	3/8	7-15	5-11	5900 ^d	0.9	2.0	164	22	4	9	8	1/4	8431 0379 06
EP5PTX HR42-AT-L	M4-M5	1/4 ^b	6-13	4-10	5900 ^d	0.8	1.8	154	21	4	9	8	1/4	8431 0379 02
EP6PTX HR10-AT-L	M6	3/8	13-25	9-18	7900 ^d	0.9	2.0	164	22	7	15	8	1/4	8431 0379 22
EP6PTX HR42-AT-L	M5	1/4 ^b	11-22	8-16	7900 ^d	0.9	2.0	164	22	4	9	8	1/4	8431 0379 12
EP7PTX HR10-AT-L	M6	3/8	23-35	17-26	6200 ^d	0.9	2.0	164	22	7	15	10	1/4	8431 0379 32
EP8PTX HR10-AT-L	M6-M8	3/8	33-45	24-33	6300 ^d	0.9	2.0	164	22	7	15	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. ^dMeasured 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.

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 ^a		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	4	9	8	1/4	8431 0376 01
EP4PTX9 SR10	M5	3/8	4-9	3-7	3400 ^d	0.9	2.0	207	21	4	9	8	1/4	8431 0376 04
EP4PTX9 SR42	M5	1/4 ^b	4-9	3-7	3400 ^d	0.9	2.0	207	21	4	9	8	1/4	8431 0376 00
EP5PTX14 SR42	M6	1/4 ^b	7-14	5-10	5300 ^d	0.9	2.0	207	21	7	15	8	1/4	8431 0376 10
EP5PTX15 SR10	M6	3/8	9-15	7-11	5300 ^d	0.9	2.0	207	21	7	15	8	1/4	8431 0376 14
EP6PTX18 SR42	M6	1/4 ^b	9-18	7-13	6800 ^d	0.9	2.0	207	21	7	15	8	1/4	8431 0376 20
EP6PTX19 SR10	M6	3/8	10-19	7-14	6800 ^d	0.9	2.0	207	21	7	15	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	8	17	10	1/4	8431 0376 30
EP7PTX31 SR10	M6-M8	3/8	18-31	13-23	4300 ^d	1.2	2.5	235	25	8	17	10	1/4	8431 0376 34
EP8PTX45 SR10	M8	3/8	24-45	18-33	5500 ^d	1.2	2.5	235	25	9	19	10	1/4	8431 0376 40
EP8PTX38 SR42	M8	1/4 ^b	22-38	16-28	5500 ^d	1.2	2.5	235	25	9	19	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	30	63	13	1/2	8431 0376 90
AutoTrim														
EP3PTX5 SR42-AT	M4-M5	1/4 ^b	2-5	1.6-4	4500 ^c	0.8	1.7	262	21	4	9	8	1/4	8431 0376 03
EP4PTX9 SR10-AT	M5	3/8	4-9	3-7	3300 ^c	0.9	2.0	267	21	4	9	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	4	9	8	1/4	8431 0376 02
EP5PTX15 SR10-AT	M6	3/8	9-15	7-11	4800 ^c	0.9	2.0	267	21	7	15	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	7	15	8	1/4	8431 0376 12
EP6PTX18 SR42-AT	M6	1/4 ^b	9-18	7-13	6700 ^c	0.9	2.0	267	21	7	15	8	1/4	8431 0376 22
EP6PTX19 SR10-AT	M6	3/8	10-19	7-14	6700 ^c	0.9	2.0	267	21	7	15	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	7	15	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	7	15	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	9	19	10	1/4	8431 0376 46
EP8PTX45 SR10-AT	M8	3/8	24-45	18-33	5900 ^c	1.2	2.5	295	25	9	19	10	1/4	8431 0376 42
AutoTrim Low pressure models														
EP5PTX SR10-AT-L	M5	3/8	8-13	6-10	4800 ^e	0.9	2.0	267	21	4	9	8	1/4	8431 0368 01
EP5PTX SR42-AT-L	M4-M5	1/4 ^b	7-12	5-9	4800 ^e	0.7	1.6	267	21	4	9	8	1/4	8431 0368 03
EP6PTX SR10-AT-L	M6	3/8	10-17	7-13	6300 ^e	0.9	2.0	267	21	7	15	8	1/4	8431 0368 09
EP6PTX SR42-AT-L	M5	1/4 ^b	9-16	6-12	6300 ^e	0.9	2.0	267	21	4	9	8	1/4	8431 0368 15
EP7PTX SR10-AT-L	M6	3/8	16-22	12-16	4000 ^e	0.9	2.0	295	21	7	15	8	1/4	8431 0368 35
EP7PTX SR42-AT-L	M6	1/4 ^b	15-21	11-15	4000 ^e	0.9	2.0	295	21	7	15	8	1/4	8431 0368 46
EP8PTX SR10-AT-L	M6-M8	3/8	21-32	15-24	5300 ^e	1.2	2.5	295	25	8	17	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.

^d With TRIM valve fully open.

^e Measured at 5 bar air pressure.

^b Female hexagon drive. Quick change chuck.

^c In full speed mode.

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 16.4 ft	Coupling	Lubrication	Ordering No.
For small impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ08US-C08	19 cfm	Cablar 08	ErgoQIC 08US	Yes	8202 0850 45
For 1/2" impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ10US-C10	34 cfm	Cablar 10	ErgoQIC 10US	Yes	8202 0850 46
For impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ10US-C13	50 cfm	Cablar 13	ErgoQIC 10US	Yes	8202 0850 47
MIDI Optimizer F/RD EP EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 48

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 7/16	13	3/8-1/4-13 3/8-7/16-13	4026 4501 00 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

RE-REPORTING KIT

	Ordering No.
RE-reporting kit for ErgoPulse PTS/PTX models with AutoTrim or Trim-RE valve	4250 1854 91

PROTECTIVE COVER AND SUPPORT HANDLE

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, syringe)		4081 0121 90			
Oil filling kit (1000 ml, syringe)		4081 0513 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 as for example ToolsNet. 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 16 ft		
EPP6 – EPP10	PVC 10 + Ergo couplings	8202 1180 10
EPP11	PVC 13 + Ergo couplings	8202 1180 11
EPP13 – EPP19	PVC 13 + Ergo couplings	8202 1180 12
Hoses 32 ft		
EPP6 – EPP10	PVC 10 + Ergo couplings	8202 1180 13
EPP11	PVC 13 + Ergo couplings	8202 1180 14
EPP13 – EPP19	PVC 13 + Ergo couplings	8202 1180 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.
- Spiral cut angle gears



LTV29-2

LTV39-2 SERIES

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



LTV39-2

LTV FS FLUSH SOCKET TOOLS

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

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-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 R70-13	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.
- Spiral cut angle gears



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.
- Spiral cut angle gears



LTV FS FLUSH SOCKET TOOLS

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



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	1/4 ^a	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.
- Spiral cut angle gears

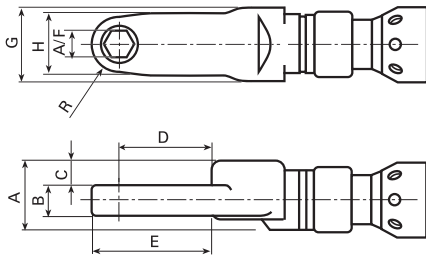


Model	Bolt size mm	Square drive in	Min torque at 3 bar soft joint		Min torque at 6.3 bar soft joint		Max torque at 6.3 bar soft joint		Free speed r/min	Weight		Length mm	Angle head height mm	Angle head center to side mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			Nm	ft lb	Nm	ft lb	Nm	ft lb		kg	lb				l/s	cfm			
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

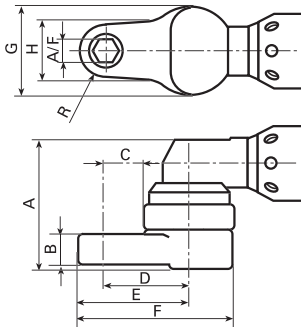


LTC

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 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 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 R14-12-LI3	6-14	4-10	127	1.8	4	319	12	34	15	12.5	45.5	71	35	30	13	8431 0616 07
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
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 R135-22-LI3	105-135	77-99	90	4.6	10.2	651	22	46	33	14	77.5	84	64	40	20	8431 0616 15

OFFSET CROWFOOT TOOLS

Dimensions

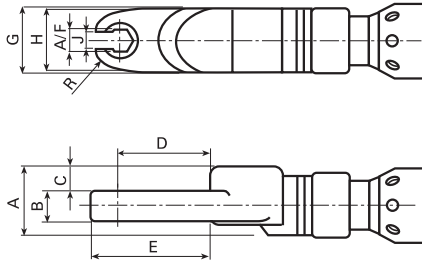


LTC

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
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 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
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 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

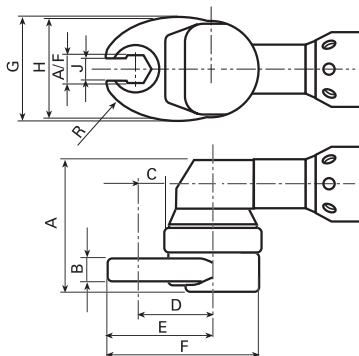


LTO

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 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

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 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
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

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.



LTV48 R200 HAD

NOTE: To reduce the reaction force in the holder, the use of a reaction bar is recommended.

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	75	26	10	16	10	1/4	8431 0609 52
LTV38 R42 HAD	M8	20-42	15-31	430	2.2	4.8	453	62	18.5	10	16	10	1/4	8431 0603 75
LTV38 R50 HAD	M10	25-50	18-36	360	2.2	4.8	453	62	18.5	10	16	10	1/4	8431 0603 82
LTV38 R85 HAD	M10-12	40-85	30-67	210	3.0	6.5	530	75	26	10	16	10	1/4	8431 0609 58
LTV48 R120 HAD	M12-14	70-120	52-89	220	3.3	7.3	590	75	26	28	59	12.5	1/2	8431 0610 26
LTV48 R150 HAD	M14	70-150	52-111	180	3.3	7.3	590	75	26	28	59	12.5	1/2	8431 0610 30
LTV48 R200 HAD	M14	115-200	85-150	100	3.3	7.3	610	75	28	28	59	12.5	1/2	8431 0610 32
LTV69 R370 HAD	M18	190-370	140-273	480	7.6	16.6	634	104	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 center		Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			at 6.3 bar		at 3 bar			kg	lb		height mm	to side mm	l/s	cfm			
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 center		Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			at 6.3 bar		at 3 bar			kg	lb		height mm	to side mm	l/s	cfm			
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

^aFemale 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 center		Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No.
			at 6.3 bar		at 3 bar			kg	lb		height mm	to side mm	l/s	cfm			
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

^aFemale hex drive.

Accessories Included

FOR LTV MODELS

Clutch adjustment key

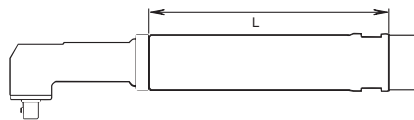
FOR LBR, LMV AND LMK MODELS

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)

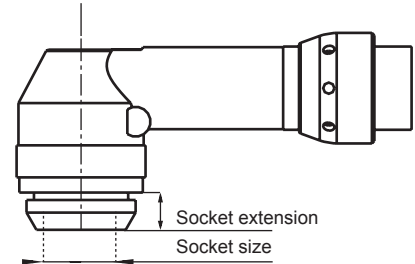
FOR LTV AND LTC MODELS

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 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 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 and ETV ST61-30-FS	8	1.5	4220 4188 88
	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 and ETV ST61-40-FS, ETV ST61-50-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 and ETV ST61-70-FS	16	0.5
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, LTV48 R150/R200 FS, and ETV DS72-160FS/200FS , ETV ST61 100/150/180/200 FS		24	12.5
	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
	18	2	4210 3534 68
	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
	27	13.8	4210 3534 27

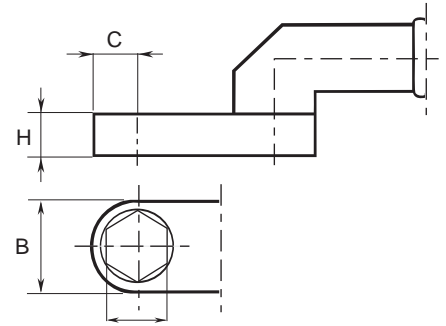


Optional Accessories for Crowfoot tools

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.

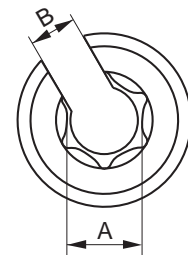
^c 19 mm socket mounted on tool.

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

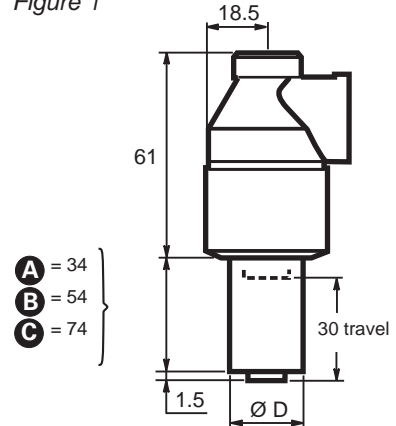
NUT SOCKET, SCREW HOLDER AND BIT HOLDER FOR LTV38 R42-HAD/LTV38 R50-HAD AND ETV ST61-28/50 HAD

Nut socket (Fig. 1)

Width across flats W mm	Socket Ø D mm	A	Ordering No. 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

Measurements in mm

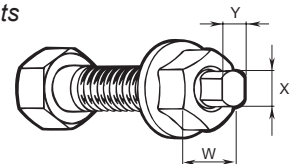
Figure 1



Screw holder

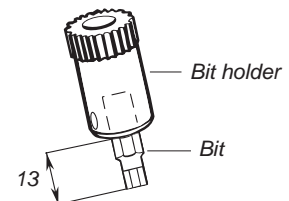
Dimension X x Y mm	Suitable socket size mm	A	Ordering No. B	C
6.6 x 5	10-21	4220 1770 19	–	–
7 x 5	10-21	–	4220 1770 17	–
5.1 x 8.2	10-21	4220 1770 01	–	4220 1770 16
8 x 6	10-21	4220 1770 02	–	–

Two flats



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"



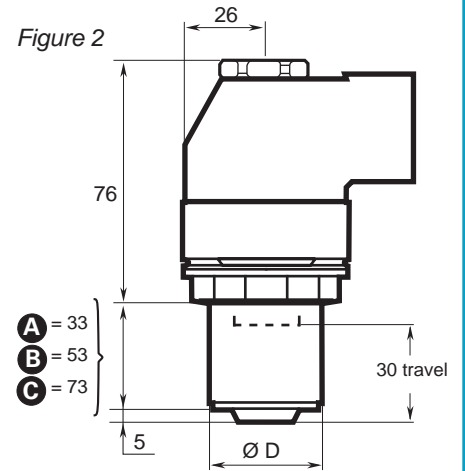
Optional Accessories for Hold and Drive tools

NUT SOCKET, SCREW HOLDER AND BIT HOLDER FOR LTV48 R100-HAD AND ETV ST61/81-100-HAD

Nut socket (Fig. 2)

Width across flats W mm	Socket Ø D mm	Ordering No.		
		A	B	C
13	21	4220 4477 13	4220 4477 33	4220 4477 53
14	22	4220 4477 14	4220 4477 34	4220 4477 54
15	23	4220 4477 15	4220 4477 35	4220 4477 55
16	24	4220 4477 16	4220 4477 36	4220 4477 56
17	27	4220 4477 17	4220 4477 37	4220 4477 57
18	27	4220 4477 18	4220 4477 38	4220 4477 58
19	29	4220 4477 19	4220 4477 39	4220 4477 59
21	30	4220 4477 21	4220 4477 41	4220 4477 61
22	32	4220 4477 22	4220 4477 42	4220 4477 62
24	34	4220 4477 24	4220 4477 44	4220 4477 64

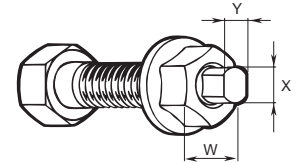
Measurements in mm



Screw holder – Two flats

Dimension X x Y mm	Suitable socket size mm	Ordering No.		
		A 33 mm	B 53 mm	C 73 mm
7x5	13-24	4220 4524 05	4220 4524 15	4220 4524 25
8x6	13-24	4220 4524 06	4220 4524 16	4220 4524 26
8x6.3	13-24	4220 4524 07	4220 4524 17	4220 4524 27
9.55x7.6	14-24	4220 4524 08	4220 4524 18	4220 4524 28
11.20x8.9	16-24	4220 4524 09	4220 4524 19	4220 4524 29
13x9.8	16-24	4220 4524 10	4220 4524 20	4220 4524 30

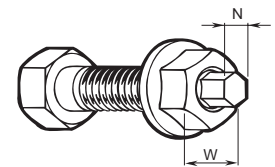
Two flats



Screw holder – Male hexagon

Dimension N mm	Suitable socket size mm	Ordering No.		
		A 33 mm	B 53 mm	C 73 mm
5	13-24	4220 4478 15	4220 4478 25	4220 4478 45
6	13-24	4220 4478 16	4220 4478 26	4220 4478 46
7	13-24	4220 4478 07	4220 4478 27	4220 4478 47
8	13-24	4220 4478 08	4220 4478 28	4220 4478 48
9	14-24	4220 4478 09	4220 4478 29	4220 4478 49
10	16-24	4220 4478 10	4220 4478 30	4220 4478 50
11	16-24	4220 4478 11	4220 4478 31	4220 4478 51

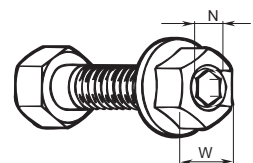
Male hexagon



Bit holder – Female hexagon

Suitable socket size mm	Ordering No.		
	A 33 mm	B 53 mm	C 73 mm
13-24	4220 4524 60	4220 4524 61	4220 4524 62

Female hexagon



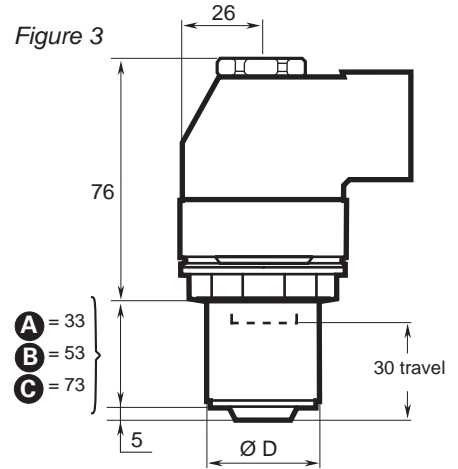
Optional Accessories for Hold and Drive tools

NUT SOCKET, SCREW HOLDER AND BIT HOLDER FOR LTV38 R40 LT/R 85 HAD, LTV48 HAD AND ETV ST61/81-100-HAD-HD/120/150/180/200 HAD

Nut socket (Fig. 3)

Width across flats W mm	Socket Ø D mm	A	Ordering No. 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

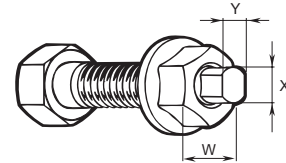
Measurements in mm



Screw holder – Two flats

Dimension X x Y mm	Suitable socket size mm	A	Ordering No. 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

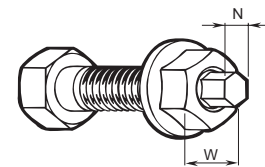
Two flats



Screw holder – Male hexagon

Dimension N mm	Suitable socket size mm	A	Ordering No. 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

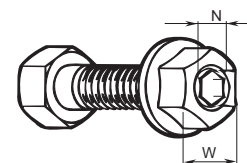
Male hexagon



Bit holder – Female hexagon

Bit holder 5/16"			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

Female hexagon



Optional Accessories for Hold and Drive tools

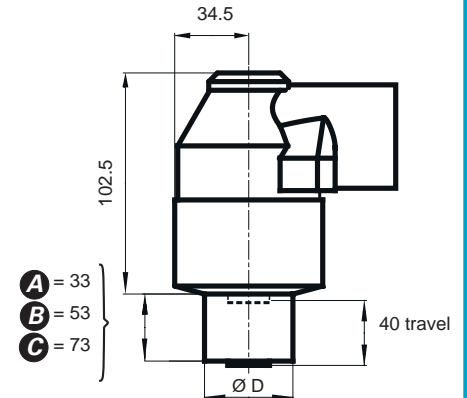
NUT SOCKET, SCREW HOLDER AND BIT HOLDER FOR LTV69 R370-HAD AND ETV ST101-370-HAD

Nut socket (Fig. 4)

Width across flats W mm	Socket Ø D mm	Ordering No.		
		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 4



Screw holder – Two flats for LTV69 R370-HAD

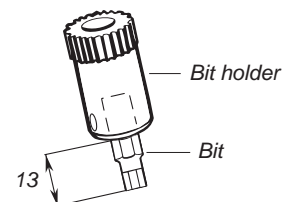
Dimension X x Y N mm	Suitable socket size mm	Ordering No.		
		A	B	C
13 x 9.8	18-36	4220 1777 80	4220 1777 83	4220 1777 85
13.20 x 10.5	18-36	4220 1777 81	4220 1777 84	4220 1777 86

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	Socket size mm	Ordering No.		
		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 16.4 ft	Coupling	Lubrication	Ordering No.
For 1/2" drills and small nutrunners					
MIDI Optimizer F/RD EQ10US-C10	34 cfm	Cablaire 10	ErgoQIC 10US	Yes	8202 0850 25
MIDI Optimizer F/RD EQ10US-R10	34 cfm	Rubber 10	ErgoQIC 10US	Yes	8202 0850 26
For drills and nutrunners					
MIDI Optimizer F/RD EQ10US-C13	50 cfm	Cablaire 13	ErgoQIC 10US	Yes	8202 0850 27
MIDI Optimizer F/RD EQ10US-R13	50 cfm	Rubber 13	ErgoQIC 10US	Yes	8202 0850 28
For grinders, percussive tools and nutrunners					
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



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

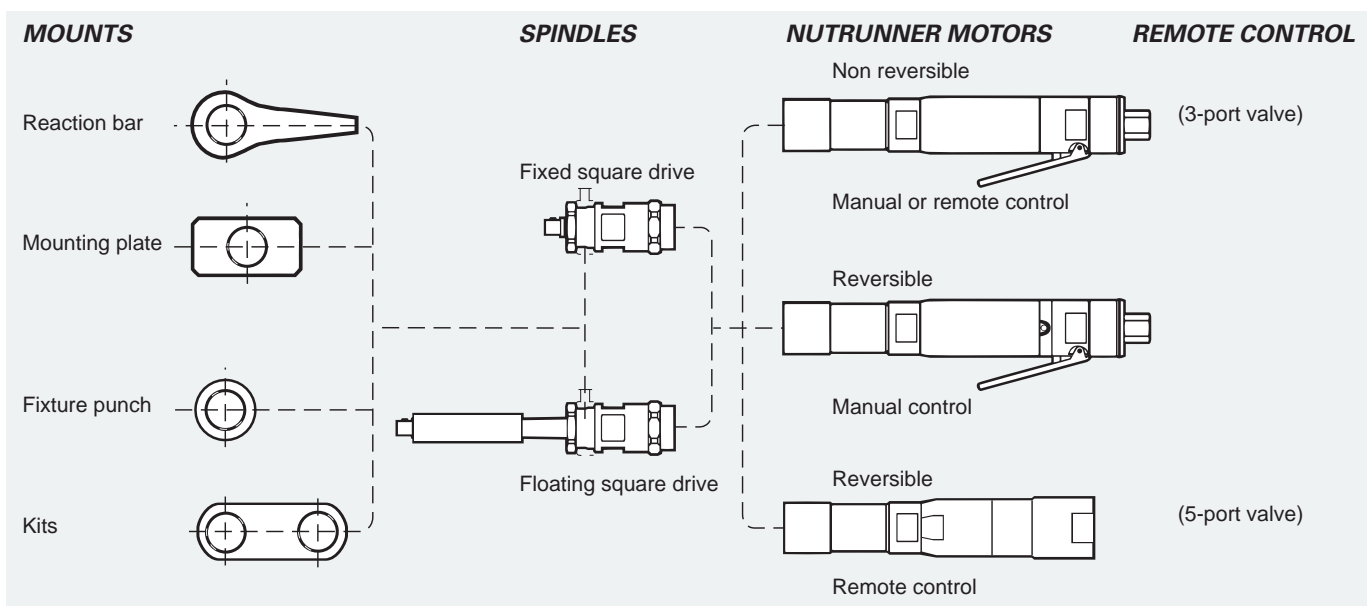
The LTD system offers a flexible, low-cost solution to many advanced tightening requirements. With fixtured tools the operator influence is minimized and very high torque accuracy is achieved.

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.

- **Reaction bar blanks** – For single spindle hand-held applications.
- **Mounting plates** – The LTD 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.
- **Air signal outlets** – All LTD models are equipped with air signal outlets for completed operation.

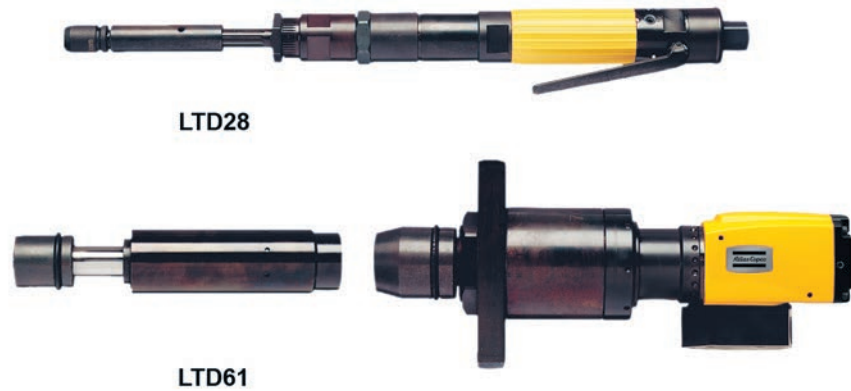
THE LTD SYSTEM



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

LTD nutrunners are based on the unique LTP 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.



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 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 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 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 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 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 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
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

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

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

Continued...

^b 1/4" quick change chuck.

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, 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 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
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 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.

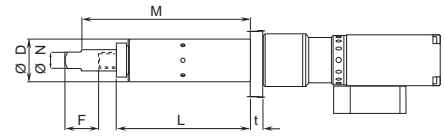
Model	Bolt size mm	Square drive in	Torque range at 6.3 bar		Min torque at 3 bar		Free speed r/min	Weight		Length mm	CS distance mm	Air consumption at free speed		Air inlet thread in	Spline type	Ordering No.
			Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm			
Torque control models with fixed square drive																
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 16.4 ft	Coupling	Lubrication	Ordering No.
For 1/2" drills and small nutrunners					
MIDI Optimizer F/RD EQ10US-C10	34 cfm	Cablair 10	ErgoQIC 10US	Yes	8202 0850 25
MIDI Optimizer F/RD EQ10US-R10	34 cfm	Rubber 10	ErgoQIC 10US	Yes	8202 0850 26
For drills and nutrunners					
MIDI Optimizer F/RD EQ10US-C13	50 cfm	Cablair 13	ErgoQIC 10US	Yes	8202 0850 27
MIDI Optimizer F/RD EQ10US-R13	50 cfm	Rubber 13	ErgoQIC 10US	Yes	8202 0850 28
For grinders, percussive tools and nutrunners					
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30




Service Kits

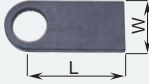


Model	General service kit
LTD61	4081 0397 90

Optional Accessories

REACTION BAR

	Dimensions mm	LTD38 N55/R47 LTD48 LMD/LTD61 -13, -19				
		LTD28	LTD38	LMD/LTD61 -20	LMD/LTD61 -25	
Bar blank (steel)	L 250 200 500	4210 1798 00	4210 2134 00	4210 2219 82	4210 2183 80	4210 2726 80
Bar blank (aluminum)	400			4210 2219 81		

MOUNTING PLATE

	Dimensions mm	LTD38 N55/R47 LTD48 LMD/LTD61 -13, -19				
		LTD28	LTD38	LMD/LTD61 -20	LMD/LTD61 -25	
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 55			4210 2219 10		

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

NOTE: Each valve kit can control two nutrunners

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 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 on the 61 series.
- 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 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.

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

Recommended hose (61 series) size 13 mm for hose length up to 5 m and 16 mm hose size for length 5-10 m.

- 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.
- High torque accuracy.
- 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.

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

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

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 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 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 MULTITORQUE 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	273	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	273	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	273	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	310	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	310	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	340	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	340	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	379	42	20	42	3/8	9	8431 0806 44

^aWithout 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 4% of maximum torque on a given air pressure.

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
For 1/2" drills and small nutrunners					
MIDI Optimizer F/RD EQ10US-C10	34 cfm	Cablair 10	ErgoQIC 10US	Yes	8202 0850 25
MIDI Optimizer F/RD EQ10US-R10	34 cfm	Rubber 10	ErgoQIC 10US	Yes	8202 0850 26
For drills and nutrunners					
MIDI Optimizer F/RD EQ10US-C13	50 cfm	Cablair 13	ErgoQIC 10US	Yes	8202 0850 27
MIDI Optimizer F/RD EQ10US-R13	50 cfm	Rubber 13	ErgoQIC 10US	Yes	8202 0850 28
For grinders, percussive tools and nutrunners					
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.

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 LTP 61 with MT unit	4210 4672 00 4210 4672 01
Multi torque selector LTP61	4210 4636 95
Quick change retainer – 1/2" square models – 3/4" square models – 1" square models	4250 1190 00 4210 3476 80 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	4210 3088 80
PH/H 100-13	
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	4210 3088 84
HR 100-13	
HR 170-13	
HR 230-19	

Model	Ordering No.
Mounting dia Ø 63.5 mm	4210 3088 83
H 1900-38	
H 2800-38	
H 3800-38	
Mounting dia Ø 67 mm	4210 3088 82
HR 350-20	
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	4210 3088 81
PH/H 1500-25	
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 3	1/2	82-218	4210 4616 83
Spline 3	3/4	82-218	4210 4616 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



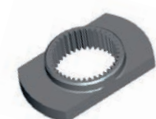
Straight aluminum bar



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

RTP NUTRUNNERS FOR HEAVY DUTY BOLTING

- RTP's slim gearpack gives you effortless access to bolts in cramped spaces.
- The torque output of the RTP is adjusted with an Atlas Copco FRL air pressure unit, helping to prolong the lifetime and torque accuracy of the tool.
- The tool's 1" exchangeable drive simplifies maintenance and cuts repair costs.



RTP4100



RTP1300

Model	Bolt size mm	Square drive in	Min torque at 1.5 bar		Max torque at 6.3 bar		Free speed r/min	Weight ^a		Length mm	CS distance mm	Air consumption at free speed		Rec. hose size mm	Air inlet thread in	Ordering No. ^b
			Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm			
RTP1300-HR20	20-27	3/4	320	235	1300	960	20	3.7	8.2	248	32	23	48.7	13	3/8	8431 1013 10
RTP4100-HR25	30-45	1	1000	738	4100	3100	10	8.7	19.2	335	41	31	65.5	13	3/8	8431 1040 10

^aWeight excluding reaction bar. ^bKit with included accessories, reaction bar, nipple and FRL stand.

Included Accessories

Model	Description	Ordering No.
RTP1300	Reaction bar, S-type	4210 4480 90
RTP4100	Reaction bar, S-type	4210 4480 93
RTP1300 / 4100	Nipple, NIP 10US, NPT	8202 1210 79
RTP1300 / 4100	Productivity kit FRL stand, NPT ^c	9090 3030 01

^cHose included.



Reaction bar, S-type



Productivity kit



Reaction bar, sliding-drive



Reaction bar, steel bar



Reaction bar, square bracket

Optional Accessories

Model	Description	Ordering No.
RTP1300 / 4100	MultiFlex swivel 3/8 NPT	8202 1350 28
	Trigger guard	4210 4759 90
RTP1300	Reaction bar, sliding-drive	4210 4752 90
	Reaction bar, steel bar	4210 4757 90
	Reaction bar, square bracket	4210 4758 90
RTP4100	Reaction bar, sliding-drive	4210 4752 91
	Reaction bar, steel bar	4210 4757 91
	Reaction bar, square bracket	4210 4758 91

NOTE: All reaction bars includes a snap ring



Service Kits

Model	Description	Ordering No.
RTP1300	Gear / Motor housing	4082 0125 90
	Gear / Motor / Motor housing	4081 0510 90
RTP4100	Gear / Motor housing	4082 0116 91
	Gear / Motor / Motor housing	4081 0504 90

Re Assembly Qualifier II

The RE Assembly Qualifier II provides your operator with visual and audio feedback for error-proofing single or multiple fastener assemblies. When used with a pressure ported pneumatic assembly tool, the RE Assembly Qualifier II verifies fastener installation and fastener count by monitoring pressure differentials during the fastening cycle. The RE Qualifier II monitors internal tool air pressure according to joint characteristics during the assembly process. Your operator will be notified if a correct or an incorrect fastening (such as a re-hit, cross-thread or early trigger release) has occurred. Atlas Copco brings you an intelligent product for error-proofing your fastener assemblies.

- Error-proofing for pneumatic shut-off assembly tools: RE pulse tools, RE screwdrivers and RE nutrunners.
- Verifies fastener installation "Accept/Reject".
- Verifies fastener count.
- Provides audio and visual operator feedback.
- AutoCal™ automatically determines tool type, pulse or continuous drive.
- Password protected.
- External transducer with OK and NOK lights.
- On-screen graphs.
- Stores 1,000 rundowns.
- Dimensions: 8" base, 10" height and 3.3" depth.



RE Assembly Qualifier II

Model	Ordering No.
RE Assembly Qualifier II with Standard Cable Transducer	9810 7050 80 ^a
RE Assembly Qualifier II, No transducers	9810 7050 84
Standard Cable Transducer	9810 7050 86
Coil Cable Transducer	9810 7050 88
Device Net Module	9810 7050 90
Hood for 12 Pin Connector	9810 7050 92
Software & Manual (Included as standard with RE Assembly Qualifier)	9810 7050 94

^a Includes all components needed for a standard reporting installation.

HYDRAULIC TOOLS



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RTX wrenches, low profile.....	76

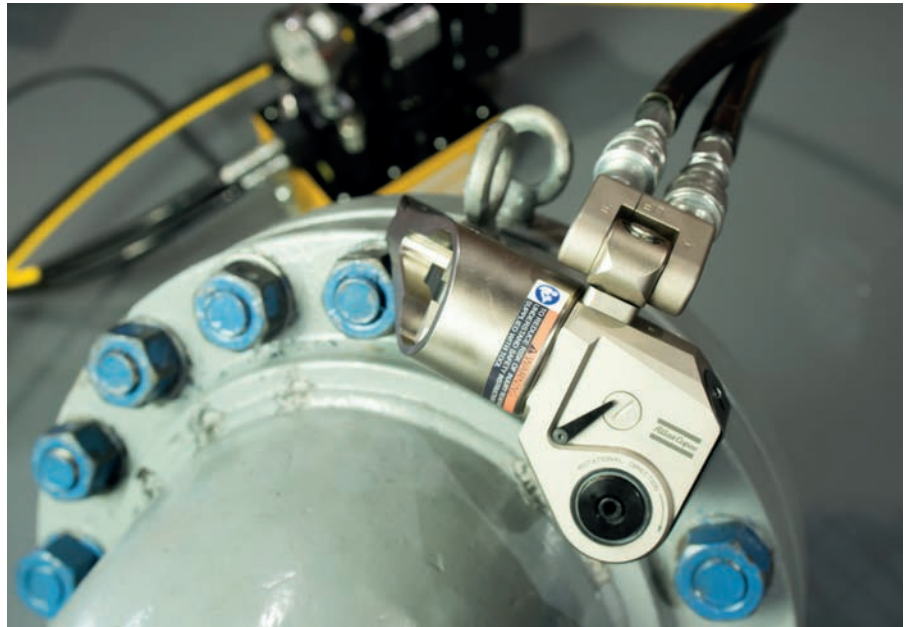
Introduction – Hydraulic Torque Wrenches

Hydraulic torque wrenches

When designing Atlas Copco Hydraulic Torque Wrenches for very high torque applications, such as torquing flanges, the vision was to build tools that could be relied upon to achieve safe connections in some of the world's most critical applications. From design to manufacturing and calibration, Atlas Copco Hydraulic Torque Wrenches are dedicated to this vision.

Atlas Copco is your reliable partner that gives you access to a complete line of bolt torquing tools to boost your productivity and minimize downtime.

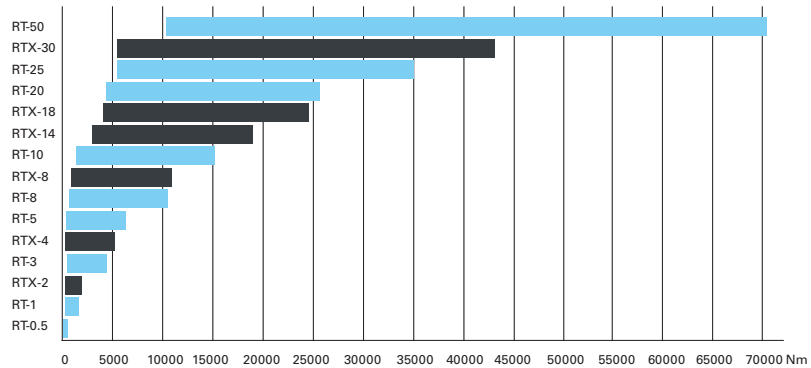
The RT and RTX series hydraulic torque wrenches are robust and accurate hydraulic torque wrenches. The products are available in square drive RT, and RTX low profile models, this is the cornerstone for high torque applications. The hydraulic torque wrenches work with 700 bar/10,000 psi hydraulic pump.



Selection Guide

TORQUE CHART

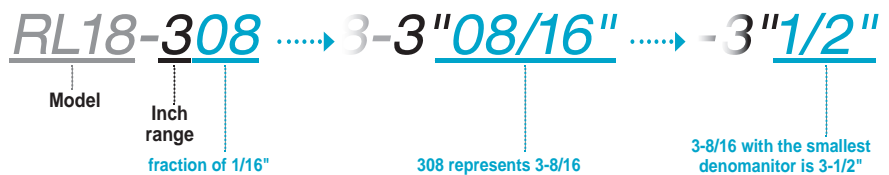
The torque is important to ensure the required clamping force is applied. The chart shows the tightening torque range for the different models in the hydraulic torque wrench product portfolio.



HOW TO SELECT THE LINK SIZE

Sizes are expressed as MM for metric while imperial have a 3 digit designation. First number indicates inch, and the following two numbers indicate an increment of 1/16".

For example: RL 18-308 would be a link that is 3-8/16, with 8/16 being 1/2. Another example, RL04-105 would be a 1-5/16" link. When the link size in metric and imperial are the same size, it is listed together. For example: RL 14-104/32MM would be a link for a nut that is 1-1/4 (4/16 being 1/4) but would also be used for a 32MM nut.



Atlas Copco Square Drive Hydraulic Torque Wrenches offer extremely high torquing power. There are 9 models to choose from and output accuracy is at +/-3%.*

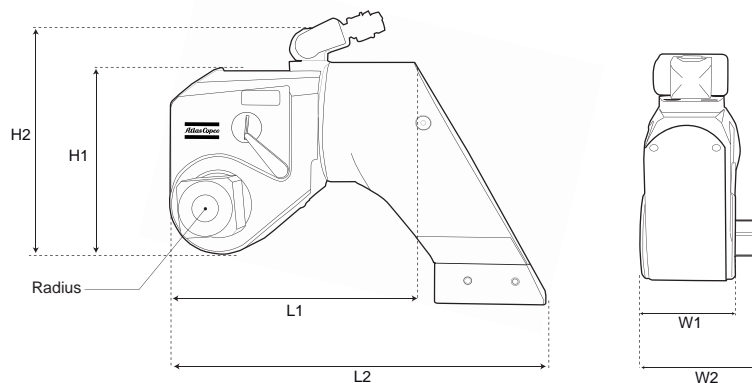
* As per NIST standards.



Square drive profile

Model	Square drive in	Torque				Weight		Ordering No.
		Nm		ft lb		kg	lb	
		min	max	min	max			
RT-0.5	1/2	75	538	55	397	0.4	0.8	8434 2010 00
RT-1	3/4	271	1817	200	1340	1.9	3.8	8434 2010 02
RT-3	1	651	4379	480	3230	3.9	7.8	8434 2010 05
RT-5	1-1/2	1132	7578	835	5590	7.5	15	8434 2010 09
RT-8	1-1/2	1627	10845	1200	8000	11.5	23	8434 2010 13
RT-10	1-1/2	2379	15617	1755	11520	13.4	26.8	8434 2010 16
RT-20	2-1/2	4013	26787	2960	19760	18	36	8434 2010 20
RT-25	2-1/2	5368	35096	3960	25890	31	62	8434 2010 25
RT-50	2-1/2	10675	71169	7875	52500	48	96	8434 2010 29

Dimensions



Model	L1		L2		H1		H2		Radius		W1		W2	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
RT-0.5	81	3.15	125	4.87	60.5	2.35	93	3.62	13.5	0.52	33.5	1.3	50.5	1.97
RT-1	120	4.68	183	7.13	90.5	3.52	122	4.75	23	0.9	50	1.95	71	2.76
RT-3	155	6.04	237	9.24	120	4.68	156	6.08	33	1.28	66.5	2.59	95.5	3.72
RT-5	185	7.21	288	11.23	144.5	5.63	181	7.05	37	1.44	80	3.12	126	4.9
RT-8	202	7.85	321	12.49	164.6	6.42	213.36	8.4	41	1.62	88	3.48	126	4.95
RT-10	232	9	357	13.9	186	7.2	239	9.3	48	1.87	100	3.9	142.5	5.5
RT-20	259	10.2	420	16.55	216	8.5	251	9.9	55.1	2.17	119	4.7	170	6.7
RT-25	310	12	473	18.4	234	9.1	282	11	61	2.37	134	5.2	191	7.4
RT-50	390	15.2	615	23.9	294	11.4	344	13.4	79	3.08	167	6.5	228	8.9

DIRECT HEX, SQUARE DRIVE REPLACEMENT

RT square drive

Model	Hex size	Ordering No.	Model	Hex size	Ordering No.
RT0.5-HX-10MM	10 mm	8434 2138 44	RT03-HX-24MM-EXT	24 mm	8434 2116 25
RT0.5-HX-12MM	12 mm	8434 2138 47	RT03-HX-27MM	27 mm	8434 2057 28
RT0.5-HX-14MM	14 mm	8434 2138 50	RT03-HX-30MM	30 mm	8434 2139 46
RT0.5-HX-16MM	16 mm	8434 2138 53	RT03-HX-32MM	32mm	8434 2057 30
RT0.5-HX-17MM	17 mm	8434 2138 56	RT03-HX-36MM	36 mm	8434 2139 49
RT0.5-HX-18MM	18 mm	8434 2138 59	RT03-HX-36MM-EXT	36 mm	8434 2139 52
RT0.5-HX-19MM	19 mm	8434 2138 62	RT03-HX-38MM	38 mm	8434 2139 55
RT0.5-HX-20MM	20 mm	8434 2138 65	RT03-HX-100		8434 2057 20
RT0.5-HX-22MM	22 mm	8434 2138 68	RT05-HX-24MM	24 mm	8434 2140 03
RT0.5-HX-24MM	24 mm	8434 2101 71	RT05-HX-27MM	27 mm	8434 2057 36
RT01-HX-010	5/8"	8434 2138 71	RT05-HX-27MM-EXT	27 mm	8434 2140 09
RT01-HX-012	3/4"	8434 2138 74	RT05-HX-32MM	32 mm	8434 2140 12
RT01-HX-014	7/8"	8434 2138 77	RT05-HX-32MM-EXT	32 mm	8434 2140 15
RT01-HX-17MM	17 mm	8434 2056 96	RT05-HX-36MM	36 mm	8434 2057 38
RT01-HX-19MM	19 mm	8434 2056 98	RT05-HX-41MM	41 mm	8434 2057 40
RT01-HX-20MM	20 mm	8434 2057 00	RT05-HX-41MM-EXT	41 mm	8434 2140 18
RT01-HX-22MM	22 mm	8434 2057 02	RT05-HX-46MM	46 mm	8434 2057 42
RT01-HX-24MM	24 mm	8434 2057 04	RT05-HX-55MM	55 mm	8434 2140 21
RT01-HX-27MM	27 mm	8434 2057 06	RT08-HX-24MM	24 mm	8434 2140 45
RT03-HX-010	5/8"	8434 2057 14	RT08-HX-27MM	27 mm	8434 2140 48
RT03-HX-012	3/4"	8434 2057 16	RT10-HX-32MM	32 mm	8434 2140 75
RT03-HX-014	7/8"	8434 2057 18	RT10-HX-36MM	36 mm	8434 2057 46
RT03-HX-19MM	19 mm	8434 2057 22	RT10-HX-41MM	41 mm	8434 2057 48
RT03-HX-19MM-EXT	19 mm	8434 2139 40	RT10-HX-46MM	46 mm	8434 2057 50
RT03-HX-22MM	22 mm	8434 2057 24	RT10-HX-46MM-EXT	46 mm	8434 2140 78
RT03-HX-22MM-EXT	22 mm	8434 2116 22	RT10-HX-50MM	50 mm	8434 2057 52
RT03-HX-24MM	24 mm	8434 2057 26			

EXT=Extended



Square drive

INSERT BITS

Insert bit hex holder adapter

Model	Description	Ordering No.
H2-7/8	Hex holder Sq Dr 3/4"-7/8"	8434 2129 59
H4-1/2	Hex holder Sq Dr 1/2"-1/2"	8434 2056 58
H4-7/8	Hex holder Sq Dr 1/2"-7/8"	8434 2056 60
H5-1 3/4	Hex holder Sq Dr 1 1/2"-1 3/4"	8434 2129 62
H5-1-1/4	Hex holder Sq Dr 1 1/2"-1 1/4"	8434 2129 65
H9-1 1/4	Hex holder Sq Dr 1"-1 1/4"	8434 2129 68
H9-7/8	Hex holder Sq Dr 1"-7/8"	8434 2056 62



Insert bit with hex holder adapter

Insert bits

Model	Description	Ordering No.	Model	Description	Ordering No.
7/8-10	Hex size 10 mm	8434 2054 24	1 3/4-46	Hex size 46 mm	8434 2050 44
7/8-12	Hex size 12 mm	8434 2054 26	1 3/4-50	Hex size 50 mm	8434 2050 46
7/8-14	Hex size 14 mm	8434 2054 30	7/8-1	Hex size 1"	8434 2054 20
7/8-17	Hex size 17 mm	8434 2054 32	1 1/4-1	Hex size 1"	8434 2050 12
7/8-19	Hex size 19 mm	8434 2054 34	1 1/4-1 1/16	Hex size 1 1/16"	8434 2124 10
7/8-22	Hex size 22 mm	8434 2054 36	1 1/4-1 1/4	Hex size 1 1/4"	8434 2050 14
7/8-24	Hex size 24 mm	8434 2054 38	1 1/4-1 1/8	Hex size 1 1/8"	8434 2050 16
7/8-27	Hex size 27 mm	8434 2123 32	1 3/4-1 1/2	Hex size 1 1/2"	8434 2050 32
1 1/4-24	Hex size 24 mm	8434 2050 18	1 3/4-1 3/4	Hex size 1 3/4"	8434 2050 34
1 1/4-27	Hex size 27 mm	8434 2050 20	1 3/4-1 3/8	Hex size 1 3/8"	8434 2050 36
1 1/4-28	Hex size 28 mm	8434 2050 22	1 3/4-1 5/8	Hex size 1 5/8"	8434 2050 38
1 1/4-29	Hex size 29 mm	8434 2050 24	7/8-1 12 PT	Hex size 1"-12pt	8434 2126 86
1 1/4-30	Hex size 30 mm	8434 2050 26	7/8-1/2	Hex size 1/2"	8434 2054 22
1 1/4-32	Hex size 32 mm	8434 2050 28	7/8-13/16	Hex size 13/16"	8434 2054 28
1 1/4-33	Hex size 33 mm	8434 2050 30	7/8-3/4	Hex size 3/4"	8434 2054 40
1 1/4-36	Hex size 36 mm	8434 2124 13	7/8-5/8	Hex size 5/8"	8434 2054 42
1 3/4-36	Hex size 36 mm	8434 2050 40	7/8-7/8	Hex size 7/8"	8434 2054 44
1 3/4-40	Hex size 40 mm	8434 2124 16	7/8-9/16	Hex size 9/16"	8434 2054 46
1 3/4-41	Hex size 41 mm	8434 2050 42			

ALCO ARM

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

STEEL SLEEVE WITH FOOT

Description	Ordering No.
RT01-SSLVF	8434 2057 09
RT03-SLVF	4222 2130 21



ALCO arm

STEEL SLEEVE

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

CAM STYLE ARM

Description	Ordering No.
RT03-CAM ARM	4222 2130 12
RT05-CAM ARM	4222 2130 57



Steel sleeve with foot



Steel sleeve

EXTENDED REACTION ARM

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

SLIDING REACTION ARM

Description	Ordering No.
RT-01 SLIDING EXT	8434 2057 33
RT-01 SLIDING STD	8434 2150 95
RT-03 SLIDING EXT	8434 2150 37
RT-03 SLIDING STD	8434 2150 30
RT-05 SLIDING EXT	8434 2150 36
RT-05 SLIDING STD	8434 2150 35
RT-08 SLIDING EXT	8434 2150 32
RT-08 SLIDING STD	8434 2150 31
RT-10 SLIDING EXT	8434 2150 34
RT-10 SLIDING STD	8434 2150 33
RT20 SLIDING EXT	8434 2150 90
RT20 SLIDING STD	8434 2150 89



CAM style arm



Extended reaction arm



Sliding reaction arm

STD= Standard EXT=Extended

Atlas Copco Low Profile Hydraulic Torque Wrenches eliminate problems with tight clearances. There are 6 models to choose from. Repeatability is +/- 1% and output accuracy is at +/- 3%.*

* As per NIST standards.

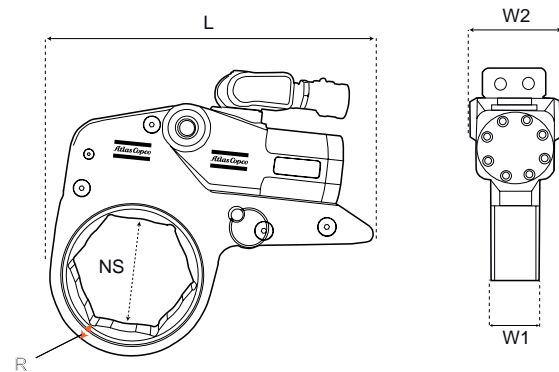


Low profile



Model	Ratchet link hex size		Torque range		Weight		Ordering No.
	mm	in	Nm	ft lb	kg	lb	
RTX-2	19-65	3/4 – 2 3/4	346-2318	255-1710	2	4.5	8434 2021 90
RTX-4	25-85	1 – 3 1/8	786-5226	580-3855	4.4	9.7	8434 2021 95
RTX-8	46-105	1 5/8 – 4 1/8	1549-11049	1143-8151	9	19.5	8434 2022 00
RTX-14	60-135	2 1/2 – 5 3/8	2725-18165	2010-13400	15	33	8434 2116 58
RTX-18	75-140	3 1/2 – 5 1/2	3628-24191	2676-17845	23	51	8434 2022 05
RTX-30	90-165	3 1/2 – 6 1/2	6466-43108	4770-31800	35.5	78	8434 2022 10

Dimensions



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

The following is a standard list of ratchet link sizes for use with RTX Powerheads. Whatever the link size, you still only need one torque chart per Powerhead model.



RTX-02 DIRECT FIT RATCHET LINK SIZES, TORQUE RANGE OF 346 – 2318 NM

Across flat				Across flat				Across flat			
Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.
	17	RL02-17MM	8434 2132 41	1	34	RL02-34	8434 2132 81	2"	50.799	RL02-200 RR	8434 2021 74
3/4"	19.05	RL02-012/19MM RR	8434 2132 47	1 3/8"	34.924	RL02-106	8434 2132 17	2 1/16"	52.386	RL02-201	8434 2132 53
3/4"	19.05	RL02-012/19MM	8434 2131 84	1 7/16"	36.511	RL02-107/36MM	8434 2021 68	2 1/8"	53.974	RL02-202	8434 2132 56
13/16"	20.637	RL02-013	8434 2131 87	1 7/16"	36.511	RL02-107/36MM RR	8434 2021 83	2 3/16"	55.561	RL02-203/55MM	8434 2132 59
	22	RL02-22MM	8434 2132 74	1 1/2"	38	RL02-108/38MM	8434 2132 20	2 1/4"	57.149	RL02-204	8434 2132 62
7/8"	22.224	RL02-014	8434 2020 00	1 9/16"	39.686	RL02-109	8434 2132 23		58	RL02-58MM	8434 2132 89
15/16"	23.812	RL02-015	8434 2131 90	1 5/8"	41.274	RL02-110/41MM	8434 2021 07	2 5/16"	58.736	RL02-205	8434 2132 65
	24	RL02-24MM	8434 2020 54	1 5/8"	41.274	RL02-110/41MM RR	8434 2021 08	2 3/8"	60.324	RL02-206/60MM	8434 2021 47
1"	25.339	RL02-100/25MM	8434 2020 03	1 11/16"	43	RL02-111/43MM	8434 2132 26	2 7/16"	61.911	RL02-207	8434 2132 68
1"	25.339	RL02-100/25MM 12PT	8434 2131 93	1 3/4"	44.449	RL02-112	8434 2132 29	2 1/2"	63.498	RL02-208	8434 2132 71
1 1/16"	27	RL02-101/27MM	8434 2131 96	1 13/16"	46	RL02-113/46MM	8434 2132 32	2 9/16"	65	RL02-209/65MM	8434 2021 50
1 1/8"	28.574	RL02-102	8434 2131 99	1 13/16"	46	RL02-113/46MM RR	8434 2132 35	2 5/8"	66.673	RL02-210	8434 2021 51
1 1/8"	28.574	RL02-102 12PT	8434 2132 02	1 7/8"	47.624	RL02-114	8434 2020 06	2 3/4"	69.848	RL02-212	8434 2021 59
1 3/16"	30.162	RL02-103/30MM	8434 2132 05	1 15/16"	49.211	RL02-115	8434 2132 38		70	RL02-212/70MM	8434 2059 29
1 1/4"	31.74	RL02-104/32MM 12PT	8434 2132 11		50	RL02-50MM	8434 2021 86	2 13/16"	71.436	RL02-213 13/16	8434 2021 60
	32	RL02-104/32MM	8434 2132 08	2"	50.799	RL02-200	8434 2132 50	2 15/16"	75	RL02-215/75MM	8434 2132 92
1 5/16"	33.336	RL02-105	8434 2132 14								

RTX-04 DIRECT FIT RATCHET LINK SIZES, TORQUE RANGE OF 786 – 5226 NM

Across flat				Across flat				Across flat			
Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.
	15	RL04-15MM	8434 2133 47	1 13/16"	46	RL04-113/46MM	8434 2021 53	2 9/16"	65	RL04-209/65MM	8434 2133 70
	17	RL04-17MM	8434 2133 48	1 13/16"	46	RL04-113/46MM RR	8434 2116 01	2 5/8"	66.673	RL04-210	8434 2133 73
7/8"	22.224	RL04-014/22MM	8434 2133 19	1 7/8"	47.624	RL04-114	8434 2133 43	2 11/16"	68.261	RL04-211	8434 2133 76
	24	RL04-24MM	8434 2133 93		48	RL04-48MM	8434 2134 27	2 3/4"	69.848	RL04-212/70MM RR	8434 2133 82
1"	25.339	RL04-100/25MM	8434 2133 22	1 15/16"	49.211	RL04-115	8434 2133 46		70	RL04-212/70MM	8434 2021 62
1 1/2"	27	RL04-101/27MM	8434 2020 63		50	RL04-50MM	8434 2134 30		71	RL04-71MM	8434 2021 63
1 1/8"	28.574	RL04-102	8434 2133 23	2"	50.799	RL04-200	8434 2133 49	2 13/16"	71.436	RL04-213	8434 2133 85
1 3/16"	30.162	RL04-103/30MM	8434 2133 25	2 1/16"	52.386	RL04-201	8434 2133 52	2 7/8"	73.024	RL04-214	8434 2133 88
	32	RL04-104/32MM	8434 2020 15	2 1/8"	53.974	RL04-202	8434 2133 55	2 15/16"	75	RL04-215/75MM	8434 2020 21
	32	RL04-104/32MM 12PT	8434 2134 15		54	RL04-54MM	8434 2134 33	3"	76.199	RL04-300	8434 2134 00
1 5/16"	33.336	RL04-105	8434 2133 32		55	RL04-55MM RR	8434 2134 39		77	RL04-77MM	8434 2020 22
1 3/8"	34.924	RL04-106	8434 2133 34	2 3/16"	55.561	RL04-203/55MM	8434 2021 71	3 1/16"	77.788	RL04-301	8434 2134 03
1 7/16"	36.511	RL04-107/36MM	8434 2020 09	2 1/4"	57.149	RL04-204	8434 2133 58	3 1/8"	79.373	RL04-302/79MM	8434 2134 06
1 1/2"	38	RL04-108/38MM 12PT	8434 2133 37		58	RL04-58MM	8434 2134 42		80	RL04-80MM	8434 2134 51
1 1/2"	38	RL04-108/38MM	8434 2133 40	2 5/16"	58.736	RL04-205	8434 2133 61	3 3/16"	80.96	RL04-303	8434 2134 07
1 9/16"	39.686	RL04-109	8434 2133 41	2 3/8"	60.324	RL04-206/60MM	8434 2133 64		85	RL04-85MM	8434 2134 54
1 5/8"	41.274	RL04-110/41MM	8434 2021 35	2 7/16"	61.911	RL04-207	8434 2133 65	3 3/8"	85.725	RL04-306	8434 2134 08
	42	RL04-42MM	8434 2134 24	2 1/2"	63.498	RL04-208	8434 2133 67	3 1/2"	88.9	RL04-308	8434 2134 09
1 11/16"	43	RL04-111/43MM	8434 2020 12		64	RL04-64MM	8434 2134 46	3 3/4"	95	RL04-312/95MM	8434 2059 31
1 3/4"	44.449	RL04-112	8434 2020 60								

RTX-08 DIRECT FIT RATCHET LINK SIZES, TORQUE RANGE OF 1549 – 11049 NM

Across flat				Across flat				Across flat			
Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.
1 1/8"	28.574	RL08-102	8434 2134 93	63	RL08-63MM	8434 2020 31	3 5/16"	84.138	RL08-305	8434 2020 77	
	36	RL08-36mm	8434 2059 34	2 1/2"	63.498	RL08-208	8434 2135 26	85	RL08-85MM	8434 2021 11	
1 1/2"	38	RL08-108/38MM 12PT	8434 2134 99	2 9/16"	65	RL08-209/65MM	8434 2116 04	3 3/8"	85.723	RL08-306	8434 2021 02
1 5/8"	41.274	RL08-110/41MM	8434 2135 02	2 5/8"	66.673	RL08-210	8434 2135 29	3 1/2"	88.898	RL08-308	8434 2020 74
1 11/16"	43	RL08-111/43MM	8434 2135 08		67	RL08-67MM	8434 2020 32	3 9/16"	90.485	RL08-309/90MM	8434 2135 38
1 13/16"	46	RL08-113/46MM	8434 2020 66		70	RL08-212/70MM	8434 2135 59	3 5/8"	92.075	RL08-310	8434 2020 27
1 7/8"	47.624	RL08-114	8434 2135 11		71	RL08-71MM	8434 2135 62	3 3/4"	95	RL08-312/95MM	8434 2135 41
	50	RL08-50MM	8434 2135 47	2 13/16"	71.436	RL08-213	8434 2135 32	3 7/8"	98.423	RL08-314	8434 2021 65
2"	50.799	RL08-200	8434 2020 68		75	RL08-215/75MM	8434 2135 65	1"	100	RL08-315/100MM	8434 2020 24
2"	50.799	RL08-200 12PT	8434 2020 67	3"	76.199	RL08-300	8434 2135 35	4"	101.6	RL08-400	8434 2135 44
2 1/16"	52.386	RL08-201	8434 2135 17		77	RL08-77MM	8434 2135 68	4 1/16"	103.18	RL08-401	8434 2020 75
	54	RL08-54MM	8434 2135 50		78	RL08-78MM	8434 2135 71		105	RL08-105MM	8434 2134 96
2 3/16"	55.561	RL08-203/55MM	8434 2020 69	3 1/8"	79.373	RL08-302	8434 2020 72	4 1/4"	107.95	RL08-404	8434 2020 78
2 1/4"	57.149	RL08-204	8434 2135 20		80	RL08-80MM	8434 2135 74		110	RL08-110MM	8434 2135 05
2 3/8"	60.324	RL08-206/60MM	8434 2020 70	3 1/4"	82.548	RL08-304	8434 2020 73		115	RL08-115MM	8434 2135 14
2 7/16"	61.911	RL08-207	8434 2135 23								

RTX-14 DIRECT FIT RATCHET LINK SIZES, TORQUE RANGE OF 2725 – 18165 NM

Across flat				Across flat				Across flat			
Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.
1 1/4"	31.74	RL14-104/32MM	8434 2135 99	77	RL14-77MM	8434 2021 30	4"	101.6	RL14-400	8434 2136 43	
1 1/2"	38	RL14-108/38MM	8434 2136 02	3 1/16"	77.788	RL14-301	8434 2136 28	4 1/16"	103.18	RL14-401	8434 2021 26
2"	50.799	RL14-200	8434 2020 33	3 1/8"	79.373	RL14-302	8434 2136 31	4 1/8"	104.78	RL14-402	8434 2136 46
2 3/16"	55.561	RL14-203/55MM	8434 2020 36		80	RL14-80MM	8434 2021 20		105	RL14-105MM	8434 2135 98
	57	RL14-57MM	8434 2136 60	3 3/16"	80.96	RL14-303	8434 2136 32	4 3/16"	106.36	RL14-403	8434 2136 47
2 1/4"	57.149	RL14-204	8434 2020 37	3 1/4"	82.548	RL14-304	8434 2136 30	4 1/4"	107.95	RL14-404	8434 2020 84
2 3/8"	60.324	RL14-206/60MM	8434 2136 13		85	RL14-85MM	8434 2021 32	4 5/16"	109.54	RL14-405	8434 2020 83
2 1/2"	63.498	RL14-208	8434 2136 16	3 3/8"	85.723	RL14-306	8434 2136 33		110	RL14-110MM	8434 2136 01
2 9/16"	65	RL14-209/65MM	8434 2020 39	3 1/2"	88.898	RL14-308	8434 2136 34	4 1/2"	114.3	RL14-408	8434 2136 49
2 5/8"	66.673	RL14-210	8434 2136 19	3 9/16"	90.485	RL14-309/90MM	8434 2136 37		115	RL14-115MM	8434 2136 04
	67	RL14-67MM	8434 2136 64	3 5/8"	92.075	RL14-310	8434 2136 38	4 9/16"	115.89	RL14-409	8434 2136 52
2 11/16"	68.261	RL14-211	8434 2136 20	3 11/16"	93.663	RL14-311	8434 2136 39	4 5/8"	117.48	RL14-410	8434 2136 55
	70	RL14-212/70MM	8434 2136 66	3 3/4"	95	RL14-312/95MM	8434 2020 42		120	RL14-120MM	8434 2136 07
	71	RL14-71MM	8434 2136 67		98	RL14-98MM	8434 2136 70	5"	127	RL14-500	8434 2021 41
2 13/16"	71.436	RL14-213	8434 2136 22	3 7/8"	98.423	RL14-314	8434 2020 45		130	RL14-130MM	8434 2136 10
	75	RL14-215/75MM	8434 2021 29		100	RL14-100MM	8434 2021 14	5 3/8"	136.53	RL14-506	8434 2136 58
3"	76.199	RL14-300	8434 2136 25								

RTX-18 DIRECT FIT RATCHET LINK SIZES, TORQUE RANGE OF 3628 – 24191 NM

Across flat				Across flat				Across flat			
Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.
1 5/16"	33.336	RL18-105	8434 2020 91	3 3/8"	85.723	RL18-306	8434 2020 85	4 5/8"	117.47	RL18-410	8434 2020 93
1 3/8"	34.924	RL18-106	8434 2020 92	3 1/2"	88.898	RL18-308	8434 2020 87		120	RL18-120MM	8434 2137 00
2 3/16"	55.561	RL18-203/55MM	8434 2137 10		90	RL18-90MM	8434 2137 24	5"	127	RL18-500	8434 2021 56
2 3/8"	60.324	RL18-206/60MM	8434 2137 11	3 9/16"	90.485	RL18-309/90MM	8434 2020 86		130	RL18-130MM	8434 2137 03
2 9/16"	65	RL18-209/65MM	8434 2137 12	3 3/4"	95	RL18-312/95MM	8434 2020 90		135	RL18-135MM	8434 2137 06
2 3/4"	69.85	RL18-212/70MM	8434 2059 47	3 7/8"	98.423	RL18-314	8434 2137 15	5 3/8"	136.52	RL18-506	8434 2021 23
	71	RL18-71MM	8434 2137 14		100	RL18-315/100MM	8434 2020 88		140	RL18-140MM	8434 2020 89
	75	RL18-215/75MM	8434 2137 16	4 1/16"	103.18	RL18-401	8434 2020 47	5 5/8"	142.88	RL18-510	8434 2021 22
3"	76.199	RL18-300	8434 2137 13		105	RL18-105MM	8434 2136 88		145	RL18-145MM	8434 2020 94
	77	RL18-77MM	8434 2137 17		106	RL18-106MM	8434 2136 91	5 3/4"	146.05	RL18-512	8434 2020 96
3 1/8"	79.373	RL18-302	8434 2137 08	4 1/4"	107.95	RL18-404	8434 2020 48	5 15/16"	150.81	RL18-515	8434 2021 24
	80	RL18-80MM	8434 2137 18		110	RL18-110MM	8434 2136 94		151	RL18-151MM	8434 2137 09
	85	RL18-85MM	8434 2137 21		115	RL18-115MM	8434 2136 97	6 1/8"	155.58	RL18-602	8434 2021 25

RTL-30 DIRECT FIT RATCHET LINK SIZES, TORQUE RANGE OF 6466 – 43108 NM

Across flat				Across flat				Across flat			
Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.	Imperial	Metric	Size	Ordering No.
2 9/16"	65	RL30-209/65MM	8434 2137 72	4 1/4"	107.948	RL30-404	8434 2137 90		140	RL30-140MM	8434 2138 21
2 15/16"	74.611	RL30-215/75MM	8434 2137 73		110	RL30-110MM	8434 2137 39		145	RL30-145MM	8434 2137 57
3 1/8"	79.373	RL30-302	8434 2137 75	4 1/2"	114.3	RL30-408	8434 2021 01	5 3/4"	146.05	RL30-512	8434 2137 93
	80	RL30-80MM	8434 2138 14		115	RL30-115MM	8434 2137 42		150	RL30-150MM	8434 2137 60
	85	RL30-85MM	8434 2138 17		117	RL30-117MM	8434 2020 56	5 15/16"	150.812	RL30-515	8434 2137 96
3 3/8"	85.723	RL30-306	8434 2137 78	4 5/8"	117.475	RL30-410	8434 2021 00		152	RL30-152MM	8434 2020 61
3 1/2"	88.898	RL30-308	8434 2137 81		120	RL30-120MM	8434 2137 45	6"	152.4	RL30-600	8434 2138 02
	90	RL30-90MM	8434 2138 18		123	RL30-123MM	8434 2137 48		155	RL30-155MM	8434 2137 63
3 3/4"	95	RL30-312/95MM	8434 2137 84		124	RL30-124MM	8434 2020 55	6 1/8"	155.575	RL30-602	8434 2020 59
	98	RL30-98MM	8434 2138 20		125	RL30-125MM	8434 2137 51		160	RL30-160MM	8434 2137 66
3 7/8"	98.423	RL30-314	8434 2137 87	5"	126.998	RL30-500	8434 2020 99	6 3/8"	161.925	RL30-606	8434 2138 05
	100	RL30-315/100MM	8434 2137 33		130	RL30-130MM	8434 2020 53	6 1/2"	165.1	RL30-608	8434 2138 08
4"	101.6	RL30-400	8434 2133 86		133	RL30-133MM	8434 2020 58		170	RL30-170MM	8434 2137 69
4 1/16"	103.18	RL30-401	8434 2137 88		135	RL30-135MM	8434 2137 54		175	RL30-175MM	8434 2138 22
4 1/8"	104.775	RL30-402	8434 2137 89	5 3/8"	136.522	RL30-506	8434 2020 51	7 1/16"	179.387	RL30-701	8434 2138 11
	105	RL30-105MM	8434 2137 36	5 1/2"	139.7	RL30-508	8434 2137 92				



Insert hex

INSERT HEX, REDUCER FOR RATCHET LINKS

Model	Starting size	Reduces to	Ordering No.	Model	Starting size	Reduces to	Ordering No.
RL02-INS-108/105	1 1/2	1 5/16	4222 2133 93	RL04-INS-302/206	3 1/8	2 3/8	4222 2138 25
RL02-INS-204/105	2 1/4	1 5/16	4222 2133 96	RL04-INS-50/19	50 mm	19 mm	4222 2138 28
RL02-INS-204/108	2 1/4	1 1/2	4222 2133 99	RL04-INS-50/32	50 mm	32 mm	4222 2138 31
RL02-INS-204/114	2 1/4	1 7/8	4222 2134 02	RL04-INS-50/41	50 mm	41 mm	4222 2138 34
RL02-INS-212/103	2 3/4	1 3/16	4222 2134 05	RL04-INS-50/42	50 mm	42 mm	4222 2138 37
RL02-INS-212/107	2 3/4	1 7/16	4222 2134 08	RL04-INS-50/46	50 mm	46 mm	4222 2138 40
RL02-INS-212/108	2 3/4	1 1/2	4222 2134 11	RL04-INS-55/50	55 mm	50 mm	4222 2138 43
RL02-INS-212/109	2 3/4	1 9/16	4222 2134 14	RL04-INS-65/55	65 mm	55 mm	4222 2119 74
RL02-INS-212/110	2 3/4	1 5/8	4222 2134 17	RL04-INS-70/60	70 mm	60 mm	4222 2119 78
RL02-INS-212/113	2 3/4	1 13/16	4222 2134 20	RL04-INS-70/65	70 mm	65 mm	4222 2119 82
RL02-INS-212/114	2 3/4	1 7/8	4222 2134 23	RL08-INS-100MM/80MM	100 mm	80 mm	4222 2140 62
RL02-INS-46/36	46 mm	36 mm	4222 2134 26	RL08-INS-203/200	2 3/16	2	4222 2140 65
RL02-INS-50/41	50 mm	41 mm	4222 2134 29	RL08-INS-302/215	3 1/8	2 15/16	4222 2140 68
RL02-INS-50/46	50 mm	46 mm	4222 2134 32	RL08-INS-302/50MM	3 1/8	50 mm	4222 2140 71
RL04-INS-113/30MM	1 13/16	30 mm	4222 2119 58	RL08-INS-302/55MM	3 1/8	55 mm	4222 2140 74
RL04-INS-113/36MM	1 13/16	36 mm	4222 2119 62	RL08-INS-302/60MM	3 1/8	60 mm	4222 2140 77
RL04-INS-113/42MM	1 13/16	42 mm	4222 2119 66	RL08-INS-314/308	3 7/8	3 1/2	4222 2140 80
RL04-INS-200/112	2	1 3/4	4222 2137 74	RL08-INS-60/50	60 mm	50 mm	4222 2122 07
RL04-INS-200/113	2	1 13/16	4222 2137 77	RL08-INS-60/55	60 mm	55 mm	4222 2122 11
RL04-INS-204/105	2 1/4	1 5/16	4222 2137 80	RL08-INS-70/46	70 mm	46 mm	4222 2140 83
RL04-INS-204/108	2 1/4	1 1/2	4222 2137 83	RL08-INS-70/55	70 mm	55 mm	4222 2140 86
RL04-INS-204/114	2 1/4	1 7/8	4222 2137 86	RL08-INS-70/65	70 mm	65 mm	4222 2140 89
RL04-INS-208/114	2 1/2	1 7/8	4222 2119 70	RL08-INS-80/50	80 mm	50 mm	4222 2140 92
RL04-INS-212/ 208	2 3/4	2 1/2	4222 2137 89	RL08-INS-80/55	80 mm	55 mm	4222 2140 95
RL04-INS-212/201	2 3/4	2 1/16	4222 2137 92	RL08-INS-80/65	80 mm	65 mm	4222 2140 98
RL04-INS-212/202	2 3/4	2 1/8	4222 2137 95	RL08-INS-80/75	80 mm	75 mm	4222 2141 01
RL04-INS-212/203	2 3/4	2 3/16	4222 2137 98	RL08-INS-95/80	95 mm	80 mm	4222 2141 04
RL04-INS-212/204	2 3/4	2 1/4	4222 2138 01	RL14-INS-314/308	3 7/8	3 1/2	4222 2143 38
RL04-INS-212/206	2 3/4	2 3/8	4222 2138 04	RL14-INS-410/314	4 5/8	3 7/8	4222 2143 41
RL04-INS-215/209	2 15/16	2 9/16	4222 2138 07	RL14-INS-410/404	4 5/8	4 1/4	4222 2143 44
RL04-INS-302/100	3 1/8	1	4222 2138 10	RL18-INS-135/123	135 mm	123 mm	4222 2144 13
RL04-INS-302/108	3 1/8	1 1/2	4222 2138 13	RL18-INS-151/143	151 mm	143 mm	4222 2144 16
RL04-INS-302/110	3 1/8	1 5/8	4222 2138 16	RL18-INS-410/308	4 5/8	3 1/2	4222 2144 19
RL04-INS-302/112	3 1/8	1 3/4	4222 2138 19	RL18-INS-410/312	4 5/8	3 3/4	4222 2144 22
RL04-INS-302/200	3 1/8	2	4222 2138 22	RL30-INS-602/600	6 1/8	6	4222 2145 48

ON SIDE REACTION ARM

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

ALCO REACTION ARM

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



On side reaction arm



Alco reaction arm

BACKUP WRENCH

Atlas Copco Backup Wrenches works in conjunction with any Atlas Copco bolting tool and prevents the nut from rotating. The wrench is made of high strength steel and has a minimum of moving parts. This gives the tool a very long working lifetime without significant wear. Available in any nut size.



Backup wrench

Model	Ordering No.	Model	Ordering No.
BK-206	8434 2056 36	BK-500	8434 2056 54
BK-113	8434 2056 30	BK-105MM	8434 2128 93
BK-30MM	8434 2129 26	BK-202	8434 2129 14
BK-200	8434 2056 32	BK-43mm	8434 2129 33
BK-36MM	8434 2129 32	BK-404	8434 2129 38
BK-110	8434 2056 28	BK-013 13/16IN	8434 2128 88
BK-203	8434 2056 34	BK-011 11/16IN	8434 2128 89
BK-209	8434 2056 38	3/4 IN BK-012	8434 2128 97
BK-215	8434 2056 44	15/16IN BK-015	8434 2128 98
BK-302	8434 2056 46	BK-237	8434 2129 20
BK-104=32MM	8434 2128 90	1 1/8IN BK-102	8434 2129 55
BK-308=90MM	8434 2056 48	1 11/16IN BK-111	8434 2129 57
BK-107	8434 2056 26	2 13/16IN BK-213	8434 2129 58
BK-212	8434 2056 42	2 7/8IN BK-214	8434 2056 45
BK-314	8434 2056 50	BK-308=90MM	8434 2056 51
BK-312	8434 2129 29	BK-506	8434 2056 56
BK-210	8434 2056 40	BK-55MM	8434 2128 92
BK-204	8434 2129 17	BK-110MM	8434 2128 99
BK-100MM	8434 2056 24	BK-112	8434 2129 02
BK-302=80MM	8434 2056 53	BK-120MM	8434 2129 08
BK-75MM	8434 2056 55	BK-101/27MM 101/27MM	8434 2129 21
BK-201	8434 2129 11	BK-85MM	8434 2129 44
BK-24MM	8434 2056 23	1 1/8IN BK-102	8434 2129 50
BK-101 1-1/16IN	8434 2056 29	1 11/16IN BK-111	8434 2129 51
1 5/16IN BK-105	8434 2056 31	2 13/16IN BK-213	8434 2129 52
BK-34MM	8434 2128 91	BK-205	8434 2128 70
2 7/16IN BK-207	8434 2128 95	BK-208	8434 2128 71
BK-108	8434 2128 96	BK-211	8434 2128 73
BK-114	8434 2129 05	BK-301	8434 2128 74
BK-300	8434 2129 23	BK-304	8434 2128 76
BK-402	8434 2129 35	BK-306	8434 2128 77
BK-70MM	8434 2129 41	BK-310	8434 2128 67
BK-014 7/8IN	8434 2056 27	BK-400	8434 2128 68
BK-410	8434 2056 52		

HYDRAULIC TORQUE WRENCH PUMPS

Atlas Copco Hydraulic Torque Wrench Pumps are designed for all hydraulic torque wrench applications. Our pumps are variable piston models with the smallest ratio weight/oil flow on the market.

The pumps are available in two versions: air driven, or electric driven, 110V or 220V. They come in three sizes: small, medium and large.



AIR DRIVEN HYDRAULIC TORQUE WRENCH PUMPS

Model	Weight		Oil capacity		Intercooler system	Oil flow						Ports	Ordering No.
	kg	lb	liters	gallons		86 bar/ 1250 psi		250 bar/ 3600 psi		700 bar/ 10000 psi			
Panther A110 Small frame	15	33	1.89	0.5	yes	4.5	275	1.1	67	0.4	24	1	8434 2040 19
Panther A110 Full frame	15	33	1.89	0.5	yes	4.5	275	1.1	67	0.4	24	1	8434 2040 17
Panther A380	22	48	5.67	1.5	yes	11.5	701	3.5	213	1.3	79	4	8434 2056 22
TigAir	34	75	9.5	2.5	yes	-	-	-	-	1.1	72	1	8434 2059 62

Dimensions

Model	Length		Width		Height	
	mm	inches	mm	inches	mm	inches
Panther A110 Small frame	340.3	13.4	347.9	13.7	419.1	16.5
Panther A110 Full frame	340.3	13.4	347.9	13.7	419.1	16.5
Panther A380	398.7	15.7	378.4	14.9	459.7	18.1
TigAir	457.2	18	266.7	10.5	439.9	18.5

ELECTRIC DRIVEN HYDRAULIC TORQUE WRENCH PUMPS (100V / 220V)

Model	Oil flow						Ports	Ordering No.
	86 bar/ 1250 psi		250 bar/ 3600 psi		700 bar/ 10000 psi			
Panther 025 with handle 110V	3.2	195	0.9	54	0.35	21	1	8434 2040 31
Panther 025 with full frame 110V	3.2	195	0.9	54	0.35	21	1	8434 2040 33
Panther 025 with handle 220V	3.2	195	0.9	54	0.35	21	1	8434 2130 22
Panther 025 with full frame 220V	3.2	195	0.9	54	0.35	21	1	8434 2059 54
Panther 055 110V	6.4	391	1.8	110	0.7	42	4	8434 2040 35
Panther 055 220V	6.4	391	1.8	110	0.7	42	4	8434 2040 37
Lynx 110V	-	-	-	-	0.9	56	1	8434 2059 61
Lynx 220V	-	-	-	-	0.9	56	1	8434 2059 59
Panther 150 110V	10.5	641	2.5	153	1.5	92	4	8434 2040 39
Panther 150 220V	10.5	641	2.5	153	1.5	92	4	8434 2040 41

Accessories

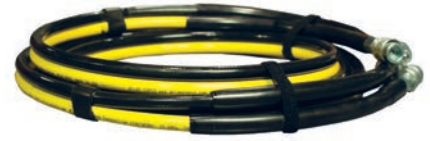
Torque Wrenches

HOSES

Non-conductive, twin-line hoses are extremely safe, featuring a 4:1 safety ratio and safety hose burst guards. Batch numbers are printed directly on the hose for traceability.

- 700 bar / 10000 psi.
- Couplers and nipples included.

Model	Description	Ordering No.
90172	4.5 m / 15 ft	8434 2050 08
090172-7	7 m / 22.9 ft	8434 2123 95
090172-10	10 m / 32 ft	8434 2123 74
090172-15	15 m / 49.2 ft	8434 2050 10
090172-20	20 m / 65.6 ft	8434 2123 83



Hose

CALIBRATED GAUGES

Our gauges are calibrated and have class 1 accuracy. An accurate pressure reading contributes to accurate torquing values.

Model	Description	Ordering No.
090233-2	Gauge 70Mpa back mounted	8434 2124 07
090233-1	Gauge 700 bar-10,000 psi	8434 2051 59



Gauge

MANIFOLD KIT

Model	Description	Ordering No.
Lynx and TigAir	4-port	8434 2115 73

COUPLINGS

Couplings are available in standard or quick connect versions.

Model	Description	Ordering No.
090156-1	1/8" Male coupler ^a	8434 2050 06
90156	1/4" Male coupler ^b	8434 2123 41
90157	3/8" Female coupler	8434 2123 44
090155-1	1/8" Male nipple ^a	8434 2123 65
QC-COUPERS	Quick connect coupler set	8434 2131 36
90101	Nipple male-male 1/4INx1/4IN	8434 2050 00
90103	Nipple male 1/4INx1/8IN	8434 2050 02
90135	Nipple NPT 1/4INx1/4IN	8434 2050 04
90155	1/4" Male female nipple	8434 2123 38
090155-M	1/4" Male nipple ^b	8434 2123 68

^a Standard item on RT-0.5, RT-01, RTX-02

^b Standard item on all RT& RTX tools except RT-0.5, RT-01, RTX-02

HYDRAULIC OIL

Hydraulic oil for use in our high quality pumps. Comes in 5L (1.32G) container.

Model	Description	Ordering No.
Tellus 46	5 l / 1.32 g container	8434 2040 45



Hydraulic oil

A woman with blonde hair tied back, wearing a light grey work shirt with blue and red accents, is focused on operating a power tool on a large industrial machine. The machine has various components, including a motor and a control panel with the text 'ELECTRICAL CONNECTORS'. The background shows a factory environment with shelves of parts.

BATTERY ASSEMBLY TOOLS

Contents

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BCP screwdriver, clutch type.....	86
BCV nutrunner, clutch type.....	86
Tensor STB nutrunner, transducerized type	88
Tensor SB nutrunner, transducerized type	95

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 – BCV BATTERY TOOLS - EXPERIENCE CORDLESS FREEDOM

The brushless BCP – BCV tools are ideal for quality critical applications where flexibility is essential. Final assembly of cars, offroad vehicles, buses, trucks, aircraft, motorcycles, engines, and white goods are just some examples of applications which can benefit from the performance and accessibility provided by the BCP - BCV tools. The slim, well-balanced design and ergonomic handle make it a pleasure to hold. Its compact size and Lithium-Ion batteries put it among the lightest battery tools on the market. BCP – BCV tools also offer variable speed and plenty of power, with torque levels ranging from 0.8 up to 45 Nm.

All these ergonomic features make the BCP - BCV 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
- Reversible battery pack

ERGONOMICS – A PLEASURE TO WORK WITH

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

POWER – HIGH PERFORMANCE AND DURABILITY

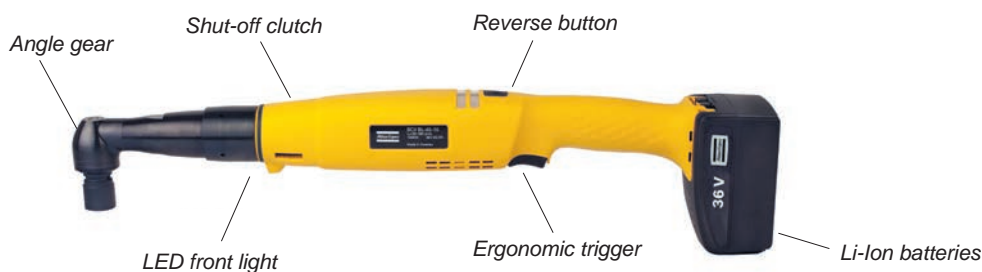
- Robust and industrial tool design
- Li-Ion battery technology high power-to-weight.



BCPTOOL KEY FEATURES



BCVTOOL 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.
- Two 18 V batteries: 2.1 Ah flat pack or 4.2 Ah regular pack.



BCP

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 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 3 Li-Ion batteries, 18 V (2.1 and 4.2 Ah) and 36 V (2.1 Ah).



BCV

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	1.15	2.6	340	18	8431 1275 07
BCV BL-07-I06-QC	Hex 1/4	1.5-7	1.1-5.16	400-880	1.15	2.6	830	18	8431 1276 07
BCV BL-15-06	1/4	5-15	3.68-11	200-480	1.15	2.6	970	18	8431 1275 15
BCV BL-15-10	3/8	5-15	3.68-11	200-480	1.15	2.6	970	18	8431 1276 15
BCV BL-30-10	3/8	10-30	7.37-22.12	100-300	1.55	3.4	1720	36	8431 1275 30
BCV BL-45-10	3/8	20-45	14.7-33.2	50-180	1.65	3.6	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	2.1	0.37	0.82	35	4211 5526 82
Li-Ion regular pack	18	4.2	0.63	1.39	70	4211 5526 83
Li-Ion (BCV 30/45 Nm only)	36	2.1	0.60	1.32	70	4211 5526 87



Battery for BCV only

MULTICHARGER FOR BCV, BCP AND STB

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



Battery Flat pack

COVER PROTECTIONS

Model	Ordering No.
Battery cover protection, Flat pack	4211 5601 00
Battery cover protection, Big pack	4211 5602 00
BCV BL-30-10 protective cover	4211 5603 30
BCV BL-45-10 protective cover	4211 5603 45
BCV BL-07/15 protective cover	4211 5603 00
Tool cover protection (BCP only)	4211 5415 00



Battery Big pack

MISCELLANEOUS

Model	Ordering No.
Speed setting unit V2 (BCV and BCP)	4211 5462 81
Battery analyzer	4211 5424 90
Support handle	4211 5421 80
Suspension bail	4211 5600 00
Modular tool holder	4220 3584 85

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



Colour rings



Battery Multicharger 18V - 36V



Tool holder



Suspension bail



Battery cover Flat pack



Battery cover Big pack



Support handle



Speed setting unit



Tool cover

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
- 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



- State-of-the-art HMI with extensive functionality.
- Ergonomically designed tool, compact, lightweight, comfortable to work with.
- Durable housing for long service life-time.
- Excellent accessibility in cramped spaces.
- Bigger “foot” enables fast swap of battery.
- Integrated buffer battery maintains WiFi coverage for 30 seconds when battery is changed.
- New built-in external antenna gives superior communication reliability.



STB X4 tools are only compatible with Power Focus 6000 controllers

Model	Square drive in	Torque range		Battery	Speed r/min	Weight		Weight incl. battery		Length mm	Height mm	Ordering No.
		Nm	ft lb			kg	lb	kg	lb			
ETP STB34-06-106-BD-W	1/4	2-6	2-4	18V	750	1.15	2.5	1.75	3.86	216	240	8433 3019 75
ETP STB34-06-10-BD-W	3/8	2-6	2-4	18V	750	1.15	2.5	1.75	3.86	216	240	8433 3019 25
ETP STB34-12-106-BD-W	1/4	4-12	3-9	18V	750	1.15	2.5	1.75	3.86	216	240	8433 3019 95
ETP STB34-12-10-BD-W	3/8	4-12	3-9	18V	750	1.15	2.5	1.75	3.86	216	240	8433 3019 97
ETV STB34-15-10-BD-W	3/8	4-15	3-11	18V	720	1.7	3.7	2.35	5.2	435.4	59.7	8433 3019 15
ETV STB34-30-10-BD-W	3/8	6-30	4.5-22	30V	380	1.7	3.7	2.35	5.2	470.8	60.5	8433 3019 35
ETV STB64-50-10-BD-W	3/8	15-50	10-37	30V	365	2.15	4.7	3.1	6.8	507.8	66	8433 3019 65
ETV STB64-70-13-BD-W	1/2	15-70	10-50.7	30V	265	2.65	5.84	3.6	7.9	519.6	76.7	8433 3019 55
ETV STB64-100-13-BD-W	1/2	20-100	15-72.5	30V	170	3.1	6.8	4.05	8.9	556.7	79.1	8433 3019 85

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

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.	With ball retainer 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	18 V	943	1.45	3.1	2.05	4.4	435.4	11	41	8433 3020 20	8433 3020 30
ETV STB33-15-10-B	3/8	4-15	3-11	18 V	720	1.5	3.3	2.15	4.75	435.4	11	41	8433 3020 82	8433 3020 96
ETV STB33-20-10-B	3/8	5-20	4-14.5	18 V	480	1.5	3.3	2.15	4.75	469.3	14	41.8	8433 3011 06	8433 3011 16
ETV STB33-30-10-B	3/8	6-30	4.5-22	18 V	380	1.5	3.3	2.15	4.75	470.8	15.5	41.8	8433 3011 67	8433 3021 76
ETV STB63-30-10-B	3/8	6-30	4.5-22	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	30 V	450	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3041 22	8433 3041 39
ETV STB63-50-10-B	3/8	15-50	10-37	30 V	365	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3042 67	8433 3042 75
ETV STB63-70-13-B	1/2	15-70	10-50.7	30 V	265	2.45	5.4	3.4	7.5	519.6	20	58	8433 3043 05	8433 3043 15
ETV STB63-100-13-B	1/2	20-100	15-72.5	30 V	170	2.9	6.4	3.85	8.5	556.7	22.5	60.4	8433 3044 05	8433 3044 15
ETV STB63-150-13-TM-B	1/2	30-150	22-109	30 V	72	3.4	7.5	4.35	9.6	522.9	23.5	98.1	8433 3045 05	—
ETV STB63-150-13-W	1/2	30-15	22-109	30V	72	3.4	7.5	4.4	9.6	522.9	23.5	92.9	8433 3019 81	—
Right-angle barcode reader models														
ETV STB33-10-10-BCR-B	3/8	2-10	2-7.5	18 V	943	1.6	3.55	2.2	4.85	435.4	11	41	8433 3020 25	8433 3020 35
ETV STB33-15-10-BCR-B	3/8	4-15	3-11	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	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	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	30 V	610	1.95	4.3	2.9	6.4	495.8	15.5	41.8	8433 3040 28	8433 3040 38
ETV STB63-40-10-BCR-B	3/8	12-40	9-29	30 V	450	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3041 28	8433 3041 48
ETV STB63-50-10-BCR-B	3/8	15-50	10-37	30 V	365	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3042 68	8433 3042 78
ETV STB63-70-13-BCR-B	1/2	15-70	10-50.7	30 V	265	2.65	5.85	3.6	7.9	519.6	20	58	8433 3043 10	8433 3043 20
ETV STB63-100-13-BCR-B	1/2	20-100	15-72.5	30 V	170	3.05	6.7	4	8.8	556.7	22.5	60.4	8433 3044 10	8433 3044 20
Pistol-grip standard models														
ETP STB33-06-10-B	3/8	2-6	2-4	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	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	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	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	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	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 STB33-12-I06-BCR-B	1/4	4-12	3-9	18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3121 58	—
Pistol-grip with P-Set selector														
ETP STB33-06-10-SEB	3/8	2-6	2-4	18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3121 61	—
ETP STB33-12-10-SEB	3/8	4-12	3-9	18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3121 63	—
Pistol-grip female hex with P-Set selector														
ETP STB33-06-I06-SEB	1/4	2-6	2-4	18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3121 65	—

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- 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.

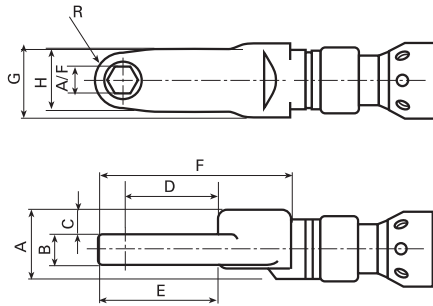


Model	Square drive		Torque range		Speed r/min	Weight		Weight incl. battery		Length mm	CS distance	Height mm	Ordering No.	With ball retainer Ordering No.
	in	Nm	ft lb	Battery		kg	lb	kg	lb					
Right-angle standard models														
ETV STB33-10-10-W	3/8	2-10	2-7.5	18 V	943	1.45	3.1	2.05	4.4	435.4	11	41	8433 3019 00	8433 3019 04
ETV STB33-15-10-W	3/8	4-15	3-11	18 V	720	1.5	3.3	2.15	4.75	435.4	11	41	8433 3019 08	8433 3019 16
ETV STB33-20-10-W	3/8	5-20	4-14.5	18 V	480	1.5	3.3	2.15	4.75	469.3	14	41.8	8433 3019 20	8433 3019 24
ETV STB33-30-10-W	3/8	6-30	4.5-22	18 V	380	1.5	3.3	2.15	4.75	470.8	15.5	41.8	8433 3019 28	8433 3019 32
ETV STB63-30-10-W	3/8	6-30	4.5-22	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	30 V	450	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3019 50	8433 3019 54
ETV STB63-50-10-W	3/8	15-50	10-37	30 V	365	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3019 58	8433 3019 62
ETV STB63-70-13-W	1/2	15-70	10-50.7	30 V	265	2.45	5.4	3.4	7.5	519.6	20	58	8433 3019 66	8433 3019 70
ETV STB63-100-13-W	1/2	20-100	15-72.5	30 V	170	2.9	6.4	3.85	8.5	556.7	22.5	60.4	8433 3019 74	8433 3019 78
Right-angle barcode reader models														
ETV STB33-15-B10-BCR-W	3/8	4-15	3-11	18 V	720	1.65	3.65	2.3	5.1	435.4	11	41	—	8433 3019 18
ETV STB33-20-10-BCR-W	3/8	5-20	4-14.5	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	18 V	380	1.65	3.65	2.3	5.1	470.8	15.5	41.8	8433 3019 30	8433 3019 34
ETV STB63-30-10-BCR-W	3/8	6-30	4.5-22	30 V	610	1.8	4	2.75	6.05	495.8	15.5	41.8	8433 3019 44	8433 3019 48
ETV STB63-40-10-BCR-W	3/8	12-40	9-29	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	30 V	365	2.1	4.6	3.05	6.7	507.8	18	47.3	8433 3019 60	8433 3019 64
ETV STB63-70-13-BCR-W	1/2	15-70	10-50.7	30 V	265	2.65	5.85	3.6	7.9	519.6	20	58	8433 3019 68	8433 3019 72
ETV STB63-100-13-BCR-W	1/2	20-100	15-72.5	30 V	170	3.05	6.7	4	8.8	556.7	22.5	60.4	8433 3019 76	8433 3019 80
Pistol-grip standard models														
ETP STB33-06-10-W	3/8	2-6	2-4	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	18 V	750	0.95	2.1	1.55	3.4	216	—	208	8433 3019 90	—
Pistol-grip female hex models														
ETP STB33-06-I06-W	1/4	2-6	2-4	18 V	1500	0.95	2.1	1.55	3.4	216	—	208	8433 3019 86	—
ETP STB33-12-I06-W	1/4	4-12	3-9	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	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	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-I06-BCR-W	1/4	2-6	2-4	18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3019 88	—
ETP STB33-12-I06-BCR-W	1/4	4-12	3-9	18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3019 96	—
Pistol-grip with P-Set selector														
ETP STB33-06-10-SEW	3/8	2-6	2-4	18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3019 51	—
ETP STB33-12-10-SEL-W	3/8	4-12	3-9	18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3019 91	—
Pistol-grip female hex with P-Set selector														
ETP STB33-06-I06-SEW	1/4	2-6	2-4	18 V	1500	1.1	2.45	1.7	3.75	216	—	235	8433 3019 53	—
ETP STB33-12-I06-SEW	1/4	4-12	3-9	18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3019 57	—
Expanded memory models														
ETV STB33-10-B10-WXM	3/8	2-10	2-7.5	18 V	943	1.45	3.2	2.05	4.5	435.4	11	41	8433 3021 11	—
ETV STB33-30-B10-WXM	3/8	6-30	4.5-22	18 V	380	1.5	3.3	2.15	4.75	470.8	15.5	41.8	8433 3021 33	—
ETV STB63-30-B10-WXM	3/8	6-30	4.5-22	30 V	610	1.8	4	2.75	6.05	495.8	15.5	41.8	8433 3021 31	—
ETV STB63-40-B10-WXM	3/8	12-40	9-29	30 V	450	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3021 41	—
ETV STB63-50-B10-WXM	3/8	15-50	10-37	30 V	365	1.95	4.3	2.9	6.4	507.8	18	47.3	8433 3021 51	—
ETV STB63-70-B13-WXM	1/2	15-70	10-50.7	30 V	265	2.45	5.4	3.4	7.5	519.6	20	58	8433 3021 71	—
ETV STB63-100-B13-WXM	1/2	20-100	15-72.5	30 V	170	2.9	6.4	3.85	8.5	556.7	22.5	60.4	8433 3021 91	—
ETP STB33-06-10-WXM ^a	3/8	2-6	2-4	18 V	1500	0.95	2.1	1.55	3.4	216	—	208	8433 3021 03	—
ETP STB33-12-10-WXM ^a	3/8	4-12	3-9	18 V	750	1.1	2.45	1.7	3.75	216	—	235	8433 3021 13	—

^a With Pset selector premounted.

IN-LINE CROWFOOT TOOLS

Dimensions

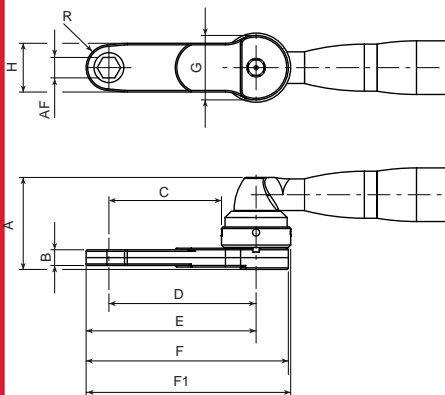


ETC STB

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

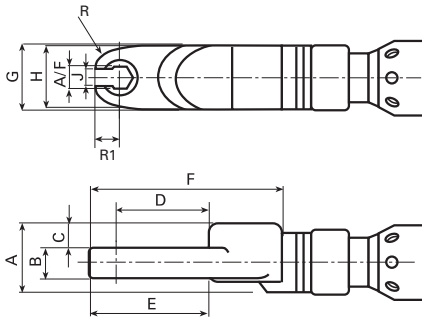


ETC STB

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

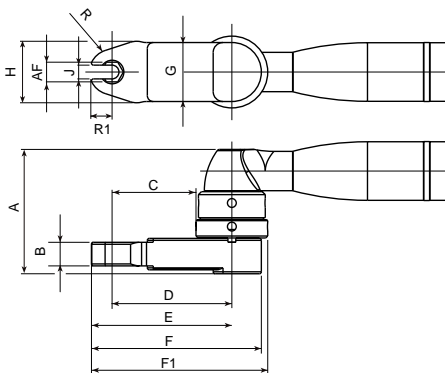


ETO STB

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-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-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-PB-HW	8433 6500 12
IRC FOCUS-B-C-PB-HW	8433 6500 14
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 is only available for Bluetooth tools.

TOOLSTALK PF

No. of users	Ordering No.
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

MULTICHARGER

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

BATTERY - LI-IO

Voltage	Capacity	Weight kg	Ordering No.
18 V	4.2 Ah	0.60	4211 5526 83
30 V	2.6 Ah	0.85	4211 5586 88

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 2917 06
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 2917 06



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-B

Nutrunners – Transducerized Type

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: 2-140 Nm.
- Torque range ETP: 4-12 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
ETV SB63-140-13-B	1/2	20-140	15-101.5	Li-Io 30 V	120	3.4	7.5	4.4	9.7	593	25	65	8433 3031 15
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.

CONTROLLER SOFTWARE

Controller software	Ordering No.
RBU SB	8433 0081 00

TOOLSTALK POWER FOCUS

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

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.

BATTERY – LI-IO

Voltage	Capacity	Weight kg	Ordering No.
18 V	4.2 Ah	0.60	4211 5526 83
30 V	2.6 Ah	0.85	4211 5586 88

MULTICHARGER


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



Battery Big pack



Battery multicharger 18V - 36V

A person is using a cordless power tool, likely a screwdriver or nutrunner, on the engine of an aircraft. The background shows the complex machinery of the engine and various electrical components. The text 'ELECTRIC ASSEMBLY TOOLS AND SYSTEMS' is overlaid in large, bold, black letters.

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 LOWTORQUE SCREWDRIVER

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 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

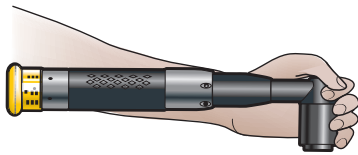
SAFETY GUIDELINES

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.



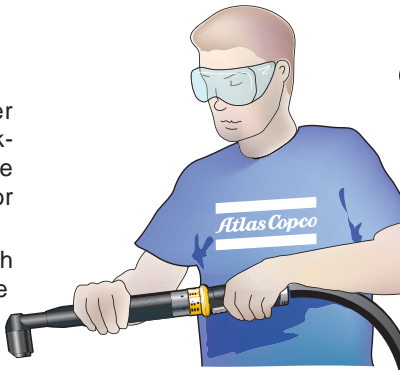
5 Reaction bar

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



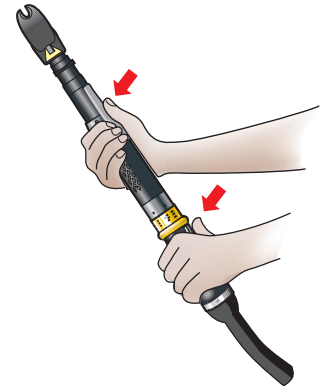
2 Hold the tool correctly

- 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.



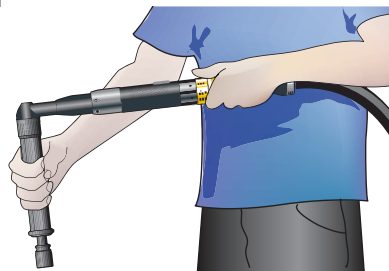
6 Open end tools

- 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.

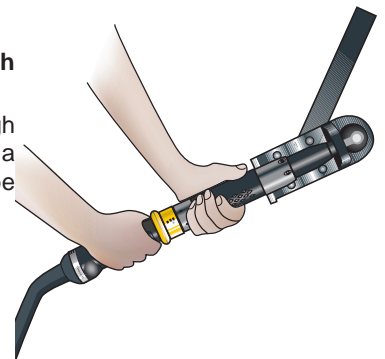


Other advantages are:

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

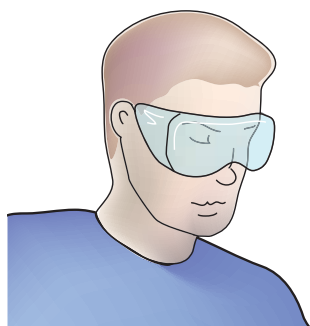
7 Angle nutrunners with reaction bar

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



4 Use goggles

- Always use approved safety 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 20 Nm. They all have one thing in common – quality.

EBL SCREWDRIVERS

EBL screwdrivers are the best in class clutch electric screwdriver for low torque applications, its brushless motor combined with the high accuracy, delivers the best tightening solution for any assembly process.

MICROTORQUE

Microtorque screwdriver range is the most advanced and intelligent tightening solution for any low torque application. Extremely ergonomic, very compact and full of functionalities it is the right tool to boost productivity and quality, resulting in high efficiency and cost reduction.

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 and 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.



EBL35



EBL12



EBL03

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 ^c	M2.5-5	1.0-4.5	8.8-40	700	0.8	1.8	235	1/4" Hex	8431 0170 40
EBL55 ^c	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 models									
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 ^d	M2.5-5	1.0-4.5	8.8-40	700	0.8	1.8	235	1/4" Hex	8431 0170 42
EBL55-RE ^d	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

^a EBL 25-1500 to be used with EBL Drive Plus.

^b EBL 25-1500-RE to be used with EBL Drive Plus and EBL RE Module.

^c EBL 45, 55 to be used with EBL Drive Plus.

NOTE: Max torque reduced to 80% when run on slow speed and soft joints.

^d EBL 45-RE and EBL 55-RE to be used with EBL Drive Plus and EBL RE module.

NOTE: Max torque reduced to 80% when run on slow speed and soft joints.

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 Plus is required for EBL25-1500, EBL25-1500-RE, EBL45, EBL45-RE, EBL55 and EBL55-RE		



EBL 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 RE-Drive

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 Drive Plus

CABLES

Model	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 RE module

^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.

MicroTorque fixtured screwdriver systems are designed to perform consistently and precisely, time after time.

- Complete system, one single ordering number that includes screwdriver, controller, tool cable, PSU and ToolsTalk MT.
- Torque and angle control and monitoring.
- 64 P-sets
- Multiple steps tightening.
- Advanced programming via PC software, ToolsTalk MT.
- Different indication lights for operator feedback.
- Multiple I/Os for integration with assembly line, automation stations or error proofing accessories.



ETD M 08/20/27 ABL V2



ETD M 50/80 ABL V2



ETD M 120/200/250 ABL V2



ETF M 05 400A



ETF M 50/80/100/200 400A

Model	Torque range		Speed ^a r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Fixtured transducerized systems									
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 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	1.8	4.05	1/4" HEX	8432 0800 17
Fixtured current controlled systems									
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
Hand-held current controlled systems, without push-to-start									
ETD M 20 ABL V2 G4	5-20	0.44-1.77	900	185	27	0.30	0.66	HM 4 mm	8432 0815 04
ETD M 27 ABL V2 G4	7.5-27	0.66-2.4	900	185	27	0.30	0.66	HM 4 mm	8432 0815 06
Hand-held current controlled systems, push-start configurable									
ETD M 50 ABL V2 G4	15-50	1.33-4.4	1300	238	36	0.56	1.37	HM 4 mm	8432 0815 09
ETD M 80 ABL V2 G4	20-80	1.77-7.1	1300	238	36	0.56	1.37	HM 4 mm	8432 0815 13
ETD M 120 ABL V2 G4	30-120	2.7-10.6	900	240	43	0.65	1.43	1/4" HEX	8432 0815 14
ETD M 200 ABL V2 G4	50-200	4.42-17.7	700	240	43	0.65	1.43	1/4" HEX	8432 0815 15
ETD M 250 ABL V2 G4	75-250	6.64-22.13	700	240	43	0.65	1.43	1/4" HEX	8432 0815 16

MicroTorque fixtured screwdriver system are designed to perform consistently and precisely, time after time.

- Complete systems, one single ordering number that includes screwdriver, controller, Tool Cable, PSU and Tools-Talk MT.
- High accuracy current controlled tools.
- Torque and angle control and monitoring.
- 20 P-sets
- Multiple steps tightening
- Simple programing directly at the controller.
- Advanced programing via PC software, ToolsTalk MT.
- Batch count.
- Different display lights for operator feedback.
- Multiple I/Os for integration with assembly line, automation stations or error proofing accessories.

MTF 400A



ETF M 05 400A



ETF M 50/80/100/200 400A

Model	Torque range		Speed r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Fixtured current controlled, complete system									
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 200 400A	50-200	4.42-17.7	600	272	30	1.2	2.64	1/4" HEX	8432 0818 21

NOTE. Ordering number for complete system. (Screwdriver, MTF 400 controller, tool cable and PSU).

MicroTorque

Handheld screwdrivers V2

MicroTorque handheld screwdrivers are designed to perform consistently and precisely, time after time.

- High accuracy current controlled tools.
- Torque and angle control and monitoring.
- Advanced seating control tightening strategy that eliminates floating screws.
- Ergonomic metallic handle.
- V2 Tools are not paired with the controller and are ordered separately.



ETD M 08/20/27 ABL V2



ETD M 120/200/250 ABL V2



ETD M 50/80 ABL V2

Model	Torque range		Speed r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Hand-held current controlled, without push-to-start									
ETD M 08 ABL V2	2-8	0.18-0.7	1350	185	29	0.30	0.66	HM 4 mm	8432 0815 18
ETD M 20 ABL V2	5-20	0.44-1.77	900	185	29	0.30	0.66	HM 4 mm	8432 0815 21
ETD M 27 ABL V2	7.5-27	0.66-2.4	900	185	29	0.30	0.66	HM 4 mm	8432 0815 27
Hand-held current controlled, push-start configurable									
ETD M 50 ABL V2	15-50	1.33-4.4	1000	238	36	0.61	1.37	HM 4 mm	8432 0815 50
ETD M 80 ABL V2	20-80	1.77-7.1	1100	238	36	0.61	1.37	HM 4 mm	8432 0815 80
ETD M 120 ABL V2	30-120	2.7-10.6	900	240	43	0.65	1.43	1/4" Hex	8432 0815 82
ETD M 200 ABL V2	50-200	4.42-17.7	700	240	43	0.65	1.43	1/4" Hex	8432 0815 84
ETD M 250 ABL V2	75-250	6.64-22.13	700	240	43	0.65	1.43	1/4" Hex	8432 0815 86

NOTE. Ordering number for screwdriver only. Tool cable, controller and PSU need to be ordered separately.

MicroTorque

Fixtured screwdrivers V2

MicroTorque fixtured screwdrivers are designed to perform consistently and precisely, time after time.

- High accuracy current controlled tools.
- Torque and angle control and monitoring.
- Advanced seating control tightening strategy that eliminates floating screws.
- Very compact design.
- V2 Tools are not paired with the controller and are ordered separately.



ETF S

Model	Torque range		Speed r/min	Length mm	Overall width mm	Weight		Bit drive	Ordering No.
	cNm	in lb				kg	lb		
Fixtured current controlled									
ETF S 08 V2	2-8	0.18-0.70	1500	125	65	0.3	0.68	HM 4 mm	8432 0832 84
ETF S 25 V2	5.5-25	0.49-2.2	1000	125	65	0.3	0.68	HM 4 mm	8432 0832 85

NOTE. Ordering number for screwdriver only. Tool cable, controller and PSU need to be ordered separately.

MT Focus 400 is an extremely compact and advanced controller designed to attend the most demanding assembly processes.

- 20 P-sets
- Multiple step tightening
- Simple programming directly at the controller.
- Advanced programming via PC software, ToolsTalk MT.
- Batch count.
- Different display lights for operator feedback.
- Multiple I/Os for integration with assembly line, automation stations or error proofing accessories.
- ToolsTalk MT included, with Graph Analysis and Net functionality for detailed information.



MTF 400A

Model	Ordering No.
MTF 400A	8432 0850 00

NOTE: To be ordered together with V2 tools.

MicroTorque

Accessories

TOOL CABLES FOR ETF S V2 AND ETD M ABL V2

Model	Ordering No.
Cable 2 m	8432 0835 02
Cable 3.5 m	8432 0835 03



Tool cable

POWER SUPPLY UNIT, PSU

Model	Battery / Power	Ordering No.
ETF S08 V2 and ETD M08/20/27 ABL V2	24V / 72W	8432 0840 00
ETF S25 V2	36V / 72W	8432 0840 01
ETD M50/80/100/120/200/250 ABL V2	36V / 180W	8432 0840 02



Power supply unit

Optional Accessories

CONTROLLER ACCESSORIES FOR MT G4

Model	Ordering No.
Combi (Remote control + program selector)	8432 0830 88
Remote control	8432 0830 08
Digital program selector	8432 0830 34
Controller table fixture	8432 0830 84
Controller wall fixture	8432 0830 32
Y cable for I/O connector ^a	8432 0831 99
Desktop socket (with screwdriver presence sensor)	8432 0831 89
MT TN adapter ToolsNet 4000 ^b (15 pin/26 pin d-sub)	8432 0832 98

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

^b Including adapter cables.



Digital program selector



Remote control



Desktop socket



MT G4 table fixture

CONTROLLER ACCESSORIES FOR MTF 400

Model	Ordering No.
Digital program selector	8432 0830 65
Controller wall fixture	8432 0833 83
MT TN adapter ToolsNet 4000 ^c	8432 0832 98

^c Including adapter cables.



MT G4 wall fixture

STACKLIGHTS

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

^d Adapter included, suitable for MT G4 and MTF400 controllers.



Stacklight wall mount



Stacklight table stand

TOOL CABLE

Model	Length	Ordering No.
ETD M ABL, ETF S	2 m	8432 0835 02
ETD M ABL, ETF S	3.5 m	8432 0835 03
ETF M, MT	2 m	8432 0830 36
ETF M, MT	3.5 m	8432 0831 01
ETF M, MT 90 deg angle cable	2 m	8432 0831 15



Tool cable



Tool cable, 90 deg

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

Optional Accessories

VACUUM ADAPTER

Model	Nozzle Ø mm	Tool Bit Drive	Tool model	Ordering No.
QC Vacuum Adapter Small	8	HM4	ETD M, ETF S, ETF M, ETF MT and QMC	8432 0770 58
QC Vacuum Adapter Large	12	1/4" HEX	ETD M and QMC	8432 0770 57
QC Vacuum Adapter Large	12	1/4" HEX	ETF M100, ETF MT100, ETF M200 and ETFMT200	8432 0770 59



Vacuum adapter

VACUUM NOZZLES

Model	Nozzle Ø mm	Tool Bit Drive	Ordering No.
Plastic Nozzle	8	HM4	4216 1190 16
Metallic Nozzle	8	HM4	4216 1190 17
Plastic Nozzle	12	1/4" HEX	4216 1190 20
Metallic Nozzle	12	1/4" HEX	4216 1190 21



Vacuum nozzles

VACUUM PUMP

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



VPX 6 vacuum pump

SCREW DISPENSER

Model	Screw size	Ordering No.
Screw dispenser for magnetized bit		
SDS screw dispenser	M1.0 - 5.0	8432 0830 00
Screw dispenser for vacuum pick up		
SDS SR 10	M1.0	8432 0870 30
SDS SR 12	M1.2	8432 0870 32
SDS SR 14	M1.4	8432 0870 34
SDS SR 17	M1.7	8432 0870 31
SDS SR 20	M2.0	8432 0870 33
SDS SR 23	M2.3	8432 0870 35
SDS SR 26	M2.6	8432 0870 36
SDS SR 30	M3.0	8432 0870 37



Screw dispenser for magnetic bit



Screw dispenser for vacuum pick up

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.



Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline/ 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 ES21-20-10	3/8	8-20	5.9-14.8	430	1.05	2.3	303	14	–	8436 0120 20
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
ETV ES61-150-13	1/2	60-150	44.3-110.6	296	3.2	7.1	541	26	–	8436 0160 15
ETV ES61-180-13	1/2	72-180	53-133	232	3.2	7.1	541	26	–	8436 0160 18
ETV ES61-200-20	3/4	80-200	59-147.5	203	3.4	7.5	543	27	–	8436 0160 20
Angle, quick chuck										
ETV ES21-12-I06-QC	–	4.8-12	3.5-8.9	718	0.95	2.1	304	11	–	8436 0121 12
Angle, ball retainer										
ETV ES61-70-B13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	–	8436 0165 70
ETV ES61-100-B13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	–	8436 0165 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	1.2-3	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	3/8	7.2-18	5.3-13.3	2129	1.7	3.75	418	23	-/1	8436 0265 18
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	3/8	10-25	7.4-18.4	1793	1.7	3.8	418	23	-/1	8436 0265 25
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	3/8	12-30	8.9-22.1	1077	1.7	3.8	418	23	-/1	8436 0265 30
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	1/2	20-50	14.8-36.9	679	2.95	6.5	493	29	2/2	8436 0265 50
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
ETD ES61-70-13	1/2	28-70	20.7-51.6	608	2.95	6.5	493	29	2/2	8436 0265 70
ETD ES61-70-13-T25	1/2	28-70	20.7-51.6	608	3.1	6.8	521	29	3/5	8436 0260 70
ETD ES61-90-13	1/2	36-90	26.6-66.4	467	2.95	6.5	493	29	2/2	8436 0265 90
ETD ES61-90-13-T25	1/2	36-90	26.6-66.4	467	3.1	6.8	521	29	3/5	8436 0260 90
ETD ES61-120-13	1/2	48-120	35.4-88.5	365	2.95	6.5	493	29	2/2	8436 0265 12
ETD ES61-120-13-T25	1/2	48-120	35.4-88.5	365	3.1	6.8	521	29	3/5	8436 0260 12
Fixtured models										
ETF ES21-04-I06-T25	–	1.6-4	1.2-3	1909	0.96	2.1	338	22.5	– ^a	8436 0224 04
ETF ES21-07-I06-T25	–	2.8-7	2.1-5.2	1147	0.96	2.1	338	22.5	– ^a	8436 0224 07
ETF ES21-12-I06-T25	–	4.8-12	3.5-8.9	745	0.96	2.1	338	22.5	– ^a	8436 0224 12
Pistol grip models										
ETP ES21-02-I06-PS	–	0.8-2	0.6-1.5	4471	0.85	1.87	225	19.5	–	8436 0320 02
ETP ES21-04-I06-PS	–	1.6-4	1.2-3	1909	0.85	1.87	225	19.5	–	8436 0320 04
ETP ES21-07-I06-PS	–	2.8-7	2.1-5.2	1147	0.85	1.87	225	19.5	–	8436 0320 07
ETP ES21-12-I06-PS	–	4.8-12	3.5-8.9	745	0.85	1.87	225	19.5	–	8436 0320 12

^a Mounting bracket fixed.

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

ETP – Pistol grip handle screwdrivers 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 10 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.



ETF DL



ETP DL

Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
	Nm	in lb		kg	lb			
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

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 30 Nm.



ETV SR

ETD SR

- SR Straight tools are ideal for hand-held applications and fixture applications.
- ESD certified.
- Front light guide is integrated.
- Push-to-start mechanism.
- Torque range from 1.5 to 16 Nm.



ETD SR

Model	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Splines/ 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
ETV SR21-30-10	6-30	4.4-22.1	663	1.2	2.6	299	15.5	-	8436 4120 30
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
ETD SR21-07-I06-T25	1.5-7	1.0-5.2	2090	0.9	1.9	353	24	-	8436 4224 07
ETD SR21-16-10-T25	3.5-16	2.6-11.8	1460	1.0	2.2	353	24	-	8436 4224 17

Optional Accessories

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

SUPPORTED EXTENSIONS (~154 MM)

Model	Ordering No.
SR21, ETV SL21	4220 3868 90



Supported extensions

SUSPENSION YOKES DL/SL/SR

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

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

SUPPORT HANDLE

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



Support handle

LEVER

Model	Ordering No.
Lever SL	4220 2540 81
Extended lever SL	4220 2540 89
Spoon lever SR21	4220 4338 83
Short lever ETV/ETD ES21	4220 4366 86
Long lever ETV/ETD ES21	4220 4366 85



Tool holder

TOOL HOLDER DL / SL

Model	Ordering No.
ETP / ETD	4220 3584 80

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
Heavy duty cable	
3 m	4220 3265 03
5 m	4220 3265 05
10 m	4220 3265 10
Cables with 90 degrees connector	
3 m	4220 3705 03
5 m	4220 3705 05
10 m	4220 3705 10
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

CABLESTENSOR 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
Heavy duty cable	
3 m	4220 3378 03
5 m	4220 3378 05
10 m	4220 3378 10
15 m	4220 3378 15
Cables with 90 degrees connector	
3 m	4220 3607 03
5 m	4220 3607 05
10 m	4220 3607 10
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

CABLESTENSOR 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	4220 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 TOOLS

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: quality critical

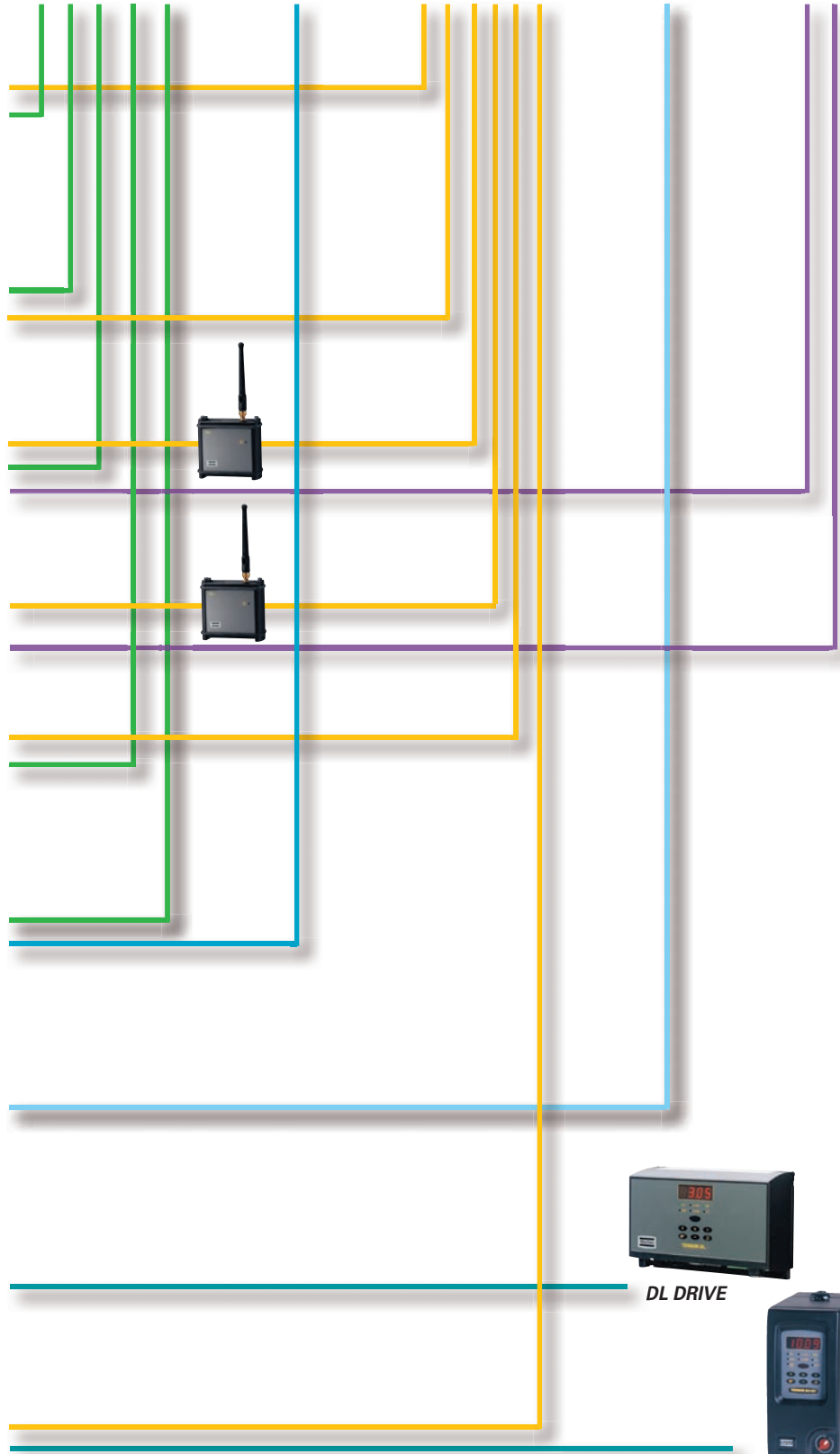
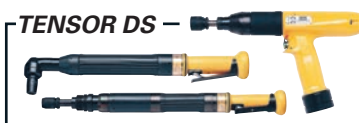
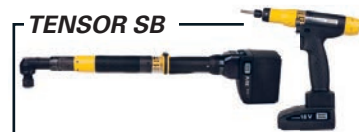
Tensor ES transducerized nutrunners for quality critical applications are available in straight and right angle versions. All models have a sealed design for robustness and offer high productivity with improved ergonomics.



Tensor Overview



POWER FOCUS 6000 POWER FOCUS 600 POWER FOCUS 4000 POWER FOCUS 4002 IRC FOCUS



DL DRIVE



DS DRIVE

TENSOR 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.



Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Splines/ 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 ES21-20-10	3/8	8-20	5.9-14.8	430	1.05	2.3	303	14	–	8436 0120 20
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
ETV ES61-150-13	1/2	60-150	44.3-110.6	296	3.2	7.1	541	26	–	8436 0160 15
ETV ES61-180-13	1/2	72-180	53-133	232	3.2	7.1	541	26	–	8436 0160 18
ETV ES61-200-20	3/4	80-200	59-147.5	203	3.4	7.5	543	27	–	8436 0160 20
Angle, quick chuck										
ETV ES21-12-I06-QC	–	4.8-12	3.5-8.9	718	0.95	2.1	304	11	–	8436 0121 12
Angle, ball retainer										
ETV ES61-70-B13	1/2	28-70	20.7-51.6	439	3.1	6.8	499	20	–	8436 0165 70
ETV ES61-100-B13	1/2	40-100	29.5-73.8	370	3.15	6.9	505	22.5	–	8436 0165 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	1.2-3	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	3/8	7.2-18	5.3-13.3	2129	1.7	3.75	418	23	-1	8436 0265 18
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	3/8	10-25	7.4-18.4	1793	1.7	3.8	418	23	-1	8436 0265 25
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	3/8	12-30	8.9-22.1	1077	1.7	3.8	418	23	-1	8436 0265 30
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	1/2	20-50	14.8-36.9	679	2.95	6.5	493	29	2/2	8436 0265 50
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
ETD ES61-70-13	1/2	28-70	20.7-51.6	608	2.95	6.5	493	29	2/2	8436 0265 70
ETD ES61-70-13-T25	1/2	28-70	20.7-51.6	608	3.1	6.8	521	29	3/5	8436 0260 70
ETD ES61-90-13	1/2	36-90	26.6-66.4	467	2.95	6.5	493	29	2/2	8436 0265 90
ETD ES61-90-13-T25	1/2	36-90	26.6-66.4	467	3.1	6.8	521	29	3/5	8436 0260 90
ETD ES61-120-13	1/2	48-120	35.4-88.5	365	2.95	6.5	493	29	2/2	8436 0265 12
ETD ES61-120-13-T25	1/2	48-120	35.4-88.5	365	3.1	6.8	521	29	3/5	8436 0260 12
Fixtured models										
ETF ES21-04-I06-T25	–	1.6-4	1.2-3	1909	0.96	2.1	338	22.5	– ^a	8436 0224 04
ETF ES21-07-I06-T25	–	2.8-7	2.1-5.2	1147	0.96	2.1	338	22.5	– ^a	8436 0224 07
ETF ES21-12-I06-T25	–	4.8-12	3.5-8.9	745	0.96	2.1	338	22.5	– ^a	8436 0224 12
Pistol grip models										
ETP ES21-02-I06-PS	–	0.8-2	0.6-1.5	4471	0.85	1.87	225	19.5	–	8436 0320 02
ETP ES21-04-I06-PS	–	1.6-4	1.2-3	1909	0.85	1.87	225	19.5	–	8436 0320 04
ETP ES21-07-I06-PS	–	2.8-7	2.1-5.2	1147	0.85	1.87	225	19.5	–	8436 0320 07
ETP ES21-12-I06-PS	–	4.8-12	3.5-8.9	745	0.85	1.87	225	19.5	–	8436 0320 12

^a Mounting bracket fixed.

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 molded ergonomic motor sleeve improves grip and comfort for the operator.

- Angle tools are ideal for hand-held operations.
- Torque range from 40 to 4000 Nm.



ETV DS

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETV DS72									
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 DS92									
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 21 to 3000 Nm.
- Telescopic spindles for fixtured applications.



ETD DS

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 DS7										
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 DS7-70-13ST	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
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 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

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.



ETP DS

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 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 DS9-4000-38S	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.

ETV ST

- ETV ST right angle tools are ideal for hand-held and fixtured applications.
- Torque range from 1 to 4000 Nm.
- Tensor ST offers:
 - Extremely high productivity.
 - Ergonomic design.
 - Excellent operator feedback.
- The ETV ST ATEX tools are certified to be used in environments with hazardous gases and liquids.



ETV ST

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 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 ST61-40-10-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 ST61-100-13-ATEX	1/2	20-100	15-80	350	2.5	5.5	502	22.5	60	8433 2041 42
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 ST61-70-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
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	-	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

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 Hold & Drive										
ETV ST61-28-HAD	-	6-29	4-21	1450	1.9	4.2	463	18.3	62	8433 2023 21
ETV ST61-50-HAD	-	10-55	7-40	655	2.0	4.4	440	18.3	80	8433 2033 92
ETV ST61-100-HAD	-	20-100	15-80	350	2.6	5.7	504	23	71	8433 2038 36
ETV ST61-100-HAD-HD	-	20-100	15-80	350	2.6	5.7	539	26	80	8433 2038 35
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 ST61-30-10-BCR	3/8	7-35	5-25	1090	1.4	3.2	440	15.5	42	8433 2026 66
ETV ST61-50-10-BCR	3/8	10-55	7-40	655	1.6	3.6	454	18	47	8433 2034 67
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 ST81-70-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	62	8433 2052 80
ETV ST81-100-HAD	-	20-100	15-80	665	2.6	5.7	542	23	71	8433 2056 36
ETV ST81-100-HAD-HD	-	20-100	15-80	665	2.7	5.9	542	26	80	8433 2056 35
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 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	1000-4000	734-2950	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 offers:
 - Extremely high productivity.
 - Ergonomic design.
 - Excellent operator feedback.



ETD ST

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 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	3/8	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 ST81-70-13-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	3.2	7.0	631	30.5	-	8433 2179 00
ETD ST101-120-13	1/2	30-120	22-88	875	3.2	7.0	631	30.5	-	8433 2180 22
ETD ST101-150-20	3/4	30-150	22-109	685	4.3	9.3	706	33	-	8433 2181 36
ETD ST101-200-20	3/4	50-200	36-146	500	7.4	16.3	706	33	-	8433 2182 05
ETD ST101-300-20	3/4	70-300	51-221	345	7.4	16.3	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	3.2	7.0	631	30.5	-	8433 2179 05
ETD ST101-150-20-F	3/4	30-150	22-109	685	4.3	9.3	706	33	-	8433 2181 40
ETD ST101-200-20-F	3/4	50-200	36-146	500	7.4	16.3	706	33	-	8433 2182 10
ETD ST101-300-20-F	3/4	70-300	51-221	345	7.4	16.3	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 ST101-1200-25-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	3.3	7.3	656	30.5	-	8433 2179 10
ETD ST101-120-13-T25	1/2	30-120	22-88	873	3.3	7.3	656	30.5	-	8433 2180 32
ETD ST101-150-20-T40	3/4	30-150	22-109	685	4.4	9.7	656	30.5	-	8433 2181 46
ETD ST101-200-20-T40	3/4	50-200	36-146	500	7.5	16.5	756	33	-	8433 2182 23
ETD ST101-300-20-T40	3/4	70-300	51-221	345	7.5	16.5	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	3.3	7.3	656	30.5	-	8433 2179 15
ETD ST101-120-13-T25-F	1/2	30-120	22-88	873	3.3	7.3	656	30.5	-	8433 2180 48
ETD ST101-150-20-T40-F	3/4	30-150	22-109	685	4.4	9.7	656	30.5	-	8433 2181 59
ETD ST101-200-20-T40-F	3/4	50-200	36-146	500	7.5	16.5	756	33	-	8433 2182 45
ETD ST101-300-20-T40-F	3/4	70-300	51-221	345	7.5	16.5	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-I06	-	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-I06	-	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-I06	-	5-20	3.6-15.0	677	0.91	2	235	179	8433 2217 11
ETP ST32 with Barcode Scanner									
ETP ST32-05-I06BCR	-	1-5	0.7-3.7	2820	0.87	2	197	205	8433 2212 29
ETP ST32-10-I06BCR	-	3-11	2.2-8.0	1210	0.92	2.1	197	205	8433 2214 73
ETP ST32-20-I06BCR	-	5-20	3.6-15.0	677	1.03	2.3	237	205	8433 2217 26

ST REVO

- 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

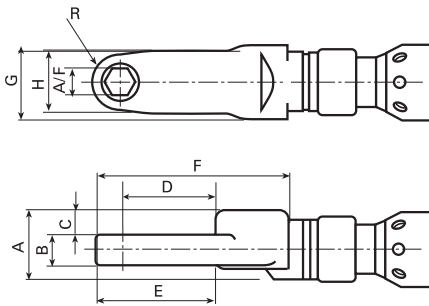
Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Spline	Ordering No.
		Nm	ft lb		kg	lb				
Model with fan										
ETP ST101-200-20-F	3/4	60-200	45-145	396	5.2	11.5	303	32.5	3	8433 2302 02
ETP ST101-300-20-F	3/4	90-300	66-221	293	5.2	11.5	303	32.5	3	8433 2303 02
ETP ST101-500-20-F	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.

Tensor ST Crowfoot

IN-LINE CROWFOOT TOOLS

Dimensions

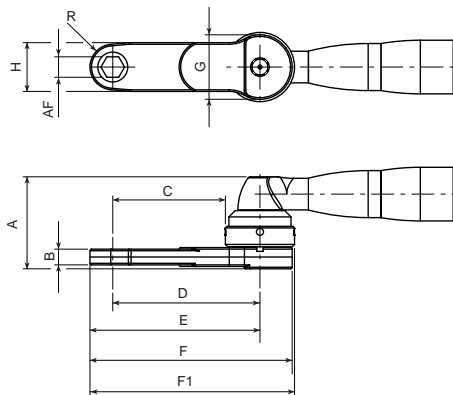


ETC ST

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 ST61-28-12-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 ST61-150-22-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

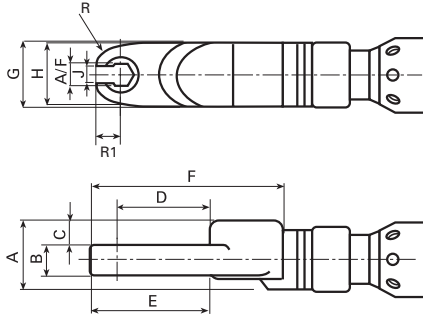


ETC ST

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 ST61-44-14-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 ST61-64-16-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

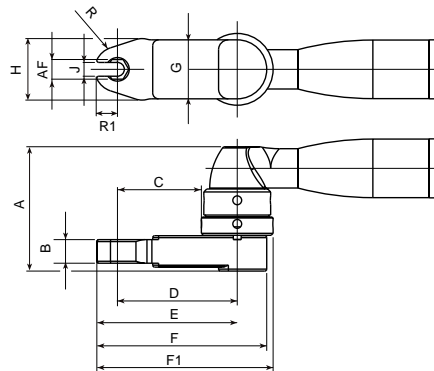


ETO ST

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 ST61-18-10-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 ST61-60-19-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 ST61																				
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 ST61-30-13-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 STR

- Protected against intrusion of dust and water to withstand the toughest environments. IP class 54.
- Built in gyroscope to detect operators influence on tightening.
- Modular STR design for parts commonality between models and sizes.
- Dual accessories support for customizable functionality such as QR code scanning, EHMI display or headlights.
- High cycle rate capability due to improved heat dissipation.
- Operator feed back through built in loudspeaker, vibrator and high visibility LEDs.



ETV STR

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETV STR31									
ETV STR31-05-10	3/8	1-5	0.7-3.6	3070	1.1	2.4	381	11	8436 6130 05
ETV STR31-10-10	3/8	3-12	2.2-8.8	1310	1.1	2.4	381	11	8436 6130 10
ETV STR31-15-10	3/8	5-15	3.6-10	975	1.1	2.4	381	11	8436 6130 15
ETV STR31-20-10	3/8	5-22	3.6-16	705	1.3	2.9	415	14	8436 6130 20
ETV STR61									
ETV STR61-25-10	3/8	6-28	4-20	1620	1.4	3.1	439	14	8436 6160 25
ETV STR61-30-10	3/8	7-35	5-25	1220	1.4	3.1	441	15.5	8436 6160 30
ETV STR61-40-10	3/8	8-40	6-29	1220	1.6	3.5	452	18	8436 6160 40
ETV STR61-50-10	3/8	10-55	7-40	735	1.6	3.5	452	18	8436 6160 50
ETV STR61-70-13	1/2	15-80	10-58	530	2.1	4.6	464	20	8436 6160 70
ETV STR61-100-13	1/2	20-100	15-80	390	2.6	5.7	501	22.5	8436 6160 10
ETV STR61-150-13	1/2	30-160	22-117	245	3.0	6.6	537	25.5	8436 6160 15
ETV STR61-180-13	1/2	35-180	26-133	215	3.0	6.6	543	25.5	8436 6160 18
ETV STR61-200-20	3/4	40-200	30-154	215	3.1	6.8	539	27	8436 6160 20
ETV STR61 Ball Retainer									
ETV STR61-70-B13	1/2	15 - 80	10 - 58	530	2.1	4.6	464	20	8436 0000 20
ETV STR61-100-B13	1/2	20 - 100	15 - 80	350	2.6	5.7	501	22.5	8436 0000 25
ETV STR61-150-B13	1/2	30 - 160	22 - 117	245	3.0	6.6	537	25.5	8436 0000 40
ETV STR61-180-B13	1/2	35 - 180	26 - 133	215	3.0	6.6	543	25.5	8436 0000 30
ETV STR61 Barcode scanner and Lamp									
ETV STR61-30-10-BL	3/8	7-35	5-25	1220	1.5	3.3	441	15.5	8436 6169 31
ETV STR61-40-10-BL	3/8	8-40	6-29	1220	1.7	3.7	452	18	8436 6169 41
ETV STR61-50-10-BL	3/8	10-55	7-40	735	1.7	3.7	452	18	8436 6169 51
ETV STR61-70-13-BL	1/2	15-80	10-58	530	2.2	4.8	464	20	8436 6169 71
ETV STR61 Flush Socket									
ETV STR61-30-FS		7 - 35	5 - 25	1220	1.4	3.1	441	16	8436 6161 43
ETV STR61-40-FS		8 - 40	6 - 29	1220	1.6	3.5	452	18	8436 6161 50
ETV STR61-50-FS		10 - 55	7 - 40	735	1.6	3.5	452	18	8436 6161 57
ETV STR61-70-FS		15 - 80	10 - 58	530	2.1	4.6	464	20	8436 6161 64
ETV STR61-100-FS		20 - 110	15 - 80	390	2.6	5.7	501	23	8436 6161 08
ETV STR61-150-FS		30 - 160	22 - 117	237	3	6.6	540	26	8436 6161 15
ETV STR61-180-FS		35 - 180	26 - 133	190	3.0	6.6	546	26	8436 6161 22
ETV STR61-200-FS		40 - 200	30 - 154	215	3.1	6.8	543	27	8436 6161 29
ETV STR61 Hold And Drive									
ETV STR61-30-HAD		7 - 35	5 - 25	1220	2	4.4	464	18.3	8436 6161 42
ETV STR61-50-HAD		10 - 50	7 - 40	735	2.1	4.6	438	18.3	8436 6161 56
ETV STR61-100-HAD		20 - 100	15 - 80	390	2.7	5.9	503	23	8436 6161 07
ETV STR61-150-HAD		30 - 160	22 - 117	237	3.1	6.6	541	26	8436 6161 14
ETV STR61-180-HAD		35 - 180	26 - 133	215	3.1	6.6	539	26	8436 6161 21
ETV STR61-200-HAD		40 - 200	30 - 154	215	3.2	7.0	543	26	8436 6161 28

ETD STR

- Protected against intrusion of dust and water to withstand the toughest environments. IP class 54.
- Built in gyroscope to detect operators influence on tightening.
- Modular STR design for parts commonality between models and sizes.
- Dual accessories support for customizable functionality such as QR code scanning, EHMI display or headlights.
- High cycle rate capability due to improved heat dissipation.
- Operator feed back through built in loudspeaker, vibrator and high visibility LEDs.



ETD STR

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETD STR31									
ETD STR31-05-10	3/8	1-5	0.7-3.6	3645	1.0	2.2	388	24	8436 6230 05
ETD STR31-10-10	3/8	2-10	1.4-7.3	1555	1.2	2.6	388	24	8436 6230 10
ETD STR61									
ETD STR61-15-10	3/8	4-16	3-12	2500	1.4	3.1	438	24	8436 6260 15
ETD STR61-20-10	3/8	5-22	3.6-16	1890	1.4	3.1	438	24	8436 6260 20
ETD STR61-30-10	3/8	6-35	4.4-25	1130	1.4	3.1	429	24	8436 6260 30
ETD STR61-50-13	1/2	10-55	7.3-40	819	2.0	4.4	474	24	8436 6260 50
ETD STR61-70-13	1/2	15-80	12-58	560	2.3	5.1	491	26.5	8436 6260 70
ETD STR61-90-13	1/2	20-95	15-70	440	2.3	5.1	491	26.5	8436 6260 90

Pistol Grip Models

Tensor STR

ETP STR

- Available in two models, standard and cable on top.
- Outstanding power to weight ratio, increase by 45% compared to Tensor S
- New D-handle shape for increased robustness and safety.
- Easy mounting of additional accessories or optional support handle.
- High cycle rate capability due to improved heat dissipation.
- Operator feed back through built in loudspeaker, vibrator and high visibility LEDs.



ETP STR

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETP STR61									
ETP STR61-20-10	3/8	5-22	3.7-16.2	2100	1.3	2.87	244	24	8436 6360 20
ETP STR61-30-10	3/8	6-32	4.4-23.5	1530	1.3	2.87	244	24	8436 6360 30
ETP STR61-50-13	1/2	10-55	7.4-40.6	820	1.7	3.75	282	24	8436 6360 50
ETP STR61-70-13	1/2	14-80	10.3-59	560	2.0	4.41	298	26.5	8436 6360 70
ETP STR61-90-13	1/2	20-95	14.7-70.4	450	2.0	4.41	298	26.5	8436 6360 90
ETP STR61-120-13	1/2	24-125	17.7-89.4	380	2.0	4.41	298	26.5	8436 6360 12
ETP STR61 Cable On Top									
ETP STR61-120-13 COT	1/2	24-125	17.7-89.4	380	2.4	5.29	350	26.5	8436 6368 12
ETP STR61-20-10 COT	3/8	5-22	3.7-16.2	2100	1.7	3.75	296	24	8436 6368 20
ETP STR61-30-10 COT	3/8	6-32	4.4-23.5	1530	1.7	3.75	296	24	8436 6368 30
ETP STR61-50-13 COT	1/2	10-55	7.4-40.6	820	2.1	4.63	334	24	8436 6368 50
ETP STR61-70-13 COT	1/2	14-80	10.3-59	560	2.4	5.29	350	26.5	8436 6368 70
ETP STR61-90-13 COT	1/2	20-95	14.7-70.4	450	2.4	5.29	350	26.5	8436 6368 90

ETT STR

- Transducer in front for outstanding accuracy and reliability. +/- 2,5% over 6 sigma.
- Built in gyroscope to detect operators influence on tightening.
- Modular STR design for parts commonality between models and sizes.
- Additional front trigger makes the tool ideal for a combined pre tightening and final tightening combination, two tools in one. front trigger can also be used a safety trigger
- High cycle rate capability due to improved heat dissipation.
- Operator feed back through built in loudspeaker, vibrator and high visibility LEDs.



ETT STR

Model	Square drive in	Torque range		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETT STR61									
ETT STR61-20-10	3/8	4-20	3-15	1690	1.6	3.6	384	24	8436 6660 20
ETT STR61-30-10	3/8	6-30	4-22	1300	1.6	3.6	384	24	8436 6660 30
ETT STR61-40-10	3/8	8-40	6-30	1015	1.7	3.7	384	24	8436 6660 40
ETT STR61-50-10	3/8	10-50	7-37	780	1.7	3.7	384	24	8436 6660 50

Tensor SR

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 30 Nm.



ETV SR

ETD SR

- SR Straight tools are ideal for hand-held applications and fixture applications.
- Torque range from 1.5 to 16 Nm.
- Front light guide is integrated.
- Push-to-start mechanism.
- ESD certified.



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
ETV SR21-30-10	6-30	4.4-22.1	663	1.2	2.6	299	15.5	-	8436 4120 30
Straight models									
ETD SR21-07-106-PS	1.5-7	1.0-5.2	2090	0.9	1.9	259	24	-	8436 4220 07
ETD SR21-16-106-PS	3.5-16	2.6-11.8	1460	1.0	2.2	276	24	-	8436 4220 16
ETD SR21-07-106-T25	1.5-7	1.0-5.2	2090	0.9	1.9	353	24	-	8436 4224 07
ETD SR21-16-10-T25	3.5-16	2.6-11.8	1460	1.0	2.2	353	24	-	8436 4224 17

Optional Accessories

TENSOR ST/SR/STR

Model	Power Focus 4000 Ordering No.	Power Focus 6000 Ordering No.
Tool cable		
2 m	4220 2636 02	4220 4375 02
3 m	4220 2636 03	4220 4375 03
5 m	4220 2636 05	4220 4375 05
7 m	4220 2636 07	4220 4375 07
10 m	4220 2636 10	4220 4375 10
15 m	4220 2636 15	4220 4375 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	4220 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 2 m	4220 2977 90	
Extension cable (round, heavy duty)		
3 m		4220 4393 03
5 m	4220 1007 05	4220 4393 05
10 m	4220 1007 10	4220 4393 10
15 m	4220 1007 15	4220 4393 15
Extension cables for fixtured applications (flat)		
5 m	4220 1563 05	
10 m	4220 1563 10	
15 m	4220 1563 15	



ST/SR/STR Cable



ST/SR/STR Cable with 90 degrees connector



ST/SR/STR Spiral cable



ST/SR/STR Cable protection



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
Suspension yoke cable for ES21	
Suspension yoke cable	4210 1810 00

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

Optional Accessories

TOOL EXTENSIONS

Model	Length	Ordering No.
ES61 ETV 70/100/150/180/200, ES61 ETD 50/70/90/120	150	4220 1132 80
ES61 ETV 25/30/40/50, ES61 ETD 18/25/30	150	4220 1131 80
DS7 ETD 20-30, DS7 ETV 30-50, DS4 ETD/ETV	150	4220 1131 80
DS4 ETD/ETV	100	4220 1131 86
DS7 ETD/ETV 50-200	150	4220 1714 80
DS9 ETD/ETV 270-370	150	4220 1585 80
DS9 ETD 450-600	150	4220 1585 85
ST61 ETV 20-30	150	4220 2903 96
ST61 ETV 40-50	150	4220 2903 95
ST61 ETV 70	150	4220 2903 97
ST61/ST81/ST101 ETV 100-200	150	4220 2903 91
ST101 270-1000	150	4220 1585 80
ST101 600	150	4220 1585 85
STR61 ETV 25	150	4220 2903 80
STR61 ETV 30	150	4220 2903 96
STR61 ETV 40-50	150	4220 2903 95
STR61 ETV 70	150	4220 2903 97
STR61 ETV 100-200	150	4220 2903 91



Tool extension



SUPPORTED EXTENSIONS (~154 MM)

Tensor ST/SR	Tensor STR	Tensor DS	Tensor ES	Ordering No.
SR21, ST31 ETV 20, ST61 28-30	STR61 ETV 30		ES61 ETV 25/30	4220 3869 90
ST61/ST81 ETV 40-50	STR31 ETV 20, STR61 ETV 25	DS2/DS7 ETV 20-30		4220 3868 90
ST61/ST81 ETV 70	STR61 ETV 40-50	DS7/DS9 ETV 40-50	ES61 ETV 40/50	4220 2209 91
ST61/81/101 ETV 150-180	STR61 ETV 70	DS7/DS9 ETV 70	ES61 ETV 70	4220 2596 91
ST61 ETV 200	STR61 ETV 150-180			4220 4125 90
ST81/101 ETV 200	STR61 ETV 200			4220 4125 92
			ES61 ETV 100	4220 4125 91



COVERS FOR STANDARD SOCKETS

Tensor DS	Tensor ES	Tensor ST	Tensor SR	Tensor STR	Ordering No
		ST31 ETV 20	SR21	STR31 ETV 20	4220 3154 03
	ES61 ETD 18/ 25/ 30				4220 3251 02
	ES61 ETD 50/70/90/120				4220 3251 03
	ES61 ETV 25	ST61 ETV 28		STR61 ETV 25	4220 3154 03
	ES61 ETV 30	ST61 ETV 30		STR61 ETV 30	4220 3154 04
	ES61 ETV 100	ST ETV 100		STR61 ETV 100	4220 3154 05
	ES61 ETV 150/180	ST ETV 150-180		STR61 ETV 150-180	4220 3154 06
	ES61 ETV 40/50	ST ETV 40-50		STR61 ETV 40-50	4220 1995 05
	ES61 ETV 70	ST ETV 70		STR61 ETV 70	4220 1993 03
DS7 200	ES61 ETV 200	ST ETV 61/81/101 200		STR61 ETV 200	4220 3154 07
DS9 ETV 101 270-370		ST101 ETV 270-370			4220 3154 08
DS7 ETD 50-120		ST61/81 ETD 50-120			4220 3251 00
DS7 ETD 20/30/120		ST61 ETD 15/20/30			4220 3251 02

Optional Accessories

REACTION PLATE FOR FIXTURING

Model	Ordering No.
ES61 ETV-40/50	4220 1677 92
ES61 ETV-70/100	4220 1678 94
ES61 ETV-150/180	4220 1677 98
ES61 ETV-200	Included
ST10 ETV 180	4220 1677 99
ST10 ETV 200-600	Included
ST61 ETV 30, ST61/81 ETV 200	4220 1677 91
ST61 ETV 40-50	4220 1677 93
ST61/81 ETV 70	4220 1677 95
ST61/81 ETV 100	4220 1677 97
ST61/81 ETV 150-180	4220 1678 90
ST32 ETP 20 106BCR	4220 3491 00
STR31 ETV 5-20	4220 1678 91
STR61 ETV 30	4220 1677 91
STR61 ETV 40-50	4220 1677 93
STR61 ETV 70	4220 1677 95
STR61 ETV 100	4220 1677 97
STR61 ETV 150-180	4220 1678 90



Reaction plate

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, STR	4220 5221 85
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				
ST10 ETD 120		Bracket	150/100/16	4220 3677 00
ST10 ETD 200/300/500		Bracket	200/150/16	4220 3677 01
ST10 ETD 750/1000		Bracket	200/150/20	4220 3677 02
STR61 ETP 20/30		Bar	250/15/8	4220 4495 00
STR61 ETP 50/70/90/120,		Bar	270/35/14	4220 1903 00
ES61 ETD 18/25/30				
ES61 ETD 50/70/90/120		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.

Optional Accessories

SUSPENSION YOKES

Model	Type	Assembly	Ordering No.
ES21 ETV/ETD	Horizontal	Motor	4220 0987 82
ES61 ETV/ETD	Horizontal	Motor	4220 4586 90
DS4/DS7/DS9 ETD/ETV	Vertical	Handle	4220 1417 80
DS4/DS7 ETD/ETV	Horizontal	Motor	4220 0987 85
DS4/DS7 ETP	Horizontal	Motor	4220 1154 90
DS4 ETD/ETV	Fixed	Motor front nut	4220 1675 86
DS9 ETD/ETV	Horizontal	Motor	4220 1418 96
DS9 ETP 350/500	Swivelling		4210 3088 86
DS9 ETP 750	Swivelling		4210 3088 83
DS9 ETP 1500	Swivelling		4210 3088 81
ST10 ETD 120-300, ST10 ETV 270-600	Vertical	Planetary gear	4220 1418 91
ST10 ETD 500-1000	Vertical	Planetary gear	4220 1418 90
ST10 ETV 100-200	Vertical	Planetary gear	4220 1418 92
ST31/61 ETV/ETD	Horizontal	Motor	4220 2657 90
ST31/61 ETV/ETD	Fixed	Motor	4220 2843 92
ST31/61 ETV/ETD	Vertical	Handle	4220 1417 95
ST81 ETV/ETD	Horizontal	Motor	4220 0987 90
ST81 ETV/ETD	Fixed	Motor	4220 2843 91
ST101 ^a ETV	Horizontal	Motor	4220 3930 90
ST101 ETD 200-1000	Adjustable	Motor	4220 4075 90
ST101 ETP BCR 200-1000 ^b	Adjustable	Motor	4220 4075 91
ST101 ETP 750-2000	Swivelling	Gear	4210 3088 87
ST101 ETP 3000-4000	Swivelling	Gear	4210 3088 81
STR ETV/ETD 31/61	Swivelling		4220 5070 80
STR ETV/ETD 31/61	Fixed		4220 5105 80
STR61 ETP	Tool upside down		4220 3037 00
STR61 ETP	Fixed, one side		4220 4334 00
STR61 ETP	Fixed, both sides		4220 4399 80
STR61 ETP 20/30/50	Swivelling		4220 4381 80
STR61 ETP 70/90/120	Swivelling		4220 4394 80
SR21	For rear		4220 4410 80
SR21	For front		4220 4409 80

^a Not telescopic. ^b To be used if barcode scanner is mounted.



Suspension yokes

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
STR - L	STR61 70-200	STR61 70	8436 6199 12
STR - S	STR31 05-20, STR61 25-50	STR31 05-10, STR61 15-50	8436 6199 10



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
STR - L			8436 6199 22
STR - S			8436 6199 20



Lever trigger 135 deg.

Optional Accessories

FIXTURED EXTENSIONS

Model	For ext + nut Ordering No.	For nut only Ordering No.
ES61 ETV 25/30/40/50, ES61 ETD 18/25/30		4220 2579 90
ES61 ETV 70/100/150/180/200, ES61 ETD 50/70/90/120		4220 2469 90
ST10 ETV 100/150/180, ST10 ETD 120	4220 3571 90	Included
ST10 ETD 150, 200, 300	4220 3572 90	
ST10 ETD 500	4220 3573 90	Included



Fixture extension

PROTECTIVE COVERS

Model	Ordering No.
ST31 ETV 5-15	4220 2744 05
ST31/ST61 ETV 20-30, ST31 ETV 200	4220 2744 03
ST61 ETV 40-50, ST81 ETV 50	4220 2744 02
ST61 ETV 70, ST81 ETV 70	4220 2744 04
ST31 ETP 05	4220 2744 06
ST31 ETP 10	4220 2744 07
ST81/ST10 ETV 150-180	4220 2744 10
ST81/ST10 ETV 100	4220 2744 09
ST101 ETP (included)	4220 4299 00
STR31 ETV 05-15	4220 5203 01
STR31 ETV 20, STR61 ETV 20-30	4220 5203 02
STR61 ETV 40-50	4220 5203 03
STR61 ETV 70	4220 5203 04
STR61 ETV 100	4220 5203 05
STR61 ETV 150-180	4220 5203 06



Protective cover Tensor ST

OPERATOR HANDLE

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



Operator handle

SUPPORT HANDLE

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



Support handle

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

TOOL HOLDER

Model	Ordering No.
ST32 ETP	4220 3584 80



Tool holder

Optional Accessories



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

BARCODE SCANNER

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
STR61 ETP			8436 0999 90
ST101 ETP			8433 0615 50
STR-S	STR 31 /61	STR 31 /61	8436 6199 00
STR-L	STR61	STR61	8436 6199 02

L= 70 Nm and up, S= up to 50 Nm



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
STR61 ETP			8436 0999 91



Parameter set selector

TLS TOOL TAGS

Model	ETV	ETD	ETP	Ordering No.
TLS ST Tag 32 U1	–	–	ST32, STB32	8433 1030 10
TLS ST Tag 61-S U1	ST31, ST61 28-50, STB32, STB62 30-50	ST31, ST61 15-30	–	8433 1030 20
TLS ST Tag 61-L U1	ST61 70-200, STB62 70-100	ST61 50-120	–	8433 1030 30
TLS ST Tag 81-S U1	ST81 50	ST81 30	–	8433 1030 40
TLS ST Tag 81-L U1	ST81 70-200	ST81 50-120	–	8433 1030 50
TLS ST Tag 101 U1	ST101	ST101	–	8433 1030 60



TLS Tool tag

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

Optional Accessories

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
TLS ST tag protection	4220 2917 06



Scanner and TLS ST tag 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
STR-S	STR31/STR61 <50	STR31/STR61 <50	8436 6199 30
STR-L	STR61 >50	STR61 >50	8436 6199 32



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
STR-S	STR31/STR61 <50	STR31/STR61 <50	8436 6199 40
STR-L	STR61 >50	STR61 >50	8436 6199 42



Adjustable headlights

TELESCOPIC FRONT PART

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

MOUNTING RINGS FOR STR

Model	Ordering No.
Upper ring -S	8436 6199 50
Upper ring -L	8436 6199 52
Lower ring -S	8436 6199 60
Lower ring -L	8436 6699 62

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 3	1/2	82-218	4210 4616 83
Spline 3	3/4	82-218	4210 4616 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 6	3/4	120-170	4210 4481 86
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



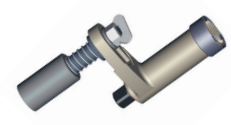
L-Type aluminum bar



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 TOOLS-TALK 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 software 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.

POWER FOCUS 6000

The Power Focus 6000 is compatible with STR, ST, STB, SR and ES and is the perfect choice for safety 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.

The Power Focus 6000 is easy to use to use due to its 7 inch touch screen and intuitive software. The web HMI enables you to configure and monitor the controller from any device with a web browser. 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 uptime and speed up your tightening operations.

ERGONOMIC

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



Power Focus 600

Model	Ordering No.
Drive unit	
Power Focus 600 with remote start	8436 3700 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	1	16
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
Remote start	x	x
Configurable I/O	x	x
Stacklight	x	x
Socket selector	x	x
Operator panel	x	x

POWER FOCUS 6000

This all new fastening solution from Atlas Copco takes productivity, ergonomics, quality and environmental impact to entirely new levels. And all this with the most user-friendly experience ever.

Enjoy the benefits of a system providing a unique operator experience, with superior quality control and the most flexible integration. The Power Focus 6000 and Tensor STR is the perfect option for your safety critical assembly processes!

MULTITOOL CONTROLLER

The Power Focus 6000 increases your flexibility in rebalancing assembly lines. Now you are able to connect up to 6 tools to the same controller. Giving you a simpler installation with less cables, hardware components and network drops. Add to that the lower power consumption, less floor space utilization and a much lower environmental footprint, the benefits are obvious.

COMMON CONTROLLER

One platform for handheld and fixtured tools. The Power Focus 6000 reduces your inventory costs and training requirements.

Easy to connect and configure back up tools, using the same programming interface. More compatible solutions will continuously be deployed. And the Power Focus 6000 will be your common controller for all tools and needs.

IAM – INTELLIGENT APPLICATION MODULE

Intelligence in the palm of your hand. Software, tightening data and configuration – carry all important information with you in a future proof portable module. Easy to upgrade and stable with a rapid back-up function. Two software areas allow for smart software management. Allowing a much safer upgrade process, always giving the possibility to switch between two software versions.



Power Focus 6000

Model	Ordering No.
Drive unit Power Focus 6000	8436 1800 02

Functionality Overview Controllers - DS/DL, Power Focus 4000

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 reworking costs.

ONETOOL 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	
D312-DS4 Advanced	8433 0820 33
D312-DS7 Advanced	8433 0822 33
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-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-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 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-PB-HW	8433 6500 12
IRC FOCUS-B-C-PB-HW	8433 6500 14
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

POWER FOCUS 4002 FOR TENSOR SL

Model	Ordering No.
Power Focus 4002 W 10	
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-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

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

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.

INTEGRATED WAYS TO COMMUNICATE

CONTROLLER LEVEL

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

FIELD BUS LEVEL

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

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.



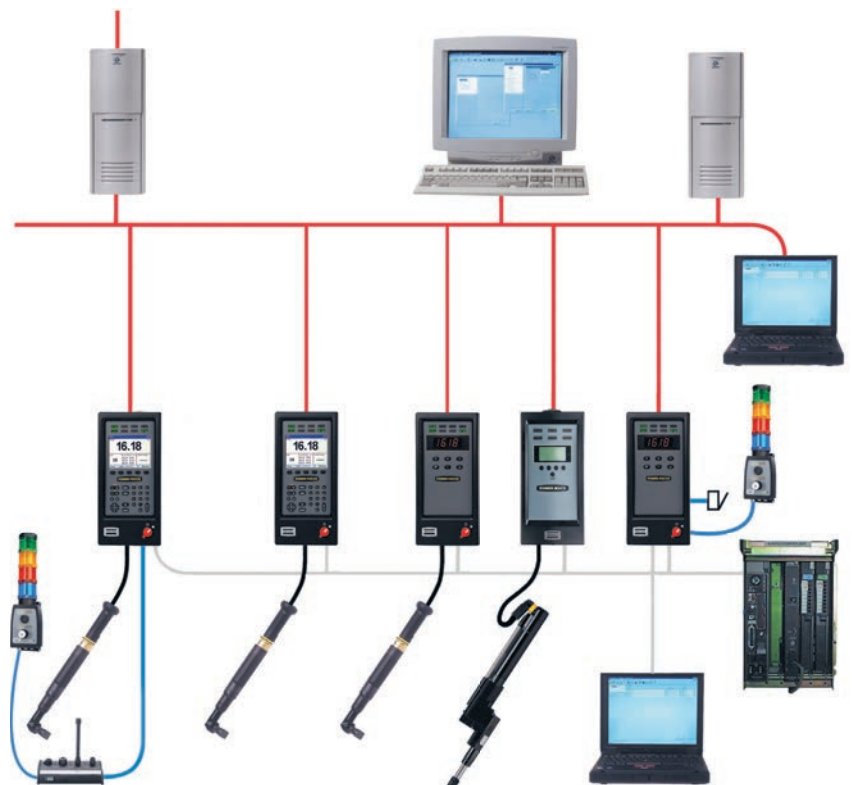
Tensor spindles are easily fixtured using our standard range of Express mechanics. The control strategies StepSync and SynchroTork synchronize Tensor spindles to provide consistent clamp forces over the entire component mating face.

A Cell consists of up to 20 units, where 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. Diag-

nostics 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.



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 W14	
1-user license	8092 1191 01
5-user license	8092 1191 05
10-user license	8092 1191 10
Plant license	8092 1191 19
ToolsTalk 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 upgrade to W14	
1-user license	8092 1191 11
5-user license	8092 1191 15
10-user license	8092 1191 20
Plant license	8092 1191 29
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 10 sticker, (12 package)	4222 0820 25

Atlas Copco's Station Solutions reduce cost 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 PowerMACS 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.



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 Compact and ESL-04 Standard

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 Basic

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).



MiniDisplay 2

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 8.



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

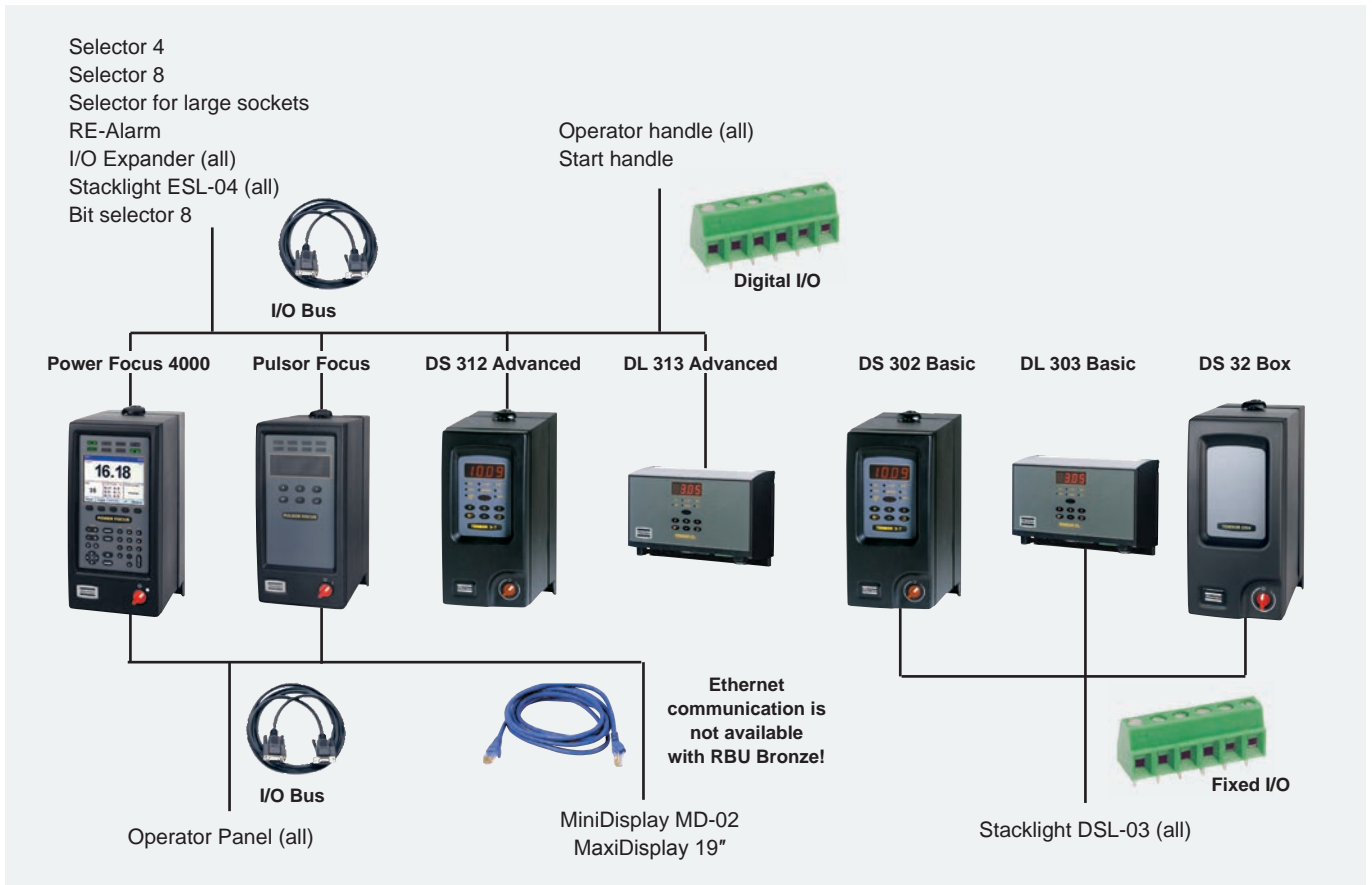
Mini display with Operator Guidance software shows photo of the product on the screen, clearly indicating joints to be tightened and giving build instructions.

WEAFLEX

WEAFlex is a Wireless Ethernet Adapter (WEA) supporting Wireless LAN 802.11b/g interface. Powered by the controller (24vDC), WEAFlex converts the Ethernet port to a Wireless port. This enables communication with ToolsNet for data collection, ToolsTalk for remote programming without USB or Serial cables, production systems or just to exchange information with another controller for a cell job or synchronization.



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") excl. Operator Guidance	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	
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

TLS

Model	Ordering No.
Tool Tags	
TLS ST Tag 32 U1	8433 1030 10
TLS ST Tag 61-S U1	8433 1030 20
TLS ST Tag 61-L U1	8433 1030 30
TLS ST Tag 81-S U1	8433 1030 40
TLS ST Tag 81-L U1	8433 1030 50
TLS ST Tag 101 U1	8433 1030 60
Product Tags (package of 5 units)	
TLS Compact Tag U1-63	8433 1026 05
TLS Power Tag U1-65	8433 1025 05
TLS GPS TAG U1-65	8433 1024 05



WEAFlex



Selector 4



Selector 8



I/O expander sealed



Selector for large socket



Stacklight DSL-03



Rotary selector



Stacklight ESL-04 Compact



Operator handle



Operator panel Advanced



Start handle

ToolsNet 8 is a data collection and process improvement software application for use with Power Focus, Pulsor Focus, PowerMACS and STWrench with support for other controllers over ToolsNet open protocol. 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 through the dashboard 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 payback on your investment.



THE RIGHT SOLUTION FOR YOUR NEEDS

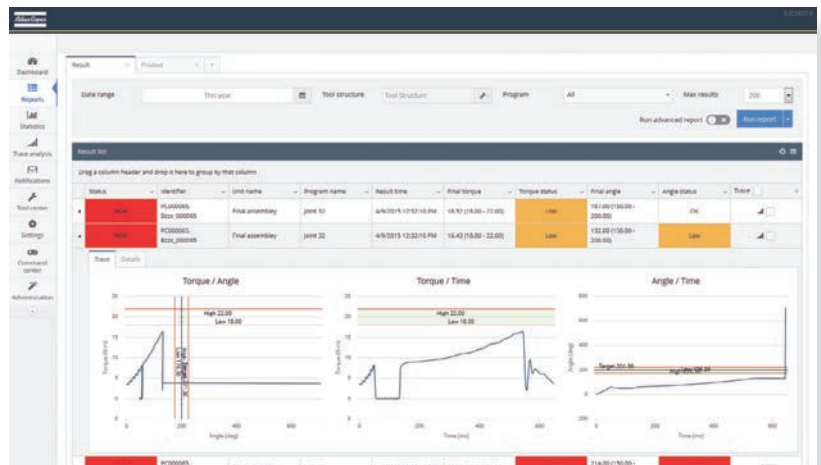
ToolsNet 8 is divided in three different packages to cover different needs.

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 production 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.



ANALYSIS

The analysis package adds advanced statistical capabilities making it possible to search for variations when it comes to large amounts of production data. Another feature that is added with the analy-

sis package is tool center which makes it possible to track detailed information about the tools that are used in production ensuring that they are serviced and calibrated on time.

Software	Ordering No.	Upgrade Ordering No.
ToolsNet 8 - Reports		
		Upgrade¹
5 Spindle license	8092 1710 05	8092 1810 05
10 Spindle license	8092 1710 10	8092 1810 10
25 Spindle license	8092 1710 25	8092 1810 25
50 Spindle license	8092 1710 50	8092 1810 50
75 Spindle license	8092 1710 75	8092 1810 75
125 Spindle license	8092 1710 80	8092 1810 80
200 Spindle license	8092 1710 85	8092 1810 85
350 Spindle license	8092 1710 90	8092 1810 90
500 Spindle license	8092 1710 95	8092 1810 95
Plant Spindle license	8092 1710 00	8092 1810 00
ToolsNet 8 - Alerts		
		Upgrade²
5 Spindle license	8092 1711 05	8092 1811 05
10 Spindle license	8092 1711 10	8092 1811 10
25 Spindle license	8092 1711 25	8092 1811 25
50 Spindle license	8092 1711 50	8092 1811 50
75 Spindle license	8092 1711 75	8092 1811 75
125 Spindle license	8092 1711 80	8092 1811 80
200 Spindle license	8092 1711 85	8092 1811 85
350 Spindle license	8092 1711 90	8092 1811 90
500 Spindle license	8092 1711 95	8092 1811 95
Plant Spindle license	8092 1711 00	8092 1811 00
ToolsNet 8 - Analysis		
		Upgrade³
5 Spindle license	8092 1712 05	8092 1812 05
10 Spindle license	8092 1712 10	8092 1812 10
25 Spindle license	8092 1712 25	8092 1812 25
50 Spindle license	8092 1712 50	8092 1812 50
75 Spindle license	8092 1712 75	8092 1812 75
125 Spindle license	8092 1712 80	8092 1812 80
200 Spindle license	8092 1712 85	8092 1812 85
350 Spindle license	8092 1712 90	8092 1812 90
500 Spindle license	8092 1712 95	8092 1812 95
Plant Spindle license	8092 1712 00	8092 1812 00
Operator guidance		
1 User license	8092 1185 01	

¹ ToolsNet 4000 Reports is required.

² ToolsNet 4000 Alerts is required.

³ ToolsNet 4000 History is required.

NOTE: Check for availability on your market.

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.



TPS – Tool Positioning System

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. The license code is ordered separately.

BARCODE READER LICENSE OPTION

Use a barcode reader to start a job and/or identify a job for the TPS to select 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.

- Up to 50 jobs and up to 500 positions.
- 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

POWER SUPPLY/CORD

Model	Ordering No.
Power supply 24VDC 30W	4222 1728 50
Power cord	
EU	4222 1801 13
US	4222 1802 13
UK	4222 1803 13
India	4222 1804 13
Switzerland	4222 1805 13
Italy	4222 1806 13
Australia	4222 1807 13
China	4222 1809 13

OPTIONS

Model	Ordering No.
Barcode license	4390 2045 00
Pneumatic license	4390 2046 00
Reporting license	4390 2047 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 controller Power Focus 600	
3 m	4222 1852 03
10 m	4222 1852 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

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 travels. 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 measures the distance the arm travels.
- 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 travels 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 travels together with an encoder that measures 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 measure the arm travel length and the angle of the arm 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-SERIES 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-series arms are equipped with two encoders, SMS T-series have 2 angle encoders to determine the position and



SML T-series 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

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

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

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

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

SMLT – 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.

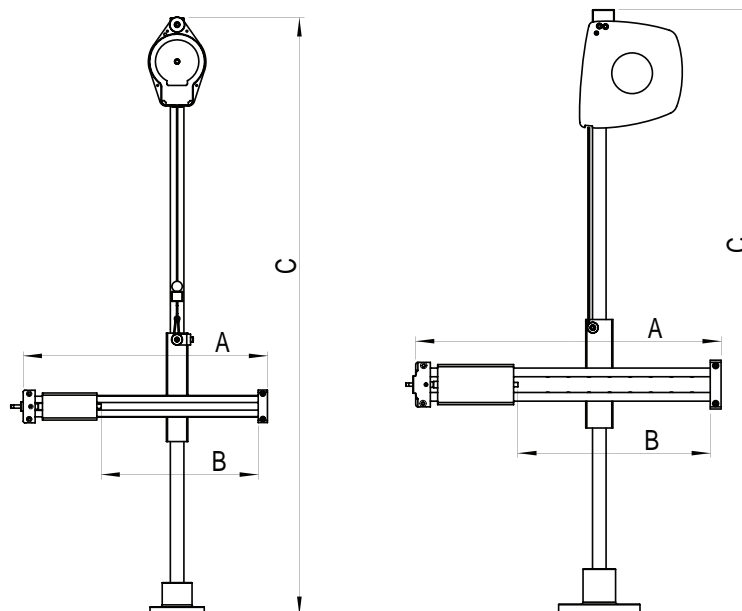
- Robust construction for long life and no force transferred to operator.
- Balancer included to remove the tool and arm weight from the operator.
- Available from 5 Nm up to 100 Nm.
- Minimizes reaction force to prevent hand-arm-shoulder disorders.
- Improves finished product quality with all torque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



Model	Max tool weight		Max torque		Min width without tool holder in	A	B	Vertical stroke in	C	Tool holder interface type	Ordering No.
	kg	lb	Nm	ft lb		Max reach without tool holder in	Horizontal stroke in				
SML T-5	0.8	1.7	5	3.7	6.2	20.9	8.1	12.2	28.8	A	4390 2000 00
SML T-12	1.5	3.3	12	8.8	7.8	25.5	10.0	18.3	35.0	A	4390 2001 00
SML T-25	2.2	4.8	25	18.4	6.6	28.8	11.4	24.2	43.3	A	4390 2002 00
SML T-50	5	11	50	36.9	10.5	34.9	14.0	20.3	43.9	B	4390 2004 00
SML T-100	6	13.2	100	73.8	10.0	36.0	15.6	20.3	43.9	B	4390 2005 00

Tool holder is ordered separately.

Dimensions



SMST – 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.

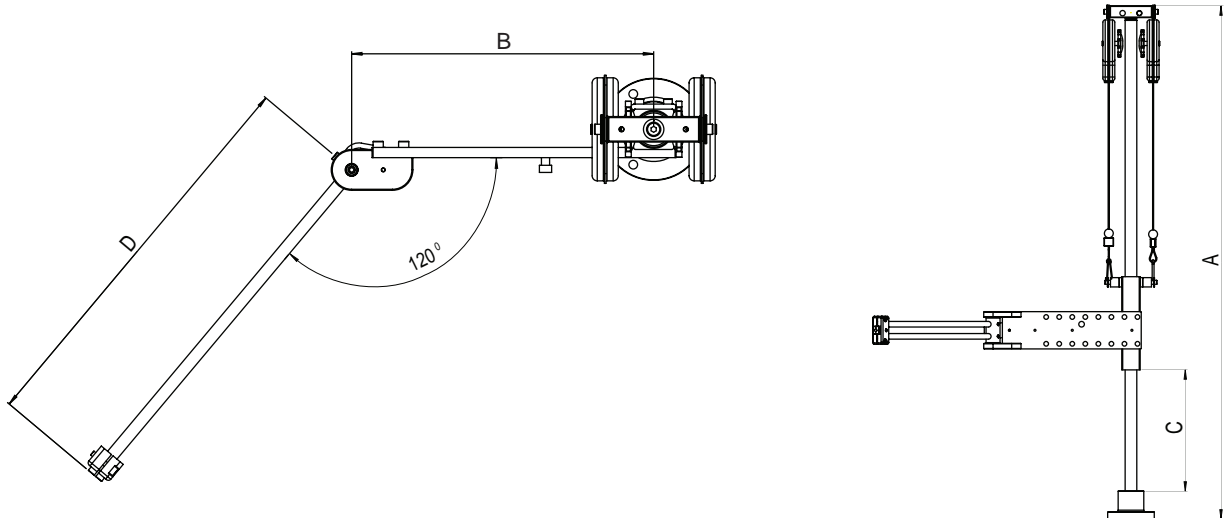
- Robust construction for long life and no force transferred to operator.
- Balancer included to remove the tool and arm weight from the operator.
- Available from 5 Nm up to 100 Nm.
- Minimizes reaction force to prevent hand-arm-shoulder disorders.
- Improves finished product quality with all torque 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 in	Max reach without tool holder in	Vertical stroke in	Height in	Width in		
SMS T-5	0.8	1.7	5	3.7	11.5	22.9	10.6	28.8	9.8	A	4390 2006 00
SMS T-12	1.5	3.3	12	8.8	13.5	26.9	16.7	35.0	11.7	A	4390 2007 00
SMS T-25	2.5	5.5	25	18.4	15.4	28.8	22.8	44.6	11.7	A	4390 2008 00
SMS T-50	5	11	50	36.9	17.2	32.5	20.5	45.2	13.2	B	4390 2009 00
SMS T-100	6	13.2	100	73.8	19.2	36.6	19.7	45.2	15.4	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.

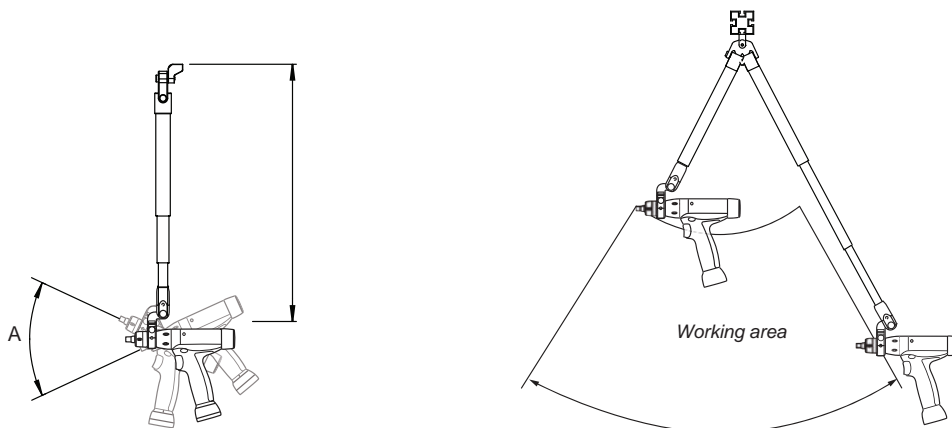
- Telescopic design for maximum flexibility in the workplace.
- Light weight and smooth movements for operator comfort.
- Easy to use together with balancer to create weightless solution to improve ergonomics.
- Minimizes reaction force to prevent hand-arm-shoulder disorders.
- Minimizes pinching and 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 in	Max length in	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	20.3	44.4	60	0.37	0.816	A	4390 1510 85
SMC 12 1600	12	8.9	26.2	62.1	60	0.42	0.926	A	4390 1511 85
SMC 12 2100	12	8.9	32.9	82	60	0.48	1.06	A	4390 1512 85
SMC 25 1150	25	18.4	20.6	44.3	50	0.51	1.12	A	4390 1514 85
SMC 25 1600	25	18.4	26.5	62	50	0.61	1.34	A	4390 1515 85
SMC 25 2100	25	18.4	33.1	81.7	50	0.68	1.5	A	4390 1516 85
SMC 25 2600	25	18.4	39.6	101.3	50	0.77	1.7	A	4390 1517 85
SMC 50 1600	50	36.9	28	63.9	40	0.95	2.09	B	4390 1518 85
SMC 50 2100	50	36.9	34.6	83.7	40	1.05	2.31	B	4390 1519 85
SMC 50 2600	50	36.9	41.1	103.4	40	1.15	2.54	B	4390 1520 85
SMC 100 1600	100	73.8	28.4	64.1	30	1.28	2.82	B	4390 1522 85
SMC 100 2100	100	73.8	35	83.8	30	1.41	3.11	B	4390 1523 85
SMC 100 2600	100	73.8	41.6	103.5	30	1.53	3.37	B	4390 1524 85
SMC 200 1600	200	148	28.6	64.1	20	1.98	4.37	-	4390 1526 85
SMC 200 2100	200	148	35.2	83.8	20	2.18	4.81	-	4390 1527 85
SMC 200 2600	200	148	41.7	103.5	20	2.39	5.27	-	4390 1528 85
SMC 300 1600	300	221	29.3	64.2	20	2.40	5.29	-	4390 1530 85
SMC 300 2100	300	221	35.9	83.9	20	2.60	5.73	-	4390 1531 85
SMC 300 2600	300	221	42.4	106.7	20	2.81	6.20	-	4390 1532 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.

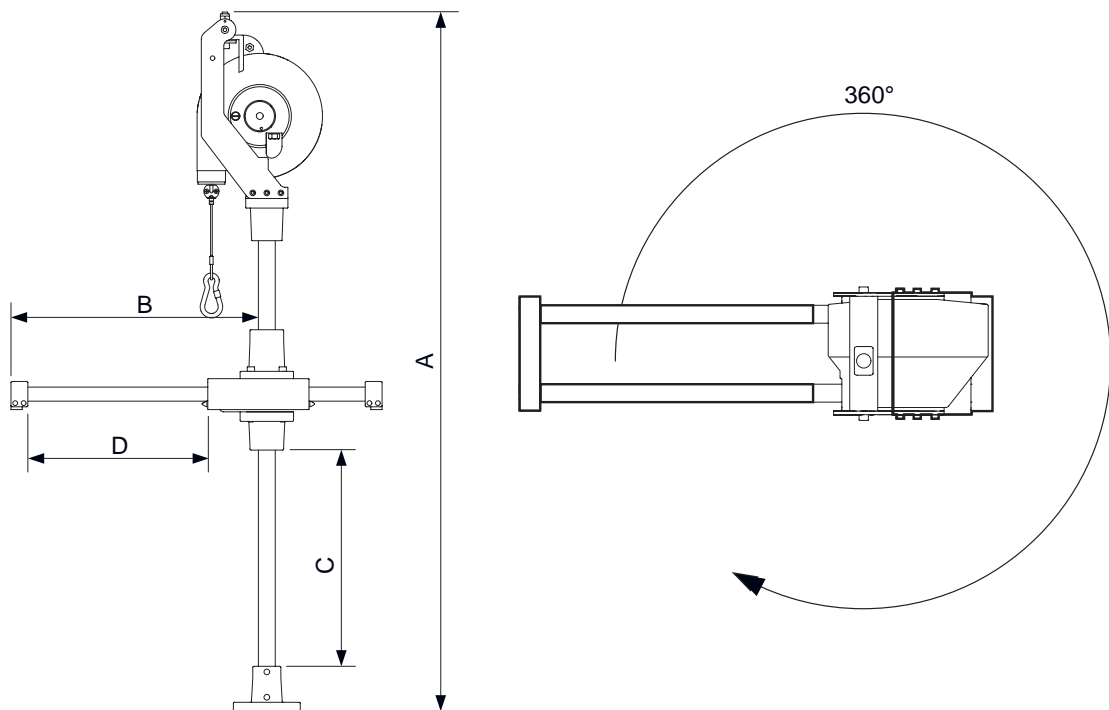
- 3-axis movement for maximum flexibility.
- Strong and durable desing.
- Integrated balancer to support tool and arm weight.
- High torque capacity, up to 1000 Nm.
- Same tool holder interface as SML T / SMS T / SMC for arms up to 150 Nm.



Model	Max tool weight		Max torque		D		A	Tool holder interface type	Ordering No.
	kg	lb	Nm	ft lb	Horizontal stroke	Vertical stroke			
SML 10 MK II	1	2.2	10	7.4	9.4	8.7	26.8	A	8202 9003 20
SML 40 MK II	2.3	5.1	40	29.5	11.0	11.4	32.8	B	8202 9003 21
SML 80 MK II	5.2	11.5	80	59	12.6	14.2	38	B	8202 9003 22
SML 150 MK II	7	15.4	150	110.7	14.2	16.9	41.3	C	8202 9003 23
SML 300 MK II	14	30.9	300	221.4	15.7	19.7	48.5	C	8202 9003 24
SML 500 MK II	10	22	500	369	17.3	22.4	53.6	C	8202 9003 25
SML 1000 MK II	11.3	24.9	1000	738	18.9	25.2	61.9	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 are 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.

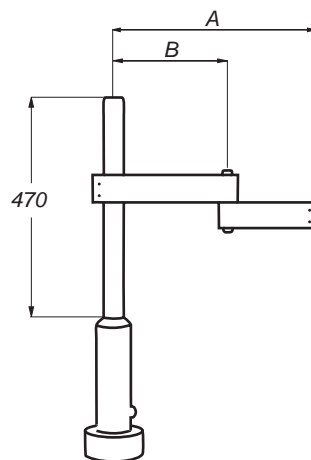


Model	Stroke		Ordering No.
	in	alfa	
GHP Mini	7.9	270°	8432 0830 02
GHP Small	15.7	270°	8432 0830 03
GHP Large	28.7	270°	8432 0830 04

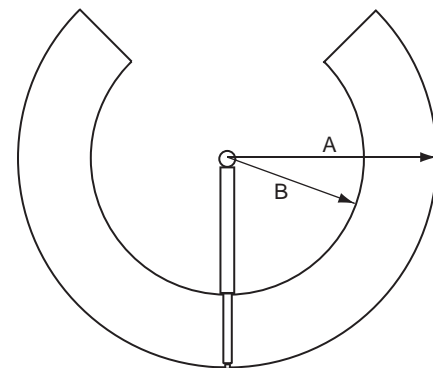
Tool holder is ordered separately.

Dimensions

Model	Working range, in	
	A	B
GHP Mini	11.0	5.9
GHP Small	18.1	9.8
GHP Large	19.7	9.8



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/LT 5/12/25 AND SML MK II 10

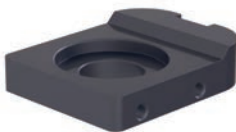
Model	Tool dia. mm	Spline type	Arm interface		Description	Ordering No.
			type	type		
Universal holder	26 - 49	-	-	A	Max tool torque 25 Nm	4390 1510 86
Holder, Spline 1	-	1	-	A		4390 1513 07
Holder, diameter 30.5	30 - 30.5	-	-	A		4390 1513 80
Holder, diameter 34	33.5 - 34	-	-	A		4390 1513 81
Holder diameter 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
					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/LT 50/100 AND SML MK II 40/80

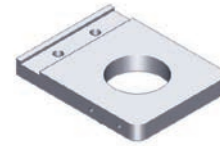
Model	Tool dia. mm	Spline type	Arm interface		Description	Ordering No.
			type	type		
Universal holder	30 - 50	-	-	B	Max tool torque 50 Nm	4390 2064 80
Holder, Spline 1	-	1	-	B		4390 1513 08
Holder, Spline 2	-	2	-	B		4390 1513 09
Holder, Spline 3	-	3	-	B		4390 1513 10
Holder, hole 24	24	-	-	B		4390 1518 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 INTERFACETYPE 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

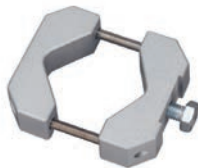
Tool holder connects directly to the clevis of the arm.



Angle tool holder

Optional Accessories

Bench stand



Holder for bench stand

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.

TOOL HOLDERS FOR SMC CARBON ARMS, SMC 300

Model	Description	Ordering No.
Angle tool holder	ETV ST101-270	4390 2081 50
Pistol tool holder	ETP ST101-300-20-F (Tensor Rev0)	4391 2081 51

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
Balancer kit	SMC Balancer adaptor kit for RIL 1C-5C and WP10 SMC Balancer adaptor kit for WP05	4390 2050 00 4390 2078 80

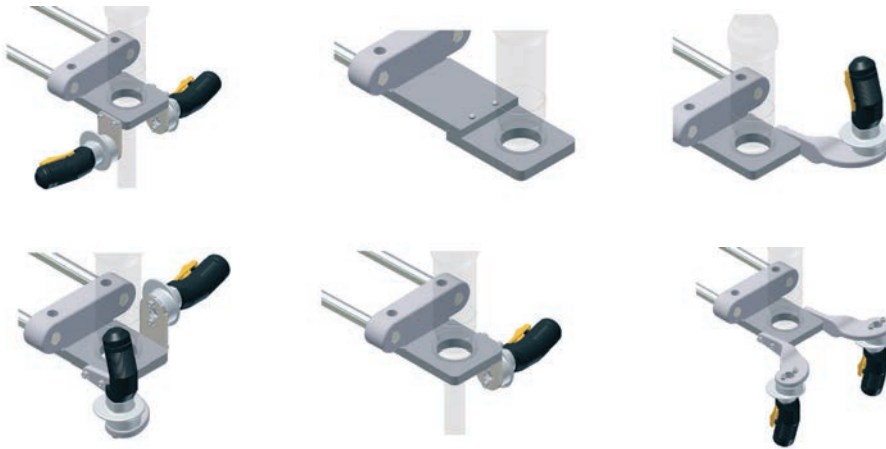
OPTIONAL ACCESSORIES FOR SML/SMS T-SERIES AND SML MK II

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
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).

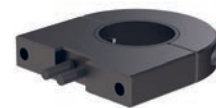
Torque Arm Accessories

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 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
Swivling tool holder	
GHP Small and ETD M08-27 ABL V2	8432 0830 61
GHP Small and ETD M50-250 ABL V2	8432 0830 62



Swivling tool holder



Tool holster small



Tool holster large

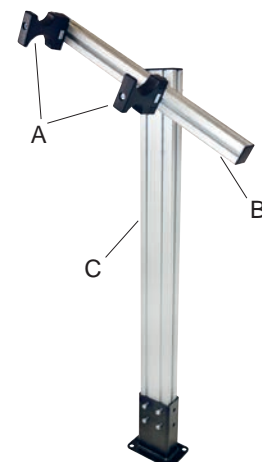
Optional Accessories

TOOL HOLSTER FOR PISTOL GRIP AND STRAIGHT TOOLS

Model	Ordering No.
Tool holster small, max tool width 45 mm	4220 3584 82
Tool holster large , max tool width 98 mm	4220 3584 84
Holster assembly	4220 3584 80
Tool holster BCP	4220 3535 80

MODULAR TOOL HOLDER FOR PISTOL TOOLS, ANGLE TOOLS AND GRINDERS

Model	Included parts	Ordering No.
Modular tool holder	A	4220 3584 83
Modular tool holder, rail kit	2 X A, B	4220 3584 84
Modular tool holder, stand kit	2 X A, B, C	4220 3584 85



Modular tool holder

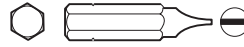
Screwdriver Bits – Hexagon Drive

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

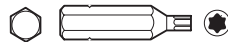
HEX BITS



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

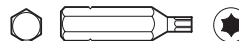
TORXPLUS BITS



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

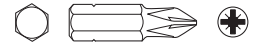
TORX BITS



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

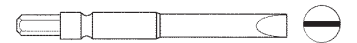
Point mm	Length mm	Ordering No.
5	34	4023 1215 00
6	25	4023 1216 00
7	25	4023 1219 00
8	25	4023 1217 00
10	25	4023 1218 00

DRIVE SYSTEM: 3 MM HEXAGON

SCREW PROFILE:



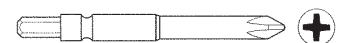
SLOTTED BITS



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



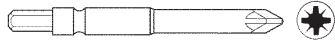
Application: For Phillips screws
Drive: 3 mm Hexagon

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

Bits and Sockets

TORX BITS

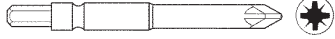
Application: For Torx screws
Drive: 3 mm Hexagon



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

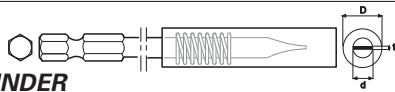
Application: For slotted screws
Drive: 1/4" Hexagon, Style E 6.3



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

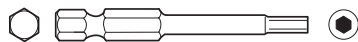
Application: For slotted screws
Drive: 1/4" Hexagon, Style E 6.3



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

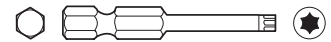
Application: For Phillips screws
Drive: 1/4" Hexagon, Style E 6.3



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

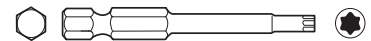
Application: For Torx screws
Drive: 1/4" Hexagon, Style E 6.3



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

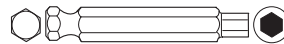
Point	Length mm	Ordering No.
PZ0	50	4023 0001 41
PZ0	70	4023 0001 42
PZ1	50	4023 2420 21
PZ1	70	4023 2427 21
PZ1	89	4023 2435 21
PZ2	50	4023 2420 22
PZ2	70	4023 2427 22
PZ2	70	4023 2435 22
PZ3	50	4023 2420 23
PZ3	89	4023 2435 23

DRIVE SYSTEM: 7/16" HEXAGON

SCREW PROFILE:



HEX BITS



Application: For Hex-socket screws
Drive: 7/16" Hexagon

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

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

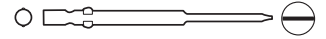
DRIVE SYSTEM: 4 MM WING-SHANK

SCREW PROFILE:



SLOTTED BITS

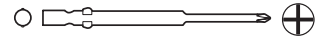
Application: For Slotted screws
Drive: Wing-shank 4 mm



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

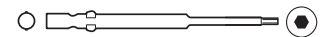
Application: For Phillips screws
Drive: Wing-shank 4 mm



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

HEX BITS

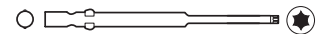
Application: For Hex screws
Drive: Wing-shank 4 mm



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

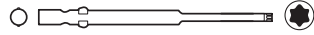
Application: For Torx screws
Drive: Wing-shank 4 mm



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 Sockets

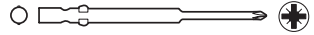
TORXPLUS BITS



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

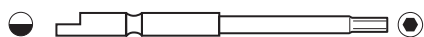
PHILLIPS BITS



Application: For Phillips screws
Drive: Halfmoon 4 mm

Point	Length mm	Ordering No.
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

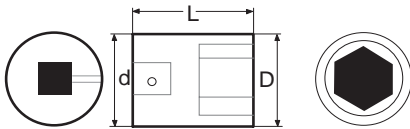
**APPLICATION: SUITABLE FOR BITS WITH
1/4" HEXAGON DRIVE**

ADAPTERS

	Ordering No.
Magnetic	4023 0002 15

Sockets

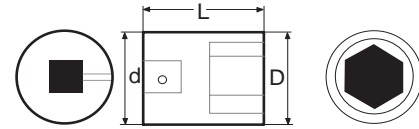
SOCKETS 1/4" SQUARE DRIVE



	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin and O-ring ref. letter	
mm	4	7.5	13	23	4027 1100 04	Z	
	5	8.8	13	23	4027 1100 05	Z	
	5.5	9.4	13	23	4027 1100 55	Z	
	6	10.0	13	23	4027 1100 06	Z	
	7	11.3	13	23	4027 1100 07	Z	
	8	12.5	13	23	4027 1100 08	Z	
	9	13.8	13	23	4027 1100 09	Z	
	10	15.0	13	23	4027 1100 10	Z	
	11	16.3	13	23	4027 1100 11	Z	
	12	17.5	13	23	4027 1100 12	Z	
	13	18.8	13	23	4027 1100 13	Z	
	14	20	13	23	4027 1100 14	Z	
	in	7/32	9.4	13	23	4027 1100 97	Z
		1/4	10.0	13	23	4027 1100 96	Z
9/32		11.3	13	23	4027 1100 94	Z	
5/16		12.5	13	23	4027 1100 93	Z	
3/8		15.0	13	23	4027 1100 91	Z	
13/32		15.0	13	23	4027 1100 89	Z	
7/16		16.3	13	23	4027 1100 88	Z	
15/32		17.5	13	23	4027 1100 12	Z	
1/2	18.8	13	23	4027 1100 86	Z		
9/16	20	13	23	4027 1100 84	Z		

See table for pin and o-ring.

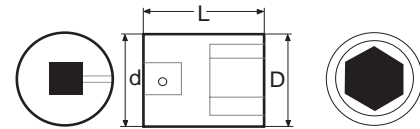
SOCKETS 3/8" SQUARE DRIVE



	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin and O-ring ref. letter	
mm	7	12	19	32	4027 1200 07	Y	
	8	13.3	19	32	4027 1200 08	Y	
	9	14.5	19	32	4027 1200 09	Y	
	10	15.8	19	32	4027 1200 10	Y	
	11	17	19	32	4027 1200 11	Y	
	12	18.3	19	32	4027 1200 12	Y	
	13	19.5	22	32	4027 1200 13	X	
	14	20.8	22	32	4027 1200 14	X	
	16	23.3	22	32	4027 1200 16	X	
	17	24.5	22	32	4027 1200 17	X	
	18	25.8	22	32	4027 1200 18	X	
	19	27	22	32	4027 1200 19	X	
	in	5/16	13.3	19	32	4027 1200 93	Y
		3/8	15.8	19	32	4027 1200 91	Y
		13/32	15.8	19	32	4027 1200 89	Y
		7/16	17	19	32	4027 1200 88	Y
		15/32	18.3	19	32	4027 1200 87	Y
		1/2	19.5	22	32	4027 1200 86	X
		9/16	20.8	22	32	4027 1200 84	X
3/4		27	22	32	4027 1200 81	X	

See table for pin and o-ring.

SOCKETS 1/2" SQUARE DRIVE

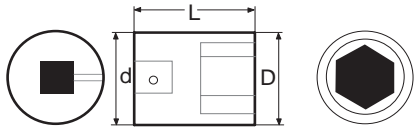


	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin and O-ring ref. letter	
mm	10	17	25	38	4027 1300 10	W	
	11	18.2	25	38	4027 1300 11	W	
	12	19.5	25	38	4027 1300 12	W	
	13	20.7	25	38	4027 1300 13	W	
	14	22	25	38	4027 1300 14	W	
	16	24.5	30	38	4027 1300 16	V	
	17	25.7	30	38	4027 1300 17	V	
	18	27	30	38	4027 1300 18	V	
	19	28.2	30	38	4027 1300 19	V	
	21	30.7	30	38	4027 1300 21	V	
	22	32	30	38	4027 1300 22	V	
	23	33.2	30	38	4027 1300 23	V	
	24	34.5	30	38	4027 1300 24	V	
	in	27	38.2	30	40	4027 1300 27	V
		3/8	17	25	38	4027 1300 91	W
		7/16	18.2	25	38	4027 1300 88	W
		1/2	20.7	25	38	4027 1300 86	W
		9/16	22	25	38	4027 1300 84	W
		3/4	28.2	30	38	4027 1300 81	V
		15/16	34.5	30	38	4027 1300 77	V
		1 1/8	40.7	30	42	4027 1300 98	V

See table for pin and o-ring.

Bits and Sockets

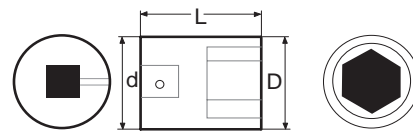
SOCKETS 3/4" SQUARE DRIVE



	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin and O-ring ref. letter	
mm	18	31.3	44	50	4027 1500 18	U	
	19	32.5	44	50	4027 1500 19	U	
	21	35	44	50	4027 1500 21	U	
	22	36.3	44	50	4027 1500 22	U	
	24	38.8	44	50	4027 1500 24	U	
	27	42.5	44	50	4027 1500 27	U	
	30	46.3	44	53	4027 1500 30	U	
	32	48.8	44	53	4027 1500 32	U	
	34	51.3	44	55	4027 1500 34	U	
	36	53.8	44	55	4027 1500 36	U	
	in	3/4	32.5	44	50	4027 1500 81	U
		15/16	38.8	44	50	4027 1500 77	U
1 1/8		45	44	53	4027 1500 98	U	
1 5/16		51.3	44	55	4027 1500 94	U	
1 1/2		56.3	44	57	4027 1500 91	U	

See table for pin and o-ring.

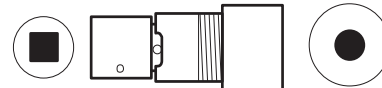
SOCKETS 1 1/2" SQUARE DRIVE



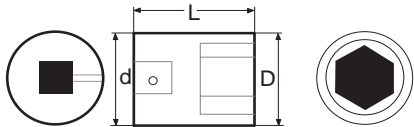
	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin and O-ring ref. letter
mm	50	79	86	84	4027 1700 50	S
	55	85	86	90	4027 1700 55	S
	60	91	86	90	4027 1700 60	S
	65	97	86	95	4027 1700 65	S
	70	103	86	100	4027 1700 70	S
	75	108	86	105	4027 1700 75	S
	80	115	86	110	4027 1700 80	S

See table for pin and o-ring.

Stud setter



SOCKETS 1" SQUARE DRIVE

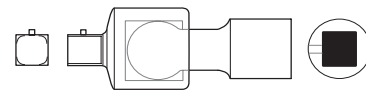


1"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin ^a and O-ring ref. letter	
mm	24	41.5	54	57	4027 1600 24	T	
	27	45.3	54	57	4027 1600 27	T	
	30	49	54	62	4027 1600 30	T	
	32	51.5	54	62	4027 1600 32	T	
	34	54	54	62	4027 1600 34	T	
	36	56.5	54	62	4027 1600 36	T	
	41	62.8	54	66	4027 1600 41	T	
	46	69	54	70	4027 1600 46	T	
	50	74	54	70	4027 1600 50	T	
	55	80.3	54	75	4027 1600 55	T	
	60	86.5	54	75	4027 1600 60	T	
	65	92.8	54	75	4027 1600 65	T	
	in	15/16	41.5	54	57	4027 1600 77	T
		1 1/8	47.8	54	57	4027 1600 98	T
		1 5/16	54	54	62	4027 1600 94	T
1 11/16		65.3	54	68	4027 1600 87	T	
1 7/8		71.5	54	70	4027 1600 83	T	

See table for pin and o-ring.

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

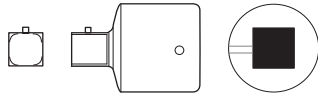
Universal joints



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin and O-ring ref. letter
3/8	3/8	22	56	4027 1235 40	X
1/2	1/2	30	74	4027 1335 40	V
5/8	5/8	38	69	4023 0875 00	
3/4	3/4	44	106	4027 1535 40	U
1	1	54	127	4027 1635 40	T
1 1/2	1 1/2	84	162	4023 1316 00	F

See table for pin and o-ring.

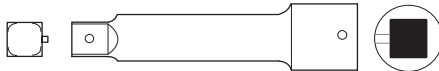
Socket adapters



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin ^a and O-ring ref. letter
1/2	3/8	22	32.5	4027 1235 31	X
3/8	1/2	25	36	4027 1335 30	W
5/8	1/2	30	42	4027 1335 21	V
1/2	5/8	35	46	4027 1435 20	V
3/4	5/8	38	54	4023 1156 00	
1/2	3/4	44	52	4027 1535 30	U
1	3/4	44	62	4027 1535 22	U
3/4	1	54	66.5	4027 1635 20	T
1	1 1/2	86	98	4027 1735 20	S

See table for pin and o-ring.

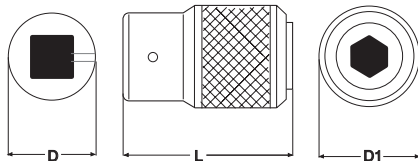
Extensions



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin and O-ring ref. letter
3/8	3/8	22	150	4027 1234 04	X
1/2	1/2	30	125	4027 1334 03	V
1/2	1/2	30	250	4027 1334 07	V
5/8	5/8	33	152	4023 0749 00	
3/4	3/4	44	175	4027 1534 15	U
3/4	3/4	44	330	4027 1534 18	U
1	1	54	175	4027 1634 15	T
1	1	54	330	4027 1634 18	T
1 1/2	1 1/2	86	330	4027 1734 18	S

See table for pin and o-ring.

Quick change chuck for power bits



Square drive in	Female hex in	Diameter D mm	Diameter D1 mm	Length L mm	Ordering No.	Pin and O-ring ref. letter
3/8	1/4	22	22	46	4027 1236 01	X
3/8	5/16	22	33	55	4023 1382 00	
3/8	7/16	22	33	45	4027 1236 03	X
1/2	7/16	30	33	55	4027 1336 03	V

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
Z	1.5	10	2.5	9	4027 1198 90
Y	2.5	14	3.5	13	4027 1298 90
X	2.5	16	3.5	16	4027 1298 91
W	3	20	4	19	4027 1398 90
V	3	25	4	24	4027 1398 91
U	4	35	5	36	4027 1598 90
T	5	45	7	45	4027 1698 90
S	6	75	10	75	4027 1798 90

^b B type pin also included.

Socket holders



Hex in	Square in	Length mm	Ordering No.
1/4	1/4	50	4027 1017 00
1/4	1/4	75	4027 1017 01
1/4	1/4	100	4027 1017 02
1/4	1/4	150	4027 1017 04
1/4	3/8	50	4027 1017 10
1/4	3/8	75	4027 1017 11
1/4	3/8	100	4027 1017 12
7/16	3/8	70	4027 1018 01
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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.

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 6000 10
QST34-20CT-T50-L150-H10	50	4-20	2.9-14.7	1000	34	2	4.4	21.2	3/8	8435 6010 10
QST42-20CT-T50-L134 -H10	50	6-20	4-14	2000	43	3.1	6.9	7.50	3/8	8435 6020 10
QST42-20COT-T50-L134-H10	50	6-20	4-14	2000	31	4.2	9.3	7.5	3/8	8435 6020 20
QST42-50CT-T50-L134-H13	50	10-50	7-35	700	43	3.8	8.4	21.33	1/2	8435 6030 10
QST42-50COT-T50-L134-H13	50	10-50	7-35	700	31	4.5	9.9	21.33	1/2	8435 6030 20
QST50-90CT-T50-L137-H13	50	20-90	15-65	650	51	5.8	12.7	18.21	1/2	8435 6040 10
QST50-90COT-T50-L137-H13	50	20-90	15-65	650	37	7.8	17.2	18.21	1/2	8435 6040 20
QST50-150CT-T50-L137-H13	50	30-150	22-110	380	51	5.8	12.8	31.24	1/2	8435 6050 10
QST50-150COT-T50-L137-H13	50	30-150	22-110	380	37	7.8	17.2	31.24	1/2	8435 6050 20
QST62-150CT-T50-L152-H13	50	30-150	22-110	450	63	10.2	22.5	13.94	1/2	8435 6060 10
QST62-150COT-T50-L152 -H13	50	30-150	22-110	450	45	12.8	28.2	13.94	1/2	8435 6060 20
QST62-230CT-T50-L152-H19	50	40-230	29-170	330	63	10.2	22.5	19.04	3/4	8435 6065 10
QST62-230COT-T50-L152-H19	50	40-220	29-162	330	45	12.8	28.2	19.04	3/4	8435 6065 20
QST62-350CT-T50-L152-H19	50	50-350	37-258	220	63	10.2	22.5	28.33	3/4	8435 6070 10
QST62-350COT-T50-L152-H19	50	50-330	37-243	220	45	12.8	28.2	28.33	3/4	8435 6070 20
QST80-450CT-T50-L146-H19	50	90-450	66-332	260	81	16.7	37	22.67	3/4	8435 6075 10
QST80-450COT-T50-L146-H19	50	90-450	66-332	260	55	21	46	22.67	3/4	8435 6075 20
QST80-600CT-T50-L146-H19	50	120-600	88-442	200	81	17	37	29.56	3/4	8435 6080 10
QST80-600COT-T50-L146-H19	50	120-600	88-442	200	55	21	46	29.56	3/4	8435 6080 20
QST90-750CT-T50-L152-H25	50	150-750	111-553	150	91	25	55	38.89	1	8435 6085 10
QST90-750COT-T50-L152-H25	50	150-750	111-553	150	63	29	64	38.89	1	8435 6085 20
QST90-1000CT-T50-L152-H25	50	200-1000	147-737	130	91	26	57	46.84	1	8435 6090 10
QST90-1000COT-T50-L152-H25	50	200-1000	147-737	130	63	30	66	46.84	1	8435 6090 20
QST95-1750CT-T50-L149-H38	50	350-1750	258-1291	60	96	28	61.7	98.21	1 1/2	8435 6095 10
QST95-1750COT-T50-L155-H38	50	350-1750	258-1291	60	73	43	94.8	98.21	1 1/2	8435 6095 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 6020 11
QST42-50CT-T76-L189-H13	76	10-50	7-35	700	43	3.8	8.4	21.3	1/2	8435 6030 11
QST50-90CT-T76-L200-H13	76	20-90	15-65	650	51	5.8	12.7	18.2	1/2	8435 6040 11
QST50-150CT-T76-L200-H13	76	30-150	22-110	380	51	5.8	12.8	31.2	1/2	8435 6050 11
QST62-230CT-T76-L200-H19	76	40-230	29-170	330	63	10.2	22.5	19	3/4	8435 6065 11
QST62-350CT-T76-L200-H19	76	50-350	37-258	220	63	10.2	22.5	28.3	3/4	8435 6070 11
QST80-450CT-T76-L214-H19	76	90-450	66-332	260	81	17	37	22.67	3/4	8435 6075 11
QST80-600CT-T76-L214-H19	76	120-600	88-442	200	81	17	37	29.6	3/4	8435 6080 11
QST90-750CT-T76-L176-H25	76	150-750	111-553	150	63	29	64	38.89	1	8435 6085 11
QST90-1000CT-T76-L176-H25	76	200-1000	147-737	130	91	26	57	46.8	1	8435 6090 11
QST42-50CT-T100-L191-H13	100	10-50	7-35	700	43	3.8	8.4	21.3	1/2	8435 6030 12
QST50-150CT-T100-L186-H13	100	30-150	22-110	380	51	5.8	12.8	31.2	1/2	8435 6050 12

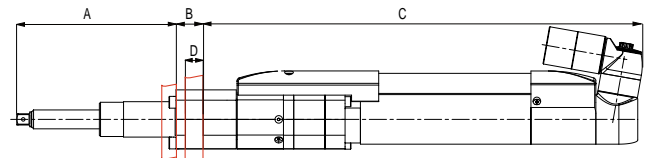
Model	Travel mm	Torque range		Speed r/min	Min C-C	Weight		Gear ratio	Socket holder size in	Ordering No.
		Nm	ft lb			kg	lb			
Dual transducers, CTT										
QST42-20CTT-T50-L134-H10	50	6-20	4-14	2000	43	3.1	6.9	7.5	3/8	8435 6020 50
QST42-20COTT-T50-L134-H10	50	6-20	4-14	2000	31	4.2	9.3	7.5	3/8	8435 6020 60
QST42-50CTT-T50-L134-H13	50	10-50	7-35	700	43	3.8	8.4	21.33	1/2	8435 6030 50
QST42-50COTT-T50-L134-H13	50	10-50	7-35	700	31	4.5	9.9	21.33	1/2	8435 6030 60
QST50-90CTT-T50-L137-H13	50	20-90	15-65	650	51	5.8	12.7	18.21	1/2	8435 6040 50
QST50-90COTT-T50-L137-H13	50	20-90	15-65	650	37	7.8	17.2	18.21	1/2	8435 6040 60
QST50-150CTT-T50-L137-H13	50	30-150	22-110	380	51	5.8	12.8	31.24	1/2	8435 6050 50
QST50-150COTT-T50-L137-H13	50	30-150	22-110	380	37	7.8	17.2	31.24	1/2	8435 6050 60
QST62-150CTT-T50-L152-H13	50	30-150	22-110	450	63	10.2	22.5	13.94	1/2	8435 6060 50
QST62-150COTT-T50-L152-H13	50	30-150	22-110	450	45	12.8	28.2	13.94	1/2	8435 6060 60
QST62-230CTT-T50-L152-H19	50	40-230	29-170	330	63	10.2	22.5	19.04	3/4	8435 6065 50
QST62-230COTT-T50-L152-H19	50	40-220	29-162	330	45	12.8	28.2	19.04	3/4	8435 6065 60
QST62-350CTT-T50-L152-H19	50	50-350	37-258	220	63	10.2	22.5	28.33	3/4	8435 6070 50
QST62-350COTT-T50-L152-H19	50	50-330	37-243	220	45	12.8	28.2	28.33	3/4	8435 6070 60
QST80-450CTT-T50-L146-H19	50	90-450	66-332	260	81	16.7	37	22.67	3/4	8435 6075 50
QST80-450COTT-T50-L146-H19	50	90-450	66-332	260	55	21	46	22.67	3/4	8435 6075 60
QST80-600CTT-T50-L146-H19	50	120-600	88-442	200	81	17	37	29.56	3/4	8435 6080 50
QST80-600COTT-T50-L146-H19	50	120-600	88-442	200	55	21	46	29.56	3/4	8435 6080 60
QST90-750CTT-T50-L152-H25	50	150-750	111-553	150	91	25	55	38.89	1	8435 6085 50
QST90-750COTT-T50-L152-H25	50	150-750	111-553	150	63	29	64	38.89	1	8435 6085 60
QST90-1000CTT-T50-L152-H25	50	200-1000	147-737	130	91	26	57	46.84	1	8435 6090 50
QST90-1000COTT-T50-L152-H25	50	200-1000	147-737	130	63	30	66	46.84	1	8435 6090 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 6020 70
QST42-50CATT-T50-L134-H13	50	10-50	7-35	700	43	3.8	8.4	21.33	1/2	8435 6030 70
QST50-90CATT-T50-L137-H13	50	20-90	15-65	650	51	5.8	12.7	18.21	1/2	8435 6040 70
QST50-150CATT-T50-L137-H13	50	30-150	22-110	380	51	5.8	12.8	31.24	1/2	8435 6050 70
QST62-150CATT-T50-L152-H13	50	30-150	22-110	450	63	10.2	22.5	13.94	1/2	8435 6060 70
QST62-230CATT-T50-L152-H19	50	40-230	29-170	330	63	10.2	22.5	19.04	3/4	8435 6065 70
QST62-350CATT-T50-L152-H19	50	50-350	37-258	220	63	10.2	22.5	28.33	3/4	8435 6070 70
QST80-450CATT-T50-L146-H19	50	90-450	66-332	260	81	16.7	36.9	22.67	3/4	8435 6075 70
QST80-600CATT-T50-L146-H19	50	120-600	88-442	200	81	17	37	29.56	3/4	8435 6080 70
QST90-750CATT-T50-L152-H25	50	150-750	111-553	150	91	25	55	38.89	1	8435 6085 70
QST90-1000CATT-T50-L152-H25	50	200-1000	147-737	130	91	26	57	46.84	1	8435 6090 70
Angle head, CTV										
QST42-20CTV-P10		6-20	4-14	1200	28	3.5	7	11.6	3/8	9831 4077 27
QST42-20CTV-T25-H10	25	6-20	4-14	1200	28	5	11	11.6	3/8	9831 4077 57
QST42-30CTV-P10		6-30	4.5-22	440	36	3.5	7	11.6	3/8	9831 4077 26
QST42-30CTV-T25-H10	25	6-30	4.5-22	440	36	5.5	12	33	3/8	9831 4077 58
QST42-70CTV-P13		14-70	10-52	440	40	4.5	10	33	1/2	9831 4077 28
QST42-70CTV-T25-H13	25	14-70	10-52	450	40	5.5	12	33	1/2	9831 4077 59
QST50-170CTV-P13		34-170	25-125	210	52	6.8	15	56.2	1/2	9831 4078 38
QST50-170CTV-T50-H13	50	34-170	25-125	210	48	8.6	19	56.2	1/2	9831 4078 44
QST50-200CTV-H19		40-200	29-145	210	54	7	15	56.2	3/4	9831 4078 43
QST50-200CTV-T25-H19	25	40-200	29-145	210	54	9.5	21	56.2	3/4	9831 4078 46
QST50-200CTV-T50-H19	50	40-200	29-145	210	58	10	22	56.2	3/4	9831 4078 47
QST62-350CTV-H19		60-350	44-229	175	66	13.5	30	34.3	3/4	9831 4079 73
QST62-350CTV-T25-H19	25	60-350	44-229	175	67	16.5	36	34.3	3/4	9831 4087 10
QST62-600CTV-H25		120-600	88-440	100	109	16.5	33	93.5	1	9831 4087 02

Dimensions

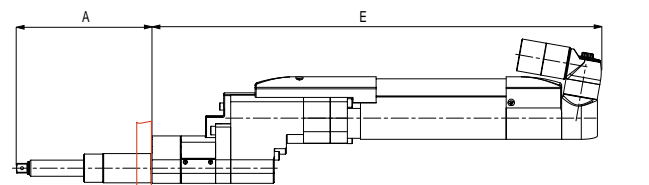
Model	A mm	B mm	C mm	D mm	E mm
Standard					
QST34-8CT-T50-L150-H6	150	16	359	10	–
QST34-20CT-T50-L150-H10	150	16	359	10	–
QST42-20CT-T50-L134-H10	134	23	395	15	–
QST42-20COT-T50-L134-H10	134.5	–	–	–	446
QST42-50CT-T50-L134-H13	134	23	422	15	–
QST42-50COT-T50-L134-H13	134.5	–	–	–	472
QST50-90CT-T50-L137-H13	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-H19	152	25	517	15	–
QST62-150COT-T50-L152-H19	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

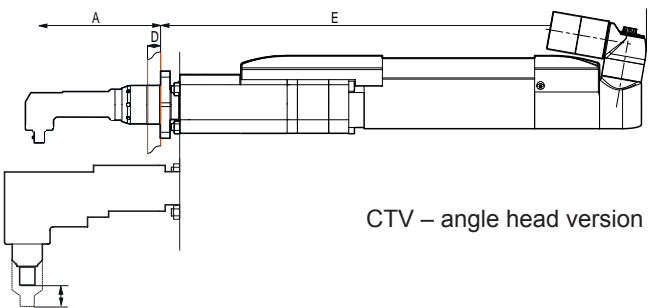
Model	A mm	B mm	C mm	D mm	E mm
Extended spring travel 76 mm and 100 mm					
QST42-20CT-T76-L189-H10	189	23	421	15	–
QST42-50CT-T76-L189-H13	189	23	447	15	–
QST50-90CT-T76-L200-H13	200	25	493	15	–
QST50-150CT-T76-L200-H13	200	25	493	15	–
QST62-230CT-T76-L200-H19	200	25	543	15	–
QST62-350CT-T76-L200-H19	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 SOCKET HOLDERS

	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.

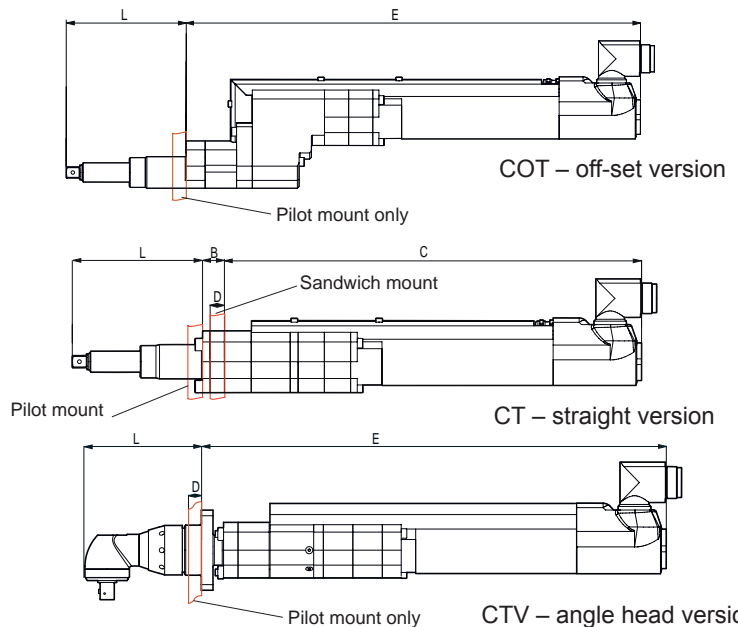
- Inline nutrunner, CT – Equipped with commutation sensor and transducer.
- Off-set nutrunner, COT – Comes with a commutation sensor, off-set gears for narrow bolts and transducer.
- Extended spring travel 76 mm and 100 mm – Nutrunners with extended spring travel for longer bolt lengths.
- Angle head 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

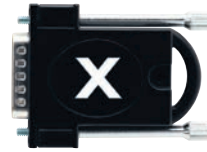
CABLES

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

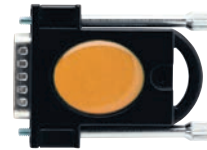
RBU

Model	Ordering No.
RBU-X	8433 0080 20
RBU-Gold	8433 0020 20

RBU-X



RBU-Gold



Additional socket holder length



ADDITIONAL SOCKET HOLDERS

	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 PowerMACS 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.

POWERMACS 4000

PowerMACS 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 POWERMACS

The ToolsTalk software for PowerMACS 4000 has been developed with user friendliness and customer adaptation in mind and can be installed on a laptop or a back office PC.



POWERMACS 4000

One primary controller is needed per system. The primary controller takes care of external communication and comes with most field busses 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

POWERMACS 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.

MAIN SWITCH BOX II – MSB II

Main Switch Box II exists in two versions, 30 Amps and 60 Amps.

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.

DISTRIBUTION BOX II – DB II

DB II is needed when MSB II is used.

GENERAL BOX – GB

An empty DB, suitable for external system devices.



Model	Ordering No.
MSB	
Main switch box (Max 6 channels)	8435 5660 00
Main switch box II, 30 amps (Max 6 channels)	8435 5660 30
Main switch box II, 60 amps (Max 6 channels)	8435 5660 60
DB	
Distribution box (Max 6 channels) + Power cable 1800 mm	8435 6560 50
Distribution box II	8435 5660 10
GB	
General box	4222 1249 85

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 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-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-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

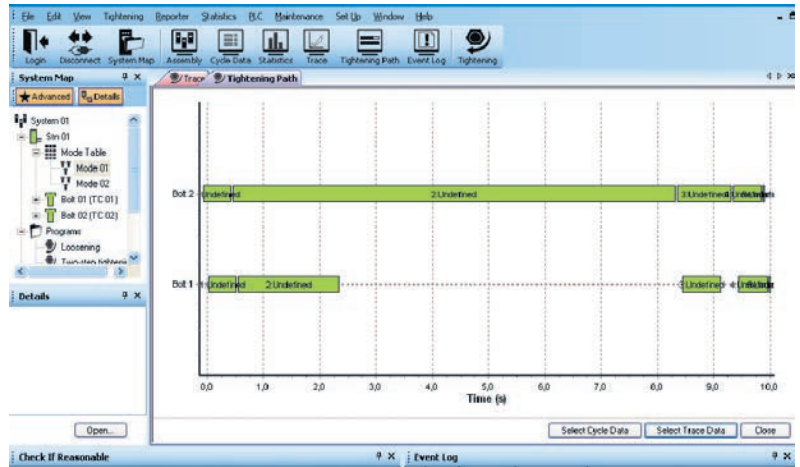
CONTROLLER FUNCTIONALITY

Hardware key	Ordering No.
RBU-Gold	8433 0020 20
RBU-X	8433 0080 20

TOOLSTALK POWERMACS

The ToolsTalk software for PowerMACS 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 PowerMACS 4000 controller using an Ethernet cable.

- 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.
- 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 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 AND MANUAL FASTENING

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

STWRENCH

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



BENCHES

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

SOFTWARE

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

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

STa 6000

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



STa 6000

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

PORTABLE AND ERGONOMIC

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

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

QUICK PROGRAMMING

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

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

MODULARITY – YOU BUY WHAT YOU NEED

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

COMMONALITY CUTS COSTS

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

CLEAR OPERATOR FEEDBACK

STa 6000 color screen features intuitive icon menus.

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

STa 6000 BASIC

The ideal solution for simple and quick tests.

Quick programming

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

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

STa 6000 QC

The ideal solution for operators requiring a complete testing solution.

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

Tools and Psets database

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

Traces on display

Traces can be seen directly on the STa 6000 screen.

Customized screen

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

- **Full text notes**

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

- **PF and PM Calibration**

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

- Reports can be printed on a network printer.

STa 6000 AA

The recommended solution for Advanced Analysis.

- **The STa 6000 ultimate solution**

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

TT BLM

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

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

NOTE: software license is necessary for the above features

TORQUE SUPERVISOR

STa 6000 is fully integrated with Torque Supervisor software.

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

ACCESSORIES

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

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

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

STa 6000

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

^a STa 6000 is provided with the power supply in the box.

Battery has to be ordered separately.



STa 6000

STa 6000 BASIC

BASIC is the perfect solution for simple and quick tests.

STa 6000 QC

QC version for operators requiring a complete testing solution.

STa 6000 AA

AA version is the recommended solution for Advanced Analysis.

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

SRTT-L

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.

QRTT



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

IRTT-B

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

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



IRTT-B

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

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

SRTT-B

STATIONARY REACTION TORQUE TRANSDUCER

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

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

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

SRTT-B



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

TEST JOINT FOR SRTT-B



Test joint for SRTT-B

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

Optional Accessories

Adapter



Square socket



ADAPTERS

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

SQUARE SOCKETS

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

MRTT-B SCREWDRIVER

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



MRTT-B

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

Optional Accessories

TRANSDUCER CABLE

The cable needed for all transducers and MRTT-B.

CABLES

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

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

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

MRTT-C

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

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

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

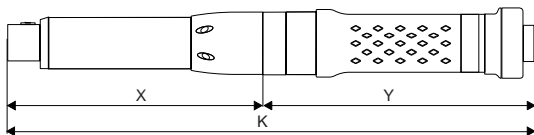


MRTT-C

Model	Ordering No.
MRTT-C	8059 0930 10

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

Dimensions



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

Optional Accessories

TRANSDUCER CABLE

The cable needed for all transducers and MRTT-C.

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

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

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 ACTA MT4 system provides fast, accurate and reliable measurement of critical parameters.

ACTA MT4 – SMART FEATURES

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



MT TRA 500



MT TH



ACTA MT 4



MT TS

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

^a ToolsTalk ACTA MT (programming software) included.

CABLES

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

TEST JOINTS FOR CALIBRATION WITH MT TS

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

Mechanical wrench series

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

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

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

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

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

CWR 'CLICK' WRENCH SERIES

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

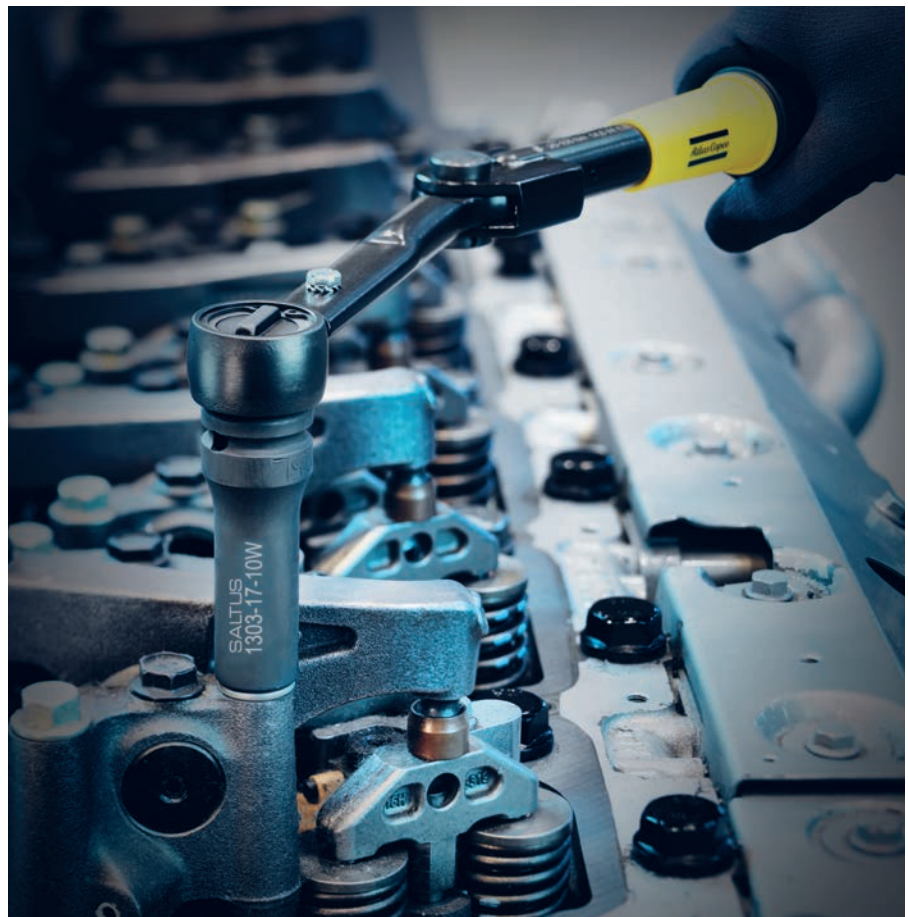
BWR 'BREAKING' WRENCH SERIES

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

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

SWR 'SLIPPING' WRENCH SERIES

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



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

Mechanical Wrenches

CWR 'CLICK' WRENCH SERIES

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



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

BWR - 'BREAKING' WRENCH SERIES

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



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

SWR 'SLIPPING' WRENCH SERIES

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

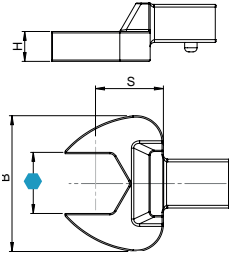



Model	Torque range		Length mm	Weight g	Drive	Ordering No.
	Nm	ft lb				
SWR-30	5-30	3.7-22	269	640	3/8"	8439 0043 00
SWR-60	15-60	11-44	354	1050	3/8"	8439 0043 01
SWR-110	40-110	29.5-96	453	1900	1/2"	8439 0043 02

End Fittings CWR

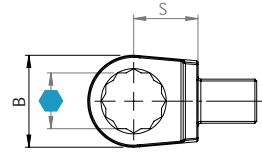
Mechanical Wrenches


Open End



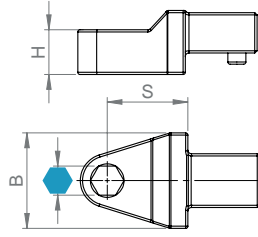
		B	H	S	g	Max	Ordering No.
	mm/in	mm	mm	mm		Nm	
9 x 12							
7		22	5	17.5	40	7	4027 5011 00
8		22	5	17.5	39	10	4027 5011 01
9		26	5.5	17.5	38	14	4027 5011 02
10		26	5.5	17.5	42	20	4027 5011 03
11		26	5.5	17.5	41	25	4027 5011 04
12		30	7	17.5	43	32	4027 5011 05
13		30	7	17.5	48	40	4027 5011 06
14		35	8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

Box End



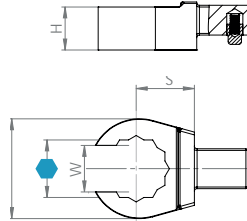
		B	H	S	g	Max	Ordering No.
	mm/in	mm	mm	mm		Nm	
9 x 12							
7		13	8	17.5	38	25	4027 5011 50
8		13.5	8	17.5	37	35	4027 5011 51
9		16	8	17.5	35	40	4027 5011 52
10		18	9	17.5	40	55	4027 5011 53
11		18.5	9	17.5	44	70	4027 5011 54
12		20.5	11	17.5	41	85	4027 5011 55
13		21.5	11	17.5	49	100	4027 5011 56
14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

Bits Holders



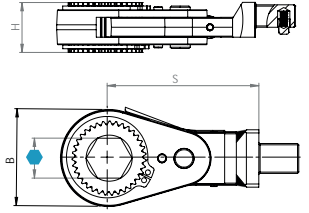
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	in	mm	mm	mm		
9 x 12	5/16	14	10	17.5	45	4027 5012 10
	1/4	16	12.5	17.5	47	4027 5012 11
14 x 18	5/16	16	12.5	25	112	4027 5012 13

Flared End



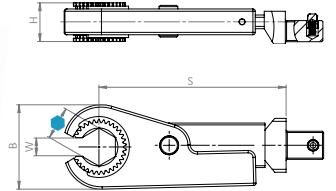
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9 x 12	10	21.5	11	17.5	7.1	57	20	4027 5011 90
	11	22.5	11	17.5	8.6	55	25	4027 5011 91
	12	24.5	12	17.5	9	59	32	4027 5011 92
	13	26	13	17.5	10	55	40	4027 5011 93
	14	27	13	17.5	11	60	50	4027 5011 94
	15	27	13	17.5	12	60	50	4027 5011 95
	16	30.5	13	17.5	13	65	80	4027 5011 96
	17	31.5	13	17.5	14	64	82	4027 5011 97
	18	33	15	17.5	15	74	100	4027 5011 98
	19	34	15	17.5	16	80	115	4027 5011 99
	21	38.5	15	20	17	88	120	4027 5012 00
	22	39.5	15	20	17	92	120	4027 5012 01
	24	40	15	20	18	75	120	4027 5012 02
	27	45	17	25	20	120	140	4027 5012 03
	3/8	18	8	17.5	7.1	39	20	4027 5010 30
	7/16	21	12	17.5	8.6	50	25	4027 5010 31
	1/2	26	13	17.5	10	61	32	4027 5010 32
	9/16	27	13	17.5	11	58	50	4027 5010 33
	5/8	30	13	17.5	14	62	80	4027 5010 34
	11/16	30	13	17.5	14	58	82	4027 5010 35
	3/4	34	15	17.5	15.8	71	115	4027 5010 36

Hexagon Ratchet



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

Open Hexagon Ratchet

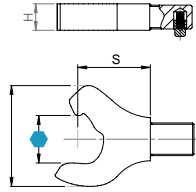


	Hex	B	H	S	W	g	Max	Ordering No.	
	mm/in	mm	mm	mm	mm		Nm		
9 x 12	8	30	16.5	48	5.1	90	15	4027 5012 50	
	9	30	16.5	48	6.3	90	15	4027 5012 51	
	10	30	16.5	48	6.3	89	15	4027 5012 52	
	11	30	16.5	48	6.3	89	15	4027 5012 53	
	12	36	16.5	81	7.1	200	18	4027 5012 54	
	13	36	16.5	81	7.6	200	18	4027 5012 55	
	14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

End Fittings CWR

Mechanical Wrenches

Open End with Ratchet Function



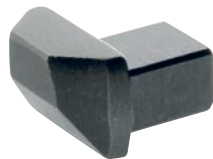
	mm/in	B mm	H mm	S mm	g	Ordering No.
9 x 12						
	10	22.5	10	17.5	34	4027 5012 80
	11	24.5	10	21	39	4027 5012 81
	12	26.7	10	21	42	4027 5012 82
	13	30	10	23	49	4027 5012 83
	14	30.5	10	25.5	55	4027 5012 84
	15	32	10	27	60	4027 5012 85
	16	35	10	28	65	4027 5012 86
	17	37	10	29	68	4027 5012 87
	18	38	10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

Setting Key



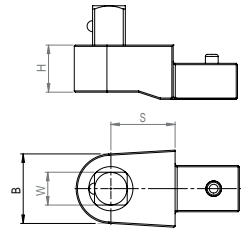
	g	Ordering No.
Setting key	169	4027 5014 00

Blank End



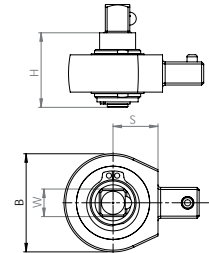
	B mm	H mm	S mm	g	Ordering No.
9 x 12					
	23	14	9	30	4027 5012 20
Assembled	23	14	9	30	4027 5012 21
14 x 18					
	30	21	13	98	4027 5012 23
Assembled	30	21	13	98	4027 5012 24

Fixed Square



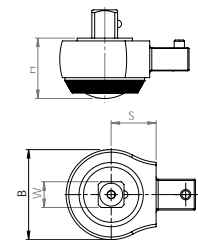
	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12							
	1/4	20	14	17.5	76	40	4027 5013 20
	3/8	20	14	17.5	82	80	4027 5013 21
	1/2	20	14	17.5	71	100	4027 5013 22
14 x 18							
	1/2	27	18	25	203	300	4027 5013 24
	3/4	40	25	25	396	650	4027 5013 25

Non-Reversible Ratchet End



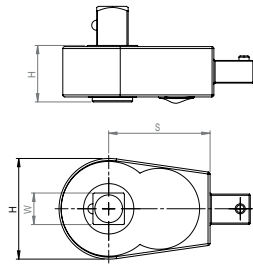
	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12							
	3/8	38	29.5	17.5	140	80	4027 5013 30
	1/2	38	29.5	17.5	180	100	4027 5013 31
14 x 18							
	1/2	44	29.5	25	230	300	4027 5013 33

Reversible Ratchet End



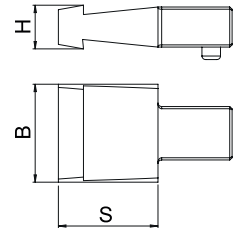
	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12							
	1/4	27	27	17.5	68	50	4027 5013 40
	3/8	36.5	25	17.5	140	100	4027 5013 41
	1/2	33.5	37	17.5	150	120	4027 5013 42
14 x 18							
	1/2	41	26	25	320	300	4027 5013 44
	3/4	62	32	46	865	800	4027 5013 45

Reversible Ratchet End



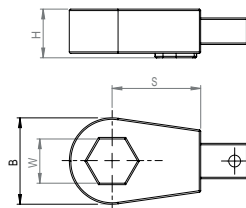
	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12	1/4	25	13.5	21.5	77	49	4027 5013 60
	3/8	33.5	17.5	30.5	160	100	4027 5013 61
	1/2	41.5	20.5	37.5	291	120	4027 5013 62
14 x 18	1/2	41.5	20.5	37.5	339	300	4027 5013 64
	3/4	63.5	31	70	1155	650	4027 5013 65

Connectors for Dovetails Inserts



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

Ratchet Reversible with Hexagonal Output



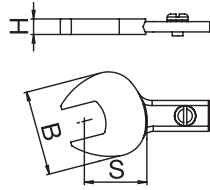
	in	B mm	H mm	S mm	g	Max Nm	Ordering No.
9 x 12	1/4	22	14	17.5	60	40	4027 5013 80
	5/16	29	14.5	28	117	80	4027 5013 81

Belknap Adapter



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

Open End

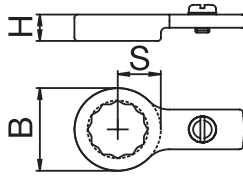


mm/in	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35						
7	24	5.5	17.5	23	13	4027 5000 00
8	24	5.5	17.5	25	13	4027 5000 01
9	24	5.5	17.5	25	13	4027 5000 02
10	30	6	24	31	20	4027 5000 03
11	30	6	24	31	24	4027 5000 04
12	33	6	25	31	29	4027 5000 05
13	33	6	25	34	40	4027 5000 06
14	33	6	25	34	45	4027 5000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

Continued....

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

Box End



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

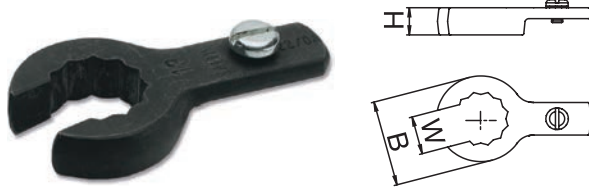
Continued....

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

End Fittings BWR

Mechanical Wrenches

Flared End



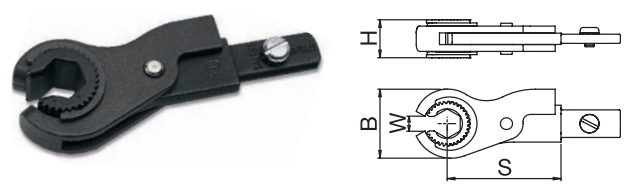
	B	H	S	W	Max	Ordering No.
mm/in	mm	mm	mm	mm	Nm	
BWR 20/35						
8	18	6	9	6	20	16 4027 5003 60
10	21	7	10.5	7	25	16 4027 5003 61
11	21	7	10.5	8.5	25	20 4027 5003 62
12	25	9	12.5	9	32	25 4027 5003 63
13	25	8	12.5	10	32	25 4027 5003 64
14	25	8	12.5	11	32	25 4027 5003 65
15	29	8	14.5	11	35	25 4027 5003 66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

Hexagon Ratchet



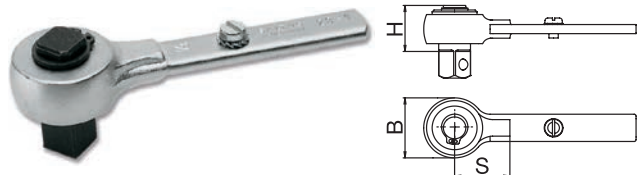
	B	H	S	Max	Ordering No.
mm	mm	mm	mm	Nm	
BWR 20/35					
8	28	13.5	44	80	25 4027 5003 90
10	28	13.5	44	80	25 4027 5003 91
11	28	13.5	44	80	25 4027 5003 92
12	28	13.5	44	80	25 4027 5003 93
13	28	13.5	44	80	25 4027 5003 94
14	32	16	47	120	35 4027 5003 95
15	32	16	47	120	35 4027 5003 96
16	39	20	51	180	85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

Open Hexagon Ratchet



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

Fixed Square End



	B	H	S	Max	Ordering No.
in x mm	mm	mm	mm	Nm	
BWR 20/35					
1/4x30	24	30	21	65	25 4027 5004 80
1/4x70	24	70	21	115	25 4027 5004 81
3/8x30	24	30	21	65	85 4027 5004 82
3/8x70	27	70	21	120	85 4027 5004 83
1/2x35	24	35	21	75	85 4027 5004 84
1/2x70	24	70	21	145	85 4027 5004 85
BWR 100					
3/8x40	32	40	30	75	100 4027 5004 90
3/8x70	32	70	30	240	100 4027 5004 91
1/2x40	32	40	30	175	100 4027 5004 92
1/2x70	32	70	30	245	100 4027 5004 93
BWR 240					
1/2x40	34	40	31	300	240 4027 5004 98
1/2x70	34	70	31	330	240 4027 5004 99
BWR 440					
1/2x40	48	40	58	600	440 4027 5005 04
1/2x70	48	70	58	630	440 4027 5005 05
3/4x70	48	70	58	689	440 4027 5005 06
BWR 750					
3/4x70	48	70	58	775	750 4027 5005 11
BWR 1300/2000					
3/4x70	73	70	58	1400	1000 4027 5005 16
1x70	73	70	58	1700	2000 4027 5005 17

Ratchet End



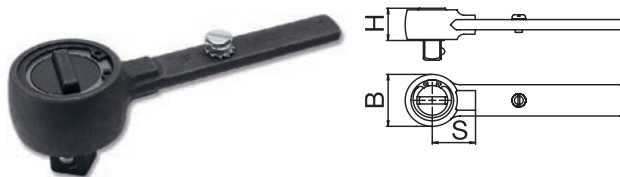
in x mm	B mm	H mm	S mm	g	Max Nm	Ordering No.
BWR 20/35						
1/4x40	36	40	21	145	25	4027 5005 25
1/4x70	38	70	21	165	25	4027 5005 26
3/8x40	36	40	21	145	85	4027 5005 27
3/8x70	36	70	21	170	85	4027 5005 28
1/2x45	36	45	21	150	85	4027 5005 29
1/2x70	36	70	21	195	85	4027 5005 30
BWR 100						
3/8x40	48	40	30	270	100	4027 5005 36
3/8x70	48	70	30	31	100	4027 5005 37
1/2x45	48	40	30	285	100	4027 5005 38
1/2x70	48	70	30	320	100	4027 5005 39
BWR 240						
1/2x45	48	45	31	300	240	4027 5005 44
1/2x70	48	70	31	330	240	4027 5005 45
BWR 440						
3/4x70	72	70	58	1100	440	4027 5005 50
BWR 750						
3/4x70	72	70	58	1250	750	4027 5005 55
BWR 1300/2000						
3/4x70	85	70	58	1700	1000	4027 5005 60
1x80	85	80	58	2000	2000	4027 5005 61

Belknap Adapter



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

Reversible Ratchet End



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

Setting Key BWR



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

Setting Key SWR



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

Where the joints are critical

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

STWRENCH

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

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

THE ULTIMATE WRENCH FOR PRODUCTION AND QUALITY ASSURANCE

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

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

SMARTHEAD

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

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

STWRENCH CONTROLLER

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

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

STWRENCH RBU

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

BLM API

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



FUNCTIONALITY	QUALITY		PRODUCTION		FUNCTIONALITY	QUALITY		PRODUCTION	
	SmartHEAD	smartHEAD A	smartHEAD	smartHEAD A		SmartHEAD	smartHEAD A	smartHEAD	smartHEAD A
Controller					PSET				
360° LED lights on board for operator feedback	x	x	x	x	Number of Psets	200	200	200	200
Keyboard	x	x	x	x	Batch count	x	x	x	x
Graphic Display	x	x	x	x	Number of job	100	100	100	100
USB mini to connect ToolsTalk BLM	x	x	x	x	Number of multistage	200	200	200	200
Infrared communication	x	x	x	x	CW/CCW operation	x	x	x	x
Buzzer	x	x	x	x	Bending correction		x		x
Rapid Back Up Unit (RBU)	x	x	x	x	Extension torque correction	x	x	x	x
Vibration	x	x	x	x	Extension angle correction		x		x
Shock detector	x	x	x	x	General				
smartHEAD					Transducer torque traceability	x	x	x	x
Interchangeable head – Tag recognition	x	x	x	x	Result data storage	5000	5000	5000	5000
Light in front of smartHEAD	x	x	x	x	Trace storage	10	10	10	10
Gyroscope for angle measurement		x		x	SPC	x	x	x	x
Length-independent torque transducer	x	x	x	x	Multi units (Nm, Kg/m)	x	x	x	x
Free mode – programs					Multi language menu	x	x	x	x
Track torque	x	x	x	x	Interchangeable head – Tag recognition writing function	x	x	x	x
Peak torque	x	x	x	x	Connectivity				
Residual check torque/time	x	x	x	x	PF connectivity for I/O or any type of fieldBus	x	x	x	x
Residual check torque/angle		x		x	ToolsNet	x	x	x	x
Tightening torque with angle monitoring		x		x	QATnode	x	x	x	x
Quality audit					Optional				
Peak	x	x	x	x	Barcode Reader	x	x	x	x
Residual Check Torque/Time	x	x	x	x	IRC-W	x	x	x	x
Residual Check Torque/Angle		x		x	IRC-B for Power Focus connectivity	x	x	x	x
Loosen And Retighten		x		x	QATnode	x	x	x	x
Loosen		x		x	ToolsTalk BLM				
Joint Analysis					USB Connection	x	x	x	x
Torque/angle graphing		x		x	Off Line programming	x	x	x	x
Yield point detection		x		x	Tightening Database to PC (Excel)	x	x	x	x
Tightening					View trace	x	x	x	x
Torque with time monitoring			x	x	Export trace in several formats	x	x	x	x
Torque with angle monitoring				x	Overlay Traces	x	x	x	x
Torque plus angle				x	Trace zoom	x	x	x	x
Yield				x	Statistical analysis	x	x	x	x
Yield plus angle				x	Bar code reader configuration	x	x	x	x

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

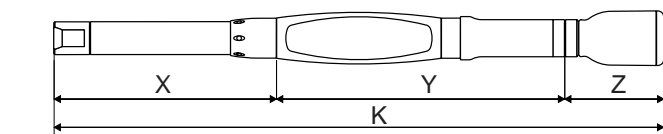
1. Take the STwrench Controller
2. Select your smartHEAD
3. Select your End fitting tool
4. Select your RBU
5. Select the Battery
6. Select if you want optional modules

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

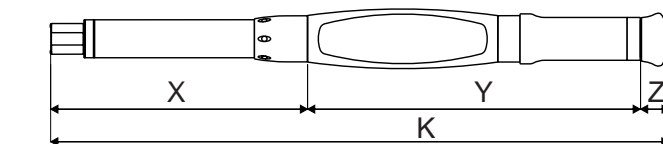
SOFTWARE TT BLM W09

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

Dimensions



STwrench



STwrench BI

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

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

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 complete 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 smarthead rubber protection	8059 0930 74
150 Nm smarthead rubber protection	8059 0930 75
250 Nm smarthead rubber protection	8059 0930 76
400 Nm smarthead rubber protection	8059 0930 79



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 allow 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

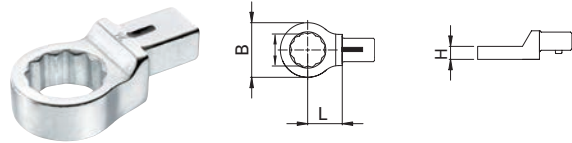
Rubber protections for the STwrench provide both a protection for surfaces that come in contact with the wrench and a better grip for the user. Choose a rubber protection for each of the sections of the STwrench.

End Fittings STwrench

Wrenches

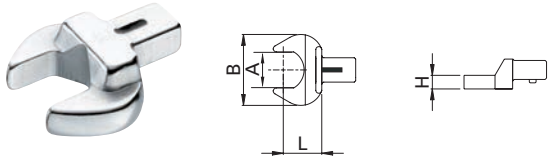
END FITTING TOOLS FOR WRENCHES

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

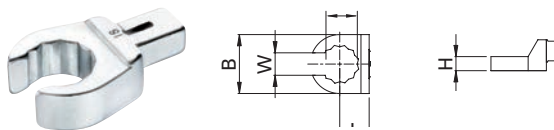


Type	Hex mm	B mm	H mm	L mm	g	Ordering No.
Ring end 9 x 12	7	13	8	17.5	37	4620 0014 00
	8	14.2	8	17.5	40	4620 0015 00
	10	17.2	9	17.5	44	4620 0016 00
	11	18.5	9	17.5	41	4620 0017 00
	12	20	12	17.5	49	4620 0018 00
	13	21.5	12	17.5	56	4620 0019 00
	14	23	12	17.5	52	4620 0020 00
	15	24.2	12	17.5	52	4620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

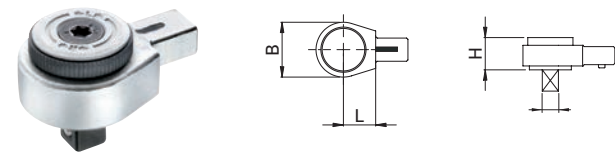
STANDARD END FITTING TOOLS WITH TAG



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



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

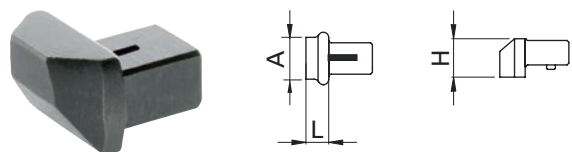


Type	Hex in	B mm	H mm	L mm	g	Ordering No.
Reversible ratchet 9 x 12	1/4	22	14.5	17.5	62	4620 0043 00
	3/8	33	24	17.5	136	4620 0044 00
	1/2	33	28.3	17.5	147	4620 0045 00
14 x 18	1/2	43	26.2	25	302	4620 0081 00 ^a
	3/4	50	30.7	25	467	4620 0082 00
21 x 26	3/4	69	30	62.5	1350	4620 0086 00

The TAG placed on the ratchet defines the Pset.

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

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

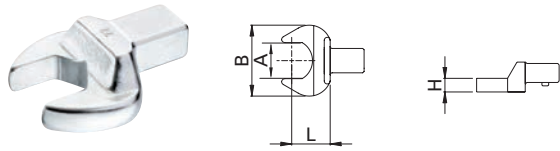


Type	A mm	H mm	L mm	g	Ordering No.
Blank end 9 x 12 for making up specials	8 x 14	14.5	8	30	4620 0048 00
Blank end 14 x 18	11 x 25	21.5	21	98	4620 0084 00
	13 x 30	30	13	220	4620 0085 00

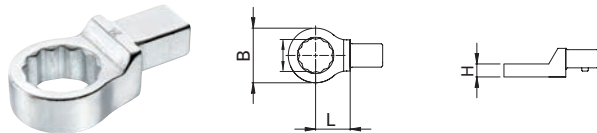
Wrenches

End Fittings STwrench

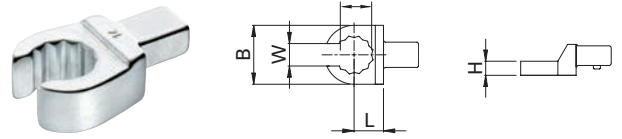
STANDARD END FITTING TOOLS WITHOUT TAG



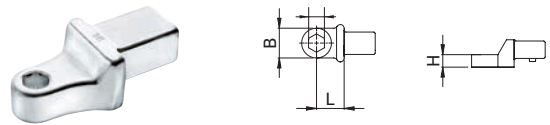
Type	A mm	B mm	H mm	L mm	g	Ordering No.
Open end 9 x 12	7	22	5	17.5	40	8059 0975 00
	8	22	5	17.5	39	8059 0975 01
	9	26	5.5	17.5	38	8059 0975 02
	10	26	5.5	17.5	42	8059 0975 03
	11	26	5.5	17.5	41	8059 0975 04
	12	30	7	17.5	43	8059 0975 05
	13	30	7	17.5	48	8059 0975 06
	14	35	8	17.5	52	8059 0975 07
	15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



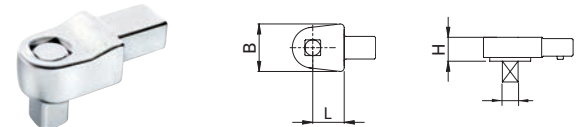
Type	Hex mm	B mm	H mm	L mm	g	Ordering No.
Ring end 9 x 12	7	13	8	17.5	37	8059 0975 13
	8	14.2	8	17.5	40	8059 0975 14
	10	17.2	9	17.5	44	8059 0975 15
	11	18.5	9	17.5	41	8059 0975 16
	12	20	12	17.5	49	8059 0975 17
	13	21.5	12	17.5	56	8059 0975 18
	14	23	12	17.5	52	8059 0975 19
	15	24.2	12	17.5	52	8059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



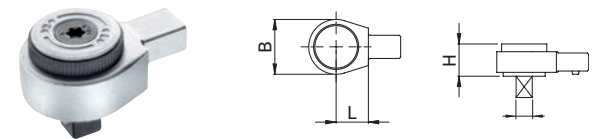
Type	Hex mm	B mm	H mm	W mm	L mm	g	Ordering No.
Flared end 9 x 12	10	22	12	7.1	17.5	57	8059 0975 27
	11	22.5	12	8.6	17.5	55	8059 0975 28
	12	23.5	12	9	17.5	59	8059 0975 29
	13	25.2	12	10	17.5	55	8059 0975 30
	14	27	13	11	17.5	60	8059 0975 31
	16	30	13	13	17.5	65	8059 0975 32
	17	31.5	13	14	17.5	65	8059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



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

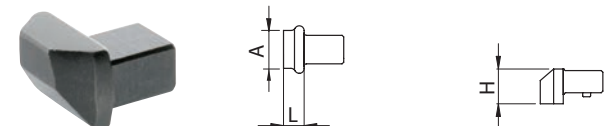


Type	Hex in	B mm	H mm	L mm	g	Ordering No.
Fixed square 9 x 12	1/4	22	14	17.5	71	8059 0975 39
	3/8	22	14	17.5	76	8059 0975 40
	1/2	22	14	17.5	82	8059 0975 41
14 x 18	1/2	30	18	25	203	8059 0976 30
	3/4	40	25	25	396	8059 0976 31



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

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



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

JOINT SIMULATOR BENCH AD

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

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

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

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



Model	Hydraulic brakes, range		SRTT-B transducers range		ISO rig	Ordering No.
	Nm	lb ft	Nm	lb ft		
Mobile benches						
JSB AD 250	2-10	1.6-185	50-250	37-184	–	8059 0962 00
	10-50	7.4-36				
	50-250	37-184				
JSB AD 250 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 30
	10-50	7.4-36				
	50-250	37-184				
JSB AD 500 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 35
	10-50	7.4-36				
	50-250	37-184	100-500	74-368		
	100-500	74-368				
JSB AD 1000 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 40
	50-250	37-184				
	100-500	74-368	200-1000	148-737		
	200-1000	148-737				
JSB AD 2000 ISO	2-10	1.6-185	50-250	37-184	yes	8059 0962 50
	10-50	7.4-36				
	50-250	37-184	200-1000	148-737		
	400-2000	295-1475				

Dimensions

JSB AD

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

ATLAS COPCO STATIC TRANSDUCER BENCH

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

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

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

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

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



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

Dimensions

STB AD

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

JOINT SIMULATOR BENCH 3840

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

JSB 3840 includes:

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



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

Dimensions

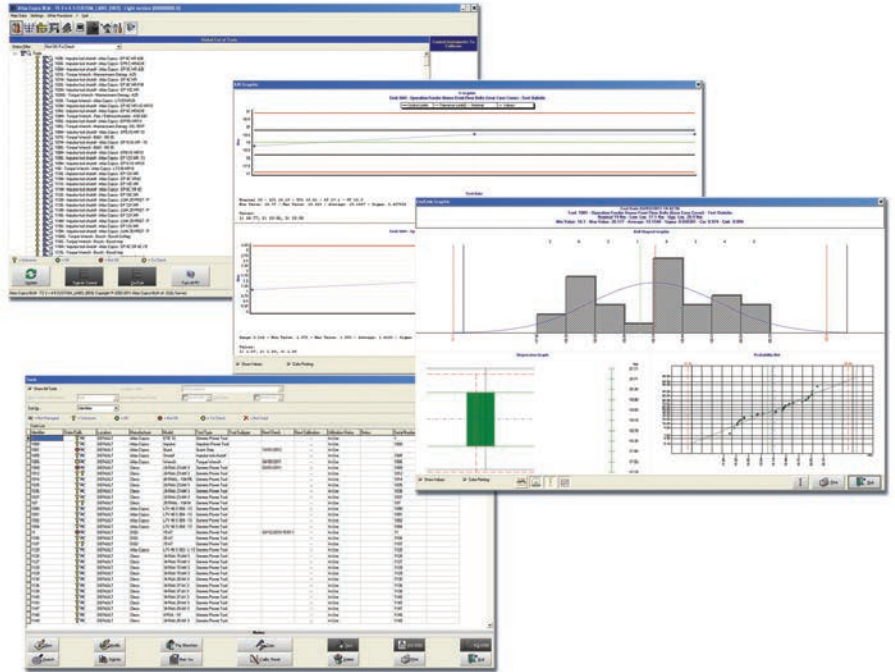
JSB 3840

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

Quality Assurance in Tightening Management Software

BLM TORQUE SUPERVISOR

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



TORQUE SUPERVISOR

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

VERSION OVERVIEW

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

GRINDERS

Contents

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Orbital and random orbital sanders.....	237
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Maximum material removal with minimum effort

Atlas Copco Grinders are designed to be powerful, yet small in size and weight. With Atlas Copco Grinders, you can rely on maximum material removal with minimum effort. Our range of grinders covers virtually all applications.

DIE GRINDING

Small precision deburring – die grinding is performed with either tungsten carbide, high speed steel burrs or mounted points.

The choice of burr depends on the size of your job. A larger volume of removed material will require a bigger size of the burr's head.

Select the tool rpm depending on the diameter of the burr head, the material to be ground and the material in the rotary burr. Use tungsten carbide burrs for hard and tough materials. High speed steel burrs are recommended for natural steel and medium hardened materials. Example, see table below:

Burr head Ø		Hardened steel	Natural steel	Soft material
		Though materials	Softer materials Cast iron	Wood, brass Plastics, Al.
Up to 1/4"	- TC	38000	38000	38000
	- HSS	-	20000	20000
Up to 1/2"	- TC	30000	30000	30000
	- HSS	-	-	20000

TC – Tungsten carbide tipped rotary burr. HSS – High speed steel burrs.

For mounted points, follow the recommendations that relate to the particular mounted point.

ROUGH GRINDING

Pure material removal is determined by the power generated at the grinding process. The applied feed force and the rotation of the wheel generates a cutting force which, multiplied by the peripheral speed of the wheel, represents the power of removed material. (Power=Peripheral speed x Cutting force).

A powerful grinder will provide enough power with maintained rotational speed, when applying feed-force. A suitable combination of operative rotational speed, feed-force applied by the operator and power of the grinder, will give you the best combination for the material removal required.

As rough grinding is performed with bonded abrasives, a limitation of rotational speed is necessary in order to prevent wheel fractures due to centrifugal force.

The peripheral speed is limited to 14200 S.F.P.M (surface feet per minute) for fiber reinforced depressed center, straight and cutting off wheels. Resin bonded cup and straight wheels are limited to a peripheral speed of 9000 S.F.P.M.

SANDING AND POLISHING

Unlike die and rough grinding, sanding and polishing applies to the requirements of a surface. A fine surface will require a fine grit paper, fine Scotch-Brite, Bear Tex or a soft polishing bonnet. Rougher surface grinding will require a higher material removal rate thus requiring a coarser grit paper.

Similar to rough grinding, a rough surface, ground with coarse grit, will benefit from a high rotational speed. The limitations, however, are the maximum allowed speed of the backing pad and the fiber disc.

Normal sanding speeds for fiber discs of diameter 5", 7" and 9" are 4000 to 6000 rpm.

Polishing with different pastes and compounds require low speed in combination with high torque. Suitable speeds are 1800 to 2200 rpm.

Sanding with wet coated abrasives is best performed at low speeds, because water is thrown out into the periphery and partly because of the fine grit.

Scotch-Brite, Bear Tex and flap wheels perform best at 50% of their maximum allowed rotational speeds.

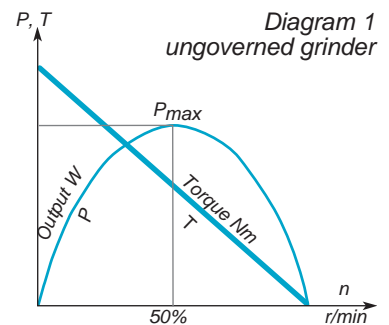
THE SPEED GOVERNOR

The amount of material removed in the grinding process depends on the power of the tool and the operative rotational speed. The diagram below shows the correlation between torque, power and rotational speed of a non governed pneumatic grinder.

In order to remove material, the operator has to apply a feed-force on the work-piece.

Consequently the rotational speed decreases

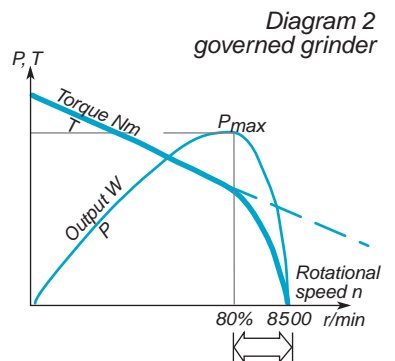
and having passed approximately 50% of the free speed, the operative power output starts to decrease. Theoretically, the most material would be removed at approximately 50% of the free speed on a non governed grinder, (diagram 1).



The Atlas Copco grinders are built small and smooth, partly due to their speed governor. The air is governed to the air flow necessary to maintain the rotational speed regardless of load, (to the extent of the power of the grinder).

The correlation between power, torque and rotational speed of a governed grinder is shown in diagram 2.

A theoretical optimum of material removal is reached at approximately 80% of the free speed. The grinder generates max power, removing more material with applied feed force. The rotational speed decreases are negligible.



Air is used economically, as the flow through the motor is adjusted after applied load. Air consumption at free speed is minimized. The governor opens and lets in more air during load thus keeping the optimal rpm.

Guides

DIE GRINDING AND DEBURRING

SEE PAGE 229

1 Carbide burrs



2 Mounted points



ROUGH GRINDING AND CUTTING OFF

SEE PAGE 227 AND 233

3 Depressed center wheels



4 Cut off wheels



5 Cup wheels



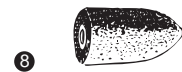
6 Flap wheels



7 Straight wheels



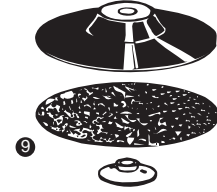
8 Cone wheels



SANDING AND POLISHING

SEE PAGE 235 AND 237

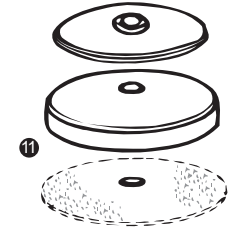
9 Fibre discs



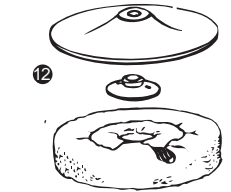
10 Wire brushes



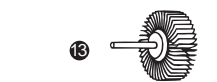
11 Coated abrasives



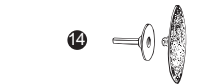
12 Polishing bonnets



13 Radial flap wheels



14 Scotch-Brite



DIAMETER – PERIPHERAL SPEED – R/MIN

The table below will help you to translate the peripheral speed of the grinding wheel to the correct rotational speed of the grinder when using a grinding wheel with a specific diameter.

Wheel diameter inches	Surface feet per minute																
	4,000	4,500	5,000	5,500	6,000	6,500	7,000	7,500	8,000	8,500	9,000	9,500	10,000	12,000	12,000	14,200	
	Revolutions per minute																
1	15,279	17,189	19,099	21,008	22,918	24,828	26,737	28,647	30,558	32,467	34,377	36,287	38,197	45,837	47,746	54,240	
1 1/2	10,186	11,459	12,732	14,006	15,279	16,552	17,825	19,099	20,372	21,645	22,918	24,192	25,465	30,558	31,831	36,160	
2	7,639	8,594	9,549	10,504	11,459	12,414	13,369	14,324	15,279	16,234	17,189	18,144	19,099	22,918	23,873	27,120	
2 1/2	6,112	6,875	7,639	8,403	9,167	9,931	10,695	11,459	12,223	12,987	13,751	14,515	15,279	18,335	19,099	21,696	
3	5,093	5,730	6,366	7,003	7,639	8,276	8,913	9,549	10,186	10,823	11,459	12,096	12,732	15,279	15,915	18,080	
3 1/2	4,365	4,911	5,457	6,002	6,548	7,094	7,639	8,185	8,731	9,276	9,822	10,368	10,913	13,096	13,642	15,497	
4	3,820	4,297	4,775	5,252	5,730	6,207	6,685	7,162	7,640	8,117	8,594	9,072	9,549	11,459	11,937	13,560	
5	3,056	3,438	3,820	4,202	4,584	4,966	5,348	5,730	6,112	6,494	6,875	7,257	7,639	9,167	9,549	10,848	
6	2,546	2,865	3,183	3,501	3,820	4,138	4,456	4,775	5,093	5,411	5,730	6,048	6,366	7,639	7,958	9,040	
7	2,183	2,456	2,728	3,001	3,274	3,547	3,820	4,093	4,365	4,638	4,911	5,184	5,457	6,548	6,821	7,749	
8	1,910	2,149	2,387	2,626	2,865	3,104	3,342	3,581	3,820	4,058	4,297	4,536	4,775	5,730	5,968	6,780	
9	1,699	1,910	2,122	2,334	2,546	2,759	2,971	3,183	3,395	3,608	3,820	4,032	4,244	5,093	5,305	6,027	

THIS IS YOUR RESPONSIBILITY

Always read and understand the safety information supplied with the tool and on www.atlascopco.com. All locally legislated safety rules regarding installation, operation and maintenance shall be respected at all times.

1. Check the free speed

- The measured speed at a pressure of 6.3 bars must not exceed the rated speed, which is marked on the grinder.
- Remove the grinding wheel and outer flange before checking the free speed.
- Carry out checks daily.
- Make sure the speed marking on the tool is legible.
- Return the machine for repair in the event of overspeeding.



2. Check the wheel guard

The wheel guard protects your health and safety.

- Always use the recommended wheel guard.
- Check that it is not damaged.
- Never use a grinder without the wheel guard.
- Position the wheel guard between yourself and the grinding wheel.

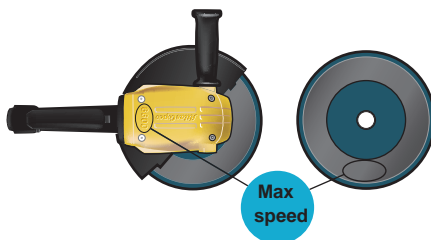


Check that the trigger is working correctly.

- The trigger must never be removed or fixed by tape for example.
- If the trigger is not working properly, make sure that it is replaced.

3. Maximum speed

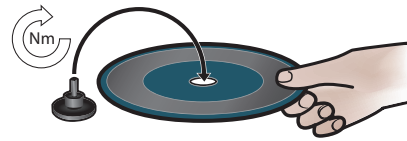
Make sure that the stated maximum speed of the grinding wheel is greater than or equal to the speed specified on the grinder.



4. Check the grinding wheel

Make sure that the grinding wheel is not cracked or damaged in any way.

- The grinding wheel should have the correct hole dimensions and be fitted correctly on the spindle to avoid unbalanced vibrations.
- Damaged grinding wheels must be removed and replaced immediately.
- Do not use dropped or damaged wheels, as these can cause serious injuries.



5. Check the flange and wheel

Make sure that flange and wheel combinations correspond to national regulations.

- Check that the flanges are undamaged and clean.
- Attach the wheel with the recommended torque.
- Always disconnect the air-supply when changing the wheel or adjusting the tool.
- Test-run your grinder in a protected area after assembling the wheel.
- Check that the grinder is working correctly.

6. Personal protection equipment

Make sure that operators wear:

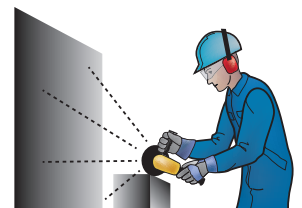
- Eye protection, goggles or a visor.
- Ear protection.
- Gloves.
- Steel toe-capped shoes.
- Protective clothing, such as a leather apron.
- A helmet (for heavier applications).
- Avoid loosely hanging clothing, hair, jewellery (risk of getting caught).



7. Working area

Ensure that the area in which you are working is kept free from other people so that no one can get injured.

- People nearby must also wear hearing and eye protection.
- Check that there is good ventilation and dust extraction from the premises.
- There should be a stand or a place available, on which the machine can be safely placed.
- Work within a sealed-off area, if possible with protecting walls, since there is a risk that broken discs could fly off.



During work

Stop using the grinder if abnormally loud noises and vibrations occur during use. The grinder and its accessories must not be modified in any way.

After the work is finished

Make sure the machine is switched off and has come to a complete stop before it is put down. Put down the tool carefully, so that there is no risk of the tool starting by itself.



Maintenance

Make sure you follow the service instructions provided and the recommended service intervals. Do not dismantle safety-related parts such as the speed governor and overspeed shut off. These parts should be completely replaced when damaged.

TURBINE TECHNOLOGY BOOSTS PRODUCTIVITY

More efficient than a conventional vane grinder motor, the 2 stage turbine motor in the GTG25 provides an extremely high efficiency leading to great rate of material removal on the roughest surfaces. A speed governor ensures optimum process speed and process time is cut to a minimum. Since the job is done faster, the total energy consumption is significantly lower for each job.

REDUCES OPERATOR STRAIN

The GTG25 is ergonomically designed in every aspect. Its high power-to-weight ratio, 3.4 hp of power in a 5.07 lb tool, makes grinding much easier for the user. Combined with other GTG25 features, for example, an ergonomic angled throttle handle and an autobalancer to minimize vibrations, the overall result is less strain on the operator.



GTG25 F120-527



GTG25 F085-727

HIGHLY SERVICE FRIENDLY

With its all-metal design, the GTG25 turbine grinder is a robust, durable tool. Service intervals are long and servicing is easy thanks to modular internal components and Service Kits from Atlas Copco.

Model	Max free speed r/min	For wheel dia in	Spindle thread	Max output hp	Weight lb	Height over spindle in	Air consumption at max output		Rec. hose size		Air inlet thread NPT	Ordering No.
							cfm	cfm	mm	in		
For grinding and cutting off												
GTG25 F120-527	12000	5	5/8-11	3.4	5.07	2.3	67.8	19	16	5/8	3/8	8423 2525 06
GTG25 F085-727	8500	7	5/8-11	3.4	5.29	2.3	67.8	19	16	5/8	3/8	8423 2525 07
For sanding												
GTG25 S085-700	8500	7	5/8-11	3.4	4.2	2.3	67.8	19	16	5/8	3/8	8423 2525 08
GTG25 S060-700	6000	7	5/8-11	3.4	4.2	2.3	67.8	19	16	5/8	3/8	8423 2525 22

TOOL ACCESSORIES

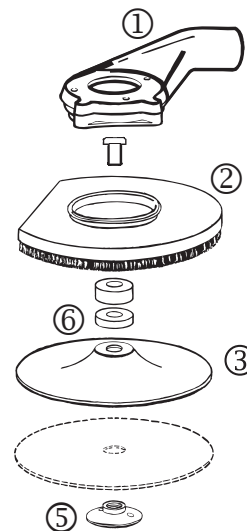
Model	Ordering No.
Whip-hose (incl.)	4175 0738 91
Exhaust hose	4150 1532 95
Spot suction kit for sander	3780 4090 27

AIR LINE ACCESSORIES

Model	Ordering No.
MultiFlex	8202 1350 28
Claw coupling	9000 0262 00
HM Open XL hose reel	8202 1183 50

SPOT SUCTION KIT FOR SANDING WITH FIBRE DISC

Model	Ordering No.
KIT 7"	3780 4007 90
1 Chamber	3780 3100 40
2 Suction cap 180 mm with brush	3780 2675 00
3 Backing pad 180 mm	3780 2710 60
6 Distance washer 9 mm	3780 2721 50
5 Nut 5/8"	3780 2726 70



Productivity Kits

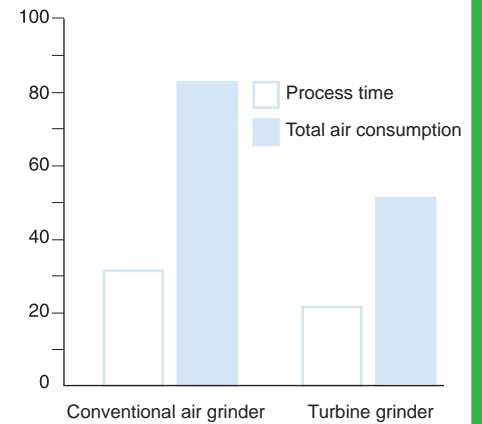
Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ15US-T16	85 cfm	Turbo 16	ErgoQIC 15US	Yes	8202 0850 31

The GTG/GTR40 are the most powerful grinders in the turbine grinder range, with incredible power for their size and weight. The range includes angle and straight type grinders for virtually every common rough grinding application.

- For rough grinding and cutting off with depressed center wheels.
- For surface finishing with coated abrasives and wire brushes.
- For rough grinding with cup wheels.
- GTR40 – for rough grinding and applications such as internal and external cleaning of castings with straight grinding wheels.
- Dust extraction – Efficient accessory and standard model for extraction of air-borne dust in sanding applications with fiber discs.



MORE EFFECTIVE



The turbine motor is more efficient than a conventional grinder motor. Therefore it takes less time to do the same job. Also the total air consumption will be a lot less for a specific job.

Model	Max free speed r/min	Max wheel dia in	Max output hp	Weight lb	Height over spindle in	Air consumption at		Hose size in	Air inlet thread NPT	Spindle thread in	Ordering No.
						max output cfm	free speed cfm				
For depressed center wheels, type 27											
GTG40 S060-927	6000	9	6.1	9.5	5.2	126	42	5/8	1/2	UNC 5/8	8423 0715 05
GTG40 S060-727	6000	7	6.1	9.5	5.2	126	42	5/8	1/2	UNC 5/8	8423 0715 07
GTG40 S077-727	7700	7	6.1	9.5	5.2	126	42	5/8	1/2	UNC 5/8	8423 0715 09
GTG40 S085-727	8500	7	6.1	9.5	4.8	126	42	5/8	1/2	UNC 5/8	8423 0715 10
For cup wheel, type 11											
GTG40 S060-611	6000	6	6.1	10.1	5.2	126	42	5/8	1/2	UNC 5/8	8423 0715 00
GTG40 F072-611	7200	5	6.1	10.1	5.2	126	42	5/8	1/2	UNC 5/8	8423 0715 20
For sanding											
GTG40 S060-900	6000	9	6.1	7.9	5.2	126	42	5/8	1/2	UNC 5/8	8423 0715 02
GTG40 S060-700	6000	7	6.1	7.9	5.2	126	42	5/8	1/2	UNC 5/8	8423 0715 03

Model	Max. free speed r/min	Rec. wheel diam. DxTxH in	Spindle		Max output hp	Weight incl. guard flanges lb	Length in	Air consumption at		Air inlet thread NPT	Rec. air hose in	Ordering No.
			thread in	length in				max output cfm	free speed cfm			
GTR40 S085-601	8500	6x1x1	UNC 5/8	2.2	6.1	12.3	22.1	126	42	1/2	5/8	8423 0715 11
GTR40 S072-501	7200	5x1x1	UNC 5/8	2.2	6.1	12.3	22.1	126	42	1/2	5/8	8423 0715 13
GTR40 S060-601	6000	6x1x1	UNC 5/8	2.2	6.1	12.8	22.1	126	42	1/2	5/8	8423 0715 15
GTR40 S060-801	6000	8x1x1	UNC 5/8	2.2	6.1	12.8	22.1	126	42	1/2	5/8	8423 0715 17

Accessories Included

GTG40

Adjustable wheel guard
 Support handle
 Attachment flanges
 Whip hose 2 ft long, 5/8" dia complete with nipple
 Gear box oil, one tube
 Hex key for wheel change

GTR40

Wheel guard
 Attachment flanges
 Whip hose 2 ft long, 5/8" dia complete with nipple
 Gear box oil, one tube
 Key and spanner for wheel change

Optional Accessories

GTG40

	Ordering No.
Heavy duty backing pad for sanding Ø 180 mm (7")	4170 1192 90
Ø 230 mm (9")	4170 1193 90
Hand shield	4175 0165 90
Adapter for positioning support handle 120/135° between handles	4175 0164 90 ^b
Adapter kit fibre disc	4175 0238 90
Dust extraction kit for 180 mm fiber disc GTG40 S060-700	3780 4090 11 ^a
Hose kit including 1.8 m vacuum hose, Ø 38 mm and air hose Ø 13 mm	3780 2724 41
Attachment nut for cup wheel with plane hole	4175 0178 90

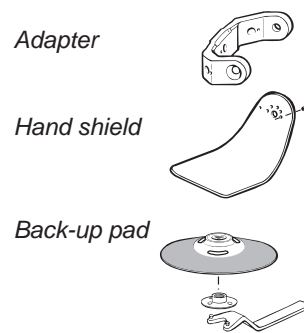
^a Incl. flow chamber, suction cap and support pad.

^b Included as standard in GTG40 S060-611.

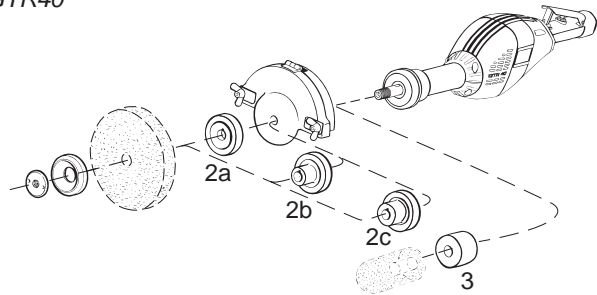
GTR40

	Thickness x Hole dia in	See illustration	Ordering No.
Rear flange	3/4-1 x 5/8	2a	4150 0619 00
		2a	4150 0713 00
		2b	4150 1650 00
		2c	4150 0620 00
Spacer for cone wheel	x 1 1/4	3	4150 0787 00

GTG40



GTR40



Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MAXI F/R EQ15US-T20	140 cfm	Turbo 16	ErgoQIC 15US	No	8202 0850 32
MAXI F/RD EQ15US-T20	140 cfm	Turbo 16	ErgoQIC 15US	Yes	8202 0850 33

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



Service Kits

GTG40 4081 0153 90
 GTR40 4081 0153 91

- LSF07 is a high speed model for precision grinding and polishing. LSF07 is delivered with a 1/8" collet and can be equipped with a 3 mm collet as optional.
- LSF12/LSV12 – Small and comfortable die grinder with up to 0.5 hp for maximum control in cramped spaces. All models are delivered with speed governor and a well balanced 1/4" Erickson collet.
- LSF19/LSV19 – All models in the 19 series are equipped with a powerful 0.67 hp air motor and a speed governor. LSF versions have scatter damping, for less vibrations. The angled models (LSV) have a patented solution that overcomes temperature and leakage problems commonly associated with angle head tools. The result is a leak free and self-cooled angle head. All models are lubrication free except for the high speed model LSF19 S460.
- LSF28 – Powerful 1.2 hp air motor, with speed governor and scatter damping. Impressive power-to-weight ratio.
- LSF38 – One of the most powerful one-hand die grinders on the market with up to 1.7 hp. If you are looking for



a tool that can boost your productivity and save you money, the LSF38 is the right tool! The die grinders in the 38

series are lubrication free with scatter damping for maximum operator comfort and safety.

Model	Max free speed r/min	Rec max dia of		Max output hp	Weight lb	Length in	Air consumption		Rec. hose size		Air inlet thread NPT	Ordering No.
		Tungsten carbide burrs in	Mounted point mm				at max output cfm	at free speed cfm	mm	in		
Straight models												
LSF12 S180-2 ^a	18000	1/2	20	0.28	0.8	6.7	15	5	8	5/16	1/4	8423 0701 00
LSF12 S200-2 ^a	20000	1/2	20	0.32	0.8	6.7	17	5	8	5/16	1/4	8423 0701 01
LSF12 S250-2 ^a	25000	1/2	20	0.39	0.8	6.7	18	7	8	5/16	1/4	8423 0701 02
LSF12 S310-2 ^a	31000	1/2	20	0.43	0.8	6.7	19	9	8	5/16	1/4	8423 0701 03
LSF12 S400-2 ^a	40000	3/8	16	0.48	0.8	6.7	21	15	8	5/16	1/4	8423 0701 04
LSF19 S460-2 ^a	46000	3/8	16	0.68	1.2	7.6	24	31	10	3/8	1/4	8423 0703 70
LSF19 S300-2	30000	1/2	20	0.67	1.2	7.6	23	14	10	3/8	1/4	8423 0703 71
LSF19 S200-2	20000	1/2	20	0.67	1.2	7.6	20	7	10	3/8	1/4	8423 0703 72
LSF19 S200E-2	30000	1/2	20	0.67	1.5	11.5	20	7	10	3/8	1/4	8423 0703 73
LSF19 S300E-2	30000	1/2	20	0.67	1.5	11.5	23	14	10	3/8	1/4	8423 0703 74
LSF28 S250-2 ^a	25000	1/2	32	1.2	1.7	8.3	39	23	13	1/2	3/8	8423 0702 07
LSF28 S250E-2 ^a	25000	1/2	32	1.2	2.8	13.2	39	23	13	1/2	3/8	8423 0702 08
LSF28 S180-2	18000	5/8	40	1.1	1.7	8.3	37	15	13	1/2	3/8	8423 0702 09
LSF28 S180E-2	18000	5/8	40	1.1	2.7	13.2	37	15	13	1/2	3/8	8423 0702 10
LSF28 S150-2	15000	5/8	40	0.9	1.7	8.3	32	12	13	1/2	3/8	8423 0702 15
LSF28 S120-2	12000	5/8	40	0.9	1.7	8.3	29	8	13	1/2	3/8	8423 0702 16
LSF38 S250E ^a	25000	5/8	40	1.8	3.3	13.8	58	53	13	1/2	3/8	8423 0700 31
LSF38 S180E	18000	5/8	40	1.8	3.3	13.8	58	31	13	1/2	3/8	8423 0700 28
LSF38 S150E	15000	5/8	40	1.8	3.3	13.8	50	27	13	1/2	3/8	8423 0700 37
Angle models												
LSV12 S120-2 ^a	12000	1/2	20	0.33	1.2	6.5	18	6	8	5/16	1/4	8423 0701 05
LSV12 S200-2 ^a	20000	1/2	20	0.39	1.2	6.5	20	14	8	5/16	1/4	8423 0701 06
LSV19 S200-2	20000	1/2	-	0.6	1.3	7.3	23	15	10	3/8	1/4	8423 0703 75
LSV19 S120-2	12000	1/2	-	0.6	1.3	7.3	23	15	10	3/8	1/4	8423 0703 76
LSV19 S080-2	8000	1/2	-	0.5	1.3	7.3	23	13	10	3/8	1/4	8423 0703 77
Die grinders for polishing												
LSF28 ST030-2	3000	-	-	0.9	2.6	10.8	38	18	10	3/8	3/8	8423 0702 22
LSF28 ST070-2 ^a	7000	-	-	1.0	2.6	10.8	40	26	10	3/8	3/8	8423 0702 17
LSF28 ST070E-2 ^a	7000	-	-	1.0	3.9	15.7	40	26	10	3/8	3/8	8423 0702 18
High speed model												
LSF07 S850 ^a	88000	1/6	6	0.10	0.9	6.7	4.9	4.6	4.5	3/16	-	8423 1222 03

^a Not lubrication free.
E = Extended version, flexible spindle

Accessories Included

LSF07

Air hose
ErgoNIP 08
Collet 1/8" (See ill. 1)

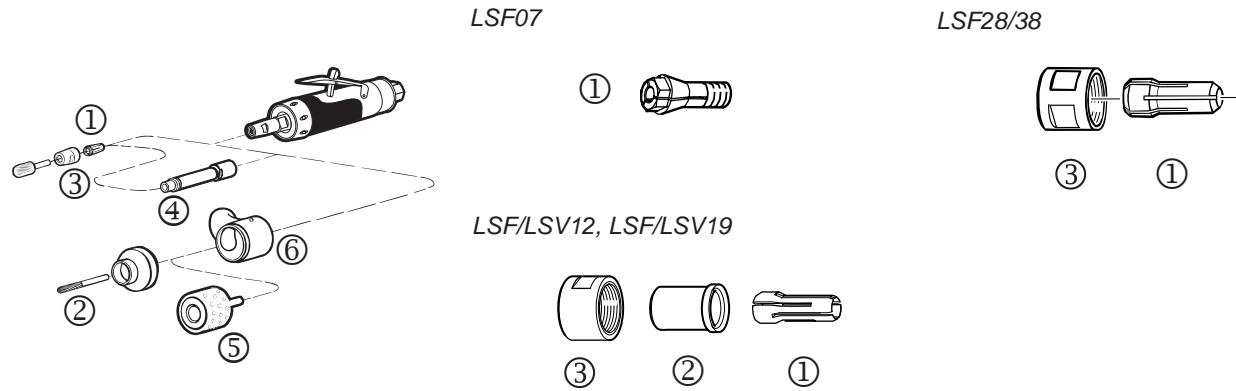
LSF/LSV12, LSF/LSV19, LSF28

Spanner
Collet 1/4" (See ill. 1)
Air hose, air hose nipple and clamp
Exhaust hose

LSF38

Air hose nipple
Collet 1/4" (See ill. 1)

Optional Accessories



	LSF07	LSF/LSV12	LSF/LSV19	LSF28	LSF38	See ill.
Optional collets						
3 mm	4150 1800 00	-	-	-	-	1
1/8"	4150 1822 00	4150 2226 46	4150 1710 00	-	-	1
1/4"	-	4150 2226 03	4112 1077 00	4150 1709 00	4150 1709 00	1
3/8"	-	-	-	-	4150 1708 00	1
Collar	-	4150 2226 02	4112 1078 00	-	-	2
Collet nut	-	4150 2226 04	4112 1076 00	4150 1706 00	4150 1706 00	3
For machining of plastic and glas fibre						
Spot suction kit burr (burr not included)	-	3780 3015 23	3780 3015 22	3780 4007 42	-	6
Diamond burr Ø 6 mm (1/4")	-	3780 5013 70	3780 5013 70	3780 5013 70	-	2
Spot suction kit drum (drum not included), for use with 8 mm (5/16") collet	-	-	3780 4011 61	3780 4011 73	-	6
Diamond drum Ø 52 mm (2 1/16")	-	-	3780 5033 00	3780 5035 00	-	5

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



Service Kits

07 series	4081 0243 90
12 series	4081 0472 90
19 series	4081 0488 90
28 series	4081 0315 90
38 series	4081 0308 90

230 Grinders

Atlas Copco straight grinders for cone wheel or collet, are suitable for grinding in holes and cavities in castings, etc. They require rough abrasives, which must be attached to the tool with a rigid shank or be mounted directly to the spindle.

The power ranges from 0.9 hp to 2.4 hp. All Atlas Copco tools are designed with focus on operator ergonomics and maximum power, the best combination for maximum productivity.

- The LSR38 is suitable for lighter applications where accessibility is first priority.
- If you need maximum power, then LSR48 is the natural choice. You will have access to 2.4 hp in combination with auto balancer for even less vibrations. All packed in a strong and light package.



LSR38 CW



LSR48 CW

Model	Max free speed r/min	Rec. wheel diameter in	Max output hp	Weight lb	Length in	Air consumption		Rec. hose size in	Spindle thread and length in	Air inlet thread NPT	Ordering No.
						at max output cfm	at free speed cfm				
LSR38 S150-CW	15000	2 3/8	1.8	3.5	12.6	50	27	1/2	UNF 3/8x14	3/8	8423 0700 29
LSR38 S180-CW	18000	2	1.8	3.5	12.6	58	31	1/2	UNF 3/8x14	3/8	8423 0700 30
LSR38 S150-CW/2	15000	2 3/8	1.8	3.5	12.6	50	27	1/2	UNC 5/8x21	3/8	8423 0700 33
LSR38 S120-CW/2	12000	2	1.8	3.5	12.6	58	31	1/2	UNC 5/8x21	3/8	8423 0700 35
LSR48 S120-CW	12000	2	2.4	5.0	17.6	64	28	1/2	UNC 5/8x21	1/2	8423 0708 02

Accessories Included

LSR38 CW

Exhaust air hose (1.1 ft)
 Hose clamp
 Open end spanner
 For -CW: UNF 3/8" (See ill. 1)
 For -CW/2: UNC/W 5/8" (See ill. 1)

LSR48 CW

Whip hose
 Wrench
 Cone wheel adapter UNC 5/8"-11,
 (See ill. 2)

Optional Accessories

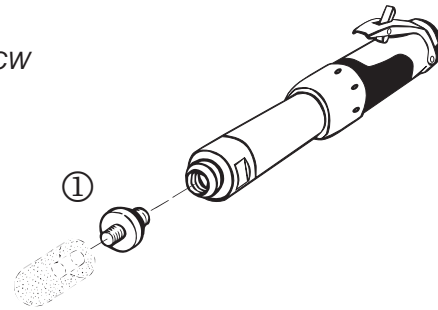
LSR38

	See illustration	Ordering No.
Adapter for cone wheel with thread		
UNC/W 3/8"	1	4150 0318 00
UNF 3/8"	1	4150 0318 01
UNC 1/2"	1	4150 1357 00
UNC/W 5/8"	1	4150 0767 00

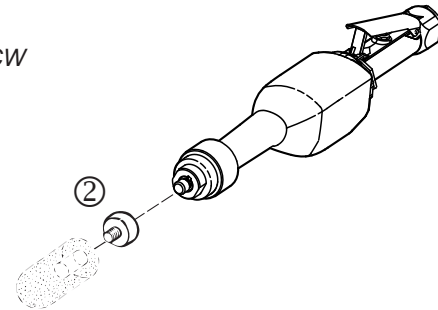
LSR48

	See illustration	Ordering No.
Adapter for cone wheel with thread		
UNC/W 5/8"	2	4150 0945 01

LSR38-CW



LSR48-CW



Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



Service Kits

28 series	4081 0315 90
38 series	4081 0311 90
48 series	4081 2023 90

No matter which of our vane grinders you choose you will get durable tools with high power and low weight. In addition, vibrations and noise are on a low level.

- LSV19 – For work in cramped spaces, the LSV19 series is small yet powerful, and lubrication free.
Features: Speed governor, sealed angle head, thermally insulated handle and lubrication-free air motor.
- LSV28 – Small, yet powerful giving 1 hp. Available in an extended version for optimal accessibility.
Features: Speed governor and thermally insulated handle.
- LSV38 – If you are looking for the most powerful one-hand grinder on the market, then you have found it – up to 1.7 hp.
Features: Speed governor, sealed angle head, lubrication-free air motor, thermally insulated handle, spindle lock and adjustable wheel guard.
- LSV48 – Our most powerful angle vane grinder with 2.5 hp for ultimate productivity.
Features: Speed governor, sealed angle head, lubrication-free air motor, thermally insulated handle and spindle lock. The autobalancer reduces the vibrations by up to 50%.



Model	Max free speed r/min	Max wheel dia in	Max output hp	Weight lb	Height over spindle in	Air consumption		Spindle thread and length in	Hose size in	Air inlet thread NPT	Ordering No.
						at max output cfm	at free speed cfm				
LSV19 S170-327	17000	3	0.6	1.6	2.8	23	14	UNF 3/8x17	3/8	1/4	8423 0705 80
LSV28 ST13-427E	13000	4	1.0	3.7	3.1	37	16	UNF 3/8x17	3/8	3/8	8423 0706 00
LSV28 ST12-427	12000	4	1.0	3.7	3.2	37	16	UNF 3/8x18	3/8	3/8	8423 0706 01
LSV38 ST12-427	12000	4	1.7	3.5	3.3	58	31	UNF 3/8x17	1/2	3/8	8423 0700 20
LSV38 ST12-527	12000	4 1/2-5	1.7	4.0	3.3	58	31	UNC 5/8x20	1/2	3/8	8423 0700 22
LSV48 SA120-527	12000	5	2.5	5.5	3.9	76	36	UNC 5/8x21	5/8	1/2	8423 0707 53
LSV48 SA085-727	8500	7	2.5	6.2	3.9	76	36	UNC 5/8x21	5/8	1/2	8423 0707 52
LSV48 SA066-727	6600	7	2.5	5.1	3.9	76	36	UNC 5/8x21	5/8	1/2	8423 0707 54

With wheel guard for disc
 -327 = Ø 3"
 -427 = Ø 4"
 -527 = Ø 5" and 4.5"
 -727 = Ø 7"

Selection Guide

HOW TO CHOOSE YOUR LSV38

	LSV38 ST12-427	LSV38 ST12-527
1.7 hp air motor	x	x
Adjustable guard positions	x	x
Lockable spindle	x	x
Side handle	x	x
Size wheel, inch	4	4.5 and 5
Spindle thread, inch	UNF 3/8	UNC 5/8

Accessories Included

LSV19

Wheel guard
Flanges
Air hose nipple, clamp
Wrenches
Exhaust hose set

LSV28

Wheel guard
Flanges
Air hose, air hose nipple, clamp
Wrenches
Exhaust hose set

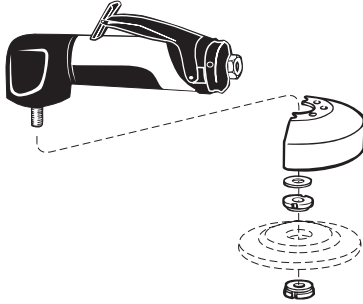
LSV38

Wheel guard
Flanges
Support handle (LSV38 ST-models)
Wrenches
Grease refill

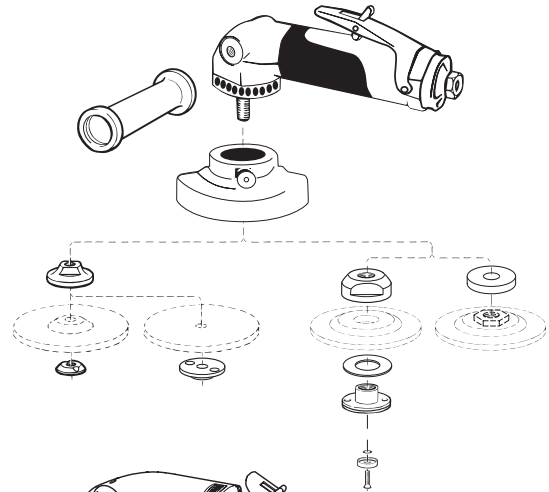
LSV48

Wheel guard
Flanges
Support handle
Wrenches
Grease refill

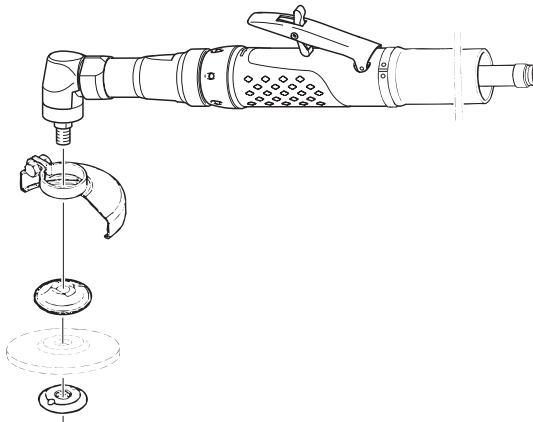
LSV19



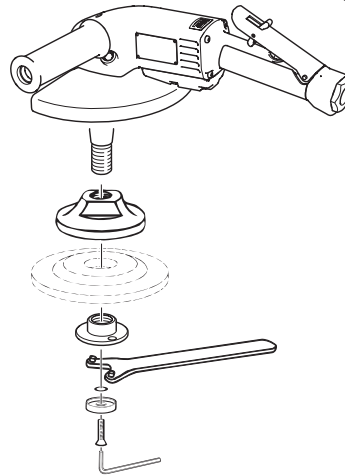
LSV38



LSV28



LSV48



Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30
MIDI Optimizer F/RD EQ15US-T16	85 cfm	Turbo 16	ErgoQIC 15US	Yes	8202 0850 31
MAXI F/R EQ15US-T20	140 cfm	Turbo 16	ErgoQIC 15US	No	8202 0850 32
MAXI F/RD EQ15US-T20	140 cfm	Turbo 16	ErgoQIC 15US	Yes	8202 0850 33

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



Service Kits

LSV19	4081 0488 90
LSV28	4081 0317 90
LSV38	4081 0309 90
LSV48	4081 0312 90

- LSV12 series** – For finer work where less power and more control are needed. Available with collet or threaded spindle.

Features: Speed governor, high quality gears and lever with feathering characteristics.
- LSV19 series** – For work in cramped spaces. Available with collet or threaded spindle versions.

Features: Speed governor, sealed angle head and lubrication-free air motor.
- LSV28 series** – The 28 series comes in various speeds.

Features: Speed governor, sealed angle head, LF models have lubrication-free air motor.
- LSV38 series** – Powerful one hand sander for medium rough to rough sanding.

Features: Speed governor, sealed angle head, lubrication-free air motor and spindle lock.
- LSV48 series** – Our most powerful angle vane sander with 2.5 hp for ultimate productivity.

Features: Speed governor, sealed angle head, lubrication-free air motor, autobalancer and spindle lock.



Model	Max free speed r/min	Rec. pad size dia in	Max output hp	Weight lb	Length in	Height in	Air consumption		Spindle thread and length in	Rec. hose size in	Air inlet thread NPT	Ordering No.
							at max output cfm	at free speed cfm				
With collet												
LSV12 S200-2	20000	2	0.39	1.2	6.5	3.0	17.6	6.4	– ^a	5/16	1/4	8423 0701 06
LSV12 S120-2	12000	3	0.33	1.2	6.5	3.0	17.6	6.4	– ^a	5/16	1/4	8423 0701 05
LSV19 S200-2	20000	2	0.6	1.3	7.3	3.0	23	15	– ^a	3/8	1/4	8423 0703 75
LSV19 S120-2	12000	3	0.6	1.3	7.3	3.0	23	15	– ^a	3/8	1/4	8423 0703 76
LSV19 S080-2	8000	3	0.5	1.3	7.3	3.0	23	13	– ^a	3/8	1/4	8423 0703 77
With threaded spindle												
LSV12 S200	20000	2	0.39	1.2	6.5	2.3	17.6	6.4	UNC 1/4x5/16	5/16	1/4	8423 0701 08
LSV12 S120	12000	3	0.33	1.2	6.5	2.3	17.6	6.4	UNC 1/4x5/16	5/16	1/4	8423 0701 07
LSV19 S120	12000	3	0.6	1.3	7.3	2.3	23	15	UNC 1/4x8	3/8	1/4	8423 0703 78
Dry sanding												
LSV28 S085	8500	7	1.0	3.2	10.4	3.4	46	29	UNC 5/8x32	3/8	3/8	8423 0706 12
LSV28 S060 LF	6000	7	1.0	3.2	10.4	3.4	34	16	UNC 5/8x32	3/8	3/8	8423 0706 11
LSV28 S040 LF	4000	7	0.8	3.2	10.4	3.4	32	9	UNC 5/8x32	3/8	3/8	8423 0706 13
LSV28 ST034	3400	7	1.0	3.7	12.0	3.4	38	16	UNC 5/8x32	3/8	3/8	8423 0706 15
LSV28 S021 LF	2100	7	0.9	4.1	11.2	3.4	34	12	UNC 5/8x32	3/8	3/8	8423 0706 14
LSV38 S085	8500	7	1.7	3.5	8.5	3.8	58	31	UNC 5/8x23	1/2	3/8	8423 0700 24
LSV38 S066	6600	7	1.6	3.5	8.5	3.8	50	27	UNC 5/8x23	1/2	3/8	8423 0700 25
LSV38 S066 D	6600	7	1.6	3.5	8.5	3.8	50	27	UNC 5/8x28	1/2	3/8	8423 0700 26
LSV48 SA066	6600	7	2.5	5.1	11.8	3.5	76	36	UNC 5/8x21	5/8	1/2	8423 0707 50
LSV48 SA085	8500	7	2.5	5.1	11.8	3.5	76	36	UNC 5/8x21	5/8	1/2	8423 0707 51

Backing pads sold separately.

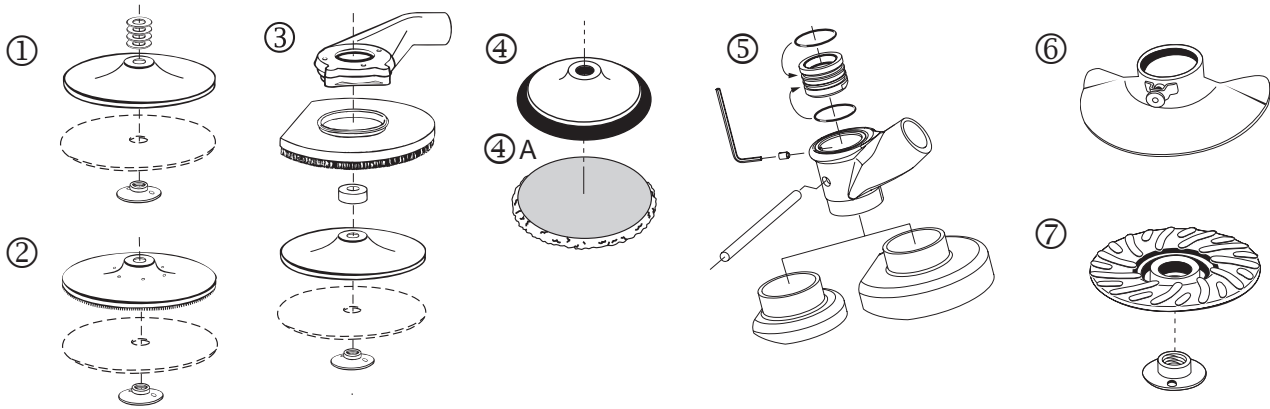
^a Ø 1/4" collet.

- D = Spot suction kit included.

Accessories Included

Air hose nipple Support handle (LSV28/38/48)
 Clamp Wrenches (LSV19/28)
 Exhaust hose (LSV19/28/38) Spot suction equipment (D-version)

Optional Accessories



	LSV12	LSV19	LSV28	LSV38	LSV48	See illustration
Backing pad set, standard type						
Ø 5 in - 5/8" - soft	-	-	4170 0768 80	4170 0768 80	4170 0768 80	1
Ø 7 in - 5/8" - soft	-	-	4170 0756 80	4170 0756 80	4170 0756 80	1
Ø 7 in - 5/8" - stiff	-	-	4170 0757 80	4170 0757 80	4170 0757 80	1
Backing pad set with cooling ribs						
Ø 5 in - 5/8" and M14	-	-	4150 1962 80	4150 1962 80	4150 1962 80	2
Ø 7 in - 5/8" and M14	-	-	4150 1962 81	4150 1962 81	4150 1962 81	2
Backing pad set, heavy duty type						
Ø 120 mm - 5/8"	-	-	-	4170 1204 90	4170 1204 90	7
Ø 162 mm - 5/8"	-	-	-	4170 1192 90	4170 1192 90	7
Backing pad set for polishing - velcro						
Ø 150 mm - 5/8" (max 2500 rpm)	-	-	4112 6092 15	-	-	4
Ø 150 mm - Lambs woll bonnet	-	-	4112 6093 15	-	-	4A
Spot suction kit for fiber disc						
Ø 5 in	-	-	3780 4007 80 ^a	-	-	3
Ø 7 in	-	-	3780 4007 90 ^b	-	3780 4093 40	
			3780 4031 60 ^c			
Ø 2 - 3 in	3780 4092 64 ^d	3780 4092 62 ^d 3780 4092 65 ^e	-	-	-	5
Hand shield for 5-7 in	-	-	-	4150 1936 80	-	6
Hand shield for 5-7 in, large shield	-	-	-	4150 1941 80	-	6

^a = Suits LSV28 S060 ^b = Suits LSV28 S040/060 ^c = Suits LSV28 S021 ^d = For model with collet ^e = For model with threaded spindle

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30
MIDI Optimizer F/RD EQ15US-T16	85 cfm	Turbo 16	ErgoQIC 15US	Yes	8202 0850 31
MAXI F/R EQ15US-T20	140 cfm	Turbo 16	ErgoQIC 15US	No	8202 0850 32
MAXI F/RD EQ15US-T20	140 cfm	Turbo 16	ErgoQIC 15US	Yes	8202 0850 33

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



Service Kits

LSV19	4081 0488 90
LSV28	4081 0317 90
LSV38	4081 0309 90
LSV48	4081 0312 90

Orbital and Random Orbital Sanders

Atlas Copco series of random orbital sanders combines all the important customer and application requirements in a very competitive range of products. Applications like sanding before painting and surface coating, polishing with wax and surface conditioner are all quickly done with the small and easily operated LST20-range of sanders.

All models are lubrication free and have silicone free components. They have two grip options in the same handle. In addition, one smaller grip model is included. The full range includes standard models and extraction models. There are also two orbit diameters to choose from in the model range.

- **Lubrication-free** – Avoids contamination of workpiece. No oil in the exhaust air.



Model	Max free speed r/min	Pad size mm	Orbit dia mm	Max output hp	Weight lb	Height mm	Length mm	Air consumption at free speed cfm	Rec. hose size mm	Air inlet thread NPT	Ordering No.
Random orbital – Standard											
LST30 H090-11	9000	110	8	0.4	2.6	120	255	16	8	1/4	8423 0361 64
LST30 H090-15	9000	150	8	0.4	2.6	120	275	16	8	1/4	8423 0361 72
LST30 S090-15	9000	150	8	0.4	2.4	120	175	16	8	1/4	8423 0361 98
Self suction^a											
LST31 H090-15	9000	150	8	0.4	3.0	120	300	16	8	1/4	8423 0363 19
Central suction^b											
LST32 H090-15	9000	150	8	0.4	3.0	120	300	16	8	1/4	8423 0362 55
LST32 S090-15	9000	150	8	0.4	2.9	120	200	16	8	1/4	8423 0362 71
Orbital – Standard											
LSO30 S070-3	7000	93x170	5	0.4	3.5	125	185	16	8	1/4	8423 0360 16
LSO30 H070-3	7000	93x170	5	0.4	3.7	125	285	16	8	1/4	8423 0360 24
Self suction^a											
LSO31 S070-3	7000	93x170	5	0.4	3.5	125	210	16	8	1/4	8423 0362 79
LSO31 H070-3	7000	93x170	5	0.4	3.7	125	310	16	8	1/4	8423 0363 03
Central suction^c											
LSO32 H070-3	7000	93x170	5	0.4	4.0	125	310	16	8	1/4	8423 0361 07
Standard model											
LST20 R350	12000	90	5	0.27	1.85	95	127	17	8	1/4	8423 0361 65
LST20 R550	12000	125	5	0.27	1.85	83	127	17	8	1/4	8423 0361 69
LST20 R650	12000	150	5	0.27	1.85	83	127	17	8	1/4	8423 0361 73
LST20 R525	12000	125	2.4	0.27	1.85	83	127	17	8	1/4	8423 0361 81
LST20 R625	12000	150	2.4	0.27	1.85	83	127	17	8	1/4	8423 0361 84
Extraction model – self suction											
LST21 R350	12000	90	5	0.27	1.85	95	133 ^d	17	8	1/4	8423 0361 66
LST21 R550	12000	125	5	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 70
LST21 R650	12000	150	5	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 74
LST21 R525	12000	125	2.4	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 82
LST21 R625	12000	150	2.4	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 85
Extraction model – central suction^c											
LST22 R350	12000	90	5	0.27	1.85	95	133 ^d	17	8	1/4	8423 0361 67
LST22 R550	12000	125	5	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 71
LST22 R650	12000	150	5	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 75
LST22 R650-9	12000	150	5	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 40
LST22 R325	12000	90	2.4	0.27	1.85	95	133 ^d	17	8	1/4	8423 0361 78
LST22 R525	12000	125	2.4	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 83
LST22 R625	12000	150	2.4	0.27	1.85	83	133 ^d	17	8	1/4	8423 0361 86

^a Includes dust collecting bag.

^b Required air flow 150 m³/h or 88 cfm.

^c Required air flow 60 m³/h or 35 cfm.

^d 186 mm (7.3") suction hose connector included.

H = With handle.

S = Without handle.

All data at 6.3 bar.

-9 Velcro pad, 9 holes.

Accessories Included

LSO

Base pad
Perforating plate
Hose nipple for 8 mm hose
LSO31 including dust collection kit

LST20/21/22

Velcro pad
U-wrench for pad change
Air hose nipple
Dust hose and bag (LST21)
Large and small grip cover

LST30/31/32

Velcro pad
Bar for changing pad
Hose nipple for 8 mm hose
LST31 incl dust collection kit

Optional Accessories

LSO

For LSO	Ordering No.
Base pad, vinyl for -3F-type	4112 0787 01
Suspension yoke	4112 0975 00
Hose set	
Dust hose, for LSO32, Ø 32 mm, L=1.8 m including air hose	3780 2724 34

LST20/21/22, PAD FOR SELF STICK PAPER

	Ordering No.		
	Dia 89 mm	Dia 125 mm	Dia 150 mm
For LST20	4112 1231 00	4112 1233 00	4112 1235 00
For LST21/22		4112 1232 00	4112 1234 00

LST20/21/22, PAD FOR VELCRO BACK PAPER

	Ordering No.		
	Dia 89 mm	Dia 125 mm	Dia 150 mm
For LST 20	4112 1218 00	4112 1216 00	4112 1214 00
For LST 21/22	-	4112 1217 00	4112 1215 00

LST30/31/32

	Ordering No.
Pad velcro, Ø 150 mm	4112 0795 01 ^a
Pad velcro, Ø 110 mm	4112 0792 02 ^b
Pad velcro, Ø 150 mm, 6 holes	4112 0796 00 ^c
Suspension yoke	4112 0975 00
Hose set	
Dust hose Ø 32 mm, L=1.8 m including air hose	3780 2724 34 ^d

^aLST30-15 ^bLST30/32-11 ^cLST31/32-15 ^dLST32

LST30/31/32, PAD FOR SELF STICK PAPER

	Ordering No.		
	Dia 110 mm	Dia 125 mm	Dia 150 mm
For LST 30	41120 7992 00	4112 0872 00	4112 0793 00
For LST 31/32	41120 7992 00	4112 0873 00	4112 0874 00

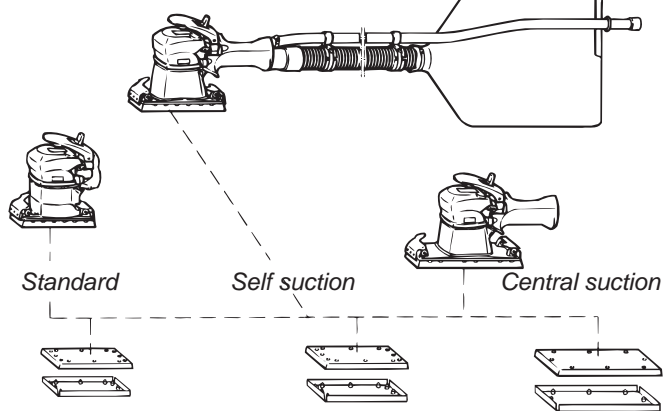


Service Kits

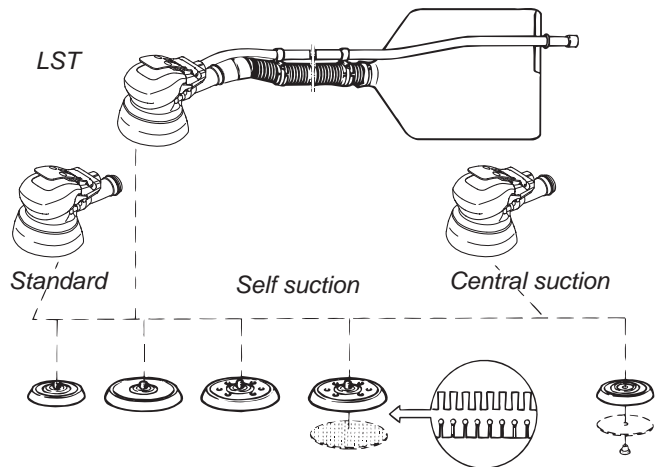
LST20/21/22 4112 1300 90

238 Grinders

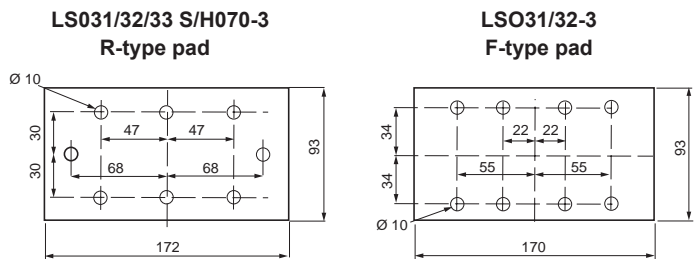
LSO



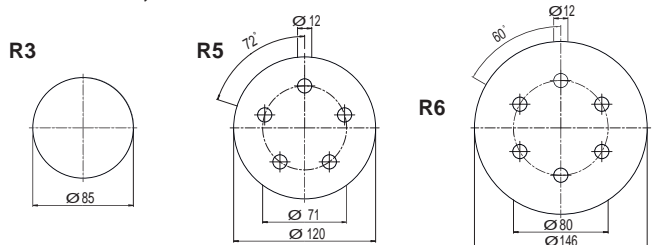
LST



HOLE PATTERN DIMENSIONS FOR SANDING PAPER, DUST EXTRACTION MODELS



LST20/21/22, 30/31/32



Dimension in mm

The fact that dust can represent a hazard in the working environment is well documented.

Dust particles from certain materials are dangerous to health. Even inert dust particles that cause no permanent damage can still be retained in the body and make breathing more difficult. The size of dust particles of most concern are those below 0.005 mm.

Efficient dust control can make a significant contribution to efficiency and productivity in industrial operations. It is already a requirement in countries with strict health and safety regulations.

Efficient dust control will:

- Reduce the health risk for operators exposed to potentially dangerous particles.
- Give a more favourable working environment which will encourage greater efficiency and effort from those who operate industrial tools.

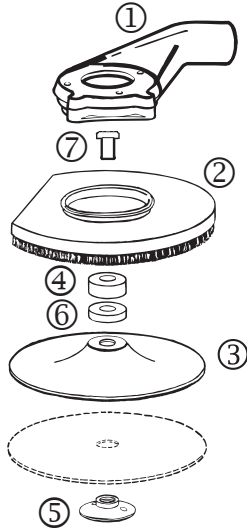
The most efficient method of dust collection is dust extraction at the point of dust creation, i.e. on the tool itself. This not only ensures very efficient extraction but also allows a relatively low power vacuum source to be used.

Atlas Copco spot suction kits provide an extraction hood fixed to the tool. It is fitted with a plastic or brush edge to trap heavier particles as well as the small ones. The following pages show a number of applications and the necessary dust extraction kits with their contents.



LSV28/38/48/GTG40

SPOT SUCTION KIT FOR SANDING WITH FIBER DISC. SANDERS WITH UNC 5/8" SPINDLE.



Suction requirement: 250 m³/h

		Ordering No.	
LSV28 S040/S060/S085 5 in	Includes	KIT	3780 4007 80
		1 Chamber	3780 3100 40
		2 Suction cap 125 mm with brush	3780 2650 20
		3 Backing pad 125 mm	3780 2710 30
		4 Distance washer 12 mm	3780 2721 60
LSV28 ST12-13 5 in	Includes	KIT	3780 4008 60
		1 Chamber	3780 3101 10
		2 Suction cap 125 mm with brush	3780 2650 20
		3 Backing pad 125 mm	3780 2710 30
		6 Distance washer 9 mm	3780 2721 50
LSV28 S040/S060 7 in	Includes	KIT	3780 4007 90
		1 Chamber	3780 3100 40
		2 Suction cap 180 mm with brush	3780 2675 00
		3 Backing pad 180 mm	3780 2710 60
		6 Distance washer 9 mm	3780 2721 50
LSV28 S021 7 in	Includes	KIT	3780 4031 60
		1 Chamber	3780 3101 50
		2 Suction cap 180 mm with brush	3780 2675 00
		3 Backing pad	3780 2710 60
		6 Distance washer 12 mm	3780 2721 60
LSV38 S066 7 in	Includes	KIT^a	3780 2726 70
		1 Chamber	3780 4008 84
		2 Suction cap 180 mm with brush	3780 3103 52
		3 Backing pad 180 mm	3780 2675 00
		6 Distance washer 9 mm	3780 2710 60
LSV38 S085 5 in	Includes	KIT^a	3780 2726 70
		1 Chamber	3780 4008 85
		2 Suction cap 125 mm with brush	3780 3103 52
		3 Backing pad 125 mm	3780 2650 20
		6 Distance washer 9 mm	3780 2710 30
LSV48 SA066 7 in	Includes	KIT	3780 2726 70
		1 Chamber	3780 4093 40
		2 Suction cap 180 mm with brush	3780 3103 51
		3 Backing pad 180 mm	3780 2675 00
		5 Flange nut 5/8"	3780 2710 60
GTG40 S060 7 in	Includes	KIT	3780 2721 50
		1 Chamber	3780 4093 40
		2 Suction cap 180 mm with brush	3780 2675 00
		3 Backing pad 180 mm	3780 2710 60
		5 Flange nut 5/8"	3780 2726 70

^a Use with adapter, Ordering No. 4150 1928 90, to be ordered separately.

VACUUM HOSE, 5.9 FT

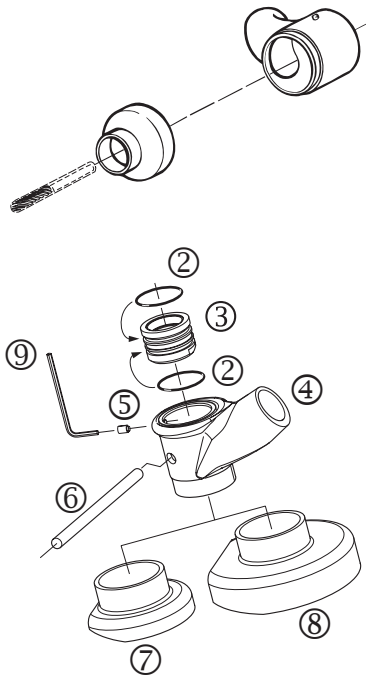
Hose	Ordering No.
Ø 1" (25 mm) for 74 cfm (125 m ³ /h) suction requirement	3780 2724 20
Ø 1 9/32" (32 mm) for 118 cfm (200 m ³ /h) suction requirement	3780 2724 31
Ø 1 1/2" (38 mm) for 147 cfm (250 m ³ /h) suction requirement	3780 2724 40

BRUSH FOR SUCTION CAP

	Ordering No.
Separate brush 3/4" high, for cap Ø 5"	3780 2678 00
Separate brush 3/4" high, for cap Ø 7"	3780 2677 50
Separate brush 1 3/16" high, for cap Ø 7"	3780 2677 30

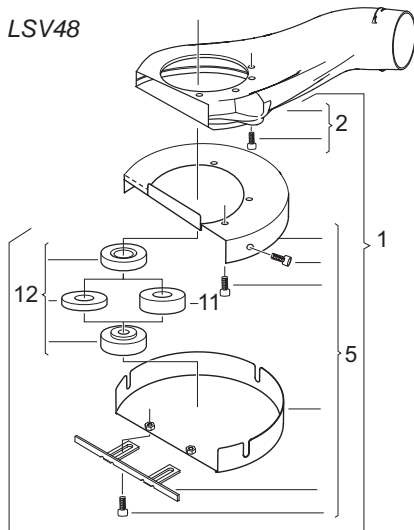
SPOT SUCTION KIT FOR DIE GRINDERS

Suction requirement: 125 m³/h (LSF19), 200 m³/h (LSF28)



		Ordering No.
LSV12 S-1	KIT for sanding pad dia 2-3"	3780 4092 64
LSF19 S	KIT for burr	3780 3015 22
	Optional Diamond burr 6 mm	3780 5013 70
LSF19 S	KIT for drum	3780 4011 61
	Includes 3 Shaft dia 6 mm	3780 5090 30
	4 Locking screw	3780 5090 60
	Optional 5 Diamond drum 27 mm	3780 5033 00
LSV19 S-1	KIT for sanding pad dia 50 and 75 mm	3780 4092 62
	Includes 6 O-ring 23x1.6	0663 2103 85
	7 Clamp ring	4112 1065 04
	9 Lock screw M4x6 A1	0192 1168 00
	10 Lock pin	4112 0779 00
LSF28	KIT for burr	3780 4007 42
	Optional Diamond burr 6 mm	3780 5013 70

LSV48



DUST EXTRACTION FOR DIAMOND CUTTING BLADE (GRP-CUTTING)

		Ordering No.
LSV48 SA085/SA066 7 in	KIT	3780 4093 42
	Includes 12 Flange set	3780 2799 50
	Optional 7 in diamond cutting disc	3780 5074 62

ROUTER

Pattern fixture cutting of composite in the aerospace industry as well as trimming of composite materials is preferably done with a router. The LSK37 is the only router with dust extraction and support bearing integrated into one unit. This gives the LSK37 excellent performance and ergonomics in most composite applications.

- **Productive** – The speed governor maintains the rotational speed at applied feed-force which enables fast and effective cutting and prevents the bit from clogging.
- **Ergonomic** – An integrated dust extraction hood for deportation of hazardous dust, thermally insulated throttle handle, sound dampening exhaust valve and piped-away exhaust air provides the operator with the best working environment.



LSK38



LSK37

Model	Free speed r/min	Collet size	Weight lb	Power hp	Air consumption cfm	Recommended hose size		Hose fitting thread NPT	Ordering No.
						mm	in		
LSK37 S250-DS1	25000	6 mm	6.1	0.95	32	13	1/2	3/8	8423 1234 41
LSK37 S250-DS2	25000	1/4	6.1	0.95	32	13	1/2	3/8	8423 1234 42
LSK38 S250 Do	25000	1/4	2.2	1.8	58	13	1/2	3/8	8423 0700 00
LSK38 S180 Do	18000	1/4	2.2	1.8	58	13	1/2	3/8	8423 0700 01

Suction requirement: 200 m³/h. **NOTE:** LSK38 delivered without rotor housing

Cutting operations in glass and carbon fiber as well as metal sheet, wood and steel can successfully be performed with a circular cutter.

- **Effective** – LCS10 and LCS38 cut to a depth of 10 and 26 mm respectively.
- LCS38 is suitable for diamond coated blades only.
- **Dust extraction** – Cutting of composite materials generates dust containing particles hazardous to health. The dust must be deposited in order to prevent the operator from inhaling it.

LCS38 is equipped with a cutter blade guard with integrated dust extraction hood for external vacuum source.

LCS38



LCS10



Model	Free speed r/min	Max output hp	Max cutting depth in	Max cutter blade dia in	Weight lb	Air consumption at free speed cfm	Rec. hose size		Air inlet thread	Ordering No.
							mm	in		
LCS10	3000	0.4	3/8	2	3.1	16	6.3	1/4	BSP 1/4	8424 1161 38
LCS38 S150D ^a	15000	1.7	1	4	3.7	58	13.0	1/2	BSP 3/8	8424 1125 06

^a Suction requirement: 200 m³/h.

Accessories Included

Flanges for diamond blade
Hose nipple for 13 mm air hose

Optional Accessories

CUTTER BLADES

Model	Application	Max thickness of material in	No. of teeth	Dia in	Hole in	Ordering No.
LCS10	Steel sheet	3/64	92	2	3/8	4190 0394 00
	Steel sheet (std)	3/64	62	2	3/8	4190 0395 00
	Aluminum	3/32	34	2	3/8	4190 0396 00
	Wood	3/8	34	2	3/8	4190 0396 00
LCS38	Diamond disc for fibre glass	3/4	44/60 (Grain)	3	1/2	3780 5073 00
	Diamond disc for fibre glass	1	44/60 (Grain)	4	1/2	3780 5074 00

SUCTION HOSE SET

Model	Ordering No.
Suction hose set, (L= 5.9 in, Dia 1 1/4") for LCS38	3780 2724 31

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.

PERCUSSIVE TOOLS

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These tools make light of the toughest jobs

Atlas Copco percussive tools are ideal for all material removal tasks in foundries, engineering workshops and shipyards. Built-in-ergonomic features such as vibration damping reduce the human load, delay fatigue and help protect the operator against the ill effects of long-term exposure to vibration and noise.

Our tools are made out of lightweight alloys to keep weight down while maintaining performance. This makes our tools extremely effective in the hands of your skilled operators.

WELD FLUX REMOVAL

Our tools are used when fettling welds from flux and spatter and in general scaling operations.

The conventional scaler RRC 13 and RRC 13B with a blowing function are the preferred models for these types of application. These tools have the right power and a sturdy reliable design. They also have a low vibration level for conventional models.

RUST AND PAINT REMOVAL

Rust and paint removal is a common application found in various types of industries such as shipbuilding, large transport sector and on offshore rigs.

Our RVM07B has low noise and is vibration damped. The standard chisel delivered with the tool is carbide tipped for a long service life. The tool is also equipped with a clean blowing device.

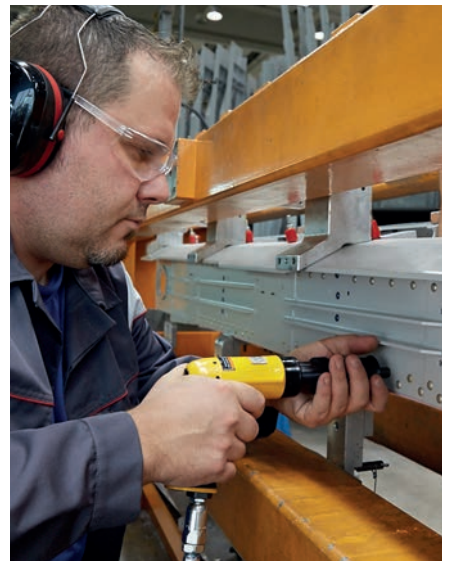
For lighter jobs the needle scaler RRC 13N is the ideal tool. Needle sets of different shapes and material are available to suit most operations.

CHIPPING AND SCALING

Percussive tools for chipping and scaling are widely used in all kinds of metalworking, construction and other industrial areas. Applications could be slag chipping, concrete trimming and sheet-metal cutting.

We offer high power-to-weight tools for these kind of applications. RRF 21/31 and RRD 37/57 models are vibration damped for operator comfort.

Our RRC22-RRC75 models are robust and highly dependable conventional chipping hammers suitable for heavy roughening.



Product Safety

IMPORTANT: All local safety regulations with respect to installation, operation and overhaul must always be followed.

AVOID ACCIDENTS

- 1** The chisel, die or punch may fall out or may be shot out of the tool accidentally causing serious injury.



To prevent injury from a flying chisel:

- Always use a retainer.
- Inspect the retainer for wear or damage regularly.



- Be aware that the chisel may break during operation.
- Never trigger a hammer unless held against a work piece.
- Remove chisel, die or punch from tool when work is over.
- When finishing a job, disconnect the tool from its air supply.
- Before changing accessories, chisel or die – disconnect the tool from the air supply.

- 2** Chips and sparks should be prevented from striking an eye or another worker.



To prevent vision loss:

- Always wear eye protection.
- Isolate work of this kind by using barriers between work stations.
- Do not use the tool for other purposes than it is intended for.

- 3** Gloves protect fingers from pinching, scuffing and scraping.

- Protective shoes may prevent your feet from being injured.

- 4** Explosive atmosphere must not be ignited.



To prevent injury and property loss from fires:

- Use other technique.
- Use accessories of non sparking material (e.g. needle attachment of Beryllium copper for a needle scaler).

- 5** Electric shock may be fatal.

- Avoid chiseling into electric wiring hidden inside walls etc.

LONG TERM RISKS

- 6** Always use ear protection.



To prevent gradual loss of hearing due to exposure to high noise level – wear ear protection.

- 7** Vibration may be harmful to hands and arms.



- Use vibration dampened tools if available.
- Reduce the total time of exposure to vibrations, particularly if the operator has to guide the chisel by hand.

- 8** Dust generated during operation may be harmful.

- Use spot suction or a breathing apparatus.

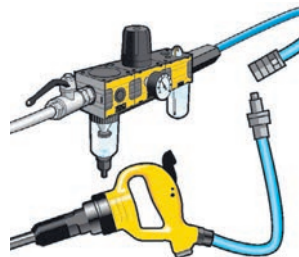
PROPER USE AND MAINTENANCE

- 9** Do not perform idle blows with a hammer.



- They will cause high internal stresses and shorten the life of the tool.
- Note the risk of shooting out the chisel, die or punch if the retainer is not in order or damaged.

- 10** Quick coupling.



- If a coupling is used on a percussive tool, it should be separated from the tool by a whip hose (length 0.5 m).

- 11** Follow the tool manual and the lubrication instructions.

- 12** Perform overhauls at regular intervals.

- **RRF21/31** have a sturdy D-handle in light metal alloy for a high power-to-weight ratio and steady grip. The compact, vibration-controlled design offers good accessibility and ease of use.
- **RRD37/57** are light, quiet and have a long service life. They have light alloy tool casings, very low vibration and noise levels, vibration damping in both hand grips, and piped away exhaust.



Model	Blows Hz	Piston dia		Stroke		Energy per blow		Weight		Bushing		Air consumption		Hose size		Air inlet NPT	Ordering No.
		mm	in	mm	in	J	ft lb	kg	lb	mm	in	l/s	cfm	mm	in		
RRF21-01	57	18	0.7	33	1.3	2.0	1.5	1.75	3.3	12.7 ^c	0.50	6.5	13.8	10.0	3/8	3/8	8425 1104 05
RRF31-01	38	22	0.9	43	1.7	4.4	3.2	2.5	5.3	12.7 ^c	0.50	7.5	15.9	10.0	3/8	3/8	8425 1104 15
RRF31-02	38	22	0.9	43	1.7	4.4	3.2	2.5	5.3	12.7 ^c	0.50	7.5	15.9	10.0	3/8	3/8	8425 1104 16
RRD37-11	35	27/19 ^a	1.1/0.8	70	2.8	6.8	5.0	3.0	6.6	17.3 ^d	0.68	7.2	15.3	12.5	1/2	special ^e	8425 1101 22
RRD57-11	31	28/18 ^b	1.1/0.8	92	3.6	9.3	6.9	3.4	7.5	17.3 ^d	0.68	9.5	20.1	12.5	1/2	special ^e	8425 1103 20
RRD57-12	31	28/18 ^b	1.1/0.8	92	3.6	9.3	6.9	3.4	7.5	17.3 ^d	0.68	9.5	20.1	12.5	1/2	special ^e	8425 1103 38

^a Effective piston dia 19 mm, 0.75 in.

^b Effective piston dia 21.5 mm, 0.85 in.

^c ISO.

^d Spline.

^e Integrated hose barb.

-01 and -11: Guided models,

-02 and -12: Non guided models.

Chipping Hammers

- **Dependable** – Their robust construction makes them highly dependable.
- **Efficient** – RRC65 and RRC75 have a blow rate which makes them particularly suitable for roughening.
- **Chisel retainer** – for safer jobs – RRC22-RRC75 are delivered with a chisel retainer as standard. For the same reason choose a tool that can be guided via the machine itself and not by holding the chisel.

Atlas Copco chipping hammers of series RRC are delivered with a standard, guided ISO hexagon nozzle (-01) or a round, non guided shank nozzle (-02).

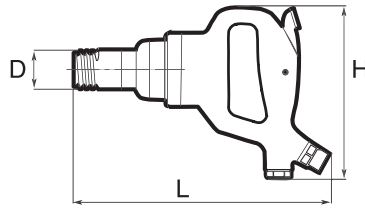


Model	Blows Hz	Piston dia		Stroke		Energy per blow		Weight		Bushing		Air consumption		Hose size		Air inlet NPT	Ordering No.
		mm	in	mm	in	J	ft lb	kg	lb	mm	in	l/s	cfm	mm	in		
RRC22F-01	62	15	0.6	52	2.0	2.7	2.0	2.2	4.9	12.7 ^a	0.50	6.2	13.1	10	3/8	3/8	8425 0202 22
RRC22F-02	62	15	0.6	52	2.0	2.7	2.0	2.2	4.9	12.7 ^a	0.50	6.2	13.1	10	3/8	3/8	8425 0202 30
RRC34B-01	45	24	0.9	67	2.6	5.5	4.1	4.5	9.9	17.3 ^a	0.68	8.0	14.0	12.5	1/2	special ^b	8425 0212 53
RRC65B-01	40	29	1.1	50	2.0	10.0	7.3	5.9	13.0	17.3 ^a	0.68	10.8	22.9	12.5	1/2	special ^b	8425 0225 33
RRC75B-01	30	29	1.1	75	3.0	16.0	11.8	6.5	14.3	17.3 ^a	0.68	14.0	29.6	12.5	1/2	special ^b	8425 0225 58

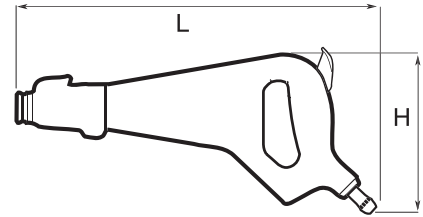
^a ISO. ^b Integrated hose barb.

Dimensions (in)

Model	L	H	D
RRF21	9.7	6.3	1.3
RRF31	10.4	6.7	1.4
RRD37	16.5	6.9	—
RRD57	18.0	7.5	—

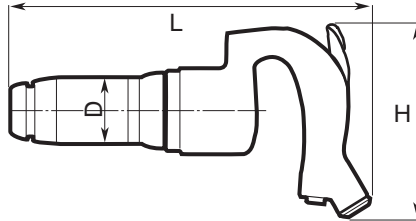


RRF21/31



RRD37/57

Model	L	H	D
RRC22	10.2	6.1	1.3
RRC34	13.0	6.3	1.7
RRC65	13.2	6.7	2.1
RRC75	15.4	6.7	2.1



RRC

Accessories Included

RRF MODELS

Chisel retainer and a hose fitting

RRD MODELS

Flat chisel
Silencer complete
Hand grip
Key

RRC MODELS

Chisel retainer and hose fitting

Optional Accessories

Model	Ordering No.
Power regulator	
RRF21 and -31	3512 0273 80
Retainer, open type	
RRF21	3512 0290 90
RRF31	3512 0305 90
Protective handle kit	
RRF21	3512 0349 81
RRF31	3512 0349 82

CHISELS

For a wide choice of chisels, see pages with "Chisels" at the end of this chapter.

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.

RVM07B is the obvious choice for task such as weld dressing light concrete trimming and for removal of paint and rust.

- **Vibration-damped with low-noise level.**
- **Two-job capacity** – RVM07B features a clean-blowing device which is very useful in order to keep the work piece clean from slag and other particles from the process.

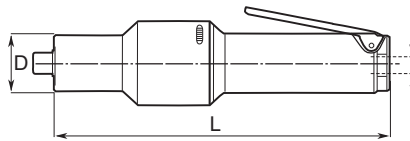


RVM07B

Model	Blows Hz	Weight incl. standard chisel		Air consumption		Hose size		Air inlet NPT	Ordering No.
		kg	lb	l/s	cfm	mm	in		
RVM07B	100	1.7	3.8	3.8	8.1	6.3	1/4	1/4	8425 0105 25

Dimensions

Model	L in	D in
RVM07B	10.7	1.5



Choose between two different models for heavy slag chipping and for instant trimming of concrete.

- **High removal rate** – RRC13 is very effective and has a high removal rate in relation to its low weight.
- **Well proven** percussive mechanism and retainer.
- **Two-job capacity** – RRC13B with extra clean-blowing device.
- **Improved back head** – Throttle valve and lever with really Heavy Duty performance for long service life. Clean blowing system with twice the previous blow



RRC13B

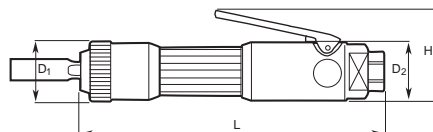
capacity. Big blow button for easy operation and sturdy valve stem to resist rough handling.

Model	Blows Hz	Piston dia		Stroke		Energy per blow		Weight		Air consumption		Hose size		Air inlet BSP	Ordering No.
		mm	in	mm	in	J	ft lb	kg	lb	l/s	cfm	mm	in		
RRC13	73	15	0.6	35	1.4	1.4	1.0	1.4	3.1	4.0	8.0	10	3/8	3/8	8425 0101 30
RRC13B	73	15	0.6	35	1.4	1.4	1.0	1.6	3.5	4.0	8.0	10	3/8	3/8	8425 0101 33

B = Blow Gun

Dimensions

Model	L in	H in	D ₁ in	D ₂ in
RRC13	8.7	2.6	1.8	1.6
RRC13B	9.1	2.6	1.8	1.6



Needle Scaler

The effective needle scaler, type RRC13N, is based on the same fundamental design as the straight chipping hammers of type RRC13 described above.

- **Sturdy design** – Easy to maintain.
- **Versatile** – The needle scaler is used to remove welding slag, rust and paint from steel structures.

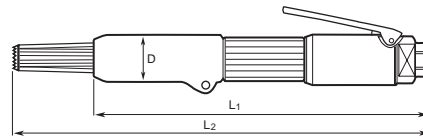


RRC13N

Model	Blows Hz	Piston dia		Stroke		Energy per blow		Weight		Air consumption		Hose size		Air inlet NPT	Ordering No.
		mm	in	mm	in	J	ft lb	kg	lb	l/s	cfm	mm	in		
RRC13N	73	15	0.6	35	1.4	1.4	1.0	1.9	4.2	4.0	8.0	10	3/8	3/8	8425 0101 36

Dimensions

Model	L ₁ in	L ₂ in	D in
RRC13N	11.1	13.9	1.5



Accessories Included

FOR ALL RRC13

Hose fitting
Scaling chisel

FOR RMV07B

Hose fitting
Flat carbide tipped chisel 10x120 mm

Optional Accessories

FOR RRC13, 13B

RRC13 / RRC13B	Ordering No.
Hand guard	3510 0246 90
Silencer	3510 0366 80

Chisels for RRC13 and -13B:
Square shank 13.0 mm

FOR RRC13N

NEEDLE-SET OF 19 NEEDLES, LENGTH 100 MM

Material	Ordering No.
Steel, standard	3510 0221 90
Steel flat ends	3510 0227 90
Stainless steel flat ends	3510 0228 90
Beryllium copper flat ends (spark resistant)	3510 0229 90

FOR RMV07B

Carbide tipped chisels and through hardened chisels with other length and width, see separate page for chisels.

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.

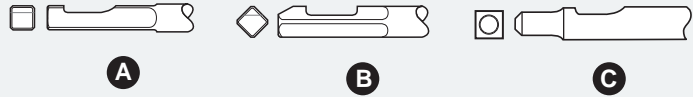


Chisels for Chipping hammers. All chisels are normally through hardened. Otherwise, see tables.

Figure	Shank type	Tools	Table
	Square shank 13.0 mm	RRC13, RRC13B	1
	Extended square shank ISO, 12.7 mm		1
	Hexagon and round shank ISO, round collar 12.7 mm	RRC22F-01, RRC22F-02 RRF21, RRF31	2
	Hexagon shank ISO round collar 17.3 mm	RRC34B-01, RRC65B-01, RRC75B-01	3
	Round shank ISO, with splines 17.3 mm	RRD37, RRD57	3
	Hexagon shank ISO without round collar 17.3 mm	RRC34-01, RRC65-01, RRC75-01	4
	Round shank ISO, without collar 17.3 mm	RRC34-02, RRC65-02, RRC75-02	4
	Special shank	RVM07B	5

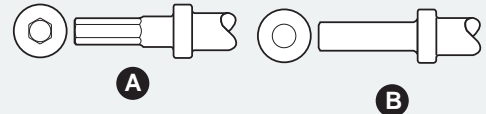
Chisels

- 1 A. Chisels with square shank 1/2"
 B. Chisels with square shank ISO 1/2"
 C. Square shank 1/2" in round end. For RRC13B



Chisel type	Designation	Width		Length		Square 1/2" Ordering No.	ISO Extended square 1/2" Ordering No.	Ordering No.
		mm	in	mm	in			
	Chisel blank	15	0.59	155	6.1	3085 0020 00		
		15	0.59	200	7.9	3085 0020 01		
		15	0.59	300	11.8	3085 0020 02		
	Flat chisel	15	0.59	165	6.1	3085 0227 00	3085 0230 01	
		15	0.59	200	7.9	3085 0227 01		
		15	0.59	110	4.3			3512 0114 00
		15	0.59	185	7.3			3512 0070 00
	Wide flat chisel	35	1.38	165	6.5	3085 0032 00	3085 0232 01	
		35	1.38	200	7.9	3085 0032 01		
		35	1.38	300	11.8	3085 0032 02		
		55	2.17	165	6.5	3085 0332 00		
		35	1.4	178	7			3512 0115 00
	Angle scraper chisel	35	1.38	165	6.5	3085 0176 00	3085 0362 00	
		35	1.38	200	7.9	3085 0176 01		
		55	2.17	165	6.5	3085 0333 00		
	Scaling chisel	15	0.59	155	6.1	3085 0018 00	3085 0229 01	
		15	0.59	200	7.9	3085 0018 02		
		15	0.59	300	11.8	3085 0018 01		

- 2 A. Chisels with hexagon shank ISO, round collar 1/2 in. For RRC22F-01.
 B. Chisels with round shank ISO, round collar 1/2 in. For RRC22F-02.



Chisel type	Designation	Width		Length		Hex ISO 12.7 mm (1/2") Ordering No.	Round ISO 12.7 mm (1/2") Ordering No.
		mm	in	mm	in		
	Chisel blank	13	0.51	200	7.9	3085 0182 00	
		13	0.51	350	13.8	3085 0182 01	
		13	0.51	400	15.7	3085 0182 04	
		13	0.51	500	19.7	3085 0182 05	
	Flat chisel	13	0.51	200	7.9	3085 0183 00	3085 0184 00
		35	1.38	300	11.8	3085 0376 00	
	Sharp chisel	15	0.59	200	7.9	3085 0170 00	
		15	0.59	300	11.8	3085 0170 01	
	Spot weld chisel	17	0.69	200	7.9	3085 0301 00	
	Angle scraper chisel	30	1.18	200	7.9	3085 0262 00	
	Pipe cutting chisel	20	0.78	200	7.9	3085 0302 00	
		35	1.38	200	7.9	3085 0303 00	
	Plate cutting chisel	14.5	0.57	200	7.9	3085 0263 00	
	Plate cutting chisel	16	0.62	200	7.9	3085 0173 00	
	Moil point chisel	13	0.51	200	7.9	3085 0297 00	
		13	0.51	305	12.0	3085 0297 01	

3 Chisels with round ISO shank with splines 0.68 in. For RRD 37-11, RRD 37-12, RRD 57-11, RRD 57-12.



Chisel type	Designation	Width		Length		Round ISO with splines 17.3 mm (0.68") Ordering No.
		mm	in	mm	in	
	Chisel blank	22	0.86	250	9.8	3085 0242 00
		22	0.86	340	13.4	3085 0242 01
		22	0.86	550	21.7	3085 0242 02
		22	0.86	800	31.5	3085 0242 03
	Flat chisel	22	0.86	215	8.5	3085 0236 00
		22	0.86	250	9.8	3085 0236 01
		22	0.86	340	13.4	3085 0236 02
		22	0.86	550	21.7	3085 0236 03
	Flat chisel	32	1.26	340	13.4	3085 0252 00
	Wide flat chisel	50	1.97	340	13.4	3085 0250 00
	Extra wide flat chisel	130	5.12	400	15.7	3085 0998 00
	Angle scraper chisel	50	1.97	335	13.2	3085 0350 00
	Moil point chisel	22	0.86	340	13.4	3085 0249 00

4 Chisels with special shank. For RVM07.



Chisel type	Designation	Material	Width		Length		Ordering No.
			mm	in	mm	in	
	Flat chisel	Tungsten carbide	10	0.39	120	4.7	3085 0321 00
		Through hardened steel	10	0.39	120	4.7	3085 0325 00
		Tungsten carbide	10	0.39	200	7.9	3085 0321 01
		Tungsten carbide	10	0.39	300	11.8	3085 0321 02
		Tungsten carbide	20	0.79	120	4.7	3085 0345 00
		Through hardened steel	20	0.79	120	4.9	3085 0346 00
	Wide chisel	Tungsten carbide	35	1.38	120	4.7	3085 0322 00
		Through hardened steel	35	1.38	120	4.7	3085 0327 00

Minimum vibration, maximum productivity

Atlas Copco's top-of-the-line riveting systems are designed to minimize the riveter's exposure to vibration, while maintaining high tool performance. The RRH recoilless riveting hammer has an air cushion behind the hammer piston which efficiently kills vibrations. The same air dampening technique is used in RBB bucking bars. It raises individual productivity and boosts output in your plant.

The Atlas Copco riveting system includes vibration-damped hammers RRH and bucking bars RBB – as well as conventional riveting hammers RRN.

The vibration-damped riveting hammers – RRH – are available in different sizes.

Each size is available in “Trigger start” and “Push to start” models.

The conventional riveting hammer – RRN – is available in one size: RRN11P.

CRITICAL FACTORS

The number of blows and the power are critical factors which determine the strength of a riveted joint. A few powerful blows are needed to fill out the hole and form a head when upsetting the rivet. The impact force is critical to some extent when working with aluminum alloys, as too many blows can embrittle the metal.

In terms of capacity, the tools overlap. The selection guide below helps you to find the right tool for your particular application of riveting.

The vibration-damped bucking bars RBB are available in two versions – the simple spring damped – SP type and the air servo assisted SA type.



Selection Guide

Hammer model ^a	Nominal Max. Rivet Diameter Capacity						Bucking bar model required ^b
	Dural		Steel		Titanium		
	mm	in	mm	in	mm	in	
RRN11	2-5	3/32 - 3/16	1-4	3/32 - 5/32			
RRH04	2-5	3/32 - 3/16	1-4	3/21 - 5/32			RBB04
RRH06	4-7	5/32 - 1/4	3-6	1/8 - 1/4	2-4	3/32 - 5/32	
RRH08	5-8	3/16 - 5/16	4-7	5/32 - 1/4	3-6	1/8 - 1/4	
RRH10	5-9	3/16 - 3/8	6-8	1/4 - 5/16	4-7	5/32 - 1/4	
RRH12	8-11	5/16 - 7/16	7-10	1/4 - 3/8	6-9	1/4 - 1/8	
RRH14	11-13	7/16 - 1/2	9-12	3/8 - 15/32	8-11	5/16 - 7/16	

^a Hammer capacity depends on direct/indirect riveting as well as Panel density and stiffness.

^b Bucking bar capacity is dependent on dolly weight.

Vibration-damped

Riveting Hammers

RRH is a unique series of riveting hammers incorporating completely revolutionary ergonomic advantages.

- **Versatile** – RRH can easily cope with rivets in diameters up to 13 mm.
- **Vibration-damped system** – The RRH vibration-damped riveting hammer, combined with the RBB vibration-damped bucking bar, offer an unbeatable system for riveting.
- **Adjustable power.**
- **Adjustable hand guard** – Support hand grip is vibration-damped.
- Models with trigger start for excellent handling. Pistol grip with rubber coating.



Model	Blows Hz	Nozzle		Piston dia		Stroke		Energy per blow		Weight		Air consumption		Hose size		Air inlet NPT	Ordering No.
		mm	in	mm	in	mm	in	J	ft lb	kg	lb	l/s	cfm	mm	in		
With push start																	
RRH04P-01	66	10.0	0.4	15	0.6	40	1.6	2.0	1.5	1.0	2.2	3.7	6	6.3	1/4	1/4	8426 1111 07
RRH04P-02	66	10.2	0.4	15	0.6	40	1.6	2.0	1.5	1.0	2.2	3.7	6	6.3	1/4	1/4	8426 1111 15
RRH04P-12	66	10.2	0.4	15	0.6	40	1.6	2.0	1.5	1.0	2.2	3.7	6	6.3	1/4	1/4	8426 1111 25
RRH06P	36	10.2	0.4	15	0.6	102	4.0	6.0	4.4	1.3	2.9	9.0	19	10.0	3/8	1/4	8426 1111 04
RRH08P	24	10.2	0.4	15	0.6	137	5.4	8.0	5.9	1.4	3.0	10.0	21	10.0	3/8	1/4	8426 1111 09
RRH10P	25	12.7	0.5	19	0.7	118	4.6	13.0	9.6	2.0	4.4	12.0	24	10.0	3/8	1/4	8426 1110 20
RRH12P	20	12.7	0.5	19	0.7	153	6.0	16.0	11.8	2.1	4.6	13.0	28	10.0	3/8	1/4	8426 1110 47
RRH14P	18	12.7	0.5	19	0.7	188	7.4	19.5	14.4	2.2	4.8	13.0	28	10.0	3/8	1/4	8426 1110 80
With trigger start																	
RRH04P TS-12	66	10.2	0.4	15	0.6	40	1.6	2.0	1.5	1.0	2.2	3.7	6	6.3	1/4	1/4	8426 1111 27
RRH06P TS	36	10.2	0.4	15	0.6	102	4.0	6.0	4.4	1.3	2.9	9.0	19	10.0	3/8	1/4	8426 1111 66
RRH08P TS	24	10.2	0.4	15	0.6	137	5.4	8.0	5.9	1.4	3.0	10.0	21	10.0	3/8	1/4	8426 1111 68
RRH10P TS	25	12.7	0.5	19	0.7	118	4.6	13.0	9.6	2.0	4.4	12.0	24	10.0	3/8	1/4	8426 1110 70
RRH12P TS	20	12.7	0.5	19	0.7	153	6.0	16.0	11.8	2.1	4.6	13.0	28	10.0	3/8	1/4	8426 1110 72
RRH14P TS	18	12.7	0.5	19	0.7	188	7.4	19.5	14.4	2.2	4.8	13.0	28	10.0	3/8	1/4	8426 1110 81
RRH12P-ENG	20	12.7	0.5	19	0.7	153	6.0	16.0	11.8	2.1	4.6	13.0	28	10.0	3/8	1/4	8426 1110 49
RRH14P-ENG	18	12.7	0.5	19	0.7	188	7.4	19.5	14.4	2.2	4.8	13.0	28	10.0	3/8	1/4	8426 1110 82

-01 means 10 mm short shank rivet set.

-02 means 10.2 mm short shank rivet set.

-12 means 10.2 mm stand shank rivet set.

Conventional Type

Riveting Hammers

For riveting in confined spaces we recommend our RRN11 riveting hammer.

- **RRN11** – is the smallest riveting hammer available on the market, with unique accessibility.
- **Adjustable** – The RRN11 has a built-in adjustment knob with which you can set the power for different rivet materials and sizes.
- **Controllable** – The trigger is easily operated and provides excellent control.



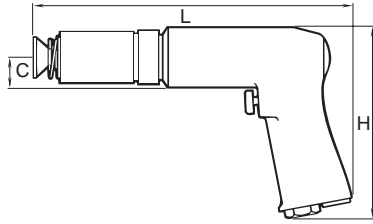
Model	Blows Hz	Nozzle		Piston dia		Stroke		Energy per blow		Weight		Air consumption		Hose size		Air inlet NPT	Ordering No.
		mm	in	mm	in	mm	in	J	ft lb	kg	lb	l/s	cfm	mm	in		
RRN11P-01	66	10.0	0.4	15	0.6	40	1.6	2.0	1.5	1.2	2.6	3.4	7.2	6.3	1/4	1/8	8426 1101 05
RRN11P-02	66	10.2	0.4	15	0.6	40	1.6	2.0	1.5	1.2	2.6	3.4	7.2	6.3	1/4	1/8	8426 1101 13

-01 means 10 mm short shank rivet set.

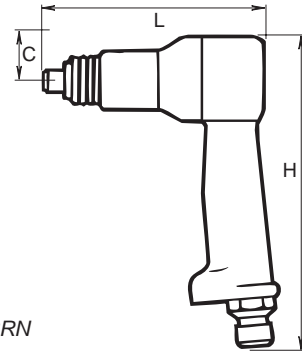
-02 means 10.2 mm short shank rivet set.

Dimensions (in)

Model	L in	H in	C in
RRH			
RRH04-01	6.3	5.8	0.9
RRH04-02	6.3	5.8	0.9
RRH04-12	6.9	5.8	0.9
RRH06	8.9	5.8	0.94
RRH08P	9.6	5.8	0.94
RRH10P	10.4	5.9	1.06
RRH12P	11.8	5.9	1.06
RRH14P	13.1	5.9	1.06
RRN			
RRN11P	3.9	6.7	0.9



RRH



RRN

Accessories Included

For RRH models

- Hose fitting
- Flush set
- Open spring retainer

For RRN11P

- Hose fitting and retainer
- Blank rivet set
- Retainers for blank and flush rivet set

Optional Accessories

RIVET SETS. RRH AND RRN

Hammer type	Model	Shank mm	Flush set	Ordering No.	Blank rivet set	Ordering No.
RRH04P-01 RRN11P-01	(-01)	10.0 spec		3085 0347 00		3006 0983 00
RRH04P-02 RRN11P-02	(-02)	10.2 spec		3085 0352 00		3085 0353 00
RRH04P-12 RRH06P RRH08P	(-12)	10.2 std		3085 0324 00		3085 0022 00
RRH10P RRH12P RRH14P		12.7 std		3085 0323 00		3085 0021 00
RRH04P-12 RRH06P RRH08P		10.2 std				3085 0212 00 Mandrel blank
RRH04P-12 RRH06P RRH08P		10.2 std				3085 0212 02

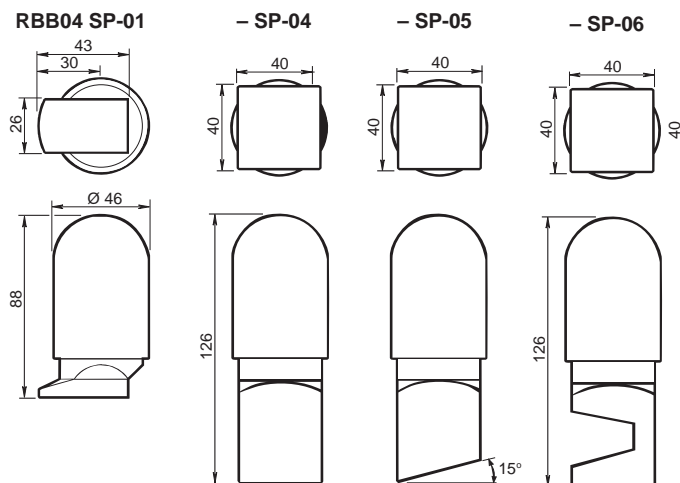
An efficient riveting system consists of vibration-damped bucking bars together with vibration-damped riveting hammers.

- **Cramped spaces** – Mini bucking bars RBB04SP are ideal for work in confined spaces. The large mass types -04, -05 will in most applications set the rivet faster than the smaller models.



Model	Weight		Diameter		Ordering No.
	kg	lb	mm	in	
Mini bucking bars					
RBB04SP-01	0.8	1.8	46	1.8	8426 9101 10
RBB04SP-04	1.3	2.9	46	1.8	8426 9101 13
RBB04SP-05	1.4	3.1	46	1.8	8426 9101 14
RBB04SP-06	1.1	2.5	46	1.8	8426 9101 15

Dimensions (mm)



DRILLS



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Reliable, productive and comfortable to work with



The handheld drills in Atlas Copco's wide range are of the highest quality and built to provide consistent reliability and performance in a wide range of applications. Their advanced ergonomic designs make your job easier, safer and more efficient.

From the time our first drill was produced in 1901, Atlas Copco has demonstrated a genuine understanding of customer needs. Our drills have evolved to meet changing customer demands over the years. Whatever the job, Atlas Copco has a drill to match your exact requirements.

RELIABLE

When you pick up an Atlas Copco drill, you can be confident that it will do the job over and over again.

POWERFULLY PRODUCTIVE

Despite their compact designs, our drills consistently deliver all the power you need. Their high power-to-weight ratio ensures maximum material removal in the shortest possible time.

ERGONOMIC

Thanks to 50 years of focusing on ergonomics, Atlas Copco drills fit comfortably in your hand. Grips are anatomically shaped to keep your arm and wrist straight, reducing the risk of injury during

long-term use. The light weight and perfect balance of each drill enables you to guide it smoothly and easily. Low noise and vibration levels make the tools comfortable to work with all day long.

DURABLE, LOW MAINTENANCE

The rugged, lubrication-free designs of our drills can withstand the toughest industrial situations and go on working day in, day out. Maintenance requirements are low.

QUALITY THROUGHOUT THE TOOLS' LIFE-CYCLE

Atlas Copco stands for quality, from the manufacture of critical drill components, through production and sales, to service and support throughout the tools' long life-cycle.



Drills

LBB 16 FEATURES

Chuck guard

Prevents damage and gives good support

Wing design

Better grip = allows two different grips and higher feed force

Soft grip:

Comfortable temperature, not too cool
Good grip, no risk of slipping

Correct angle:

Reduce wrist load
Higher feed force = higher productivity
Reduce injuries

Sensitive trigger

Good throttling capability = precise and high quality holes
Reduces risk of "trigger finger" syndrome

Adjustable air exhaust, 360°

= prevents cool air from affecting the operator



LBB 16S FEATURES

Santopren "softgrip" material for insulation and good grip

Long lever as standard, safety lever as accessory

Rigid aluminum housing

Adjustable air exhaust

Chuck guard

Keyed chuck as standard and self tightening chuck as accessory

End stops at both ends of the handle

High performance vane motor

A suspension yoke is included and attached here

Trim valve for adjusting the rpm



Selection Guide

Cutting speed ^a sfpm	Material		rpm																																
			300	400	500	600	700	800	1000	1200	1300	1500	1700	1900	2200	2400	2600	2900	3000	3300	3700	3800	4500	5500	6000	6400	6500	20000	23000	26000					
15	Titanium	Alloy Steel	3/16	5/32	1/8	1/8	1/16	1/16	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32				
30			7/16	5/16	1/4	3/16	3/16	5/32	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32				
50			Cast iron	Mild steel	1/2	3/8	5/16	1/4	1/4	3/16	5/32	5/32	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32			
80					5/8	1/2	7/16	3/8	5/16	1/4	3/16	3/16	5/32	5/32	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16		
100			Hard plastics	Mild steel						3/8	5/16	1/4	1/4	1/4	1/4	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/32	1/32	1/32			
115											3/8	3/8	1/4	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/32		
130												3/8	3/8	1/4	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/32	
150													3/8	5/16	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/32	
165														3/8	5/16	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/16	1/32
180														3/8	3/8	5/16	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	1/32
200													7/16	3/8	3/8	1/4	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/32	1/32	1/32	
215													1/2	3/8	3/8	5/16	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/32	1/32	1/32	
230													1/2	3/8	3/8	5/16	1/4	1/4	1/4	3/16	3/16	5/32	5/32	5/32	1/8	1/8	1/8	1/8	1/8	1/8	1/32	1/32	1/32		
245	Composite	Aluminum and bronze																																	
260																																			
280																																			
295																																			
310																																			
330																																			
345																																			
360																																			
375																																			
395																																			
410	Wood and board	Aluminum and bronze																																	
425																																			
440																																			
460																																			
475																																			
500																																			

^a Remember that, if the speed is too low the cycle time increases.

Regardless of which model you choose, you'll get a product with superior ergonomics and productivity.

- Quiet – Very low noise level.
- Comfortable grip – For high precision.
- Two-hand grip available – Gives even greater flexibility.
- Lubrication-free – For clean working environment and operator comfort.



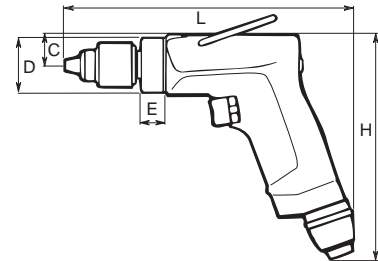
Model	Free speed r/min	Chuck capacity in	Weight with chuck lb	Air consumption at free speed cfm	Hose size		Air inlet thread NPT	Power hp	Stall torque Nm	With chuck Ordering No.	Without chuck	
					mm	in					Model	Ordering No.
Non-reversible drills with air supply through handle												
LBB16 EP-003 ^b	300	3/8	1.5	17.0	6.3	1/4	1/4	0.4	-	8421 0108 01	003-U	8421 0108 02
LBB16 EP-005 ^b	500	3/8	1.5	17.0	6.3	1/4	1/4	0.4	21.6	8421 0108 06	005-U	8421 0108 07
LBB16 EP-010	1000	3/8	1.5	17.0	6.3	1/4	1/4	0.4	7.8	8421 0108 10	010-U	8421 0108 11
LBB16 EP-024 ^a	2400	1/4	1.2	17.0	6.3	1/4	1/4	0.4	4.2	8421 0108 20	024-U	8421 0108 21
LBB16 EP-033 ^a	3300	1/4	1.2	17.0	6.3	1/4	1/4	0.4	3.4	8421 0108 30	033-U	8421 0108 31
LBB16 EP-045 ^a	4500	1/4	1.2	17.0	6.3	1/4	1/4	0.4	2.0	8421 0108 40	045-U	8421 0108 41
LBB16 EP-060 ^a	6000	1/4	1.2	17.0	6.3	1/4	1/4	0.4	1.7	8421 0108 50	060-U	8421 0108 51
LBB16 EP-200 ^a	20000	1/4	1.2	17.0	6.3	1/4	1/4	0.4	0.5	8421 0108 60	200-U	-
LBB16 EPX-005 ^b	500	1/2	1.5	20.0	6.3	1/4	1/4	0.45	25.2	8421 0108 08	005-U	8421 0108 09
LBB16 EPX-010 ^b	1000	3/8	1.5	20.0	6.3	1/4	1/4	0.45	12.3	8421 0108 12	010-U	8421 0108 03
LBB16 EPX-024 ^a	2400	1/4	1.2	20.0	6.3	1/4	1/4	0.45	4.9	8421 0108 22	024-U	8421 0108 23
LBB16 EPX-033 ^a	3300	1/4	1.2	20.0	6.3	1/4	1/4	0.45	3.7	8421 0108 32	033-U	8421 0108 33
LBB16 EPX-045 ^a	4500	1/4	1.2	20.0	6.3	1/4	1/4	0.45	3.0	8421 0108 42	045-U	8421 0108 43
LBB16 EPX-060 ^a	6000	1/4	1.2	20.0	6.3	1/4	1/4	0.45	2.3	8421 0108 52	060-U	8421 0108 53
LBB16 EPX-200 ^a	20000	1/4	1.2	20.0	6.3	1/4	1/4	0.45	0.6	8421 0108 82	200-U	8421 0108 63
LBB26 EPX-003 ^b	300	1/2	1.8	31.8	10.0	3/8	1/4	0.7	53.5	8421 0500 00	003-U	8421 0500 01
LBB26 EPX-005 ^b	500	1/2	1.8	31.8	10.0	3/8	1/4	0.7	31.6	8421 0500 02	005-U	8421 0500 03
LBB26 EPX-007 ^b	700	1/2	1.8	31.8	10.0	3/8	1/4	0.7	24.6	8421 0500 04	007-U	8421 0500 05
LBB26 EPX-013 ^{ab}	1300	3/8	1.7	31.8	10.0	3/8	1/4	0.7	14.7	8421 0500 06	013-U	8421 0500 07
LBB26 EPX-019 ^a	1900	3/8	1.7	31.8	10.0	3/8	1/4	0.7	9.9	8421 0500 24	019-U	8421 0500 25
LBB26 EPX-026 ^a	2600	5/16	1.7	31.8	10.0	3/8	1/4	0.7	7.7	8421 0500 08	026-U	8421 0500 09
LBB26 EPX-033 ^a	3300	5/16	1.5	31.8	10.0	3/8	1/4	0.7	5.7	8421 0500 10	033-U	8421 0500 11
LBB26 EPX-045 ^a	4500	5/16	1.5	31.8	10.0	3/8	1/4	0.7	4.1	8421 0500 12	045-U	8421 0500 13
LBB26 EPX-060 ^a	6000	5/16	1.5	31.8	10.0	3/8	1/4	0.7	3.3	8421 0500 14	060-U	8421 0500 15
LBB26 EPX-200 ^a	22000	1/4	1.5	31.8	10.0	3/8	1/4	0.7	0.8	8421 0500 28	200-U	8421 0500 29
LBB36 H005 ^b	500	-	3.3	34.9	10.0	3/8	3/8	0.9	43.8	-	-H005U	8421 0408 03
LBB36 H007 ^b	700	1/2	3.5	34.9	10.0	3/8	3/8	0.9	37.2	8421 0408 07	-H007U	8421 0408 05
LBB36 H013 ^a	1300	3/8	3.3	34.9	10.0	3/8	3/8	0.9	19.5	8421 0408 15	-H013U	8421 0408 13
LBB36 H026 ^a	2600	3/8	2.5	34.9	10.0	3/8	3/8	0.9	10.3	8421 0408 33	-H026U	8421 0408 31
LBB36 H033 ^a	3300	3/8	2.5	34.9	10.0	3/8	3/8	0.9	8.6	8421 0408 41	-H033U	8421 0408 39
LBB36 H060 ^a	6000	1/4	2.5	34.9	10.0	3/8	3/8	0.9	5.0	8421 0408 49	-H060U	8421 0408 47
LBB36 H200 ^a	22000	1/4	2.2	34.9	10.0	3/8	3/8	0.9	1.3	8421 0408 55	-H200U	8421 0408 53
LBB37 H006	600	1/2	2.5	44.0	10.0	3/8	3/8	1.1	48.0	8421 0608 06	-H006U	8421 0608 14
LBB37 H015	1500	3/8	3.3	44.0	10.0	3/8	3/8	1.1	22.5	8421 0608 05	-H015U	8421 0608 15
LBB37 H037	3700	3/8	2.5	44.0	10.0	3/8	3/8	1.1	9.2	8421 0608 13	-H037U	8421 0608 16
LBB37 H065	6500	1/4	2.5	44.0	10.0	3/8	3/8	1.1	5.0	8421 0608 11	-H065U	8421 0608 17
LBB37 H230	23000	1/4	2.2	44.0	10.0	3/8	3/8	1.1	1.3	8421 0608 03	-H230U	8421 0608 18
LBB45 H004 ^b	400	5/8	9.3	21.0	10.0	3/8	1/4	0.9	-	8421 0501 16	-	-
LBB45 H006 ^b	600	5/8	9.3	21.0	10.0	3/8	1/4	0.9	-	8421 0501 24	-H006U	8421 0501 40
LBB45 H017 ^b	1700	5/8	9.3	21.0	10.0	3/8	1/4	0.9	-	8421 0501 32	-	-
ATEX certified models												
LBB26 EPX005-ATEX	500	1/2	1.8	31.8	10.0	3/8	1/4	0.7	-	8421 0500 22	-	-
LBB26 EPX007-ATEX	700	1/2	1.8	31.8	10.0	3/8	1/4	0.7	-	8421 0500 21	-	-
LBB26 EPX013-ATEX	1300	3/8	1.7	31.8	10.0	3/8	1/4	0.7	-	8421 0500 20	-	-
LBB26 EPX026-ATEX	2600	5/16	1.7	31.8	10.0	3/8	1/4	0.7	-	8421 0500 19	-	-

^a Including chuck guard. ^b Including support handle.

Dimensions

LBB EP/EPX/H

Model	L mm	H mm	C mm	D mm	E mm
LBB16 EP/EPX-200	177	131	16.5	31.4	13.8
LBB16 EP/EPX-060	177	131	16.5	31.4	13.8
LBB16 EP/EPX-045	177	131	16.5	31.4	13.8
LBB16 EP/EPX-033	177	131	16.5	31.4	13.8
LBB16 EP/EPX-024	177	131	16.5	31.4	13.8
LBB16 EP/EPX-010	190	131	16.5	31.4	27.0
LBB16 EP/EPX-005	190	131	16.5	31.4	27.0
LBB16 EP-003	190	131	16.5	31.4	27.0
LBB26 EPX-060	180	147	21	39	-
LBB26 EPX-045	180	147	21	39	-
LBB26 EPX-033	180	147	21	39	-
LBB26 EPX-026	180	147	21	39	-
LBB26 EPX-019	196	147	21	39	-
LBB26 EPX-013	196	147	21	39	-
LBB26 EPX-007	196	147	21	39	-
LBB26 EPX-005	196	147	21	39	-
LBB26 EPX-003	196	147	21	39	-
LBB36 H200	217	157	23	41.5	16.5
LBB36 H060	217	157	23	41.5	16.5
LBB36 H033	217	157	23	41.5	16.5
LBB36 H026	217	157	23	41.5	16.5
LBB36 H013	256	157	23	41.5	64.0
LBB36 H007	256	157	23	41.5	64.0
LBB36 H005	256	157	23	41.5	64.0
LBB37 H230	217	157	23	41.5	16.5
LBB37 H065	217	157	23	41.5	16.5
LBB37 H037	217	157	23	41.5	16.5
LBB37 H015	256	157	23	41.5	64.0
LBB37 H006	256	157	23	41.5	64.0
LBB45 H006	360	185	33	60	113
LBB45 H017	360	185	33	60	113
LBB45 H004	360	185	33	60	113



Accessories Included

Chuck, chuck key, hose nipple.

LBB16 and -36/37 with suspension yoke and with chuck guard where possible.

LBB16 and -36/37 have a 3/8" -24 UNF spindle thread.

LBB36 H005 and LBB37 H006 have a 1/2" -20 UNF thread.

LBB45 has a JT3 taper mount.

Optional Accessories

KEY CHUCKS

Mount	Body diameter mm	Chuck capacity in	Ordering No.		
			Chuck (key incl)	Key only	Key designation
1/2-20UNF	43	5/8	4021 0289 01	4021 0465 00	S2
3/8-24UNF	30	1/4	4021 0283 00	4021 0293 00	S1
3/8-24UNF	30	5/16	4021 0495 00	4021 0293 00	S1
3/8-24UNF	36	3/8	4021 0416 00	4021 0449 00	S8
3/8-24UNF	46	1/2	4021 0289 00	4021 0465 00	S2
JT3	59	5/8	4021 0423 00	4021 0301 00	S3



Key chuck

QUICK CHUCKS

Mount	Chuck dia mm	Chuck capacity in	Ordering No.
3/8-24UNF	34	1/4	4021 0400 00
3/8-24UNF	34	5/16	4021 0401 00
3/8-24UNF	36	3/8	4021 0402 00
3/8-24UNF	36	1/2	4021 0403 00



Quick chuck

Optional Accessories

COLLET CHUCK AND COLLETS

Designation	Capacity		Ordering No.
	mm	in	
Collet	3		4150 0081 00
	6		4150 0075 00
	8	5/16	4150 0074 00
		1/8	4150 0082 00
		5/32	4150 0648 00
		3/16	4150 0649 00
		1/4	4150 0076 00
	Collet holder		
Collet nut			4150 0760 00



Collet chuck and collets

CHUCK GUARDS

For model	Max chuck dia mm	Ordering No.
LBB16 ^a	30	4110 1619 04
LBB26	36	4110 1728 02
LBB26	30	4110 1728 03
LBB36 ^b	36	4110 1415 00
LBB37 ^b	36	4110 1415 00



Chuck guard

^a The guards do not fit 1000 r/min models, 500 r/min and 300 r/min models.

^b The chuck guards do not fit the 500 r/min, 600 r/min or 700 r/min models.

FLEX CONNECT

For model	Ordering No.
LBB16	4110 1601 80



Flex connect

SPOT SUCTION ATTACHMENT

For model	Hose size in	Spot suction kit ^a Ordering No.	Hose kit Ordering No.
LBB16	1 1/4	4110 1715 80	4112 1227 00
LBB26	1 1/4	4110 1715 84	4112 1227 00
LBB36/37	1 1/4	4110 1716 80	4112 1227 00



Spot suction attachment

^a Spare part, nose piece kit, Ordering No. 4110 1700 90.

Other standard sizes of front nozzle available.

POWER FEED ARM FOR EXTRA FEED FORCE – LBB36 H005 AND LBB37 H006

	Ordering No.
Adapter piece (SR295), lever arm (SR201), chain (SR202) and No. 2 Morse socket (SR206)	4110 1416 80
Two extension pieces (SR204-1 and SR204-2), 370 and 750 mm long	4110 1417 80
No. 2 Morse socket	4110 1416 01



Power feed arm

Optional Accessories

SUPPORT HANDLES

For model	Ordering No.
LBB16	4110 1355 92
LBB26	4110 1355 95
LBB36/37	4110 1355 82
LBB45	4110 1355 84



Support handle

OPTIONAL ACCESSORIES – LBB45

Designation	Ordering No.
No. 2 Morse socket	4130 1080 00

Productivity Kits

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
MIDI Optimizer F/R EQ08US-C06	12 cfm	Cabclair 06	ErgoQIC 08US	No	8202 0850 21
MIDI Optimizer F/RD EQ08US-C06	19 cfm	Cabclair 06	ErgoQIC 08US	Yes	8202 0850 22
MIDI Optimizer F/RD EQ08US-C08	19 cfm	Cabclair 08	ErgoQIC 08US	Yes	8202 0850 23
MIDI Optimizer F/R EQ08US-C08	19 cfm	Cabclair 08	ErgoQIC 08US	No	8202 0850 24
MIDI Optimizer F/RD EQ10US-C10	34 cfm	Cabclair 10	ErgoQIC 10US	Yes	8202 0850 25
MIDI Optimizer F/RD EQ10US-R10	34 cfm	Rubair 10	ErgoQIC 10US	Yes	8202 0850 26
MIDI Optimizer F/RD EQ10US-C13	50 cfm	Cabclair 13	ErgoQIC 10US	Yes	8202 0850 27
MIDI Optimizer F/RD EQ10US-R13	50 cfm	Rubair 13	ErgoQIC 10US	Yes	8202 0850 28

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.



Service Kits

LBB16	4081 0271 90
LBB26	4081 2028 90
LGB/LBV34	4081 0035 90
LBB36/37	4081 0194 90
LBB45	4081 0139 90

Atlas Copco straight drills are primarily intended for vertical drilling operations and for drilling in cramped spaces.

- Quiet – Very low noise level.
- Very high power to weight ratio.
- Adjustable exhaust –The exhaust air is directed away from the operator.
- Lubrication-free – LBB16 drills are lubrication-free for clean working environment and operator comfort.



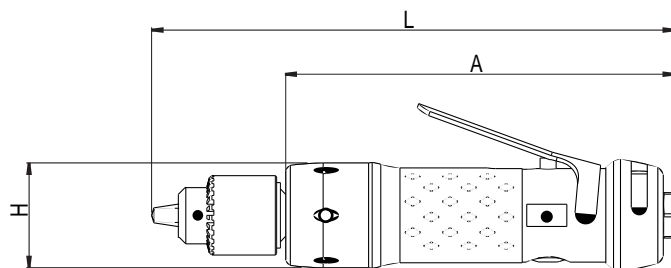
LBB16

Model	Free speed ^a r/min	Chuck capacity in	Weight lb	Air consumption at free speed cfm	Hose size		Air inlet thread NPT	Power hp	With chuck Ordering No.	Without chuck	
					mm	in				Model	Ordering No.
Drills with rear exhaust											
LBB16 S260	26000	1/4	1.1	17	6.3	1/4	1/4	0.47	8421 0210 00	S260-U	8421 0210 10
LBB16 S064	6400	1/4	1.1	17	6.3	1/4	1/4	0.47	8421 0210 01	S064-U	8421 0210 11
LBB16 S045	4500	1/4	1.1	17	6.3	1/4	1/4	0.47	8421 0210 02	S045-U	8421 0210 12
LBB16 S038	3800	1/4	1.1	17	6.3	1/4	1/4	0.47	8421 0210 03	S038-U	8421 0210 13
LBB16 S029	2900	5/16	1.2	17	6.3	1/4	1/4	0.47	8421 0210 04	S029-U	8421 0210 14
LBB16 S022	2200	3/8	1.5	17	6.3	1/4	1/4	0.47	8421 0210 05	S022-U	8421 0210 15
LBB16 S012	1200	3/8	1.5	17	6.3	1/4	1/4	0.47	8421 0210 06	S012-U	8421 0210 16

^a The free speed can be reduced to 50% of the maximum speed using the trim valve.

Dimensions

Model	L	H	A
LBB16 S260	196	39	146
LBB16 S064	196	39	146
LBB16 S045	196	39	146
LBB16 S038	196	39	146
LBB16 S029	196	39	146
LBB16 S022	219	39	159
LBB16 S012	219	39	159



Accessories Included

Chuck, chuck key
Suspension yoke and chuck guard

Optional Accessories

KEY CHUCKS

Mount	Body diameter mm	Chuck capacity in	Ordering No.		
			Chuck (key incl)	Key only	Key designation
1/2-20UNF	43	5/8	4021 0289 01	4021 0465 00	S2
3/8-24UNF	30	1/4	4021 0283 00	4021 0293 00	S1
3/8-24UNF	30	5/16	4021 0495 00	4021 0293 00	S1
3/8-24UNF	36	3/8	4021 0416 00	4021 0449 00	S8
3/8-24UNF	46	1/2	4021 0289 00	4021 0465 00	S2
JT3	59	5/8	4021 0423 00	4021 0301 00	S3



Key chuck

QUICK CHUCKS

Mount	Chuck dia mm	Chuck capacity in	Ordering No.
3/8-24UNF	34	1/4	4021 0400 00
3/8-24UNF	34	5/16	4021 0401 00
3/8-24UNF	36	3/8	4021 0402 00
3/8-24UNF	36	1/2	4021 0403 00



Quick chuck

COLLET CHUCK AND COLLETS

Designation	Capacity		Ordering No.
	mm	in	
Collet	3		4150 0081 00
	6		4150 0075 00
	8	5/16	4150 0074 00
		1/8	4150 0082 00
		5/32	4150 0648 00
		3/16	4150 0649 00
		1/4	4150 0076 00
	Collet holder		
Collet nut			4150 0760 00



Collet chuck and collets

SAFETY LEVER

For model	Ordering No.
LBB16S	4110 1787 90



Safety lever



Service Kits

LBB16 4081 0438 90

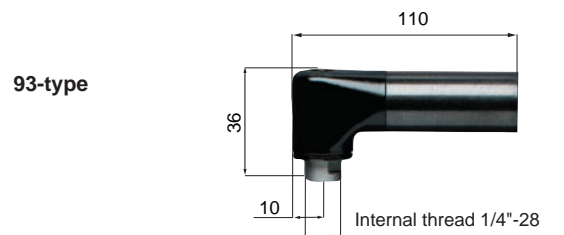
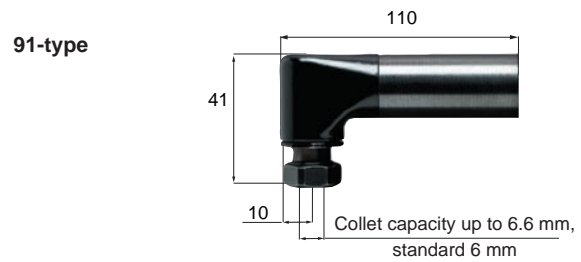
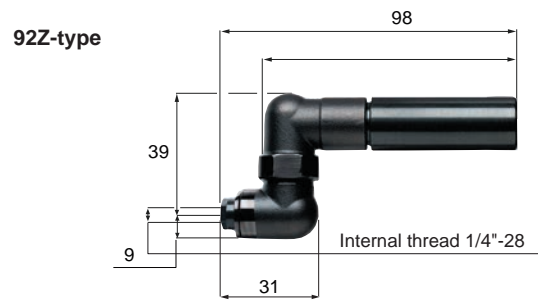
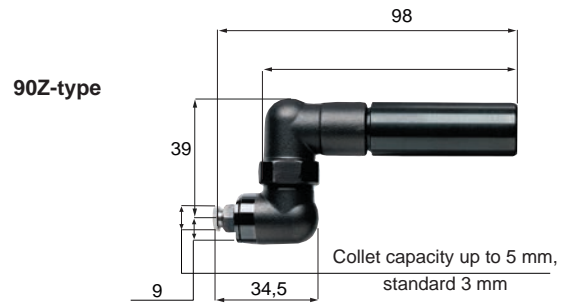
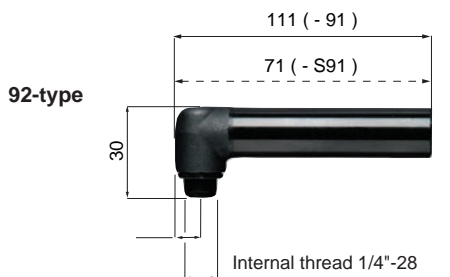
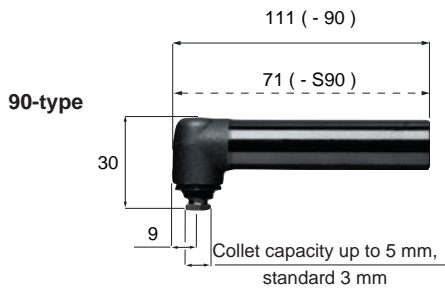
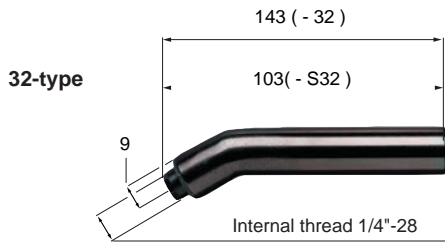
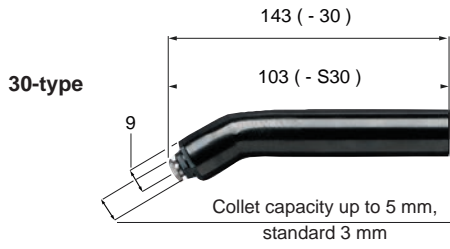
- Quiet – Very low noise level.
- Low air consumption – Good operating economy.
- Side exhaust – The air can be directed to suit the operator.
- Rear exhaust – The air is piped away through a pliant hose.
- Lubrication-free – For clean working environment and operator comfort.
- Collet chuck or threaded spindle.
- Multiple lever options.



Model	Free speed r/min	Setting range rpm	Collet or chuck capacity in	Weight lb	Air consumption at free speed cfm	Hose dimension		Air inlet thread NPT	Power hp	Ordering No.
						mm	in			
30° angle head										
LBV11 S029-S30	2900	–	13/64	1.1	8.5	5.0	1/8	1/8	0.16	8421 0108 70
LBV16 032-30	3200	1500-3200	13/64	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 05
LBV16 032-S30	3200	1500-3200	13/64	1.0	18.4	6.3	1/4	1/4	0.4	8421 0110 04
LBV16 032-32	3200	1500-3200	c	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 07
LBV16 032-S32	3200	1500-3200	c	1.0	18.4	6.3	1/4	1/4	0.4	8421 0110 06
LBV16 045-30	4500	3200-4500	13/64	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 71
LBV36 S030-30 ^e	3000	–	13/64	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 70
45° angle head										
LBV16 032-45	3200	1500-3200	13/64	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 59
LBV16 032-46	3200	1500-3200	c	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 60
90° angle head										
LBV11 S029-S90	2900	–	13/64	1.1	8.5	5.0	1/8	1/8	0.16	8421 0109 79
LBV16 032-90	3200	1500-3200	13/64	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 00
LBV16 032-S90	3200	1500-3200	13/64	1.0	18.4	6.3	1/4	1/4	0.4	8421 0110 01
LBV16 032-92	3200	1500-3200	c	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 03
LBV16 032-S92	3200	1500-3200	c	1.0	18.4	6.3	1/4	1/4	0.4	8421 0110 02
LBV16 045-90	4500	3200-4500	13/64	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 20
LBV16 045-92	4500	3200-4500	c	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 21
LBV16 055-90	5500	4500-5500	13/64	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 23
LBV16 055-S92	5500	4500-5500	c	1.0	18.4	6.3	1/4	1/4	0.4	8421 0110 58
LBV36 S030-90 ^e	3000	–	13/64	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 60
LBV36 S030-92 ^e	3000	–	c	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 64
LBV36 S045-90 ^e	4500	–	13/64	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 62
360° angle head										
LBV16 032-90Z	3200	1500-3200	13/64	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 64
LBV16 032-92Z	3200	1500-3200	c	1.1	18.4	6.3	1/4	1/4	0.4	8421 0110 68
90° angle head – large angle head										
LBV16 005-91	500	200-500	1/4	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 11
LBV16 005-93	500	200-500	c	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 12
LBV16 010-91	1000	500-1000	1/4	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 16
LBV16 010-93	1000	500-1000	c	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 17
LBV16 018-91	1800	800-1800	1/4	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 18
LBV16 018-93	1800	800-1800	c	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 19
LBV16 032-91	3200	1500-3200	1/4	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 09
LBV16 032-93	3200	1500-3200	c	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 10
LBV16 032-S93	3200	1500-3200	c	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 39
LBV16 045-91	4500	3200-4500	1/4	1.2	18.4	6.3	1/4	1/4	0.4	8421 0110 38
LBV36 S030-91 ^e	3000	–	1/4	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 50
LBV36 S060-91 ^e	6000	–	1/4	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 51
LBV36 S030-93 ^e	3000	–	c	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 52
LBV36 S060-93 ^e	6000	–	c	2.2	36.0	10.0	3/8	1/4	0.73	8421 0414 53
90° angle head – Key chuck models										
LBV16 018-11	1800	800-1800	5/16	1.7	18.4	6.3	1/4	1/4	0.4	8421 0110 22
LBV34 S005 ^b	500	–	1/2 ^a	4.6	15.9	10.0	3/8	1/4	0.6	8421 0309 04
LBV34 S010 ^b	1000	–	3/8 ^a	4.4	15.9	10.0	3/8	1/4	0.6	8421 0309 12
LBV34 S040 ^b	4000	–	1/4 ^a	3.3	15.9	10.0	3/8	1/4	0.6	8421 0309 46
90° angle head – heavy-duty										
LBV37 030	3000	–	c	2.4	46	10.0	3/8	3/8	1.1	8421 0414 54
LBV37 HD030	3000	–	d	2.4	46	10.0	3/8	3/8	1.1	8421 0414 56

^a Spindle thread, male 3/8"-24 UNF. ^b Side exhaust. ^c Internal thread 1/4"-28. ^d Internal thread 5/16". ^e Short lever as standard.

Dimensions

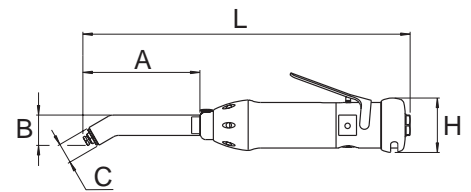


Dimensions

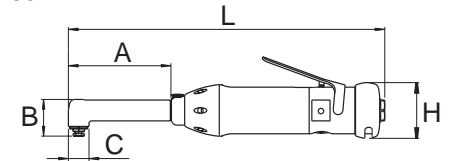
DRILLING CAPACITY

Model	Angle head mm				
	A	B	C	L	H
LBV11 S027-S30	59	25	18	224	30
LBV11 S025-S90	44	30	18	204	30
LBV16 032-S30	103	25	17	241	42
LBV16 032-30	143	25	17	281	42
LBV16 032-S32	103	25	17	241	42
LBV16 032-32	143	25	17	281	42
LBV16 032-90	111	30	17	248	42
LBV16 032-S90	71	30	17	209	42
LBV16 032-S92	71	30	17	209	42
LBV16 032-92	111	30	17	249	42
LBV16 032-90Z	145	48	17	283	42
LBV16 032-91	110	39	20	248	42
LBV16 032-93	110	36	20	248	42
LBV16 005-91	110	39	20	248	42
LBV16 005-93	110	36	20	248	42
LBV16 010-91	110	39	20	248	42
LBV16 010-93	110	36	20	248	42
LBV16 018-91	110	39	20	248	42
LBV16 018-93	110	36	20	248	42
LBV34 S040	92	97	20	255	43
LBV34 S010	92	114	20	290	43
LBV34 S005	92	120	20	290	43
LBV36 S030-91	92	41	20	252	43
LBV36 S060-91	92	41	20	252	43
LBV36 S030-93	92	36	20	252	43
LBV36 S060-93	92	36	20	252	43
LBV36 S030-30	122	26	18	281	43
LBV36 S045-30	122	26	18	281	43
LBV36 S030-90	112	30	18	272	43
LBV36 S045-90	112	30	18	272	43
LBV36 S030-92	112	30	18	272	43
LBV37 030	55	39	23	262	43
LBV37 HD030	55	39	23	262	43

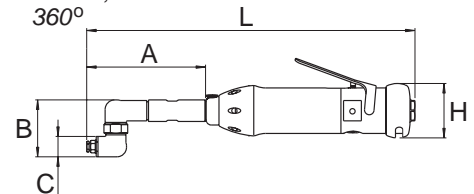
LBV11, -16, -36
30°



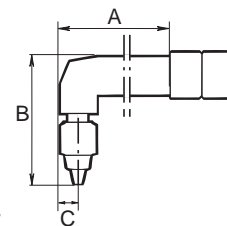
LBV11, -16, -36
90°



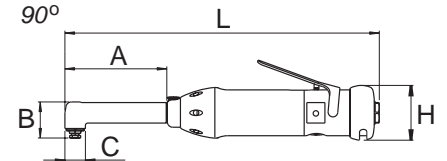
LBV16, -25
360°



LBV34
90°



LBV37
90°



Accessories Included

KEY WRENCHES

Collet or chuck with key
3 mm collet (5.0 collet capacity head)
6 mm collet (6.6 collet capacity head)

Optional Accessories

SAFETY LEVERS

For model	Ordering No.
LBV16	4110 1787 90
LBV36/37	4150 1594 97



Safety lever

SHORT LEVERS

For model	Ordering No.
LBV16	4210 2306 04

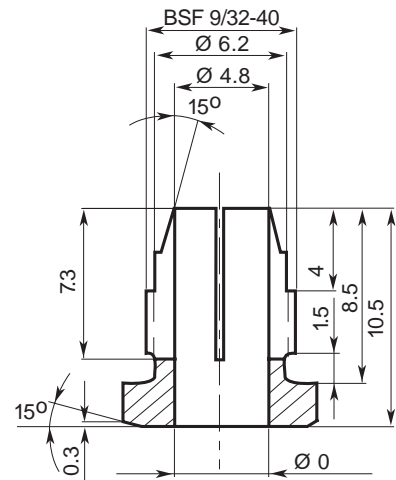


Short lever

COLLETS FOR 5.0 MM CAPACITY HEAD LBV11, LBV16 – (-30, -90, -90Z) AND LBV36 (-30, -90)

Capacity mm	Ordering No.	Capacity mm	Ordering No.	Capacity in	Ordering No.
1.0	4110 0438 01	3.4	4110 0438 33	1/16	4110 0438 19
1.5	4110 0438 02	3.5	4110 0438 13	3/32	4110 0438 20
1.8	4110 0438 28	3.6	4110 0438 24	1/8	4110 0438 21
2.0	4110 0438 03	3.7	4110 0438 34	5/32	4110 0438 22
2.1	4110 0438 29	3.8	4110 0438 14	3/16	4110 0438 23
2.2	4110 0438 04	3.9	4110 0438 35		
2.3	4110 0438 30	4.0	4110 0438 15		
2.4	4110 0438 05	4.1	4110 0438 25		
2.5	4110 0438 06	4.2	4110 0438 26		
2.6	4110 0438 07	4.3	4110 0438 36		
2.7	4110 0438 31	4.4	4110 0438 37		
2.8	4110 0438 32	4.5	4110 0438 16		
2.9	4110 0438 08	4.6	4110 0438 38		
3.0	4110 0438 09	4.7	4110 0438 39		
3.1	4110 0438 10	4.8	4110 0438 18		
3.2	4110 0438 11	4.9	4110 0438 40		
3.3	4110 0438 12	5.0	4110 0438 27		

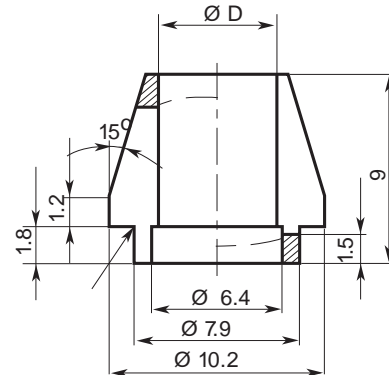
Collets for 5.0 mm (Thread BSF 9/32 -40)



COLLETS FOR 6.6 MM CAPACITY HEAD LBV16 (-91) AND LBV36 (-91)

Capacity mm	Ordering No.	Capacity mm	Ordering No.
1.6	4110 1411 01	4.2	4110 1411 14
1.8	4110 1411 02	4.4	4110 1411 15
2.0	4110 1411 03	4.6	4110 1411 16
2.2	4110 1411 04	4.8	4110 1411 17
2.4	4110 1411 05	5.0	4110 1411 18
2.6	4110 1411 06	5.2	4110 1411 19
2.8	4110 1411 07	5.4	4110 1411 20
3.0	4110 1411 08	5.6	4110 1411 21
3.2	4110 1411 09	5.8	4110 1411 22
3.4	4110 1411 10	6.0	4110 1411 23
3.6	4110 1411 11	6.2	4110 1411 24
3.8	4110 1411 12	6.4	4110 1411 25
4.0	4110 1411 13	6.6	4110 1411 26

Collets for 6.6 mm



Collet nut 4110 1410 00, to be ordered separately.



Service Kits

LBV16	4081 0322 90
LBV24	4081 0005 90
LBV25	4081 0272 90
LGB/LBV34	4081 0035 90
LBV36 (30, 90/92)	4081 0263 90
LBV36 (91/93)	4081 0251 90
LBV37	4081 0431 90

The LBD16M and LBP16M are designed with the operator in focus. A lightweight tool with a powerful air motor combined with interchangeable angle heads equals excellent flexibility in any handheld drilling operation. Swap to a new head in a matter of seconds with the easy-to-use quick change mechanism. With the LBD16M and LBP16M, you are always ready to take on any job in ever changing drilling applications.

- Quick change system – Easy-to-use and robust quick change design for high durability.
- Indexable head – The head can be positioned in any direction for maximum accessibility.
- High power lubrication free motor – No more oil aerosols, for a safer and cleaner working environment.



LBP16M

LBD16M

Model	Free speed ^a rpm	Motor speed ^b	Weight lb	Air consumption cfm	Hose size		Air inlet thread NPT	Power hp	Ordering No.
					mm	in			
Straight motor units									
LBD16M-005	500	600	1.25	18.4	6.3	1/4	1/4	0.4	8421 0122 05
LBD16M-010	1000	1200	1.25	18.4	6.3	1/4	1/4	0.4	8421 0122 10
LBD16M-018	1800	2100	1.25	18.4	6.3	1/4	1/4	0.4	8421 0122 18
LBD16M-032	3200	3600	1	18.4	6.3	1/4	1/4	0.4	8421 0122 32
LBD16M-045	4500	5100	1	18.4	6.3	1/4	1/4	0.4	8421 0122 45
LBD16M-055	5500	6200	1	18.4	6.3	1/4	1/4	0.4	8421 0122 55
Pistol motor units									
LBP16M-005	500	600	1.2	20.0	6.3	1/4	1/4	0.45	8421 0124 05
LBP16M-010	1000	1100	1.2	20.0	6.3	1/4	1/4	0.45	8421 0124 10
LBP16M-018	1800	2100	1.2	20.0	6.3	1/4	1/4	0.45	8421 0124 18
LBP16M-033	3300	3700	1.1	20.0	6.3	1/4	1/4	0.45	8421 0124 33
LBP16M-045	4500	5100	1.1	20.0	6.3	1/4	1/4	0.45	8421 0124 45
LBP16M-060	6000	6800	1.1	20.0	6.3	1/4	1/4	0.45	8421 0124 60

^a The free speed is given when used with a 90° angle head. ^b Multiply this value with the Speed ratio to get the free speed of each angle head.

ANGLE HEADS

Model	Angle head	Weight lb	Collet capacity	Thread in	Speed ratio	Length		Ordering No.
						mm	in	
Angle heads with collet – Short								
BHM90SC-5-0	90°	0.5	5.0	–	14:16	65.5	2.58	8421 0123 02
Angle heads with collet – Standard								
BHM90C-5-0	90°	0.36	5.0	–	14:16	88.5	3.48	8421 0123 00
BHM90C-6-6	90°	0.55	6.6	–	14:16	89.6	3.53	8421 0123 05
BHM90C-8-0	90°	0.55	8.0	–	14:17	89.7	3.54	8421 0123 80
BHM45C-5-0	45°	0.44	5.0	–	14:15	117.3	4.62	8421 0123 10
BHM30C-5-0	30°	0.44	5.0	–	14:15	120.4	4.74	8421 0123 20
BHM30C-6-6	30°	0.44	6.6	–	14:15	127	5	8421 0123 15
BHM90ZC-5-0	360°	0.47	5.0	–	7:9	100.8	3.97	8421 0123 30
BHM90ZC-6-6	360°	0.47	6.6	–	7:9	108	4.25	8421 0123 40
Angle heads with collet – Extended								
BHM90EC-5-0	90°	0.58	5.0	–	14:16	128.5	5.06	8421 0123 08
BHM45EC-5-0	45°	0.64	5.0	–	14:15	157.3	6.19	8421 0123 18
BHM30EC-5-0	30°	0.64	5.0	–	14:15	160.4	6.31	8421 0123 28
BHM90Ezc-5-0	360°	0.67	5.0	–	7:9	140.8	5.54	8421 0123 38
Angle head with internal thread – Standard								
BHM90T-1-4	90°	0.36	–	1/4"-28	14:16	88.5	3.48	8421 0123 01
BHM90LT-1-4	90°	0.52	–	1/4"-28	14:16	89.6	3.53	8421 0123 06
BHM45T-1-4	45°	0.44	–	1/4"-28	14:15	118.2	4.65	8421 0123 11
BHM30T-1-4	30°	0.44	–	1/4"-28	14:15	121.1	4.77	8421 0123 21
BHM90ZT-1-4	360°	0.47	–	1/4"-28	7:9	101	3.98	8421 0123 31
Angle head with internal thread – Extended								
BHM90ET-1-4	90°	0.58	–	1/4"-28	14:16	128.5	5.06	8421 0123 09
BHM45ET-1-4	45°	0.64	–	1/4"-28	14:15	157.9	6.22	8421 0123 19
BHM30ET-1-4	30°	0.64	–	1/4"-28	14:15	161.1	6.34	8421 0123 29
BHM90EZT-1-4	360°	0.67	–	1/4"-28	7:9	141	5.55	8421 0123 39
Straight short angle head								
BHM0C-5-0	0°	0.31	5.0	–	1:1	78	3.07	8421 0123 43
BHM0T-1-4	0°	0.31	–	1/4"-28	1:1	78	3.07	8421 0123 44

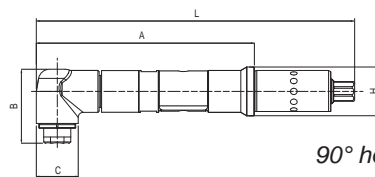
Angle heads Standard/Extended (pictures shows extended versions)



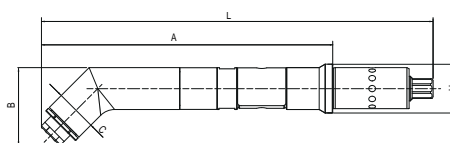
Dimensions

ANGLE HEAD DIMENSIONS

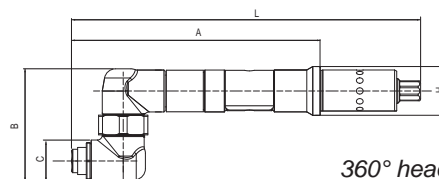
Model	A mm	B mm	C mm	L mm	H mm	Ordering No.
90° heads						
BHM90SC-5-0	65.5	29.8	17	106.2	19.8	8421 0123 02
BHM90C-5-0	88.5	29.8	17	129.2	19.8	8421 0123 00
BHM90C-6-6	90	39.3	20	130.3	20	8421 0123 05
BHM90C-8-0	90	41.1	20	130.3	20	8421 0123 80
BHM90EC-5-0	128.5	29.8	17	169.2	19.8	8421 0123 08
BHM90T-1-4	88.5	30	17	129.2	19.8	8421 0123 01
BHM90LT-1-4	90	36	20	130.3	20	8421 0123 06
BHM90ET-1-4	128.5	30	14	169.2	19.8	8421 0123 09
30° heads						
BHM30C-5-0	120.4	25	17	161	19.8	8421 0123 20
BHM30C-6-6	127.3	32.3	17	168	19.8	8421 0123 15
BHM30EC-5-0	160.4	25.2	17	201	19.8	8421 0123 28
BHM30T-1-4	121.1	26.4	17	161.6	19.8	8421 0123 21
BHM30ET-1-4	161.1	26.4	17	201.8	19.8	8421 0123 29
45° heads						
BHM45C-5-0	117.3	30.5	17	158	19.8	8421 0123 10
BHM45EC-5-0	157.3	30.5	17	198	19.8	8421 0123 18
BHM45T-1-4	118.2	31.4	17	159	19.8	8421 0123 11
BHM45ET-1-4	158.2	31.4	17	199	19.8	8421 0123 19
360° heads						
BHM90ZC-5-0	100.8	45.9	17	141.5	19.8	8421 0123 30
BHM90ZC-6-6	107.3	45.9	17	148	19.8	8421 0123 40
BHM90EZC-5-0	140.8	45.9	17	181.5	19.8	8421 0123 38
BHM90ZT-1-4	101	45.9	17	141.5	19.8	8421 0123 31
BHM90EZT-1-4	141	45.9	17	181.5	19.8	8421 0123 39
Straight heads						
BHM0C-5-0	78	-	17	119	19.8	8421 0123 43
BHM0T-1-4	78	-	17	119	19.8	8421 0123 44
Extension - for chuck						
EXTENSION	35	-	17.5	76	28.5	4110 1692 90



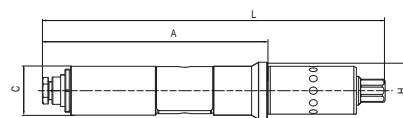
90° head



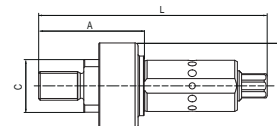
30° and 45° head



360° head



Straight head



Extension for chuck

Optional Accessories



STRAIGHT DRILL HEAD FOR CHUCK

For model	Ordering No.
LBD16M, LBP16M	4110 1692 90

SAFETY LEVERS

For model	Ordering No.
LBD16M	4110 1787 80

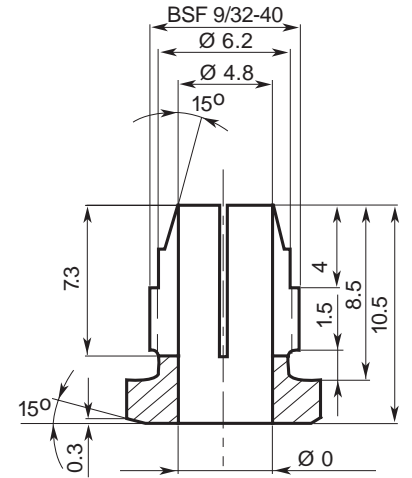


SHORT LEVERS

For model	Ordering No.
LBD16M	4210 2306 04

COLLETS FOR 5.0 MM CAPACITY ANGLE HEAD BHMC-5-0 (-30, -45, -90, -90Z)

Capacity mm	Ordering No.	Capacity mm	Ordering No.	Capacity in	Ordering No.
1.0	4110 0438 01	3.4	4110 0438 33	1/16	4110 0438 19
1.5	4110 0438 02	3.5	4110 0438 13	3/32	4110 0438 20
1.8	4110 0438 28	3.6	4110 0438 24	1/8	4110 0438 21
2.0	4110 0438 03	3.7	4110 0438 34	5/32	4110 0438 22
2.1	4110 0438 29	3.8	4110 0438 14	3/16	4110 0438 23
2.2	4110 0438 04	3.9	4110 0438 35		
2.3	4110 0438 30	4.0	4110 0438 15		
2.4	4110 0438 05	4.1	4110 0438 25		
2.5	4110 0438 06	4.2	4110 0438 26		
2.6	4110 0438 07	4.3	4110 0438 36		
2.7	4110 0438 31	4.4	4110 0438 37		
2.8	4110 0438 32	4.5	4110 0438 16		
2.9	4110 0438 08	4.6	4110 0438 38		
3.0	4110 0438 09	4.7	4110 0438 39		
3.1	4110 0438 10	4.8	4110 0438 18		
3.2	4110 0438 11	4.9	4110 0438 40		
3.3	4110 0438 12	5.0	4110 0438 27		

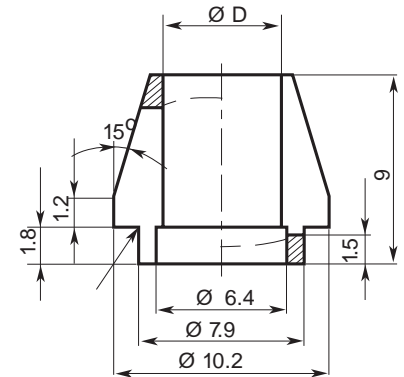


Collets for 5.0 mm (Thread BSF 9/32 -40)

COLLETS FOR 6.6 MM CAPACITY ANGLE HEAD BHMC-6-6 (-30, -90, -90Z)

Capacity mm	Ordering No.	Capacity mm	Ordering No.
1.6	4110 1411 01	4.2	4110 1411 14
1.8	4110 1411 02	4.4	4110 1411 15
2.0	4110 1411 03	4.6	4110 1411 16
2.2	4110 1411 04	4.8	4110 1411 17
2.4	4110 1411 05	5.0	4110 1411 18
2.6	4110 1411 06	5.2	4110 1411 19
2.8	4110 1411 07	5.4	4110 1411 20
3.0	4110 1411 08	5.6	4110 1411 21
3.2	4110 1411 09	5.8	4110 1411 22
3.4	4110 1411 10	6.0	4110 1411 23
3.6	4110 1411 11	6.2	4110 1411 24
3.8	4110 1411 12	6.4	4110 1411 25
4.0	4110 1411 13	6.6	4110 1411 26

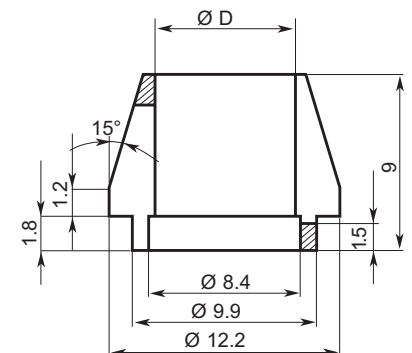
Collet nut 4110 1410 00, to be ordered separately.



Collets for 6.6 mm

COLLETS FOR 8.0 MM CAPACITY ANGLE HEAD BHMC-8-0 (-90)

Capacity mm	Ordering No.	Capacity mm	Ordering No.
6.8	4110 1812 01	7.6	4110 1812 05
7.0	4110 1812 02	7.8	4110 1812 06
7.2	4110 1812 03	8.0	4110 1812 07
7.4	4110 1812 04		



Collets for 8.0 mm



Service Kits

LBD16M 4081 0322 90

LBP16M 4081 0271 90

The Atlas Copco LBS36 drill is equipped with an integrated micro stop. It is designed for the aerospace industry where the focus is on high-precision drilling, reaming and countersinking.

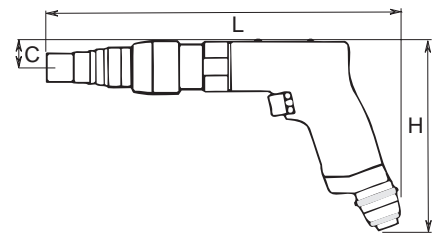
- **Accurate** – The integrated micro stop function makes the LBS36 unique for high-precision drilling of rivet holes and other fasteners. Minimized spindle run-out is achieved by eliminating standard drill chuck.
- **Ergonomic handle design** – The integrated micro stop function makes the tool shorter and lighter in weight.
- **Flexible** – Can be used for drilling, reaming, countersinking and, in certain applications, a combined operation using a form bit.
- **Dust extraction** – Equipped with a specially designed spot suction system for working in composite materials.
- **Lubrication-free** – For clean working environment and operator comfort.



Model	Free speed r/min	Spindle thread in/mm	Stroke		Setting range ±		Weight lb	Hose size		Air consumption cfm	Air inlet thread NPT	Ordering No.
			mm	in	mm	in		mm	in			
LBS26 H033-40	3300	1/4"-28	40	1.6	6	1/4	2.0	10	3/8	31.8	3/8	8421 0220 40
LBS26 H013-40	1300	1/4"-28	40	1.6	6	1/4	2.6	10	3/8	31.8	3/8	8421 0220 45
LBS36 H033-40	3300	1/4"-28	40	1.6	6	1/4	2.6	10	3/8	34.9	3/8	8421 0220 80
LBS36 H013-40	1300	1/4"-28	40	1.6	6	1/4	3.3	10	3/8	34.9	3/8	8421 0220 90

Dimensions

Model	L mm	H mm	C mm
LBS26 H033-40	253	146	21
LBS26 H013-40	285	146	21
LBS36 H033-40	281	157	21
LBS36 H013-40	314	157	21



Accessories Included

Hose nipple
2x2 mm Allen wrenches

Optional Accessories

Designation		Attachment	Ordering No.
Plain base, dia 24 mm	Fig 1	M 20x1	4110 1521 00
Plain base for nylon ring (attached with thread M35x1)	Fig 2	M 20x1	4110 1522 00
Separate nylon ring for above base, outer dia 40 mm, thread M35x1	Fig 3	M 20x1	4110 1523 00
Plain base, dia 14.5 mm	Fig 4	M 20x1	4110 1520 00
Tripod, nylon supported	Fig 5	Dia 22 mm	4110 1524 00

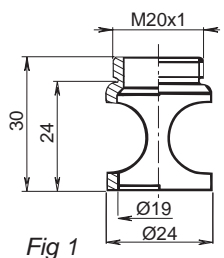


Fig 1

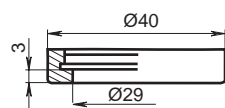


Fig 3

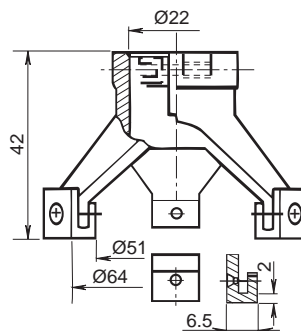


Fig 5

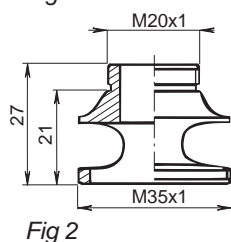


Fig 2

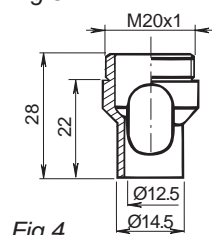


Fig 4



Service Kits

LBS26 4081 0507 90
LBS36 4081 0005 90

Atlas Copco tappers are designed for tapping and thread-cleaning operations with thread taps. The tools are fitted with a tap chuck as standard.

- Comfortable and effective – The ergonomically designed handle gives a comfortable grip and maximum performance.
- Higher productivity – Double speed when you withdraw the machine.
- Low noise level – Rear-directed exhaust gives a lower noise level.
- Lubrication-free – For a clean working environment and operator comfort.
- Quick change system – Upgrade your old tool, or order a new one with this system. Various tap holders can be used to change a broken tap or to change to a different tap size.
- Lower cost – The efficient air motor, together with interchangeable components from our standard drills, cut your costs.



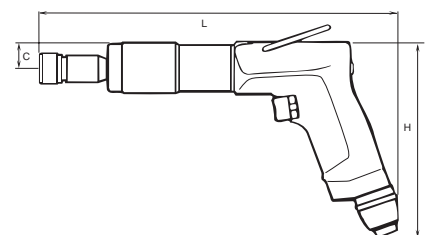
Model	Free speed		Tapping capacity mm	Weight		Hose dimension		Air inlet thread BSP	Air consumption		With chuck Ordering No.
	Forward r/min	Reverse r/min		kg	lb	mm	in		l/s	cfm	
Pistol-grip tappers with air supply through handle											
LGB34 H007	700	1400	10	1.8	4.0	10.0	3/8	1/4	7.5	15.9	8421 0311 66
LGB34 H007Q ^a	700	1400	10	1.8	4.0	10.0	3/8	1/4	7.5	15.9	8421 0311 76
LGB36 H007Q ^a	700	1400	12	2.0	4.4	10.0	3/8	3/8	16.5	34.9	8421 0411 00
Straight tappers											
LGB34 S007	700	1400	10	1.8	4.0	10.0	3/8	1/4	7.5	15.9	8421 0311 72

^a Quick change system.

Taper: Jacob 1

Dimensions

Model	L mm	H mm	C mm
LGB34 H007	300	156	20
LGB34 S007	293	43	21
LGB36 H007	335	157	20



Accessories Included

Non Quick change system

LGB34 Chuck complete with collet 6.4-10 mm 4021 0469 00

Quick change system

Chuck plus one tap holder with collet for M6 shank Ø 6.3 mm.

Optional Accessories

COLLETS FOR NON QUICK CHANGE SYSTEM

Model	Capacity		Ordering No.
	mm	inch	
LGB34	3.5 - 6.5	0.139 - 0.257	4021 0337 00
	4.5 - 8.1	0.176 - 0.320	4021 0336 00
	6.4 - 9.7	0.253 - 0.383	4021 0456 00

COLLETS FOR QUICK CHANGE SYSTEM

Collets for tap size mm	Shank dia		Ordering No.
	mm	in	
M2.2/M2.5	2.8		4021 0414 01
M3	3.15	1/8	4021 0414 02
M3.5	3.5		4021 0414 03
M4	4.0		4021 0414 04
M4.5	4.5		4021 0414 05
M5	5.0	3/16	4021 0414 06
M5.5	5.6	7/32	4021 0414 07
M6	6.4	1/4	4021 0414 08
M6 (DIN)	6.0		4021 0414 13
M7	7.1	9/32	4021 0414 09
M8/M11	8.0	5/16 & 7/16	4021 0414 10
M9/M12	9.0	1/2	4021 0414 11
M10	10.0	3/8	4021 0414 12

COMPLETING EXISTING EQUIPMENT WITH QUICK CHANGE SYSTEM

Accessories	Length mm	Ordering No.
Quick change chuck	47	4021 0406 90
Tap holder	58	4021 0408 00



Service Kits

LGB34	4081 0035 90
LGB36	4081 0194 90

Atlas Copco screw-feed drills are ideal for heavy-duty drilling operations requiring high feed forces. They can also be used for reaming and tube-rolling.

- **Reliable** – Simple, reliable design.
- **Constant speed** – The speed governor keeps the drilling speed constant and reduces air consumption as power is reduced.
- **Safer** – The safety catch prevents accidental starting. The throttle is also self-closing.



Model	Forward	Reverse
RAB9	1.14 hp	0.74 hp
RAB12	2.0 hp	1.5 hp

Model	Free speed r/min	Capacity			Morse taper No.	Length feed mm	Height in	Weight lb	Hose dimension		Air consumption max output cfm	Distance centre to side mm	Air inlet thread NPT	Ordering No.
		Drilling mm	Reaming mm	Tapping mm					mm	in				
RAB9 VR003	300	23	23	16	2	75	10.4	20.9	13	1/2	47	40	1/2	8421 5109 37
RAB9 VR006	600	23	23	12	2	75	10.4	20.9	13	1/2	49	40	1/2	8421 5109 45
RAB12 L150	140	51	40	32	4	90	15.2	32.8	16	5/8	64	50	1/2	8421 5112 08
RAB12 L250	240	51	40	30	4	90	13.2	32.8	16	5/8	70	50	1/2	8421 5112 16
RAB12 L450	475	32	32	24	3	90	13.4	28.4	16	5/8	68	50	1/2	8421 5112 24

Accessories Included

Hose nipple

Optional Accessories

SQUARE DRIVE ADAPTER

Morse taper No.	Square drive in	Ordering No.
3	1	4021 0394 00
4	1	4021 0395 00



Square drive adapter

Robust and versatile, the PFD-drills are your best choice for holemaking

PRODUCTIVITY

With this platform you have all you need for hole preparation. Reduce cycle time and increase output with a powerful turbine motor. This robust tool is well suited for factory environment and the long service intervals maximizes uptime of your investments.

HOLE QUALITY

Keep your workplace clean with Atlas Copco's ChipLet® feature which makes chips easy to evacuate. With ChipLet® during countersinking, you have a one-step process. Giving process improvements in terms of both productivity and quality.

ERGONOMICS

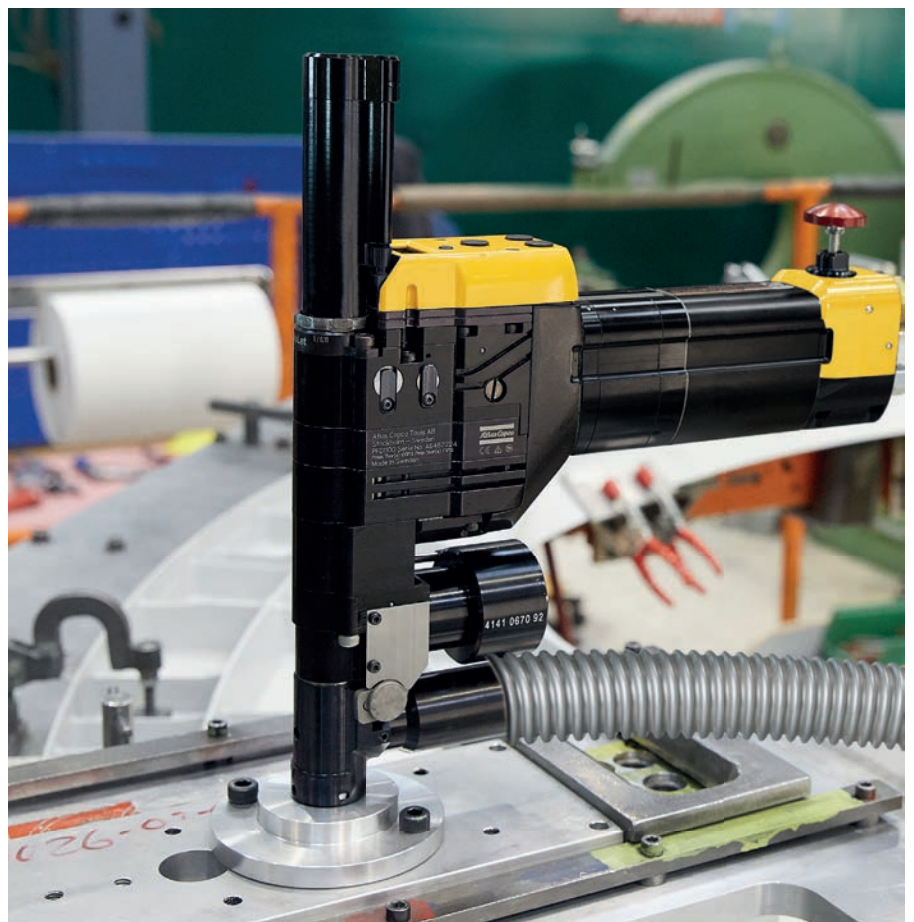
My operators will really appreciate how all the controls on the tool are grouped in one and the same place. This reduces the risk of operator errors. The tool is also very well balanced which makes it easy to move around.

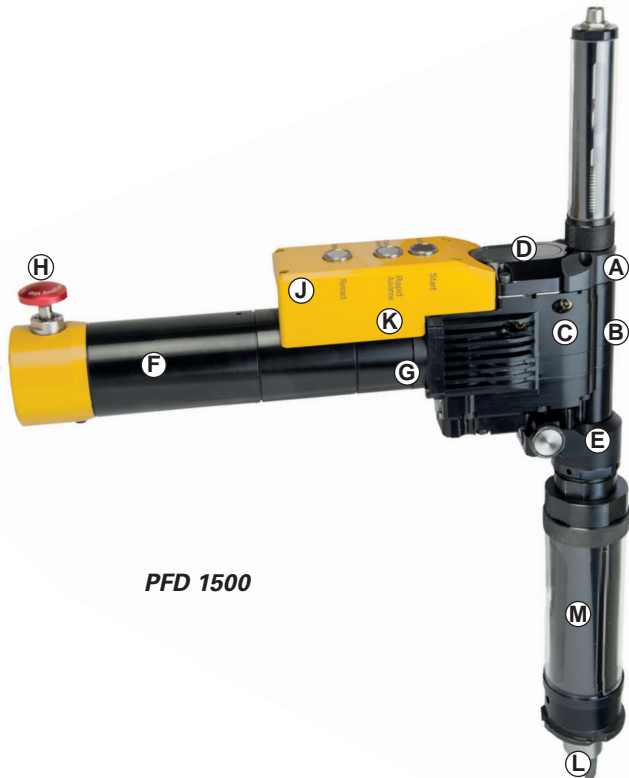
SAFE OPERATION

The modular design means fewer back-up tools. You can also save on service as the platform is based on standard, reusable components.

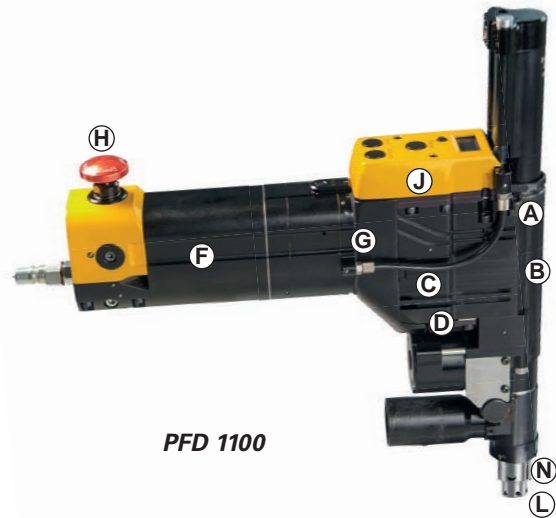
SUPPORT

The modular approach means quick deliveries when needed, and makes it easy to re-work your existing products when urgent applications come up. With our technical documentation and support you will quickly put new tools to work on your assembly line.





PFD 1500



PFD 1100

PFD 1500

Item	Ordering No.
PFD1500RA-200-R	8440 1500 39
Indexer-1-9-16	4141 0306 90
PFD1500-IPR2	4141 0034 92
Spindle-1500-12-9-6	4141 0004 91
Guard-1500-12	4141 0323 91
Nose-8IN-1-1-2	4141 0245 90

Example: Twistlock model with rapid advance and indexer. Spindle with 9/16"-18" interface, speed of 200 rpm and feed of 0.05 mm/r (0.002 IPR). Suitable for drilling of 19 mm holes (3/4") in Ti or Ti/CFRP stacks.

- (A) Optional ChipLet® module which effectively breaks chips while drilling for improved chip evacuation and hole quality.
- (B) Angle head with superior durability with double needle bearings for both feed and drive gear.
- (C) Overload clutch protects the angle head and drive train from overthrust.
- (D) The replaceable feed cassette system enables quick and easy change of feed rate.
- (E) Optional indexer which allows the tool to be locked in the jig also when free space is compromised.
- (F) High torque, high power governed air motor maintains cutting speed while drilling.
- (G) Easy-to-change split gearbox for quick adjustment of rpm.

PFD 1100

Item	Ordering No.
PFD1100RA-IFB110B	8440 1110 66
Spindle-CC-1100-2	4141 0742 90
Guard-1100-2in-p	4141 0826 92
Guide-CC-R-1100-M6	4141 0743 91
Bush-CC-1100-53	4141 0707 92
Foot-CC-1100-MINI	4141 0764 90
Mandrel-CC-25.4-A	4141 0806 28
Collet-CC-1	4141 0813 28

Example: Concentric collet model with inboard lubricator, counter and ChipLet®. Spindle with M6 interface, speed of 2600 rpm and feed of 0.07 mm/r (0.003 IPR). Suitable for drill and countersink of Ø 6.35 (1/4") holes in Al or Al/CFRP stacks.

- (H) Emergency stop fully compliant with the European machinery directive for a high level of safety.
- (J) Rapid advance of spindle reduces cycle time and makes setup a quick and safe task.
- (K) Reliable and user-friendly tool controls with optional cycle counter.
- (L) Best in class spindle power and thrust capabilities. A wide range of speeds and feeds.
- (M) A large selection of tool noses with or without vacuum port makes the tool fit existing drill jigs.
- (N) Concentric collet foot which allows clamp force for countersinking up to diameter 22 mm (7/8"). Debris protection and efficient vacuum exhaust of chips. Foot is modular and easily removed for drill bit change.

Specifications

Feature	PFD1100		PFD1500	
	Metric	Imperial	Metric	Imperial
Motor	Turbine	Turbine	Vane	Vane
Drill and ream	yes	yes	yes	yes
Countersinking	yes	yes	no	no
Sound level	78 dB(A)	78 dB(A)	83 dB(A)	83 dB(A)
Spindle power	1.7 kW	2.3 hp	1.5 kW	2.0 hp
Max hole	15.9 mm	5/8"	32 mm	1 1/4"
Max countersink	22 mm	7/8"	N/A	N/A
Max speed	7300 rpm	7300 rpm	2360 rpm	2360 rpm
Min speed	350 rpm	350 rpm	38 rpm	38 rpm
Max thrust	2000 N	450 lbf	4000 N	900 lbf
Max clamp force (cc)	1800 N	400 lbf	N/A	N/A
Max feed	0.17 mm/rev	0.007 IPR	0.25 mm/rev	0.010 IPR
Tool weight (base)	3.0 kg	6.6 lb	5.5 kg	12.0 lb
Max air consumption	30 l/s	60 cfm	35 l/s	70 cfm
Air inlet	1/2" BSP	1/2" NPT	1/2" BSP	1/2" NPT
Operating pressure	5.5–7.5 bar	80-110 psi	5.5–7.5 bar	80-110 psi
Angle head radius	16.0 mm	5/8"	17.8 mm	0.7"
Air hose	13 mm	1/2"	16 mm	5/8"

Collet



Mandrel



Counter sink stop nut



Optional Equipment

Item	PFD1100	PFD1500
Chipler®	yes	yes
Rapid advance	no	yes (with J-Clutch)
Lubrication pump	inboard, 30 ml	onboard, 55 ml
Counter	yes	yes
Indexer	yes	yes
Tool handle	no	yes
Nose sizes	21k–23k	23k–25k
Concentric collet	yes	no
Max collet outer diameter	1 3/8"	N/A

Tool nose with vacuum port



Tool nose



Tool nose indexer

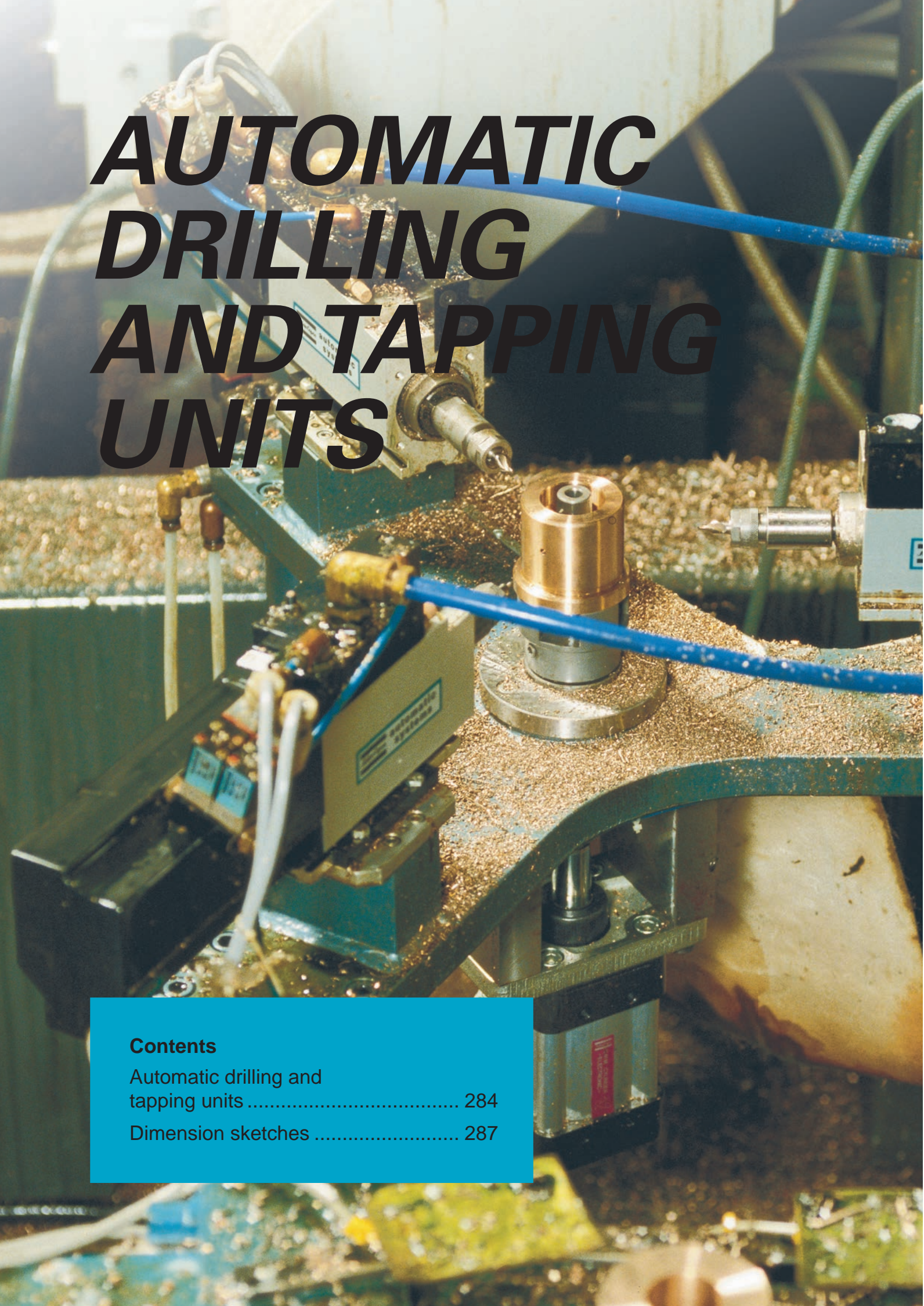


Concentric collet unit



Air Installation

Item	PFD1100 Light to Medium Duty Cycle	PFD1500 / PFD1100 Heavy Duty Cycle
Swivel	MultiFlex with 1/2	MultiFlex with 1/2
Coupling	ErgoQIC 08 with H13	ErgoQIC 10 with H16
Air fitting	ErgoNIP 08 with 1/2	ErgoNIP 10 with 1/2
Hose	PVC 13, 30 m coil	PVC 16, 30 m coil
Clamp	clamp for PVC 13	clamp for PVC 13
Air preparation unit	MIDI Optimizer F/R A with 1/2	Optimizer F/R A with 1/2
Ball valve	BAL-1A with 1/2	BAL-1A with 1/2
Connection	Double with two 1/2	Double with two 1/2

A close-up photograph of an industrial automatic drilling and tapping unit. The machine is primarily green and blue, with a prominent blue cable running across the scene. A brass-colored cylindrical component is being drilled or tapped, with a large amount of fine metal shavings (chips) accumulating around it. The background is slightly blurred, showing more of the industrial environment.

AUTOMATIC DRILLING AND TAPPING UNITS

Contents

Automatic drilling and tapping units	284
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More mechanization in your drilling operations

Simple and cost effective, Atlas Copco automatic drilling and tapping units cut costs by reducing machining time in ancillary equipment, or in highly automated special machines. Modular designs allow the units to be easily replaced, transferred to other machines, or combined to form new special-purpose machines.



Selection Guide

Dimensions in mm



Steel



Aluminum

LBL45

025	015	010	007	003
—	7.0	10.0	14.0 (M8)	20.0 (M12)
10.0	14.0	16.0	22.0 (M12)	32.0 (M16)

LBL35

054	030	014	007
3.0	5.0	8.0 (M4)	11.0 (M8)
5.0	7.0	10.0 (M5)	13.0 (M10)

LBL25

220	049	022	011
1.2	3.2	5.0	8.0
2.0	5.0	6.5	10.0

These units are available in three sizes, LBL25, LBL35 and LBL45, each size covering a specific diameter range, totally up to 32 mm in aluminium.

The basic units can be fitted with different chucks, twin heads for simultaneous drilling of two holes and attachments for chip removal and tapping.

- **Highly dependable** – LBL drilling and tapping units feature quick and precise clamping, making them highly dependable.
- **Easy to build together** – Several holes can be drilled in a single operation since several of these compact units can easily be built together.
- **Low noise level** – The units have a low noise level as the exhaust air is discharged through silencers inside the protective casing.



Model	Capacity		Feed force N	Max output		Feed stroke mm	Free speed r/min	Weight		Air consumption				Ordering No.
	Steel mm	Alumi- num mm		kW	hp			kg	lb	Max output		Free speed		
LBL25E 049	3.2	5.0	350	0.22	0.3	80	4600	3	6.6	5.2	11	5.8	12	8421 9208 55
LBL25E 022	5.0	6.5	350	0.22	0.3	80	2100	3	6.6	5.2	11	5.8	12	8421 9208 63
LBL25E 011	8.0	10.0	350	0.22	0.3	80	1100	3	6.6	5.2	11	5.8	12	8421 9208 71
LBL35E 007	11.0 ^c	13.0 ^d	1050	0.33	0.5	80	700	7	15.0	9.5	21	10.6	22	8421 9308 04
LBL35E 014	8.0 ^a	10.0 ^b	1050	0.33	0.5	80	1400	7	15.0	9.5	21	10.6	22	8421 9308 12
LBL35E 030	5.0	7.0	1050	0.33	0.5	80	3000	7	15.0	9.5	21	10.6	22	8421 9308 38
LBL35E 054	3.0	5.0	1050	0.33	0.5	80	5400	7	15.0	9.5	21	10.6	22	8421 9308 46
LBL45E 003	20.0 ^e	32.0 ^f	2500	0.80	1.1	120	320	16	35.0	20.0	44	9.0	19	8421 9408 03
LBL45E 007	14.0 ^c	22.0 ^d	2500	0.80	1.1	120	700	16	35.0	20.0	44	9.0	19	8421 9408 29
LBL45E 010	10.0	16.0	2500	0.80	1.1	120	1000	16	35.0	20.0	44	9.0	19	8421 9408 37
LBL45E 025	-	10.0	2500	0.80	1.1	120	2500	16	35.0	20.0	44	9.0	19	8421 9408 52

Recommended max tapping size: ^aM4 ^bM5 ^cM8 ^dM10 ^eM12 ^fM16

Optional Accessories

LBL25

Designation	Ordering No.
Hydraulic damper (feed stroke 65 mm)	4130 1844 80
Key chuck (0-6.5 mm)	4021 0283 00
Key chuck (2-10 mm)	4021 0416 00



Hydraulic damper

LBL35

Designation	Ordering No.
Hydraulic damper (feed stroke 65 mm)	4130 1844 80
Key chuck (2.0-13.0 mm)	4021 0452 00
Sleeve chuck (2.0-9.5 mm)	4021 0459 00
Twin spindle head, speed ratio 1:1, center to center adjustment range 12.7-63.5 mm	4130 1363 84
Other multiple heads on request	
Tapping unit, M2-M7 SPD3, Taper socket J33	4130 1938 00
Holder for tapping unit SPD3	4130 1787 00
Collet 2.5-5 mm	4021 0412 00
Collet 5-6.3 mm	4021 0413 00
Tapping unit, M3-M12 SPD5, Tapping Socket J33	4130 1939 00
Holder for tapping unit SPD5	4130 1860 00
Collet 3.3-6.8 mm	4021 0337 00
Collet 4.5-8.7 mm	4021 0336 00
Collet 6-10 mm	4021 0456 00



Key chuck



Sleeve chuck



Morse taper socket

LBL45

Designation	Ordering No.
Hydraulic damper (feed stroke 110 mm)	4130 1895 80
Key chuck (3.2-16.0 mm)	4021 0423 00
Sleeve chuck (2.0-9.5 mm)	4021 0458 00
No. 2 Morse taper socket	4130 1080 00
No. 3 Morse taper socket	4130 1079 00
Twin spindle head, speed ratio 1:1, center to center adjustment range 19-95 mm	4130 1364 82
Other multiple heads on request	
Tapping unit, M15-M18 SPD7, Taper socket, J3	4130 1940 00



Tapping unit



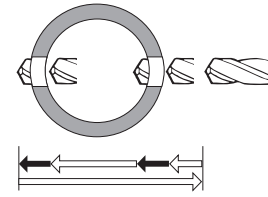
Twin spindle head

Optional Accessories

PROGRAMMED DAMPING DEVICE

Model	Ordering No.
LBL35, -45	4130 1961 80

To be used together with the hydraulic damper.



Programmed damping device

COLLETS FOR SLEEVE CHUCK LBL35/45 TWIN HEAD LBL45

Size mm	Ordering No.
5.0	4130 1561 30
5.5	35
6.4	44
6.5	45
7.0	4130 1561 50
8.0	4130 1561 60
8.5	65
9.0	4130 1561 70
9.5	75

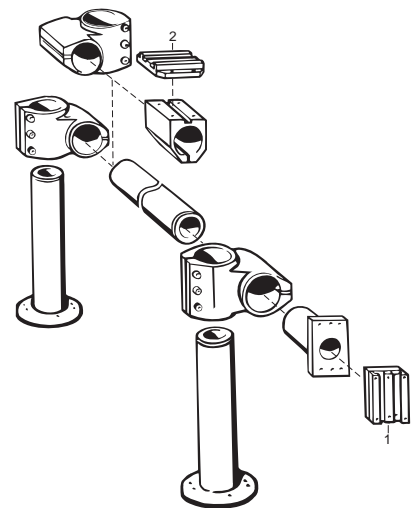
COLLETS FOR TWIN HEAD LBL35

Size mm	Ordering No.
3.2	4130 1367 22
4.0	4130 1367 30
6.5	4130 1367 55

MOUNTINGS

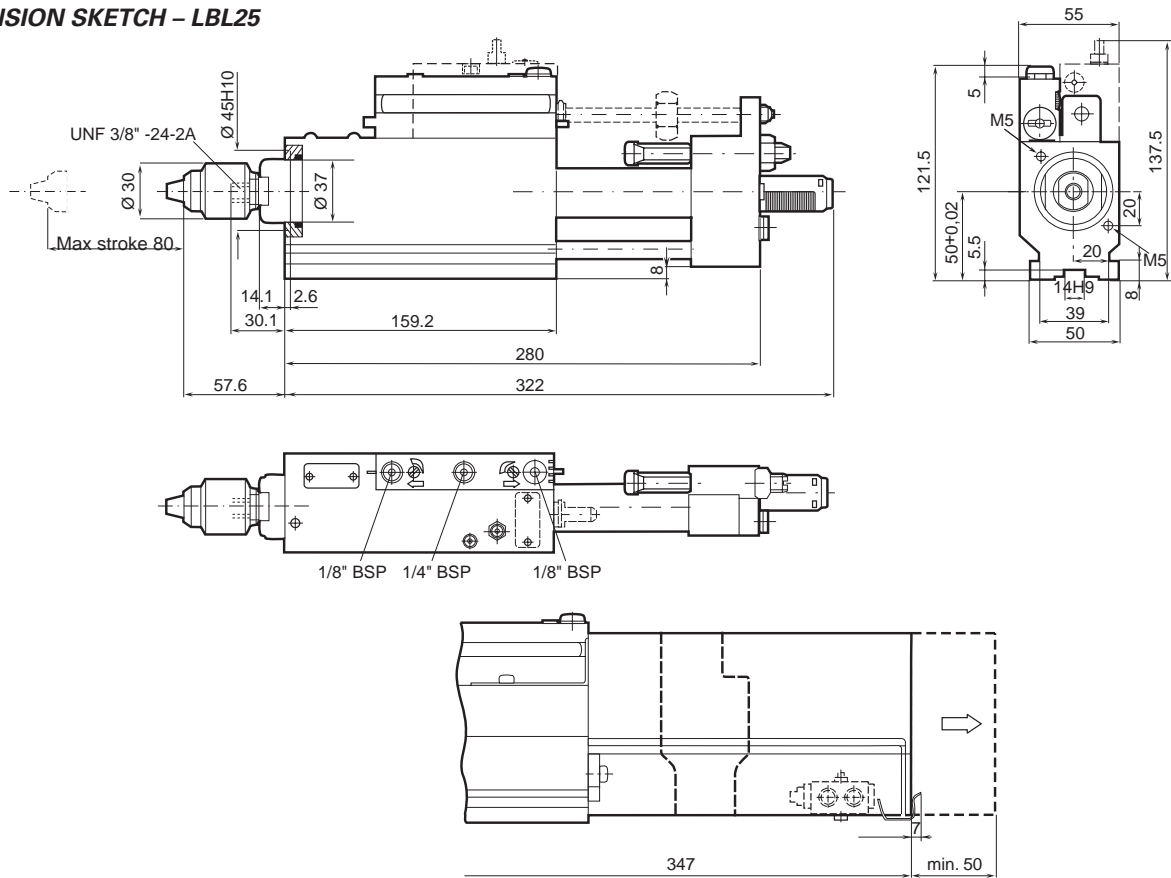
Ref. No.	Designation	Ordering No.	
		LBL25, LBL35	LBL45
1	Base plate	4140 0077 80	4140 0081 80
2	Base plate	4140 0080 80	4140 0084 80
8	Locking bar	4140 0078 00 ^a	4140 0082 00 ^a

^a Two per unit.

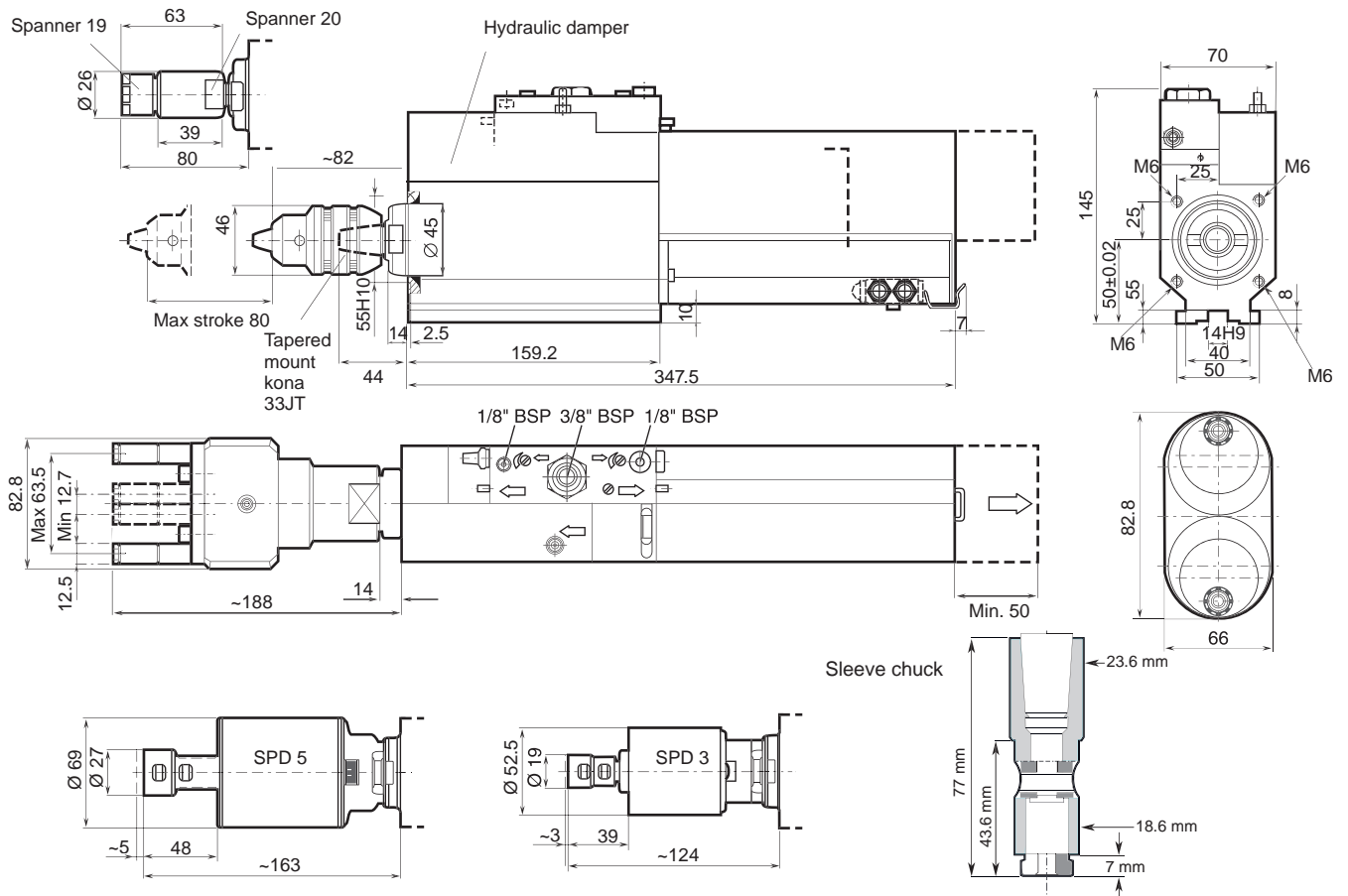


Dimensions

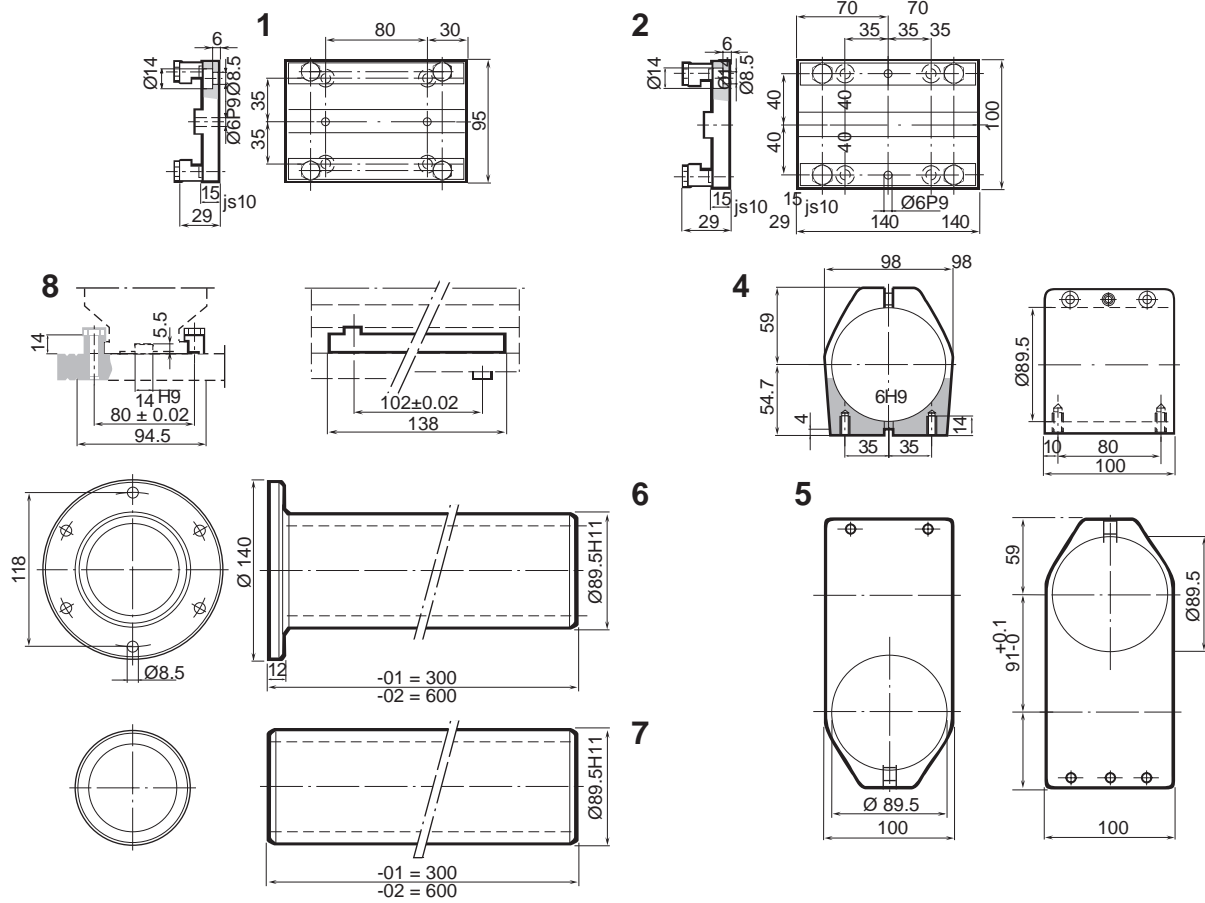
DIMENSION SKETCH - LBL25



DIMENSION SKETCH - LBL35



DIMENSION SKETCH – MOUNTINGS FOR LBL45E



AIR LINE ACCESSORIES



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Ensure that your tools achieve their full potential

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

PRODUCTIVITY

By using Atlas Copco's air line accessories you ensure that you have a correct air line installation for your tool. This will provide the correct air flow to the tool, ensuring that you benefit from its full potential power, and that you reach the correct torque in torque-controlled tools. By using the recommended accessories you will also minimize the service requirements of the tool.

ENERGY EFFICIENCY

With a correct installation you will not only achieve the tool's full potential power, you will also reduce energy costs. All Atlas Copco accessories are designed for minimum pressure drop, which ensures that the compressor is not "working overtime".

SAFETY

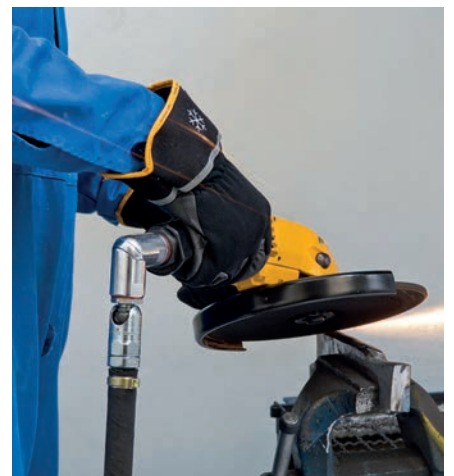
All accessories are designed to meet the highest demands for a safe working environment. Atlas Copco has developed a wide range of safety couplings, balancers and hose reels to meet today's high standards in terms of workplace safety.

ERGONOMICS

Operator health and well-being are important factors. Atlas Copco accessories, such as torque arms, balancers, screw presenters and reaction bars, enable you to configure ergonomically correct workstations for your operators.

QUALITY

All Atlas Copco accessories are made of the highest quality materials for long production cycles and to withstand rough treatment. Choose Atlas Copco accessories and you will be sure of high quality products.



Product Safety

All local safety regulations with respect to installation, operation and overhaul must always be followed. Please read the separate instructions regarding safety which are supplied with all products in order to improve your own safety!

BALL VALVE

- Switch off the compressed air with the ball valve when you are not working (see fig. 1).
- Open all ball valves gently in order to discover improperly tightened devices (see fig. 5).

AIR PREPARATION UNITS

- Please check for solvents which change the structure of polycarbonate^a bowls.

These solvents make the polycarbonate brittle so it can break. Normally polycarbonate is not easy to break. If you need to use aggressive solvents, please contact us and we will help you choose the right equipment.

- Use bowl guard.

An easy way to eliminate this type of accident is to use a bowl guard on MINI and MIDI units. The MAXI unit has an aluminum bowl with a new, more chemical resistant plastic on the inside as standard.

Check that the bowls are properly tightened and that all units are fitted together before switching on the compressed air with the ball valve.

QUICK SAFETY COUPLINGS

To increase the safety and reduce the risk of operator injuries we recommend you to always buy couplings with a safety function. Couplings with a safety function are disconnected in two stages in order to vent the coupling and minimize the risk

of sudden component separation, which has the potential to cause operator injury.

Never open a quick coupling with a screwdriver in order to ventilate the air.

CLAW COUPLINGS

- Be very careful (see fig. 1+2+3).

They are always open and must be used very carefully. To increase safety when using claw couplings, we recommend the claw LNH claw coupling with a lock nut.

CLAMPS AND CONNECTIONS

- Avoid screwdrivers when tightening.

Check that they are properly tightened. Avoid screwdrivers when tightening, they can easily slip and damage your hand. Use a wrench. If you need to use a screwdriver, mount the clamp in a vice.

HOSES

When mounting hoses on hose connections, use water and soap in order to make the hose slip on to the connection. Do not use oil. Water and soap will dry up. Remove leaking hoses. A small leakage can quickly become a large hole.

BLOW GUNS

- Use the safety version. It eliminates the risk of air at high pressure coming into direct contact with skin.

^a Polycarbonate has good chemical resistance to all solvents except chemicals containing acetone, benzol, glycerine, some hydraulic and synthetic oils, chloroform, methyl alcohol, carbon tetrachloride (and similar solvents), carbon disulphide, perchloroethylene, toluene, trichloroethylene, xylene (nitrocellulose, thinner), acetic acid.

FOLLOW THIS ORDER WHEN WORKING WITH CLAW COUPLINGS.

How to open a claw coupling:

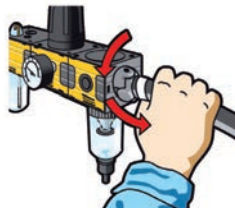
- 1 Close the ball valve.



- 2 Run the tool so the air ventilates out.



- 3 Release the claw coupling.



How to close a claw coupling:

- 4 Make sure that the two claw couplings are mounted together.

Use claw couplings with lock nut (LNH) or use a lock spring for safer locking.



- 5 Open the ball valve gently.



Get maximum productivity from your tools

Atlas Copco air preparation units are designed to help you get maximum productivity from your tools. They ensure minimal pressure drop and thus minimum energy losses in the air distribution system, benefiting the environment and cutting your operating costs. The lifetimes of your tools will be extended by using air preparation units and with that comes lower repair costs and less downtime.

A correct air installation ensures productivity and good total economy.

FILTER – FIL

Water and dirt in your compressed air system will cause extensive corrosion damage and wear.

PRODUCTIVITY

Atlas Copco filters are equipped with a cyclone system. Using centrifugal force, this separates out a high percentage of the heavier solid water particles, while the filter ensures that the amount of dirt entering your tool is kept to a minimum. This means longer working cycles for the tools and minimum service time.

REGULATOR– REG

Atlas Copco regulators ensure optimal flow at the specific flow rates required by Atlas Copco tools, or any other pneumatic tools.

ENERGY EFFICIENCY

By installing a regulator you will ensure that there will not be any unnecessary consumption of compressed air. The regulators reduce a variable primary pressure to a practically constant secondary pressure with a minimum of pressure drop.

PRODUCTIVITY

The regulator will optimize the performance of your tool, ensure torque accuracy and boost productivity.

LUBRICATOR – DIM

Atlas Copco oil lubricators ensure a long, efficient and trouble-free life for your pneumatic tools and components.

PRODUCTIVITY

The use of a lubricator will increase the power in vane motors by about 10-15%.

ENERGY EFFICIENCY

With the use of a lubricator you will prolong the lifetime of a vane motor up to three times and the motor will work much more efficiently, and with less friction.



Filter – FIL



Regulator – REG



Lubricator – DIM

The MIDI Optimizer is suitable for more than 90% of the Atlas Copco tool range and is the best choice for assembly tools, percussive tools, drills, nibblers and grinders up to Turbo. The MIDI Optimizer has a 1/2" NPT connection thread and a housing and bowl of high-tech polymer. The bowl has a highly chemical resistant polypropylene insert and the bowl is directly screwed to the housing for easy handling.

MIDI OPTIMIZER SELF-REGULATING NANO-LUBRICATOR

Adjusts automatically to the flow demand and ensures that the right amount of oil is supplied to the motor at all flow rates. This minimizes the lubrication needed. The nano oil mist, with a particle size of 200 nm, can be transported by the air stream up to 130 ft. This means there is no oil in the hose and direct lubrication is not necessary. The lubricator can be refilled during operation. EP-versions are adjusted for use with impulse tools.



WORKING TEMPERATURE

-40°F to +140°F at 145 psi
 +35°F to +140°F at 145 psi for filters
NOTE: For dry compressed air, ice formation must be avoided.

OPERATING PRESSURE

Inlet pressure 0-232 psi
 Outlet pressure 7-116 psi

STANDARD FILTER

30 µm

PRESSURE GAUGE

1/4" BSP
 Included in F/RD and FRD units

Model	Economical air flow cfm	Maximum air flow cfm	Bowl material	Filter condensate drainage	Max condensate capacity oz	Max oil capacity oz	Weight lb	Ordering No.
Filters								
MIDI Optimizer FIL M/S	-	248	Polymer, plastic insert	Manual/semi auto	2	-	0.66	9093 0021 04
MIDI Optimizer FIL A	-	248	Polymer, plastic insert	Automatic	2	-	0.66	9093 0021 03
Regulators								
MIDI Optimizer REG	-	206	-	-	-	-	0.77	9093 0021 07
MIDI Optimizer REG LP	-	206	-	-	-	-	0.77	9093 0021 08
Lubricators								
MIDI Optimizer DIM	66	254	Polymer, plastic insert	-	-	3	0.66	9093 0021 11
Filter/regulator								
MIDI Optimizer F/R M/S	-	190	Polymer, plastic insert	Manual/semi auto	2	-	1.1	9093 0021 15
MIDI Optimizer F/R A	-	190	Polymer, plastic insert	Automatic	2	-	1.1	9093 0021 14
Filter/regulator+lubricator								
MIDI Optimizer F/RD A	66	116	Polymer, plastic insert	Automatic	2	3	2.2	9093 0021 18
MIDI Optimizer F/RD M/S	66	116	Polymer, plastic insert	Manual/semi auto	2	3	2.2	9093 0021 19
MIDI Optimizer F/RD A EP	66	116	Polymer, plastic insert	Automatic	2	3	2.2	9093 0021 37
MIDI Optimizer F/RD M/S EP	66	116	Polymer, plastic insert	Manual/semi auto	2	3	2.2	9093 0021 38
Filter+regulator+lubricator								
MIDI Optimizer FRD M/S	66	116	Polymer, plastic insert	Manual/semi auto	2	3	2.4	9093 0021 27
MIDI Optimizer FRD A	66	116	Polymer, plastic insert	Automatic	2	3	2.4	9093 0021 26

NOTE: **Economical air flow:** 116 psi inlet pressure, 91 psi outlet pressure, 3 psi pressure drop.
Maximum air flow: 145 psi inlet pressure, 91 psi outlet pressure, 15 psi pressure drop.

All separate units, mounting brackets, assembly kits and pressure gauges need to be ordered separately. MIDI F/RD unit is delivered complete with mounting bracket, assembly kit and pressure gauge.

EP For pulse tools, lubricator adjusted for impulsing tools
 A Automatic
 M/S Manual/semi automatic
 LP Lockable regulator

The high flow MAXI-B air preparation unit's main application is to prepare the air for pneumatic tools which are large air consumers when long distribution hoses and multi connectors are used. A good example is Atlas Copco Turbo grinders. The MAXI-B has a diecast zinc housing and aluminum bowls with polypropylene inserts and the bowl is directly screwed to the housing for easy handling.

WORKING TEMPERATURE

14°F to 122°F at 145 psi

NOTE: For dry compressed air, ice formation must be avoided.

OPERATING PRESSURE

Inlet pressure 0-254 psi

Outlet pressure 7-174 psi

STANDARD FILTER

30 µm

PRESSURE GAUGE

1/4" BSP



Model	Economical air flow cfm	Maximum air flow cfm	Bowl	Filter condensate drainage	Max condensate capacity oz	Max oil capacity oz	Weight lb	Ordering No.
Filters								
MAXI FIL 25BU-B	225	636	Metal	Semi/automatic	4.4 oz	-	2	9093 0074 31
Regulators								
MAXI REG 25BU	180	566	-	-	-	-	2.6	9093 0074 71
Lubricators								
MAXI DIM 25BU	184	636	Metal	-	-	16.9	1.8	9093 0075 31
Filter/regulator								
MAXI F/R 25BU-B	178	485	Metal	Semi/automatic	4.4 oz	-	3.3	9093 0075 61
Filter+regulator+lubricator								
MAXI FRD 25BU-B	171	328	Metal	Semi/automatic	4.4 oz	16.9	7.3	9093 0076 11

NOTE: **Economical air flow:** 116 psi inlet pressure, 91 psi outlet pressure, 3 psi pressure drop.
Maximum air flow: 145 psi inlet pressure, 91 psi outlet pressure, 15 psi pressure drop.

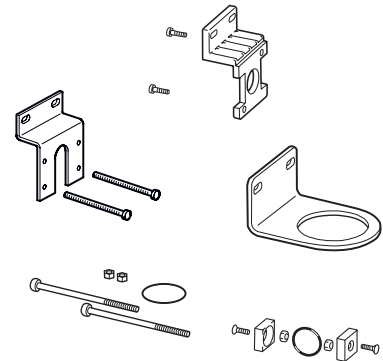
All separate units, mounting brackets, assembly kits and pressure gauges need to be ordered separately. MAXI F/RD unit is delivered complete with mounting bracket, assembly kit and pressure gauge.

Optional Accessories

COMMON ACCESSORIES

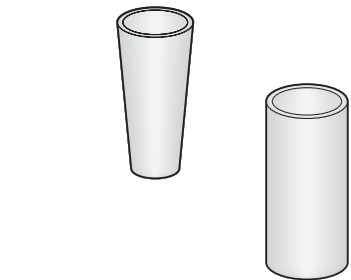
Designation	Ordering No.	
	MIDI OPTIMIZER	MAXI-B
Mounting bracket kit	9093 0022 01	9093 0076 15
Assembly kit	9093 0022 02	9093 0076 31

Are included in combination units (FD, FTD, F/RD and FRD)
Common accessories have to be ordered separately for separate units.



FILTER (FIL) ACCESSORIES (30 µm filter element is included with all filters)

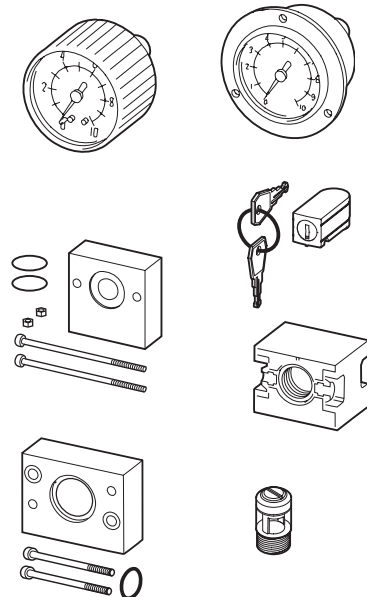
Designation	Ordering No.	
	MIDI OPTIMIZER	MAXI-B
Filter element		
30 µm	9093 0023 04	9093 0076 61
5 µm	9093 0023 05	9093 0076 71



REGULATOR (REG) ACCESSORIES

Designation	Ordering No.	
	MIDI OPTIMIZER	MAXI-B
Pressure gauge		
0-140 psi		
Ø 50 mm	9090 2052 00	
Metal housing	9090 2052 01	
0-230 psi		
Ø 49 mm	9090 0239 00	9090 0239 00
Ø 63 mm		9093 0076 45
Panel mounting pressure gauge		
0-140 psi		
Ø 50 mm	9090 1173 00	
0-230 psi		
Ø 63 mm		9093 0076 43
Key lock for regulator -LP	9092 0074 11	

Pressure gauge 0-140 psi is included in the combination units (F/RD and FRD)
Pressure gauge has to be ordered separately for separate units.



LUBRICATOR (DIM) ACCESSORIES

Designation	Ordering No.	
	MIDI OPTIMIZER	MAXI-B
Air distribution block kit	9093 0022 03	9093 0076 41
Glass sight dome		9090 1873 00



FRL STAND

Designation	Ordering No.
Suits all models	9090 2101 00
FRL-stand^a	9090 3030 01

^a For impact wrenches and pulse tools up to 1/2" NPT air inlet, and maximum air flow 65 cfm. Includes: large metal gauge up to 145 psi, ErgoQIC 10US coupling, 16.9 oz of Optimizer oil, Turbo 13 hose with length 16.4 ft. The FRL-stand has NPT connection.

OPTIMIZER AIR TOOL OIL

Atlas Copco Optimizer air tool oil is a white, oil based lubricant for pneumatic tools. It has excellent antiwear properties and contains additives preventing oxidation and foaming. The Optimizer air tool oil provides a better working environment, compared to conventional mist lubrication oils and is recommended when stringent demands are placed on the working environment.

- Provides a better working environment.
- Excellent antiwear properties.
- Minimizes wear on components.



Technical Data

Temperature range	-13°F to +158°F
Density at 59°F	0.13 ounce/gallon
Viscosity at 104°F	0.34 in ² /s
Pour point	-54°F
Flash point COC	>338°F

Model	Ordering No.
Optimizer 16.9 oz	9090 0000 02
Optimizer 33.8 oz	9090 0000 04
Optimizer 1 gallon	9090 0000 06

Introduction – Quick Couplings

Simply the best choice!

Whenever tools or pneumatic equipment need to be changed, or you need to make quick connections of hoses to an air outlet, Atlas Copco couplings are simply the best choice.

ENERGY EFFICIENCY

All Atlas Copco couplings are designed for a minimum pressure drop to reduce energy consumption.

PRODUCTIVITY

Exceptionally high air flow will guarantee full power in the tools.

QUALITY

The bodies of the couplings are made of hardened steel with a no-leakage design for long service life and heavy duty applications.

ERGONOMICS

Compact dimensions and low weight.

SAFETY

ErgoQIC's are vented safety versions to minimize the risk of sudden component separation and sound bang. The safety features are according to EN 983 and ISO 4414.



Selection Guide

Atlas Copco offers a broad range of couplings. ErgoQIC 08, ErgoQIC 10, ErgoQIC 08US, ErgoQIC 10US, ErgoQIC 15US, QIC 10US, QIC 15US and CLAW. The ErgoQIC system is a ball valve coupling with a safety feature offering a higher flow than ordinary coupling systems. The Claw coupling is a large bore claw coupling system offering a very high air flow.

For assembly tools, riveting hammers and drills it is recommended that a smaller sized coupling such as ErgoQIC 08 / US is used, but for assembly tools and drills with higher air consumption than 20 l/s it is recommended that ErgoQIC 10,

Standard / Quick coupling / Flow capacity

Atlas Copco standard	ErgoQIC 08	62 cfm
ISO 6150 B / US standard	ErgoQIC 08US	34 cfm
Atlas Copco standard	ErgoQIC 10	129 cfm
ISO 6150 B / US standard	ErgoQIC 10US	89 cfm
ISO 6150 B / US standard	ErgoQIC 15US	161 cfm
ISO 6150 B / US standard	QIC 10US	40 cfm
ISO 6150 B / US standard	QIC 15US	85 cfm

ErgoQIC 10US or ErgoQIC 15US are used. For grinders and percussive tools it is recommended that the bigger sized couplings ErgoQIC 10, ErgoQIC 10US

or ErgoQIC 15US and Claw are used. For smaller grinders with air consumption below 10 l/s ErgoQIC 08 /US can be used.

Atlas Copco Global standard

ERGOQIC 08

The ErgoQIC 08 is a full flow quick coupling with no air restriction inside the coupling. It is suitable for assembly tools, drills and small grinders. Upgrading any air system with ErgoQIC 08 will give the benefits of productivity and energy efficiency.

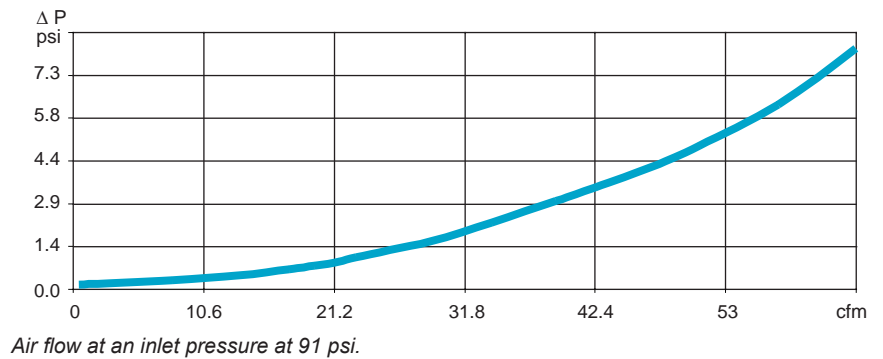
- Full flow coupling.
- Ergonomic design, small size and low weight.
- Strong and durable.
- Safety feature according to EN 983 / ISO 4414.



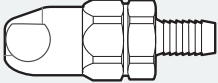

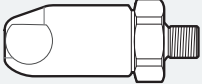
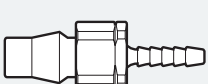
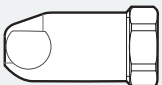
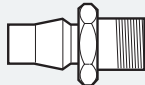

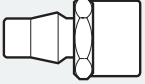
Technical Data

Max flow capacity 62 cfm (7.3 psi ΔP)
 Economical air flow 38 cfm (2.9 psi ΔP)
 Max working pressure 230 psi
 Temperature range 14°F to +158°F

FLOW CHART. ERGOQIC 08 M15U AND ERGONIP 08 M10U



ERGOQIC 08 AND ERGONIP 08, 38 CFM (recommended air flow at 91 psi pressure)

Connection type	Coupling ErgoQIC 08	Ordering No.	Size		Connection type	Nipple ErgoNIP 08	Ordering No.	Size	
			mm	in				mm	in
 H – Hose	H06	8202 1110 04	6.3	1/4	 H – Hose	H06	8202 1210 37	6.3	1/4
	H08	8202 1110 12	8	5/16		H08	8202 1210 45	8	5/16
	H10	8202 1110 38	10	3/8		H10	8202 1210 52	10	3/8
 M – Male	M08U	8202 1115 09	1/4 NPT		 SH – Safety Hose ^a	SH06	8202 1210 39	6.3	1/4
	M10U	8202 1115 17	3/8 NPT			SH08	8202 1210 47	8	5/16
	M15U	8202 1115 25	1/2 NPT			SH10	8202 1210 50	10	3/8
 F – Female	F08U	8202 1115 30	1/4 NPT		 M – Male	M06U	8202 1215 08		1/8 NPT
	F10U	8202 1115 35	3/8 NPT			M08U	8202 1215 16		1/4 NPT
						M10U	8202 1215 24		3/8 NPT
 Protective cover		9090 1940 00			 F – Female	F10U	8202 1215 35		3/8 NPT

^a For joining hoses longer than 3 meters.

ISO 6150-B / US standard

ERGOQIC 08US

The ErgoQIC 08US is a full flow quick coupling with no air restriction inside the coupling suitable for assembly tools, drills and small grinders. Upgrading any air system with ErgoQIC 08US will give the benefit of productivity and energy efficiency.

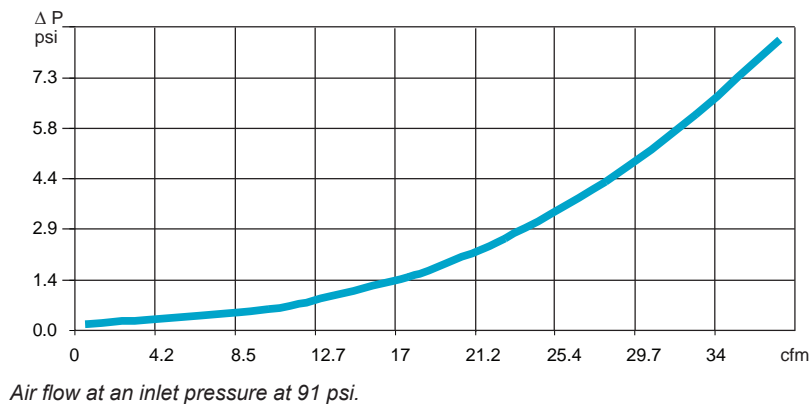
- Full flow coupling.
- Ergonomic design, small size and low weight.
- Strong and durable.
- Safety feature according to EN 983 / ISO 4414.



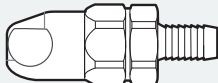
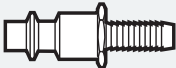
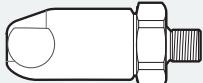
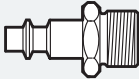
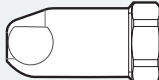
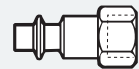
Technical Data

Max flow capacity 34 cfm (7.3 psi ΔP)
 Economical air flow 23 cfm (2.9 psi ΔP)
 Max working pressure 230 psi
 Temperature range 14°F to 158°F

FLOW CHART. ERGOQIC 08US AND NIP 08



ERGOQIC 08US AND NIP 08, 23 CFM (recommended air flow at 91 psi pressure)

Connection type	Coupling ErgoQIC 08US		Size		Connection type	Nipple NIP 08		Size	
		Ordering No.	mm	in			Ordering No.	mm	in
H – Hose 	H06	8202 1103 00	6.3	1/4	H – Hose 	H06	8202 1205 18	6.3	1/4
	H08	8202 1103 01	8.0	5/16		H08	8202 1205 26	8.0	5/16
	H10	8202 1103 02	10.0	3/8		H10	8202 1205 34	10.0	3/8
						H13	8202 1208 03	12.5	1/2
M – Male 	M08U	8202 1103 04	1/4 NPT		M – Male 	M06U	8202 1208 07	1/8 NPT	
	M10U	8202 1103 06	3/8 NPT			M08U	8202 1208 08	1/4 NPT	
	M15U	8202 1103 08	1/2 NPT			M10U	8202 1208 09	3/8 NPT	
F – Female 	F08U	8202 1103 10	1/4 NPT		F – Female 	F08U	8202 1208 14	1/4 NPT	
	F10U	8202 1103 12	3/8 NPT			F10U	8202 1208 15	3/8 NPT	

Atlas Copco Global standard

ERGOQIC 10

The ErgoQIC 10 is a full flow coupling with no air restriction inside the coupling. It is suitable for assembly tools, drills and grinders. Upgrading any air system with ErgoQIC 10 will give the benefits of productivity and energy efficiency.

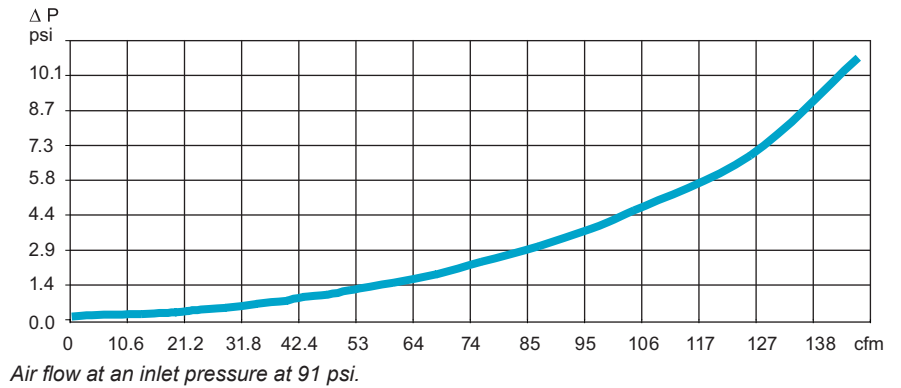
- Extreme full flow coupling.
- Strong and durable.
- Minimized connection force.
- Safety feature according to EN 983 / ISO 4414.



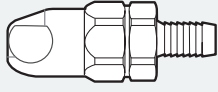

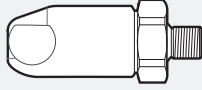
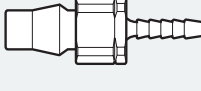
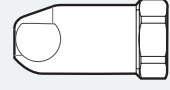
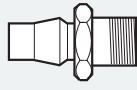

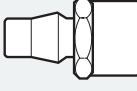
Technical Data

Max flow capacity 129 cfm (7.3 psi ΔP)
 Economical air flow 85 cfm (2.9 psi ΔP)
 Max working pressure 230 psi
 Temperature range 14°F to +158°F

FLOW CHART. ERGOQIC 10 M15U AND ERGONIP 10 M15U



ERGOQIC 10 AND ERGONIP 10, 85 CFM (recommended air flow at 91 psi pressure)

Connection type	Coupling ErgoQIC 10	Ordering No.	Size		Connection type	Nipple ErgoNIP 10	Ordering No.	Size	
			mm	in				mm	in
H – Hose 	H06	8202 1120 30	6.3	1/4	H – Hose 	H06	8202 1220 35	6.3	1/4
	H08	8202 1120 40	8	5/16		H08	8202 1220 43	8	5/16
	H10	8202 1120 02	10	3/8		H10	8202 1220 50	10	3/8
	H13	8202 1120 10	12.5	1/2		H13	8202 1220 68	12.5	1/2
	H16	8202 1120 50	16	5/8		H16	8202 1220 76	16	5/8
	H20	8202 1120 60	19	3/4		H20	8202 1220 77	19	3/4
M – Male 	M08U	8202 1125 07	1/4 NPT		SH – Safety Hose^a 	SH06	8202 1220 37	6.3	1/4
	M10U	8202 1125 15	3/8 NPT			SH08	8202 1220 45	8	5/16
	M15U	8202 1125 23	1/2 NPT			SH10	8220 1220 52	10	3/8
					SH13	8202 1220 70	12.5	1/2	
F – Female 	F08U	8202 1125 30	1/4 NPT		M – Male 	M08U	8202 1225 06	1/4 NPT	
	F10U	8202 1125 35	3/8 NPT			M10U	8202 1225 14	3/8 NPT	
						M15U	8202 1225 22	1/2 NPT	
Protective cover 		9090 1931 00			F – Female 	F08U	8202 1225 30	1/4 NPT	
						F10U	8202 1225 32	3/8 NPT	
						F15U	8202 1225 34	1/2 NPT	

^a For joining hoses longer than 3 meters.

ISO 6150-B / US standard

ERGOQIC 10US

The ErgoQIC 10US is a full flow quick coupling with no air restriction inside the coupling suitable for assembly tools, drills and small grinders. Upgrading any air system with ErgoQIC 10US couplings will give the benefit of productivity and energy efficiency.

- Full flow coupling.
- Ergonomic design, small size and low weight.
- Strong and durable.
- Safety feature according to EN 983 / ISO 4414.



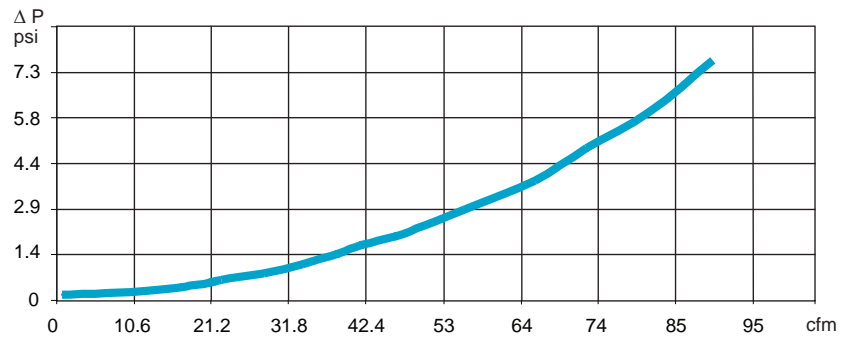
Nipple profile



Technical Data

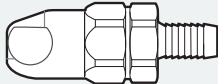

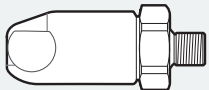
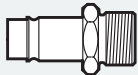
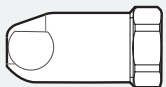
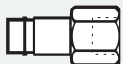
Max flow capacity 89 cfm (7.3 psi ΔP)
 Economical air flow 57 cfm (2.9 psi ΔP)
 Max working pressure 230 psi
 Temperature range 14°F to 158°F

FLOW CHART. ERGOQIC 10US AND NIP 10US



Air flow at an inlet pressure at 91 psi.

ERGOQIC 10US AND NIP 10US, 57 CFM (recommended air flow at 91 psi pressure)

Connection type	Coupling ErgoQIC 10US		Size		Connection type	Nipple NIP 10US		Size	
		Ordering No.	mm	in			Ordering No.	mm	in
H – Hose 	H08	8202 1107 01	8.0	5/16	H – Hose 	H08	8202 1210 70	8.0	5/16
	H10	8202 1107 02	10.0	3/8		H10	8202 1210 71	10.0	3/8
	H13	8202 1107 03	12.5	1/2		H13	8202 1210 72	12.5	1/2
	H16	8202 1107 04	16.0	5/8		H13	8202 1210 73	16.0	5/8
	H20	8202 1107 05	19.0	3/4		H20	8202 1210 74	19.0	3/4
M – Male 	M08U	8202 1107 06	1/4	NPT	M – Male 	M08U	8202 1210 78	1/4	NPT
	M10U	8202 1107 08	3/8	NPT		M10U	8202 1210 79	3/8	NPT
	M15U	8202 1107 10	1/2	NPT		M15U	8202 1210 80	1/2	NPT
F – Female 	F08U	8202 1107 12	1/4	NPT	F – Female 	F08U	8202 1210 84	1/4	NPT
	F10U	8202 1107 14	3/8	NPT		F10U	8202 1210 85	3/8	NPT
	F15U	8202 1107 16	1/2	NPT		F15U	8202 1210 86	1/2	NPT

ISO 6150-B / US standard

QIC 10US

The QIC 10US quick coupling is suitable for assembly tools, drills and small grinders. The QIC 10US has a wide range of connections available and it is interchangeable with US 3/8" standard nipples.

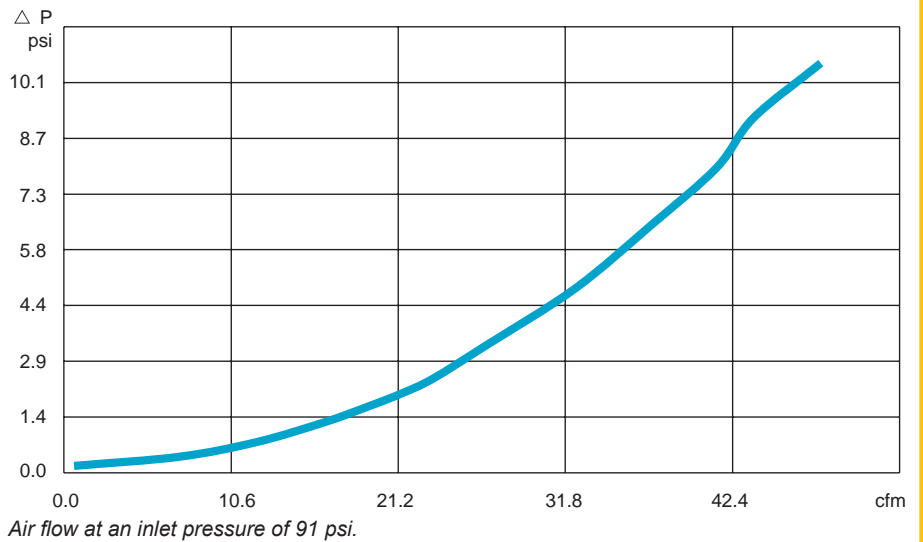
- High flow.
- One-hand operation.
- Strong and durable.
- Main market: Global.






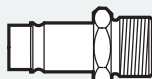

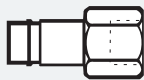
Technical Data

Max flow capacity 40 cfm (7.3 psi ΔP)
 Economical air flow 25 cfm (2.9 psi ΔP)
 Max working pressure 145 psi
 Temperature range -4°F to 176°F

FLOW CHART. QIC 10US AND NIP 10US



QIC 10US AND NIP 10US, 25 CFM (recommended air flow at 91 psi pressure)

Connection type	Coupling QIC 10US	Ordering No.	Size		Connection type	Nipple NIP 10US	Ordering No.	Size	
			mm	in				mm	in
H – Hose 	H08	8202 1307 01	8	5/16	H – Hose 	H08	8202 1210 70	8	5/16
	H10	8202 1307 02	10	3/8		H10	8202 1210 71	10	3/8
	H13	8202 1307 03	12.5	1/2		H13	8202 1210 72	12.5	1/2
							H16	8202 1210 73	16
M – Male 	M08U	8202 1307 04	1/4 NPT		M – Male 	M08U	8202 1210 78	1/4 NPT	
	M10U	8202 1307 05	3/8 NPT			M10U	8202 1210 79	3/8 NPT	
	M15U	8202 1307 06	1/2 NPT			M15U	8202 1210 80	1/2 NPT	
F – Female 	F08U	8202 1307 07	1/4 NPT		F – Female 	F08U	8202 1210 84	1/4 NPT	
	F10U	8202 1307 08	3/8 NPT			F10U	8202 1210 85	3/8 NPT	
	F15U	8202 1307 09	1/2 NPT			F15U	8202 1210 86	1/2 NPT	

ISO 6150-B / US standard

ERGOQIC 15US

The ErgoQIC 15US is a full flow coupling with no air restriction inside the coupling suitable for large air consuming assembly tools, drills and grinders. Upgrading any air system with ErgoQIC 15US will give the benefit of productivity and energy efficiency.

- Extreme full flow coupling.
- Strong and durable.
- Minimized connection force.
- Safety feature according to EN 983 / ISO 4414.



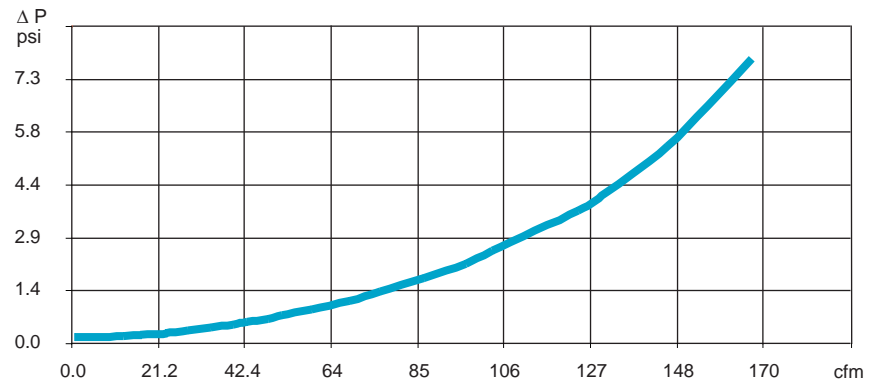
Nipple profile



Technical Data

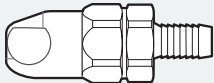

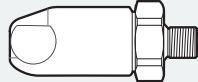
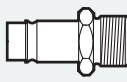
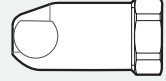
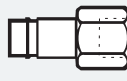
Max flow capacity 161 cfm (7.3 psi ΔP)
 Economical air flow 110 cfm (2.9 psi ΔP)
 Max working pressure 230 psi
 Temperature range 14°F to +158°F

FLOW CHART. ERGOQIC 15US AND NIP 15US



Air flow at an inlet pressure at 91 psi.

ERGOQIC 15 US AND NIP 15 US, 110 CFM (recommended air flow at 91 psi pressure)

Connection type	Coupling ErgoQIC 15US		Size		Connection type	Nipple NIP 15US		Size	
		Ordering No.	mm	in			Ordering No.	mm	in
H – Hose 	H10	8202 1108 02	10.0	3/8	H – Hose 	H10	8202 1215 40	10.0	3/8
	H13	8202 1108 03	12.5	1/2		H13	8202 1215 41	12.5	1/2
	H16	8202 1108 04	16.0	5/8		H16	8202 1215 42	16.0	5/8
	H20	8202 1108 05	19.0	3/4		H20	8202 1215 43	19.0	3/4
M – Male 	M10U	8202 1108 08	3/8	NPT	M – Male 	M10U	8202 1215 49	3/8	NPT
	M15U	8202 1108 10	1/2	NPT		M15U	8202 1215 50	1/2	NPT
						M20U	8202 1215 51	3/4	NPT
F – Female 	F10U	8202 1108 14	3/8	NPT	F – Female 	F10U	8202 1215 54	3/8	NPT
	F15U	8202 1108 16	1/2	NPT		F15U	8202 1215 55	1/2	NPT
						F20U	8202 1215 56	3/4	NPT

ISO 6150-B / US standard

QIC 15US

The QIC 15US quick coupling is suitable for assembly tools, drills and grinders. The QIC 15US has a wide range of connections available and it is interchangeable with US 3/8" standard nipples.

- Exceptional high flow.
- One-hand operation.
- Strong and durable.
- Main market: Global.



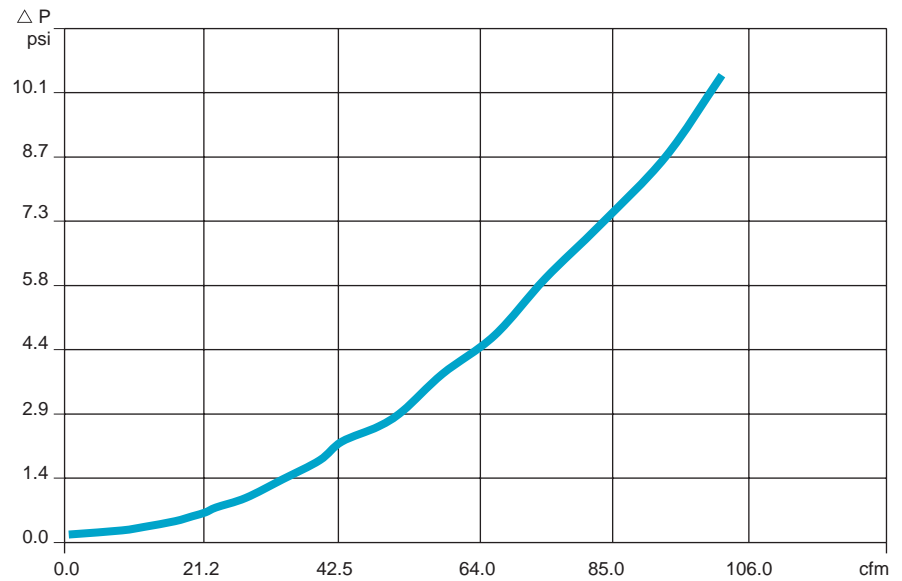
Nipple profile



Technical Data

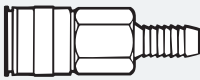

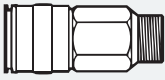
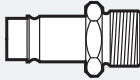
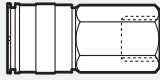
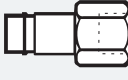
Max flow capacity 85 cfm (7.3 psi ΔP)
 Economical air flow 47 cfm (2.9 psi ΔP)
 Max working pressure 145 psi
 Temperature range -4°F to +176°F

FLOW CHART. QIC 15US AND NIP 15US



Air flow at an inlet pressure of 91 psi.

QIC 15US AND NIP 15US, 47 CFM (recommended air flow at 91 psi pressure)

Connection type	Coupling QIC 15US	Ordering No.	Size		Connection type	Nipple NIP 15US	Ordering No.	Size	
			mm	in				mm	in
H – Hose 	H13	8202 1308 02	12.5	1/2	H – Hose 	H10	8202 1215 40	10	3/8
	H16	8202 1308 20	16	5/8		H13	8202 1215 41	12.5	1/2
	H20	8202 1308 03	19	3/4		H16	8202 1215 42	16	5/8
						H20	8202 1215 43	19	3/4
M – Male 	M10U	8202 1308 04	3/8 NPT		M – Male 	M10U	8202 1215 49	3/8 NPT	
	M15U	8202 1308 05	1/2 NPT			M15U	8202 1215 50	1/2 NPT	
	M20U	8202 1308 06	3/4 NPT			M20U	8202 1215 51	3/4 NPT	
F – Female 	F10U	8202 1308 07	3/8 NPT		F – Female 	F10U	8202 1215 54	3/8 NPT	
	F15U	8202 1308 08	1/2 NPT			F15U	8202 1215 55	1/2 NPT	
	F20U	8202 1308 09	3/4 NPT			F20U	8202 1215 56	3/4 NPT	

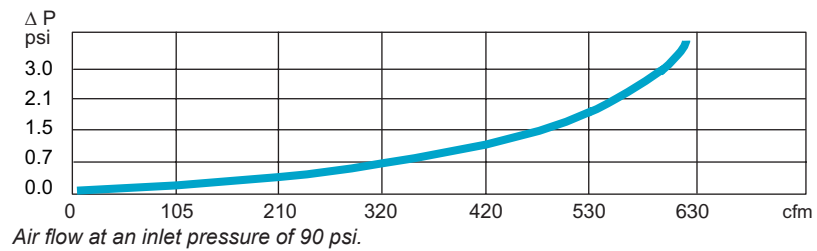
CLAW couplings are made from drop-forged, hardened steel which can withstand rough treatment and ensures a long life even under difficult conditions. The coupling head is the same for all sizes, which can therefore be freely combined.

The recommended maximum working pressure is 10 bar.

- Large bore – machined surfaces give low air resistance and minimum pressure drop.
- Robust claws – will withstand rough handling without deformation.
- Locking lugs – precision-made to provide a reliable lock.
- Special rubber packings – resistant to oil and temperature changes. Max. temperature 80°C (176°F).
- Packing seats – lathe-turned grooves ensure a leak-proof seal.
- Couplings are zinc-plated and thus effectively treated against corrosion.



FLOW CHART. FOR 2 PIECES OF CLAW



CLAW

Connection type	Coupling CLAW	Ordering No.	Hose inner dia.		Bore		
			mm	in	mm	in	
H – Hose		H10	9001 0005 11	10.0	3/8	6	15/64
		H13	9001 0005 10	12.5	1/2	9	23/64
		H20	9001 0005 12	20.0	3/4	14	9/16
		H25	9001 0005 13	25.0	1	20	3/4
M – Male thread		M10	9001 0005 00	3/8" NPT		9	23/64
		M15	9001 0005 01	1/2" NPT		12	15/32
		M20	9001 0005 02	3/4" NPT		17	43/64
		M25	9001 0005 03	1" NPT		20	3/4
F – Female thread		F10	9001 0005 08	3/8" NPT		15	19/32
		F15	9001 0005 05	1/2" NPT		18	23/32
		F20	9001 0005 06	3/4" NPT		20	3/4
		F25	9001 0005 07	1" NPT		20	3/4
Protection cover for CLAW couplings		9001 0005 22					
Extra packing for CLAW couplings		9001 0005 15					
Safety lock spring		9001 0005 23					

BAL-1A

The Atlas Copco valve BAL-1A are suitable for air, water and many other liquids and gases due to the choice of material.

- Lubricated with silicone-free grease which is important when spray-painting.
- Maximum through flow – Full bore valve to DIN standards.
- Housing and ball made of chrome-plated hot-stamped brass MS 58.
- Handle of enamelled aluminum.
- * With teflon seals.

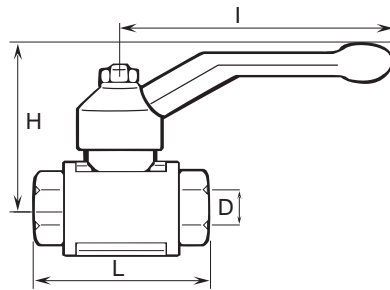


Technical Data

Maximum working pressure: 232 psi
 Working temperature range:
 -22°F to +392°F.

Model	Connection thread in NPT	Bore D in	L in	H in	I in	Ordering No.
BAL-1A 15	1/2	0.6	2.4	2	3.7	8202 0306 30
BAL-1A 25	1	1	3.3	2.6	4.8	8202 0306 46

Dimensions



MULTIFLEX SWIVEL MULTI-DIRECTIONAL CONNECTOR

The MultiFlex swivel is an ingenious multi-directional connector. Connect your tool and the hose will stay in the ideal position however much you and the tool move around. The MultiFlex bends and rotates 360° in all directions while the hose stays straight. It takes the effort out of working in those cramped spaces. What's more, the hose feels almost weightless and it reduces hose wear. It's the magic of MultiFlex – a marriage of ergonomic thinking and ingenious design.

- Ergonomic.
- Reduces hose wear.
- High flow capacity.
- Minimum pressure drop.
- Strong and durable.



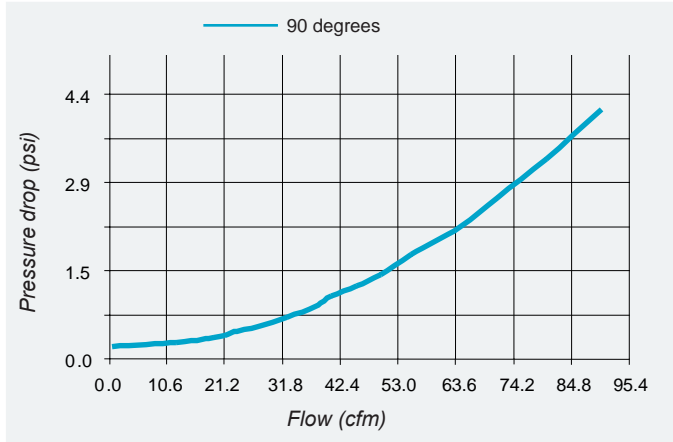
Model	Max rec. air flow ^a		Thread		Weight lb	Length in	Dia in	Ordering No.
			Inlet female in	Outlet male in				
MultiFlex 1/8" NPT	12	25	1/8	1/8	0.16	2.6	0.94	8202 1350 25
MultiFlex 1/4" NPT	12	25	1/4	1/4	0.16	2.6	0.94	8202 1350 26
MultiFlex 3/8" NPT	32	68	3/8	3/8	0.29	3.2	1.16	8202 1350 28
MultiFlex 1/2" NPT	32	68	1/2	1/2	0.28	3.2	1.16	8202 1350 30
MultiFlex 1/8" NPT ^b	12	25	1/8	1/8	0.17	2.6	1.06	8202 1350 50
MultiFlex 1/4" NPT ^b	12	25	1/4	1/4	0.17	2.6	1.06	8202 1350 51
MultiFlex 1/2" NPT ^c	54	114	1/2	1/2	0.72	3.87	1.54	8202 1350 62

^a The pressure drop will be 2.9 psi at an inlet pressure of 87 psi.

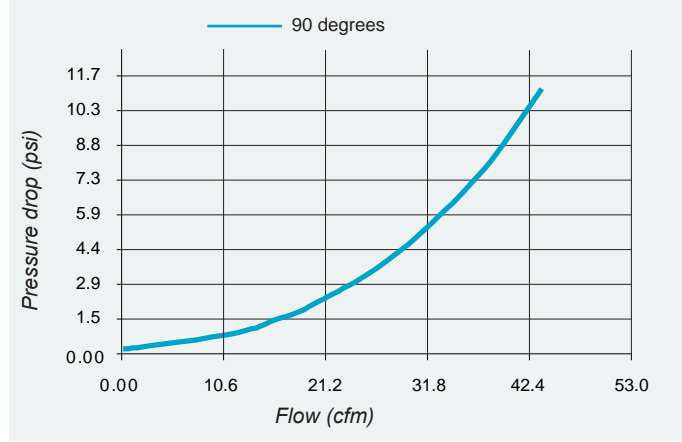
^b With cover.
^c HIGH FLOW.

FLOW CHART

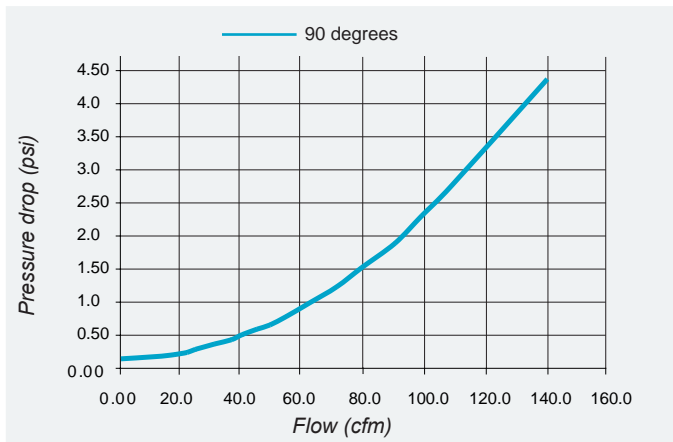
MULTIFLEX 1/2" OR 3/8"



MULTIFLEX 1/8" OR 1/4"



MULTIFLEX HIGH FLOW



SIMPLE PRESSURE CLAMPS FOR PVC HOSES



For CABLAIR	For PVC	One-lugged steel clamp mm	Ordering No.
–	–	5.2- 6.2	0347 0122 18
–	–	5.9- 7.0	0347 0122 19
–	03	7.0- 8.5	0347 0122 05
06	05	8.5-10.0	0347 0122 06
08	06	9.8-11.8	0347 0122 07
–	08	11.3-13.3	0347 0122 08
10	–	12.8-14.8	0347 0122 09
–	10	14.6-16.8	0347 0122 10
13	–	16.5-18.8	0347 0122 11
–	13	18.0-20.3	0347 0122 12
16	–	20.2-22.8	0347 0122 13
–	–	22.0-24.8	0347 0122 14
20	–	23.3-26.3	0347 0122 15
–	–	26.5-30.0	0347 0122 16
25	–	29.8-33.1	0347 0122 22

GASKETS



For couplings with male parallel thread	Fiber gasket between material and nipple Ordering No.
M5	0657 5710 00
1/8" NPT	0657 5742 00
1/4" NPT	0657 5764 00
3/8" NPT	0657 5785 00
1/2" NPT	0653 0500 01
3/4" NPT	0657 5823 00
1" NPT	0657 5830 00

DOUBLE CONNECTION

Male taper thread – male taper thread



From thread in	To thread in	Ordering No.
1/2 NPT	1/2 NPT	9090 0160 01
1 NPT	1 NPT	9090 0200 01

MEDIUM PRESSURE CLAMPS FOR PVC HOSES



For CABLAIR	For PVC, POLUR	Medium clamp worm drive mm	Ordering No.
–	–	8.0-14.0	0347 6102 00
–	08	11.0-17.0	0347 6103 00
–	10	11.0-17.0	0347 6103 00
–	–	13.0-20.0	0347 6104 00
16	13	15.0-24.0	0347 6105 00
20	16	19.0-28.0	0347 6106 00
–	20	22.0-32.0	0347 6107 00
25	25	26.0-38.0	0347 6109 00
–	–	32.0-44.0	0347 6111 00
–	–	38.0-50.0	0347 6112 00
–	–	50.0-65.0	0347 6113 00

MEDIUM PRESSURE CLAMPS FOR RUBBER HOSES



For TURBO	For RUBBER	Medium clamp worm drive mm	Ordering No.
–	06	11.0-17.0	0347 6103 00
13	10	13.0-20.0	0347 6104 00
16	13	15.0-24.0	0347 6105 00
–	16	19.0-28.0	0347 6106 00
20	–	22.0-32.0	0347 6107 00
–	20	26.0-38.0	0347 6109 00

HEAVY-DUTY PRESSURE CLAMPS FOR RUBBER HOSES



For TURBO	For RUBBER	Heavy-duty clamp mm	Ordering No.
–	–	22.0-25.0	9000 0194 00
20	16	25.0-28.0	9000 0195 00
–	20	29.0-32.0	9000 0196 00
–	25	34.0-38.0	9000 0197 00

Pressure drop diagram for straight hoses

This diagram helps you to choose the right hose according to the air consumption of the tool and the length of the hose. The purpose of the diagram is to ensure that the pressure drop in the hoses does not exceed 2.9 psi.

HOW TO READ THE DIAGRAM:

Look up the tools required air consumption at 87 psi.

Use this value in the diagram .

What length of hose do you need?

Look at the diagram to see which hose size you need.

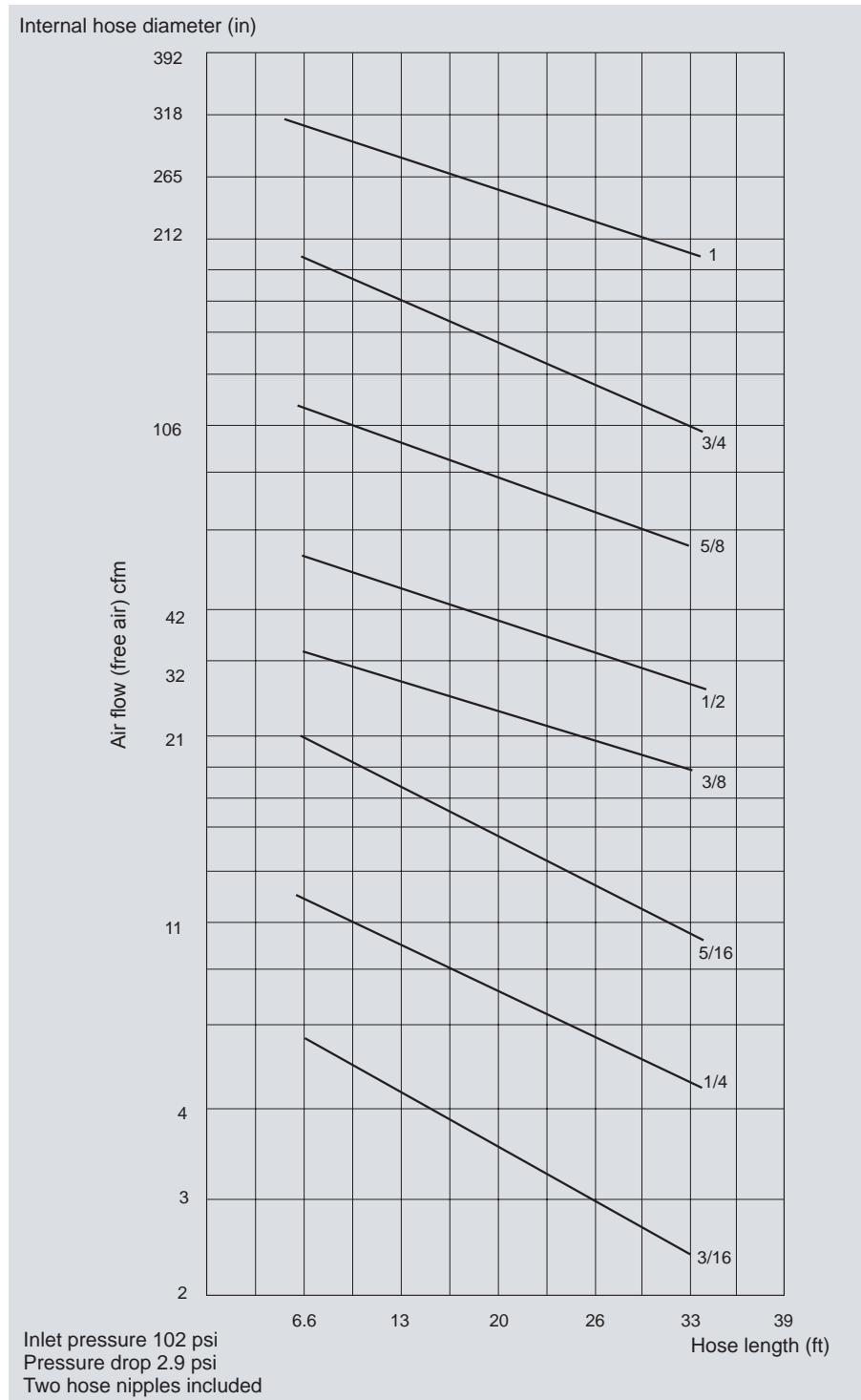
Decide which type of hose you need, Atlas Copco Tools has seven different hoses covering all types of needs for pneumatic hand tools.

EXAMPLE

The tool has an air consumption of 21 cfm and the application requires a hose length of 23 ft. These two values have a cross point slightly under the 3/8 inch size hose (23 ft of 3/8 inch hose gives a value of approximately 23.3 cfm).

Therefore a 3/8 inch hose will be suitable.

PRESSURE DROP DIAGRAM FOR HOSES



CABLAIR HOSES SUPER-LIGHT FLEXIBLE PVC-HOSE

Cablair is made of high-strength, high performance PVC compound. The Cablair hose weighs 30-50% less and is much softer and more flexible than conventional PVC hoses. This ensures complete freedom of movement for operators of pneumatic hand tools in any working environment.

- Low weight.
- Extremely soft and flexible.
- Silicone free.
- Ergonomic.
- Working temperature +5°F to +140°F.



Model	Hose inside dia in	Hose outside dia in	Max working pressure ^a psi	Max rec. air flow ^b cfm	Weight per 101 ft coil lb	Ordering No.
CABLAIR 06	1/4	7/20	260	9	2.6	9093 0035 11
CABLAIR 08	1/3	2/5	260	16	3.7	9093 0035 41
CABLAIR 10	2/5	1/2	203	28	4.6	9093 0035 71
CABLAIR 13	1/2	13/20	188	45	6.6	9093 0036 01
CABLAIR 16	5/8	4/5	160	91	11.9	9093 0036 31
CABLAIR 20	3/4	19/20	160	159	12.8	9093 0036 61
CABLAIR 25	1	1 1/5	145	265	23	9093 0036 91

^aWith a safety factor of 3 at 68°F (at the max temp of +140°F the working pressure should be reduced by 50%).

^bThe pressure drop will be 3 psi on a hose length of 16 ft.

CABLAIR ESD EXTRA FLEXIBLE ANTISTATIC AIR HOSE

Cablair ESD is an extra flexible antistatic air hose designed specifically for use within the computer manufacturing industry. The hose possesses properties which enable ESDS (electrostatic sensitive devices) to be handled in a protected area with a low risk level, as a result of electrostatic discharge. In addition to a known demand in the computer industry, it is expected that potential exists in the electronics, radio and communication fields. The connection device must be earthed/grounded.

- Extra flexible.
- Antistatic.
- Silicone free.
- Testing in accordance with BS2050:1978 (1998) 4.12.
- Working temperature +5°F to +140°F.



Model	Hose inside dia in	Hose outside dia in	Max working pressure ^a psi	Max rec. air flow cfm	Weight per 101 ft coil lb	Ordering No.
CABLAIR ESD 06	1/4	7/16	145	9	5	8202 0501 06
CABLAIR ESD 08	5/16	1/2	130	16	5.6	8202 0501 08
CABLAIR ESD 10	3/8	9/16	116	28	6	8202 0501 10
CABLAIR ESD 13	1/2	23/32	101	45	9.7	8202 0501 13

^aWith a safety factor of 3 at 68°F (at the max temp of +140°F the working pressure should be reduced by 50%).

PVC HOSES

STRONG PVC HOSE FOR HEAVY-DUTY APPLICATIONS

The PVC hose has high resistance to abrasion, which makes it the ideal hose for tough working environments such as workshops, factories, garages, etc. It is mainly recommended for indoor use.

- Long service life.
- Pliable.
- Transparent.
- Working temperature +5°F to +140°F.



Model	Hose inside dia in	Hose outside dia in	Max working pressure ^a psi	Max rec. air flow ^b cfm	Weight per 101 ft coil lb	Ordering No.
PVC 03	1/8	11/40	290	2	3	9093 0037 21
PVC 05	3/16	7/20	261	5	4	9093 0037 51
PVC 06	1/4	2/5	261	9	5.5	9093 0037 81
PVC 08	5/16	1/2	261	16	6.4	9093 0038 11
PVC 10	3/8	11/20	203	28	8	9093 0038 41
PVC 13	1/2	7/10	188	45	13	9093 0038 71
PVC 16	5/8	9/10	174	91	16	9093 0039 01
PVC 20	3/4	1	174	159	18	9093 0039 31
PVC 25	1	1 1/5	160	265	27.5	9093 0039 61

^aWith a safety factor of 3 at 68°F (at the max temp of +140°F the working pressure should be reduced by 50%).

^bThe pressure drop will be 3 psi on a hose length of 16 ft.

POLUR

HIGH RESISTANT POLYURETHANE HOSE

The Polur hose is the most environmentally friendly solution. It has high resistance to abrasion and it is oil resistant. The Polur hose has a much longer lifetime than PVC hoses. The Polur is ideal in tough working conditions such as workshops, factories, garages, shipyards and construction sites due to its flexibility, even at minus degrees. Polur is recommended for indoor and outdoor use.

- Oil resistant.
- Flexible.
- Long service life.
- Working temperature -22°F to +140°F.



Model	Hose inside dia in	Hose outside dia in	Max working pressure ^a psi	Max rec. air flow ^b cfm	Weight per 82 ft coil lb	Ordering No.
POLUR 08	5/16	1/2	290	16	5	8202 0601 08
POLUR 10	3/8	11/20	232	28	5.5	8202 0602 10
POLUR 13	1/2	7/10	188	45	9	8202 0603 13

^aWith a safety factor of 3 at 68°F (at the max temp of +176°F the working pressure should be reduced by 50%).

^bThe pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.

TURBO **SUPER-LIGHT FLEXIBLE RUBBER** **HOSE**

The Turbo hose has been developed for flexible use both indoor and outdoor. The hose weighs 30-40% less than conventional rubber hoses, making it ideal for foundries, shipyards, engineering workshops and construction sites. The Turbo hose is oil resistant.

- Extremely low weight.
- Soft and flexible.
- Antistatic.
- Grinding and welding spatter resistant.
- Working temperature -22°F to +158°F.



Model	Hose inside dia in	Hose outside dia in	Max working pressure ^a psi	Max rec. air flow ^b cfm	Weight per		Ordering No.
					65 ft coil lb	101 ft coil lb	
TURBO 13	1/2	3/4	232	45	8.5	–	9093 0057 91
TURBO 13	1/2	3/4	232	45	–	13	9093 0057 93
TURBO 16	2/3	9/10	232	91	10.5	–	9093 0057 31
TURBO 16	2/3	9/10	232	91	–	16	9093 0057 33
TURBO 20	5/6	1	232	159	12	–	9093 0057 61
TURBO 20	5/6	1	232	159	–	17.9	9093 0057 62

^a With a safety factor of 3 at 68°F.

^b The pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.

RUBBER **DURABLE REINFORCED HEAVY** **DUTY RUBBER HOSE**

The hose withstands rough handling and is suitable for the most demanding tasks in construction, mining, shipyards, foundries etc. The inner lining is black EPDM rubber, conducive to dissipate static electricity. Reinforcement with high tensile strength made of synthetic textile yarns.

- Durable.
- Antistatic.
- Grinding and welding spatter resistant.
- Working temperature -13°F to +158°F.



Model	Hose inside dia in	Hose outside dia in	Max working pressure ^a psi	Max rec. air flow ^b cfm	Length ft	Weight lb	Ordering No.
RUBBER 10	3/8	2/3	232	27	98	15.2	9030 2037 00
RUBBER 13	1/2	5/8	232	44	98	27.1	9030 2038 00
RUBBER 16	5/8	3/4	232	91	98	30.6	9030 2039 00
RUBBER 20	3/4	1 1/5	232	159	98	42.5	9030 2040 00
RUBBER 20	3/4	1 1/5	232	159	65	28.4	9030 2040 03
RUBBER 25	1	1 1/2	232	265	98	52.9	9030 2041 00
RUBBER 25	1	1 1/2	232	265	65	32.3	9030 2041 03

^a With a safety factor of 5 at 68°F.

^b The pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.

RUBAIR

DURABLE REINFORCED HEAVY DUTY RUBBER HOSE

The Rubair hose is double reinforced to fulfil all general heavy duty demands and is recommended for indoor and outdoor use. The Rubair hose is oil resistant.

- Durable.
- Antistatic.
- Grinding and welding spatter resistant.
- Working temperature -4°F to +176°F.



Model	Hose inside dia in	Hose outside dia in	Max working pressure ^a psi	Max rec. air flow ^b cfm	Weight per 65 ft coil lb	Ordering No.
RUBAIR 10	3/8	5/8	232	27	7.9	8202 0402 10
RUBAIR 13	1/2	3/4	232	44	10.4	8202 0403 13
RUBAIR 16	5/8	1	232	91	13.5	8202 0404 16
RUBAIR 20	3/4	1	232	159	17.2	8202 0405 20
RUBAIR 25	1	1 1/3	232	265	26.0	8202 0406 25

^a With a safety factor of 5 at 68°F.

^b The pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.

SPI

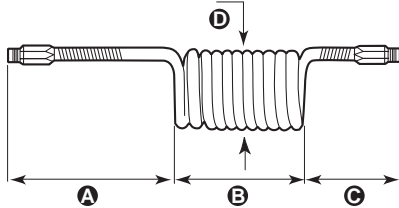
ELASTIC HOSE FOR VERTICAL AND HORIZONTAL APPLICATIONS

SPI elastic spiral hose is ideal for air tools used at varying distances from a fixed air outlet. It is easily stretched and retracts immediately when released. When used with hand tools, its self-storage principle ensures that the hose is kept off the floor and out of the way of the operator. The SPI 1 and SPI 2 have ball bearing swivels fitted on the long hose side to allow 360° rotation. All spiral hoses, except the SPI4, are fitted with plastic spring guard. SPI is the ideal hose in combination with a balancer.

- Self-retractable.
- Light and flexible.
- Strong and durable.
- Tubing material: Polyurethane (100% PUR).
- Hardness: Shore A 98 +2.
- Colour: Blue.
- Working pressure: 116 psi at 73°F.
- Burst pressure: 363 psi at 73°F.
- Temperature range: -40°F to +158°F.



Dimensions



Model	Hose inside dia in	Hose outside dia in	Max. rec. air flow ^a cfm	Working range ft	Length			Max spiral dia (D) ft	Male threads in NPT	Ordering No.
					(A) in	(B) in	(C) in			
SPI 1SPSW-M	1/4	3/8	10	13	19 1/2	13	6	2	1/4	8202 0508 91
SPI 2SPSW-M	5/16	1/2	21	13	19 1/2	10 1/2	6	2 3/4	3/8	8202 0508 92
SPI 2SPSW-L	5/16	1/2	19	20	19 1/2	17	6	2 3/4	3/8	8202 0508 93
SPI 2SPSW-XL	5/16	1/2	13	26	19 1/2	23 1/2	6	2 3/4	3/8	8202 0508 94
SPI 3SP-M	7/16	5/8	47	13	19 1/2	10	6	4	3/8	8202 0508 95
SPI 3SP-L	7/16	5/8	36	20	19 1/2	15 1/2	6	4	3/8	8202 0508 96
SPI 3SP-XL	7/16	5/8	28	26	19 1/2	21 1/2	6	4	3/8	8202 0508 97
SPI 4SP-L	1/2	3/4	57	20	19 1/2	40 1/3	6	4 1/2	1/2	8202 0508 98
SPI 4SP-XXL	1/2	3/4	45	33	19 1/2	33 1/2	20	4 1/2	1/2	8202 0508 99

^a At inlet pressure 87 psi and pressure drop 7 psi.
Teflon coating on NPT threads.

Productivity Kits

Productivity kits boost productivity, extend tool lifetime and ensure minimum pressure drop.

Each productivity kit includes ball valve, air preparation unit, and the couplings, hose and nipples needed for correct and safe installation of the tool.

Just choose the correct productivity kit based on the air flow requirement of the tool and whether the tool needs lubrication or not. You'll be surprised how much the productivity kit improves the performance of the tool.

- Improves the performance of the tool.
- Fast and easy installation.
- Extends tool lifetime.



PRODUCTIVITY KITS FOR SCREWDRIVERS, DRILLS AND GRINDERS

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
For small screwdrivers and small drills					
MIDI Optimizer F/R EQ08US-C06	12 cfm	Cablaire 06	ErgoQIC 08US	No	8202 0850 21
MIDI Optimizer F/RD EQ08US-C06	19 cfm	Cablaire 06	ErgoQIC 08US	Yes	8202 0850 22
For screwdrivers and drills					
MIDI Optimizer F/RD EQ08US-C08	19 cfm	Cablaire 08	ErgoQIC 08US	Yes	8202 0850 23
MIDI Optimizer F/R EQ08US-C08	19 cfm	Cablaire 08	ErgoQIC 08US	No	8202 0850 24
For 1/2" drills and small nutrunners					
MIDI Optimizer F/RD EQ10US-C10	34 cfm	Cablaire 10	ErgoQIC 10US	Yes	8202 0850 25
MIDI Optimizer F/RD EQ10US-R10	34 cfm	Rubber 10	ErgoQIC 10US	Yes	8202 0850 26
For drills and nutrunners					
MIDI Optimizer F/RD EQ10US-C13	50 cfm	Cablaire 13	ErgoQIC 10US	Yes	8202 0850 27
MIDI Optimizer F/RD EQ10US-R13	50 cfm	Rubber 13	ErgoQIC 10US	Yes	8202 0850 28
For grinders, percussive tools and nutrunners					
MIDI Optimizer F/RD EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 29
MIDI Optimizer F/R EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	No	8202 0850 30
For large grinders					
MIDI Optimizer F/RD EQ15US-T16	85 cfm	Turbo 16	ErgoQIC 15US	Yes	8202 0850 31
MAXI F/R EQ15US-T20	140 cfm	Turbo 20	ErgoQIC 15US	No	8202 0850 32
MAXI F/RD EQ15US-T20	140 cfm	Turbo 20	ErgoQIC 15US	Yes	8202 0850 33

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.

PRODUCTIVITY KITS FOR IMPACT WRENCHES AND PULSE TOOLS

Model	Max air flow	Hose 16.4 ft	Coupling	Lubrication	Ordering No.
For small impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ08US-C08	19 cfm	Cablaire 08	ErgoQIC 08US	Yes	8202 0850 45
For 1/2" impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ10US-C10	34 cfm	Cablaire 10	ErgoQIC 10US	Yes	8202 0850 46
For impact wrenches and pulse tools					
MIDI Optimizer F/RD EP EQ10US-C13	50 cfm	Cablaire 13	ErgoQIC 10US	Yes	8202 0850 47
MIDI Optimizer F/RD EP EQ10US-T13	65 cfm	Turbo 13	ErgoQIC 10US	Yes	8202 0850 48

NOTE: Tool nipple is not included in the Productivity kit and needs to be order separately together with the tool.

PRE-MOUNTED HOSE KITS

Atlas Copco hose kits provides an easy way to choose the right hose and coupling combination for pneumatic tools. Each kit is ready for immediate use without the need of assembly tools.

- Correct combination hose – coupling.
- Leak free hose connections.
- Immediate use.



HOSE KITS

Hose	Dia in	Length ft	Nipple	Coupling	Air inlet thread nipple, NPT	Ordering No.
Cablaire	1/4	16	ErgoNIP 08	ErgoQIC 08	-	8202 1182 01
Cablaire	1/4	16	NIP 08	ErgoQIC 08US	-	8202 1182 16
Cablaire	5/16	16	NIP 08	ErgoQIC 08US	-	8202 1182 21
Cablaire	3/8	16	ErgoNIP 10	ErgoQIC 10	-	8202 1182 05
Cablaire	3/8	16	ErgoNIP 10	ErgoQIC 08	1/4	8202 1180 10
Cablaire	3/8	16	NIP 10US	ErgoQIC 10US	-	8202 1182 17
Cablaire	3/8	32	ErgoNIP 10	ErgoQIC 08	1/4	8202 1180 13
Cablaire	1/2	16	ErgoNIP 10	ErgoQIC 10	-	8202 1182 10
Cablaire	1/2	16	ErgoNIP 10	ErgoQIC 08	1/4	8202 1180 11
Cablaire	1/2	16	ErgoNIP 10	ErgoQIC 10	3/8	8202 1180 12
Cablaire	1/2	16	NIP 10US	ErgoQIC 10US	-	8202 1182 18
Cablaire	1/2	28	ErgoNIP 10	ErgoQIC 10	-	8202 1182 20
Cablaire	1/2	32	ErgoNIP 10	ErgoQIC 08	1/4	8202 1180 14
Cablaire	1/2	32	ErgoNIP 10	ErgoQIC 10	3/8	8202 1180 15
Rubber	3/8	16	NIP 10US	ErgoQIC 10US	-	8202 1182 23
Rubber	1/2	16	NIP 10US	ErgoQIC 10US	-	8202 1182 24
Turbo	1/2	16	NIP 10US	ErgoQIC 10US	-	8202 1182 19
Turbo	5/8	16	ErgoNIP 10	ErgoQIC 10	-	8202 1180 34
Turbo	5/8	16	NIP 15US	ErgoQIC 15US	-	8202 1182 22
Turbo	5/8	32	ErgoNIP 10	ErgoQIC 10	-	8202 1180 46

HM LIGHT

The HM Light has a robust design with a high impact composite casing. The outlet slot is optimized to provide an ideal pull-out angle for the hose. The HM Light is recommended for small and medium screwdrivers, small and medium pulse tools, small drills, impact wrenches up to 1/2" size and riveting and chipping hammers.

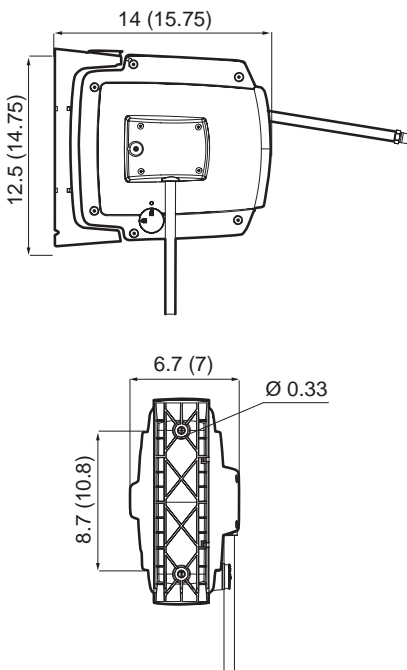
- Snap-on, pivoting wall bracket
- PVC/PUR hose
- Hose end provided with pressed fitting and steel spiral hose protector (NPT and BSP)
- Hose easily replaced when needed
- Drum with ball bearings on both sides
- Working temperature: +32°F - +122°F
- Inlet hose length: 3.3 ft.



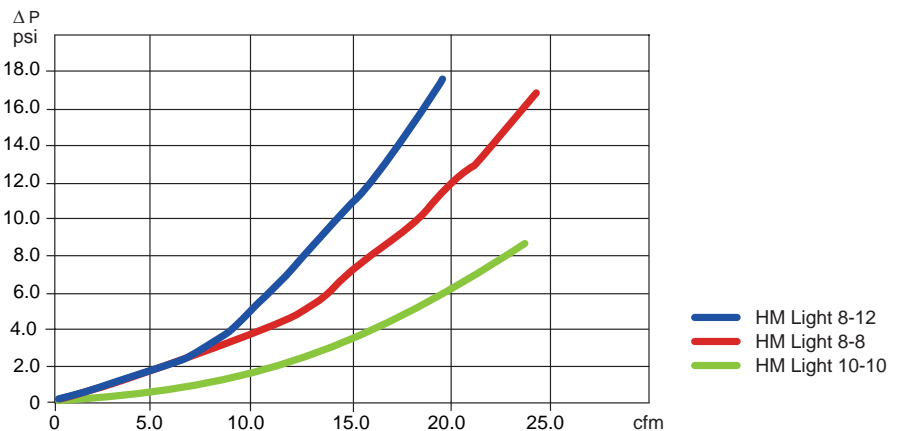
Model	Hose length ft	Hose type	Hose inside dia		Connection inlet hose inside dia (cut of hose) in	Connection distribution hose NPT	Economical air flow (at 3 psi pressure drop) cfm	Max air flow capacity (at 7 psi pressure drop) cfm	Weight	
			mm	in					lb	Ordering No.
HM LIGHT 8-8	26	PVC/PUR	8	5/16	3/8	1/4 male thread	8	15	9	8202 1183 41
HM LIGHT 8-12	39	PVC/PUR	8	5/16	3/8	1/4 male thread	6	11	14	8202 1183 42
HM LIGHT 10-10	33	PVC/PUR	10	3/8	3/8	3/8 male thread	13	21	12	8202 1183 43

Dimensions

HM LIGHT 8-8 (8-12)



FLOW CHART.



HM OPEN

The HM Open has an open composite casing and 10 mm or 13 mm hose. HM Open is a reliable, medium sized hose reel recommended for screwdrivers, impact wrenches, pulse tools, drills, chipping and riveting hammers and grinders up 1000 W.

- Rubber hose
- Outlet roller position can be adjusted through 120 degrees for optimal pull-out angle
- Hose end provided with steel spiral hose protector (NPT and BSP)
- Latch function is easily disengaged
- Spring tension is easily adjusted
- Floor, wall or ceiling mounting
- Working temperature: +14°F - +140°F
- Inlet hose length: 3.3 ft.

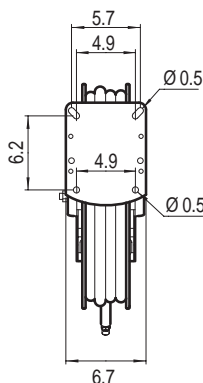
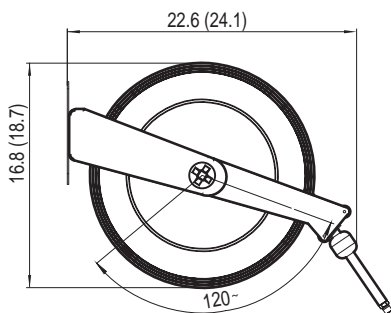


Model	Hose length ft	Hose type	Hose inside dia		Connection inlet hose inside dia (cut of hose)		Connection distribution hose NPT	Economical air flow (at 3 psi pressure drop) cfm	Max air flow capacity (at 7 psi pressure drop) cfm	Weight lb	Ordering No.
			mm	in	mm	in					
HM OPEN 10-15	49	Rubber	10	3/8	1/2	3/8 male thread	11	19	30	8202 1183 44	
HM OPEN 10-20	66	Rubber	10	3/8	1/2	3/8 male thread	11	15	36	8202 1183 45	
HM OPEN 12-10	33	Rubber	12.5	1/2	1/2	1/2 male thread	28	47	32	8202 1183 46	
HM OPEN 12-15	49	Rubber	12.5	1/2	1/2	1/2 male thread	23	36	35	8202 1183 47	

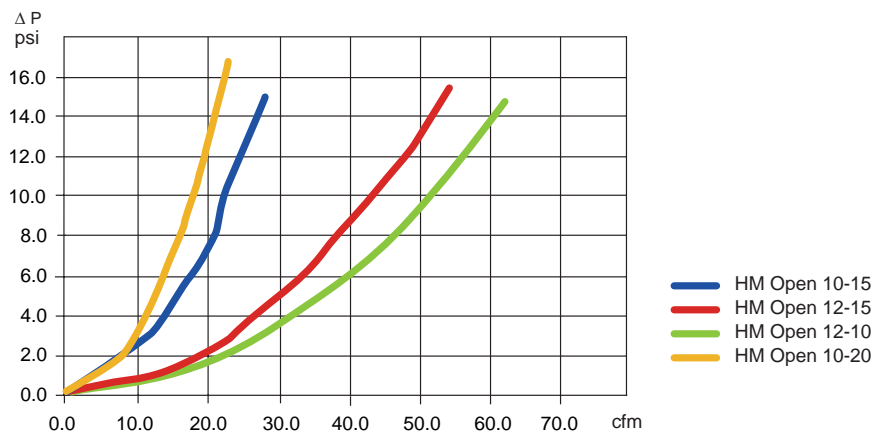
Pivoting wall brackets needs to be ordered separately.

Dimensions

HM OPEN 12-10 (12-15)



FLOW CHART.



Accessories

	Ordering No.
Pivoting wall bracket	4390 2080 10

HM OPEN FLEX

Hose reels in the HM Open Flex series have an open steel casing and 3/8" or 1/2" hose. HM Open Flex hose reels are recommended for screwdrivers, impact wrenches, pulse tools, drills, chipping and riveting hammers and grinders up to 1.3 hp.

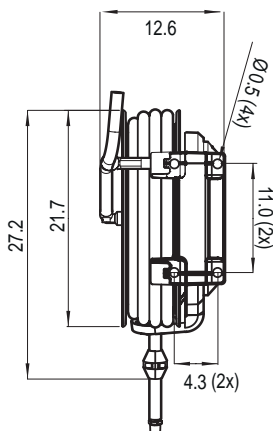
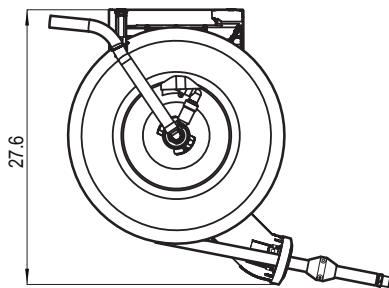
- Kink resistant PUR hose or spatter resistant rubber hose.
- Floor, wall or ceiling mounting.
- Revolving hinge for flexible use.
- Working temperature: -22°F to +140°F.
- Max working pressure: 290 psi.
- Inlet hose length: 5 ft.



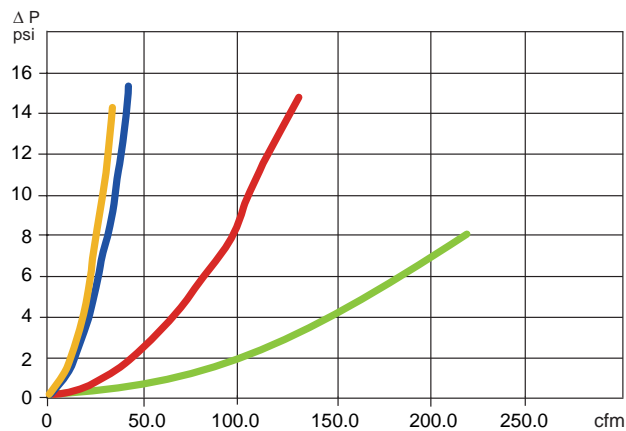
Model	Hose length ft	Hose type	Hose inside dia		Connection inlet hose inside dia (cut of hose) in	Connection distribution hose NPT	Economical air flow (at 3 psi pressure drop) cfm	Max air flow capacity (at 7 psi pressure drop) cfm	Weight	
			mm	in					lb	Ordering No.
HM OPEN XL 12-20	66	Rubber	12.5	1/2	1/2	1/2 male thread	17	30	72	8202 1183 48
HM OPEN XL 12-30	98	Rubber	12.5	1/2	1/2	1/2 male thread	17	25	74	8202 1183 49
HM OPEN XL 19-15	49	Rubber	19	3/4	3/4	3/4 male thread	57	93	76	8202 1183 50
HM OPEN XL 25-10	33	Rubber	25	1	1	1 male thread	127	201	81	8202 1183 51

Pivoting wall brackets needs to be ordered separately.

Dimensions



FLOW CHART.



Accessories

	Ordering No.
Pivoting wall bracket	4390 2080 11

HOSE REEL BALANCER – HRIL

Models in the HRIL range of hose reel balancers are specifically designed for use with small pneumatic hand tools.

The integrated air hose and support cable ensure the work area is kept tidy and the tool is easy to control.

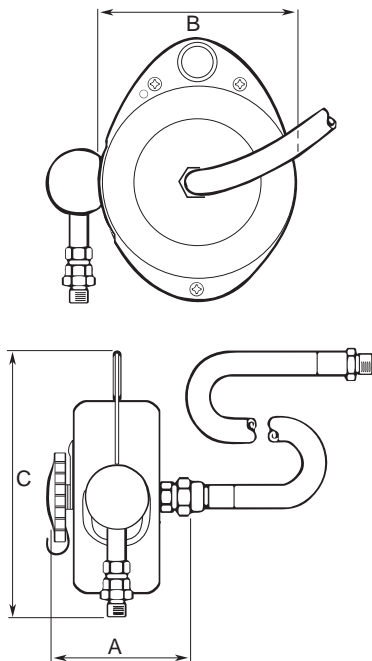
- Ergonomics – The retraction force over hose travel remains almost constant which minimizes load on the operator and ensures smooth operation.
- An easily adjusted rubber stop is fitted on the hose which allows the tool to be set at the optimum position.
- The retraction force is easily adjustable by means of a hand wheel on the rear casing (this can be removed if desired, once the retraction force is set).
- Long service life – The design features a rugged casing, self lubricating spindle bearing bushes and a 360 degrees rotary inlet connector.
- A durable hose is fitted with additional protection to prevent excessive bending around air connectors.
- Low pressure drop – The HRIL balancers have very good flow characteristics.



Model	Capacity range		Max rec. air flow ^a cfm	Hose travel ft	Weight		Max working pressure psi	Dimensions			Ordering No.
	kg	lb			kg	lb		A in	B in	C in	
HRIL 3	0.5-1.4	1.1-3.1	11.7	3.3	1.2	2.6	147	3.6	5.2	6.8	8202 0601 10
HRIL 4	0.7-2.0	1.5-4.4	13.8	3.3	1.4	3.1	147	3.6	5.2	6.8	8202 0601 28

^a At inlet pressure of 86 psi pressure drop is 5.7 psi.

Dimensions



AIR LINE FITTINGS

All models have a NPT 1/4" inlet fitting.

HRIL 3 supplied with NPT 1/8" and NPT 1/4" outlet fittings.

HRIL 4 supplied with NPT 1/4" outlet fitting.

Optional Accessories

Designation	Ordering No.
Safety chain	4391 4045 90

COLIBRI – COL

Balancers in the unique COL range hold the load and keep it weightless throughout the entire cable length.

PRODUCTIVITY

COL balancers always hold the tool in the correct position.

ERGONOMIC

COL balancers reduce the stress level in the operator's muscles.

SAFETY

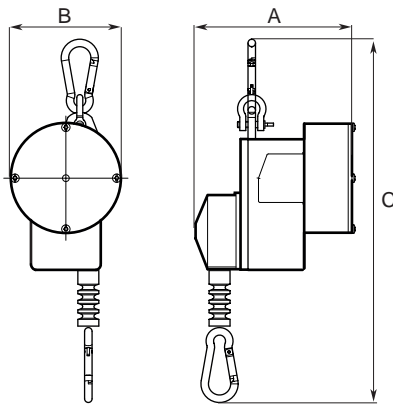
The load is not pulled back when released and the surroundings are protected from accidental hoisting of the load.

The cable locks in the event of spring failure (downward braking power).

In all models the braking function can be activated upwards by using the "bow and arrow" principle if you need to slacken the cable to change the tool.



Dimensions



COLIBRI STANDARD

Model	Capacity range		Cable length ft	Weight		Dimensions			Ordering No.
	kg	lb		kg	lb	A in	B in	C in	
COL 1 01	0.7- 1.3	1.5- 2.9	5.6	0.5	1.1	4.3	2.8	9.6	8202 0750 01
COL 1 02	1.0- 2.0	2.2- 4.4	1.7	0.5	1.1	4.3	2.8	9.6	8202 0750 19

NOTE: COL 1 01 comes with nylon cable.

Optional Accessories

SAFETY CHAIN

	Ordering No.
COL 1	4391 4045 90

RIL BALANCER

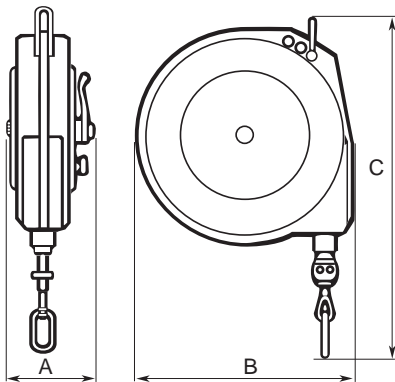
RIL balancers always keep the tool in place, handy and easily accessible. RIL balancers are available as retractors or weightless positioning balancers.

RIL RETRACTORS

- Adjustable wire stop.
- High quality spring and construction.
- Load range 0 to 22 lb.



Dimensions



RIL – STANDARD DESIGN

Model	Capacity range		Cable length ft	Weight		Dimensions			Ordering No.
	kg	lb		kg	lb	A in	B in	C in	
RIL 1C	0.0- 0.5	0.0- 1.7	4.9	0.6	1.3	2.0	4.2	9.4	8202 0700 02
RIL 2C	0.4- 1.0	0.9- 2.2	4.9	0.6	1.3	2.0	4.2	9.4	8202 0701 19
RIL 4C	1.0- 2.0	2.2- 4.4	4.9	0.6	1.3	2.0	4.2	9.4	8202 0702 18
RIL 5C	1.4- 2.3	3.1- 5.1	4.9	0.6	1.3	2.0	4.2	9.4	8202 0703 25
RIL 5	0.4- 2.3	0.9- 5.1	7.9	2.0	4.4	2.8	6.2	12.1	8202 0703 09
RIL 5LR ^b	0.4- 2.3	0.9- 5.1	7.9	2.0	4.4	2.8	6.2	12.1	8202 0703 15
RIL 10C	2.0- 5.0	4.4-11.0	7.9	2.7	6.0	3.3	7.5	14.5	8202 0704 16
RIL 10CS	2.0- 5.0	4.4-11.0	7.9	2.7	6.0	3.3	7.5	14.5	8202 0704 20
RIL 15C	5.0- 7.0	11.0-15.4	7.9	3.2	7.1	3.3	7.5	14.5	8202 0705 15
RIL 15CS ^a	5.0- 7.0	11.0-15.4	7.9	3.2	7.1	3.3	7.5	14.5	8202 0705 20
RIL 22C	6.0-10.0	13.2-22.0	7.9	3.2	7.1	3.3	7.5	14.5	8202 0706 14
RIL 22CS ^a	6.0-10.0	13.2-22.0	7.9	3.2	7.1	3.3	7.5	14.5	8202 0706 20

^a Balancer equipped with automatic safety drum lock in case of spring failure.

^b Contains a lock ratchet to lock the cable in increments along its entire length.

NOTE: RIL 1C, 2C, 4C and 5C comes with nylon cable. All other models are equipped with steel wire.

Optional Accessories

SAFETY CHAIN

	Ordering No.
1C, 2C, 4C and 5C	4391 4045 90
10C ^a , 15C ^a and 22C ^a	4391 4156 00
5	4391 4046 90

^a Safety chain included.

WP BALANCER

Weightless positioning balancers with a cone-shaped drum hold the load and keep it weightless throughout the entire cable length. The casing for WP 05/10 are in plastic, the WP 20 in aluminium and the WP 30/40 models are in abrasion resistant aluminium.

All models except for the WP 20 comes with a swiveling safety hook.

PRODUCTIVITY

The WP balancers always hold the tool in the correct position and minimize worker fatigue.

ERGONOMIC

The WP balancers reduce stress level in the operators muscles.

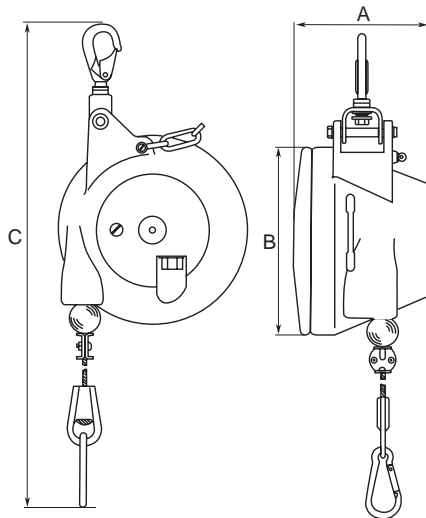
SAFETY

The load is not pulled back when released and the environment is protected from accidental hoisting of the load.

- Steel cable with cable stop buffer.
- Safety chain.
- Quick and easy cable replacement.



Dimensions



Model	Capacity range		Cable length ft	Weight		Dimension in			Ordering No.
	kg	lb		kg	lb	A in	B in	C in	
WP 05 - Standard									
WP 05-1	0.4-1.2	0.9-2.6	6.5	1.3	2.9	2.8	5.6	18.1	8202 0778 00
WP 05-3	1.2-2.6	2.6-5.7	6.5	1.4	3.1	2.8	5.6	18.1	8202 0778 01
WP 05-4	2.6-3.8	5.7-8.4	6.5	1.5	3.3	2.8	5.6	18.1	8202 0778 02
WP 05-5	3.8-5.2	8.4-11.5	6.5	1.5	3.3	2.8	5.6	18.1	8202 0778 03
WP 05-6	5.2-6.5	11.5-14.3	6.5	1.5	3.3	2.8	5.6	18.1	8202 0778 04
WP 05 - Extended Cable - A									
WP 05-1-A	0.4-1.2	0.9-2.6	18	1.3	2.9	2.8	5.6	18.1	8202 0778 05
WP 05-3-A	1.2-2.6	2.6-5.7	18	1.4	3.1	2.8	5.6	18.1	8202 0778 06
WP 05-4-A	2.6-3.8	5.7-8.4	18	1.5	3.3	2.8	5.6	18.1	8202 0778 07
WP 05-5-A	3.8-5.2	8.4-11.5	18	1.5	3.3	2.8	5.6	18.1	8202 0778 08
WP 05-6-A	5.2-6.5	11.5-14.3	18	1.5	3.3	2.8	5.6	18.1	8202 0778 09
WP 10 - Standard									
WP 10-3	3-5	6.6-11	6.5	2.9	6.4	5.1	7.4	20.5	8202 0779 00
WP 10-4.5	4.5-7	10-15.4	6.5	3.1	6.8	5.1	7.4	20.5	8202 0779 01
WP 10-6	6-10	13-22	6.5	3.2	7.0	5.1	7.4	20.5	8202 0779 02
WP 10-9	9-14	20-31	6.5	3.4	7.5	5.1	7.4	20.5	8202 0779 03
WP 10-13	13-17	29-37	6.5	3.6	8.0	5.1	7.4	20.5	8202 0779 04
WP 10-16	16-21	35-46	6.5	3.8	8.4	5.1	7.4	20.5	8202 0779 05
WP 10 - Extended Cable - A									
WP 10-3-A	3-5	6.6-11	18	2.9	6.4	5.1	7.4	20.5	8202 0779 06
WP 10-4.5-A	4.5-7	10-15.4	18	3.1	6.8	5.1	7.4	20.5	8202 0779 07
WP 10-6-A	6-10	13-22	18	3.2	7.0	5.1	7.4	20.5	8202 0779 08
WP 10-9-A	9-14	20-31	18	3.4	7.5	5.1	7.4	20.5	8202 0779 09
WP 10-13-A	13-17	29-37	18	3.6	8.0	5.1	7.4	20.5	8202 0779 10
WP 10-16-A	16-21	35-46	18	3.8	8.4	5.1	7.4	20.5	8202 0779 11
WP 20 - Standard									
WP 20-15	15-25	33-55	6.5	7.8	17.2	6	8.6	20.5	8202 0780 00
WP 20-25	25-35	55-77	6.5	8.9	19.6	6	8.6	20.5	8202 0780 01
WP 20-35	35-45	77-99	6.5	9.5	21.0	6	8.6	20.5	8202 0780 02
WP 20-45	45-55	99-121	6.5	9.8	21.5	6	8.6	20.5	8202 0780 03
WP 30 - Standard									
WP 30-12	12-20	26-44	6.5	14.8	32.6	8	11.2	29.5	8202 0781 00
WP 30-20	20-30	44-66	6.5	15.2	33.5	8	11.2	29.5	8202 0781 01
WP 30-30	30-45	66-99	6.5	16.9	37.3	8	11.2	29.5	8202 0781 02
WP 30-45	45-60	99-132	6.5	17.3	38.1	8	11.2	29.5	8202 0781 03
WP 30-60	60-75	132-165	6.5	18.7	41.2	8	11.2	29.5	8202 0781 04
WP 30-75	75-90	165-198	6.5	19.7	43.4	8	11.2	29.5	8202 0781 05
WP 30-90	90-100	198-220	6.5	19.9	43.4	8	11.2	29.5	8202 0781 06
WP 40 - Standard									
WP 40-100	100-115	220-254	10	42.0	43.9	13.7	12.6	31.5	8202 0782 00
WP 40-115	115-130	254-287	10	44.0	97.0	13.7	12.6	31.5	8202 0782 01
WP 40-130	130-140	287-309	10	46.0	101	13.7	12.6	31.5	8202 0782 02
WP 40-140	140-150	309-331	10	48.0	106	13.7	12.6	31.5	8202 0782 03

BLOW GUN BG-SERIES

Atlas Copco blow guns BG-series are hard wearing, user friendly solution for all cleaning applications. The plastic body offer flexibility in handling for both left and right handed users, it insulate against cold and it reduce the risk of scratches to worksurfaces. The blow gun has excellent throtteling properties allowing easy regulation of the air flow. The blow guns have air inlet thread in brass that is fully covered by the plastic body. The blowguns are with star tip to reduce risk of damages or injuries if the tube is pressed against workpiece or skin and is therefore in compliance with the OSHA Safety Standards.

- High flow capacity
- Suspension
- Plastic body to avoid scratches
- Air inlet thread in brass
- Star tip, OSHA Safety Standards



Model	Version	Working pressure psi	Air flow cfm	Weight		Air inlet thread NPT	Ordering No.
				kg	lb		
BG 2605-STSS U	Short tube, star tip	91	14	0.12	0.26	1/4	8202 1006 08
BG 2606-STSS U	Long tube, star tip, silencer	91	13	0.14	0.31	1/4	8202 1006 09

Test Equipment

AIR LEAKAGE DETECTOR

The air leakage detector is used to find leaks (e.g. in compressed air installations, vacuum installations, etc.) It works by "listening" on a frequency band normally containing no interference and non-audible for humans (>20kHz). Leaking compressed air or electrical flashover (sparks) generate, e.g. ultrasonic sound.

The equipment is delivered in a suitcase and consists of: Detecting device, headphone set and directional probe.

Ordering No. 8202 9002 00.



AIR MOTORS



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Air motors from Atlas Copco – the reliable, cost-effective solution when applying power to rotating machines. Consider the air motor features and characteristics giving large benefits to the designer:

- Power-to-weight performance that is superior to most other motors, in fact, 75% lighter and 85% smaller than an asynchronous electric motor with the same output.
- Can be held stalled at full torque indefinitely, and accepts repeated starting and stopping without limitation.
- Torque, speed and direction of rotation can be changed easily using simple control methods.
- Output that automatically adjusts to match the applied load.
- Controllable over a wide speed range.
- Ideal for many applications in hazardous or hostile environments.
- Smooth start-up to minimize “shock” loading on transmission components.
- Unaffected by, and will not generate, electrical interference.



FEATURES FOR LZB MOTORS

Lubrication-free air motors for sensitive processes where hygienic operation is crucial

Equipped with low friction vanes and sealed bearings the lubrication-free motors release no lubricants into the air. They offer a viable drive solution for sensitive processes and hygienic environments where oil contamination would be at best a problem and, at worst, a catastrophe.

Stainless steel air motors for harsh and aggressive environments

The stainless steel air motors are ideal for harsh or even aggressive environments where hygiene is essential. They have a “clean” design with no pockets where dirt can collect. They are fitted with double shaft seals to prevent water from entering the gears. Lubrication-free versions are also available.

High torque air motors when a real workhorse is needed

Fitted with extra strong planetary gears the high torque air motors provide torques up to 680 Nm. The gears are dimensioned to stand being loaded at full stall torque indefinitely. Despite their strength the high torque air motors are compact compared to solutions with helical or worm gears. Lubrication-free versions are also available.

Customized air motors to your individual specifications

Whatever the requirement, Atlas Copco is always happy to help customers find solutions to their special needs. For OEMs, for instance, a customized air motor can be the most efficient solution when integrating an air motor into a machine or a tool. Special motors may have unique casings or mounting arrangements. They may utilize non-standard materials or surface coatings and be designed to achieve a specific output.

For more information on Atlas Copco vane motors visit our web site.

Explosion proof certified versions



Our air motors are available with explosion proof certification as standard, in compliance with the European Union's ATEX Directive on equipment for potentially explosive environments.

LZB

0.1 – 2.80 KW

The Atlas Copco LZB vane air motors are compact in design, light in weight and available in a variety of different gear ratios to meet a variety of speed requirements. They are particularly suited to be built into hand held machines and also many different types of industrial equipment. These data are a summary of our range; please consult our air motor catalogue or our website to choose the right one for you.



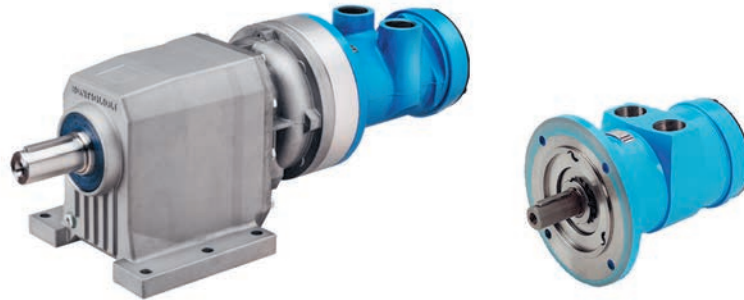
Model	Max output		Speed range at max output r/min	Torque range at max output		Min start torque range		Free speed r/min	No. of gear ratios	Motor diameter	
	kW	hp		Nm	ft lb	Nm	ft lb			mm	in
Non-reversible											
LZB14	0.16	0.21	320-9100	0.17-4.8	0.13-3.5	0.23-8.5	0.17-6.27	700-19500	5	27	1.1
LZB22	0.27	0.36	210-9600	0.27-11.8	0.20-8.7	0.32-22	0.24-16.2	480-21500	7	36	1.4
LZB33/34	0.39	0.52	10-9400	0.40-349	0.30-257	0.69-680	0.51-502	20-19000	17	42	1.7
LZB42	0.71	0.95	23-10000	0.68-272	0.5-201	1.09-435	0.80-321	42-19000	12	46	1.8
LZB46	0.84	1.13	25-10800	0.74-299	0.55-221	1.20-485	0.88-358	45-20000	12	46	1.8
LZB54	1.20	1.61	70-10000	1.15-161	0.85-119	1.80-261	1.33-193	125-18000	10	60	2.4
LZB66	1.87	2.51	55-8200	2.2-308	1.62-227	3.2-456	2.4-336	110-16000	10	60	2.4
LZB77	2.80	3.75	80-1220	22-332	16-245	35-536	26-395	165-2600	7	100	3.9
Reversible											
LZB14	0.11	0.15	250-7000	0.15-4.3	0.11-3.2	0.24-6.9	0.18-5.1	490-13000	5	27	1.1
LZB22	0.16	0.21	5-7000	0.24-10.5	0.18-7.7	0.32-14	0.24-10.3	5-13100	9	36	1.4
LZB33/34	0.25	0.34	7-7000	0.34-300	0.25-221	0.46-412	0.34-304	10-13300	21	42	1.6
LZB42	0.53	0.71	19-8000	0.63-255	0.46-188	0.85-344	0.63-254	33-14200	12	46	1.8
LZB46	0.63	0.84	20-8500	0.71-287	0.52-212	0.96-388	0.71-286	35-15800	12	46	1.8
LZB54	0.82	1.10	47-6800	1.15-161	0.85-119	1.40-207	1.03-153	90-12000	10	60	2.4
LZB66	1.46	1.96	50-7500	1.9-259	1.4-191	2.4-337	1.8-249	90-13500	10	60	2.4
LZB77	2.40	3.22	80-1280	18-274	13.3-202	24-374	18-276	155-2300	7	100	3.9

The LZB14, LZB22 and LZB33 models are available in lubrication-free versions. LZB14, LZB22 and LZB33 can be obtained in a stainless steel version. The standard non-reversible motors have clockwise rotation but can also be obtained with anti-clockwise rotation.

LZL

1.7 – 6.5 KW

The Atlas Copco LZL vane motors are reversible air motors which have been designed to offer outstanding starting and low speed performance. These general purpose motors are powerful, durable and offer long service life.



Model	Torque at 3000 r/min		Power at 3000 r/min		Stall torque		Air consumption at 3000 r/min ^a		Max allowed speed r/min	Weight	
	Nm	ft lb	kW	hp	Nm	ft lb	l/s	cfm		kg	lb
LZL03 M	1.3	0.95	0.41	0.55	3.3	2.4	16	34	3000	2.9	6.4
LZL05 M	2.0	1.5	0.63	0.84	5.8	4.3	25	52	3000	3.9	8.6

^aNote that the air consumption in a typical mixing application normally is less than 50% of the values in the table
LZL 03/05 available with IEC and Nema flange. LZL05 also available in stainless steel.

Model	Max output		Speed at max output r/min	Torque at max output		Min start torque		Max allowed speed r/min	No. of gear ratios
	kW	hp		Nm	ft lb	Nm	ft lb		
Motor only									
LZL03 S	1.7	2.5	7500	2.2	1.6	2.8	2.1	11000	–
LZL05 S	2.1	2.8	6300	3.1	2.3	4.8	3.5	9200	–
LZL15	3.2	4.3	4500	6.8	5.0	10.9	8.0	7200	–
LZL25	5.0	6.7	4000	12.0	8.8	18.0	13.2	6000	–
LZL35	6.5	8.7	3100	20.0	14.7	32.0	23.6	5000	–
With helical gear unit									
LZL05 a	2.0	2.6	45-512	36-403	27-297	56-624	41-460	65-740	6
LZL15 a	3.0	4.1	26-389	74-1071	55-790	116-1668	86-1230	43-639	6
LZL25 a	4.8	6.4	25-370	128-1836	94-1354	192-2754	141-2031	36-531	6
LZL35 a	6.2	8.3	61-464	128-944	94-696	192-1417	141-1045	111-838	4

^a Not ATEX certified.

CUSTOMIZED AIR MOTORS TO YOUR INDIVIDUAL SPECIFICATIONS

Whatever the requirement, Atlas Copco is always happy to help customers find solutions to their special needs. For OEMs, for instance, a customized air motor can be the most efficient solution when integrating an air motor into a machine or tool.

Special motors may have unique casings or mounting arrangements. They may utilize non-standard materials or surface coatings and be designed to achieve a specific output.



SELECT YOUR AIR MOTOR IN 30 SECONDS!

Designed for Windows-based PCs, Atlas Copco has developed an Air Motor Selection Guide. It stores data on all of Atlas Copco's air motors.

The designer specifies the required torques and speed of the motor and within seconds the program chooses the optimum motor. It also supplies complete documentation with performance curves and motor data.

Visit <http://www.atlascopco.com/airmotors/> to access the program.



AIR MOTOR DRAWING LIBRARY

CAD-drawings of any of the hundreds of different Atlas Copco air motors are available to designers, just download (in both 2D and 3D formats) via Internet from Atlas Copco Drawing Library. These CAD-drawings can then be quickly and easily inserted into the designer's machine drawing.



WHEN MORE INFORMATION IS REQUIRED

For further information on Atlas Copco vane motors please ask for a copy of our Air Motor catalogue or browse to our Links and Downloads section on www.atlascopco.com to download the catalog.

HOISTS AND TROLLEYS



Atlas Copco



Atlas Copco

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Explosion-proof operation and stepless control for a smoother safer lift

Atlas Copco air hoists and trolleys are the industry benchmark for fast, precise and reliable lifting of heavy loads – even in cramped and sometimes hostile industrial environments.



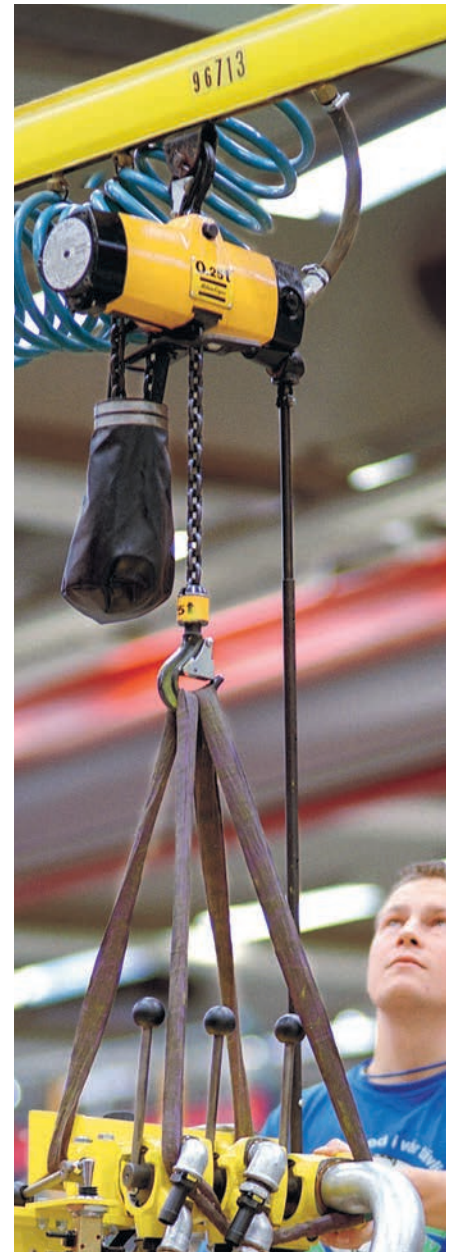
Compact and lightweight, they are easy to control, survive rough handling and provide heavyweight performance.

EXPLOSION PROOF FOR SAFE OPERATION

Our air hoists and trolleys are ideal for lift applications in hazardous environments. All are certified Explosion-proof, to stringent European standards, in compliance with the EU ATEX Directive. Available in six sizes, they offer lift capacities from 250 kg to 5 tons. Hoists are certified to level Ex II 2 GD ck T5 IIC T100°C and trolleys are certified to Ex II 2 GD c T5 IIB T100°C.

SIMPLE INSTALLATION

The trolleys are easy to install. The wheels are designed so that the trolley is equally suitable on both parallel and tapered I-beam section beams. The distance between the wheels is easily adjusted to suit the beam width by turning the suspension yoke.



Selection guide

AIR HOIST SELECTION PROGRAM

The fastest way to choose correct hoists and accessories is by using the Windows based computer program available on our website.

To order your hoist or trolley with accessories factory fitted, simply list all items required and add the

Ordering No. 8990 0001 00

EXAMPLE: To order a 500 kg hoist with motor driven trolley, four button five-metre long pendant control and a load chain for a ten-metre lift, send the following:

Order to be sent	Comments
1 x 8451 1540 28	LLA500 ATEX Hoist block
11 x 4310 2293 00	Load chain for hoist = Required height of lift + 0.5 m, (see technical data for LLA Hoists)
1 x 8451 1520 14	TLT1000-M-N Motor driven trolley
1 x 4310 2263 90	4 button handle + hoist actuator
5 x 4310 2310 96	Hose set for 4 button pendant control
1 x 8990 0001 00	Instruction to assemble above items

- **Precise and stepless speed control** – Through effective stepless control with excellent creep characteristics the LLA air hoists are fast to use over the entire speed range.
- **Heavy duty performance** – These air hoists can continually operate at maximum load with frequent start and stop cycles without risk of damage.
- **Elimination of load sink** – The patented brake mechanism eliminates load-sink when starting lifting, and automatically holds the load if the air supply fails.
- **Compact size** – The small dimensions make the LLA hoists easy to install, even in the most restricted space. Also the low weight means the hoists can easily be moved for maintenance or relocation purposes.
- **Lubrication free**



Model	Max lifting capacity lb	Lifting speed at full load		Chain drops qty	Weight excl chain		Chain weight		Required chain-length metre	Air consumption		Hose size		Air inlet thread BSP	Ordering No.
		m/min	ft/min		kg	lb	kg/m	lb/ft		l/s	cfm	mm	in		
LLA250-L ATEX ^a	550	18.6	61.0	1	12.7	28.0	0.9	0.6	Lifting height + 0.5	37	78	12.5	1/2	1/2	8451 1550 17
LLA500-L ATEX ^a	1100	12.6	41.3	1	12.7	28.0	0.9	0.6	Lifting height + 0.5	38	81	12.5	1/2	1/2	8451 1550 25
LLA500-L-W ATEX ^c	1100	12.6	41.3	1	12.7	28.0	0.9	0.6	Lifting height + 0.5	38	81	12.5	1/2	1/2	8451 1540 93
LLA980-L ATEX ^a	2160	6.3	20.7	2	14.5	32.0	0.9	0.6	2 x Lifting height + 0.5	38	81	12.5	1/2	1/2	8451 1550 15
LLA1000-L ATEX ^b	2200	6.3	20.7	2	15.0	32.0	0.9	0.6	2 x Lifting height + 0.5	38	81	12.5	1/2	1/2	8451 1550 32
LLA2500-L ATEX ^b	5500	3.2	10.5	1	42.5	93.7	2.9	1.9	Lifting height + 0.6	40	85	12.5	1/2	1/2	8451 1550 41
LLA3000-L ATEX ^a	6000	3.2	10.5	1	42.5	93.7	2.9	1.9	Lifting height + 0.6	40	85	12.5	1/2	1/2	8451 1550 74
LLA5000-L ATEX ^b	11000	1.6	5.2	2	65.5	144.4	2.9	1.9	2 x Lifting height + 0.9	40	85	12.5	1/2	1/2	8451 1550 58

^a Without overload protection device.

^b Overload protection device included.

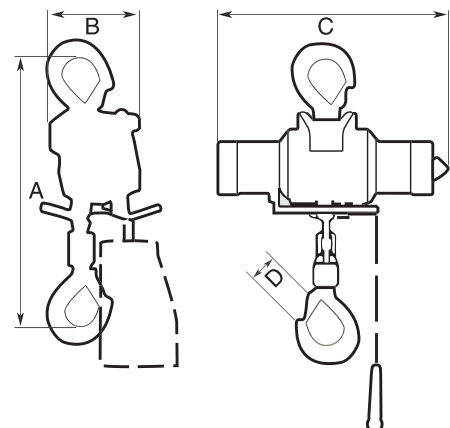
^c Unpainted, corrosion resistant.

Performance figures are at 6.3 bar (91 psi) working pressure.

NOTE: Load chain and control chain must be ordered separately.

Dimensions

Model	A		B		C		D	
	mm	in	mm	in	mm	in	mm	in
LLA250-L ATEX	377	14.8	122	4.8	390	15.4	29	1.1
LLA500-L ATEX	377	14.8	122	4.8	390	15.4	29	1.1
LLA980-L ATEX	445	17.5	122	4.8	390	15.4	29	1.1
LLA1000-L ATEX	495	19.4	122	4.8	390	15.4	29	1.1
LLA2500/3000-L ATEX	575	22.6	212	8.3	546	21.5	50	2.0
LLA5000-L ATEX	785	30.9	249	9.8	546	21.5	60	2.4



Atlas Copco trolleys are available in 3 sizes, for maximum loads of 1, 3 and 5 tonnes. All models can be offered with air motor drive. Pendant Control are not included with the trolleys (must be ordered separately). The 3 and 5 tonne includes handle for control chain (control chain must be ordered separately). The 1 and 3 tonne trolleys are also available in manual versions.

- Lubrication free



Model	Max capacity		Max speed with full load		Air consumption		Beam width		Curve radius min		Weight		Ordering No.
	lb		m/min	ft/min	l/s	cfm	mm	in	mm	in	kg	lb	
Manual													
TLT1000-H-N	2200		-	-	-	-	50-160	2-6.3	1250	50	9.4	21	8451 1520 06
TLT1000-H-W	2200		-	-	-	-	161-280	6.3-11	1250	50	11	24	8451 1520 63
TLT3000-H-N	6600		-	-	-	-	74-180	2.9-7.1	2200	86.6	32	70	8451 1520 55
TLT3000-H-W	6600		-	-	-	-	181-300	7.1-11.8	2200	86.6	34	75	8451 1520 89
Motor driven													
TLT1000-M-N ^a	2200	14	45.9	4	8.5	50-160	2-6.3	1250	50	11	24	8451 1520 14	
TLT1000-M-W ^a	2200	14	45.9	4	8.5	161-280	6.3-11	1250	50	12	27	8451 1520 71	
TLT3000-M-N ^b	6600	17.8	58.4	42	89	74-180	2.9-7.1	2200	86.6	48	106	8451 1520 30	
TLT3000-M-W ^b	6600	17.8	58.4	42	89	181-300	7.1-11.8	2200	86.6	52	114	8451 1520 97	
TLT5000-M ^b	11000	16.2	53.1	42	89	181-300	7.1-11.8	2500	98.4	74	163	8451 1520 48	

^a Pendant control must be ordered separately.

^b Includes handle for control chain. Control chain must be ordered separately.

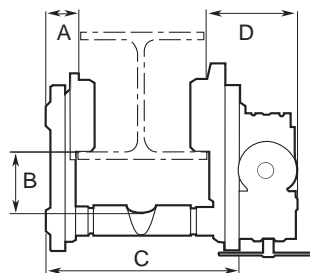
Performance figures are at 6.3 bar (91 psi) working pressure.

Motor-driven trolleys have 1/2" BSP air connection.

12.5 mm (1/2") hose size is recommended for TLT1000-MN/MW, 20 mm for TLT3000-MN/MW and TLT5000-M.

Dimensions

Model	A		B		C		D		E		F	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
Manual												
TLT1000-H-N	26	1.1	52	2.0	212	8.3	-	-	264	10.4	-	-
TLT1000-H-W	26	1.1	52	2.0	Beam width + 57	Beam width + 2.3	-	-	264	10.4	-	-
TLT3000-H-N	35	1.4	78	3.1	262	10.3	-	-	384	15.2	-	-
TLT3000-H-W	35	1.4	78	3.1	Beam width + 89	Beam width + 3.5	-	-	384	15.2	-	-
Motor driven												
TLT1000-M-N	24	1.0	52	2.0	212	8.3	225	8.9	264	10.4	-	-
TLT1000-M-W	24	1.0	52	2.0	Beam width + 57	Beam width + 2.3	225	8.9	264	10.4	-	-
TLT3000-M-N	37	1.5	78	3.1	262	10.3	148	5.9	380	15.0	94	3.7
TLT3000-M-W	37	1.5	78	3.1	Beam width + 89	Beam width + 3.5	148	5.9	380	15.0	94	3.7
TLT5000-M	41	1.6	93	3.7	Beam width + 97	Beam width + 3.8	166	6.6	437	17.2	59	2.4



Accessories Included

FOR HOISTS

Wooden handle for pull chain
Hose nipple BSP 1/2"
Suspension hook and load hook

FOR TROLLEYS

TLT3000-MN/MW/5000-M
Wooden handle for pull chain

Optional Accessories

FOR AIR HOISTS

Designation	LLA250/500/ 980/1000 ATEX Ordering No.	LLA500-L-W ATEX Ordering No.	LLA2500/ 3000/5000 ATEX Ordering No.
Load chain, zinc plated, per m	4310 2293 00	4310 2293 00	4310 2296 00
Control chain, zinc plated, per m	4310 0748 00	4310 0748 00	4310 0748 00
2 button pendant control			
Handle and actuators only	4310 2301 90	4310 2301 91	4310 2302 90
Hose set per m	4310 2310 91	4310 2310 91	4310 2310 91
4 button pendant control			
Handle and actuators only	4310 2303 90	–	4310 2304 90
Hose set per m	4310 2310 94	–	4310 2310 93
Twist rod control			
Complete (1.1-2.0 m)	4310 0774 91	4310 0774 91	4310 0774 91
Extension set (1.1-1.9 m)	4310 0780 91	4310 0780 91	4310 0780 91
Articulating link	4310 0876 91	4310 0876 91	4310 0876 91
Chain collectors			
PVC for length of chain			
– 4 m	4310 0742 04	4310 0742 04	–
– 7 m	4310 0742 07	4310 0742 07	4310 2291 07
–12 m	4310 0742 12	4310 0742 12	–
–18 m	4310 0742 18	4310 0742 18	–
–25 m	4310 0742 25	4310 0742 25	–
Chain collectors			
Steel for length of chain			
–12 m	–	–	4310 2102 80
–18 m	–	–	4310 2109 80
Overload protection device			
LLA250 ATEX	4310 0812 83	–	–
LLA500 ATEX	4310 0812 84	4310 0812 84	–
LLA980 ATEX	4310 0812 85	–	–
LLA3000 ATEX	–	–	4310 0806 90
LLA1000/2500/5000 ATEX	incl as standard	–	incl as standard
Safety hooks, zinc plated	4310 0739 01	4310 0739 01	–
Chain stop, zinc plated	4310 0740 91	4310 0740 91	4310 2097 91

NOTE: For items specified per metre, the required length should be indicated by multiplying the Ordering No. by the required length, ie. to order 12 m of chain for an LLA250 the order should be **12 x 4310 2293 00**.

When ordering load chain, follow the recommendations on chain given in the technical data for LLA hoists.

FOR TROLLEYS

Designation	TLT1000-M Ordering No.	TLT3000-M Ordering No.	TLT5000-M Ordering No.
Zinc plated control chain per m		4310 0748 00	4310 0748 00
2 button pendant control			
Handle and actuator only	4310 0835 91	4310 2301 90	4310 2301 90
Hose kit per m	4310 2310 92	4310 2310 91	4310 2310 91

SERVICE



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It pays to let the original manufacturer service your tools

An Atlas Copco service program is designed to cut your production costs. The savings you can expect depend on how your production looks today – line assembly or fixed stations, tool types used, applications, frequency of tool use, work environment and other factors.

An Atlas Copco ToolScan or a ToolScan RCM on your tool population will give you the answers to these questions. By acting on the recommendations provided, many customers have reported savings in production costs of up to 60%.

A properly serviced tool will perform correctly for longer periods, it will also consume less energy and get the job done faster.

Use our Operating Cost Savings Calculator on your tools to identify potential savings.

ARE YOU GETTING THE MOST FROM YOUR AIR TOOLS?

- Would your tools work better with a Preventive Maintenance Program (PM)?
- Are the tools correctly adjusted for the application?
- Have you checked your air line for correct flow, air quality, leakages, etc.?
- Is your air line system correctly dimensioned?
- Are there areas with significant pressure drops?
- Do you know the status and number of tools in your production?
- What is the power efficiency (l/kWs) of your tools?
- Do you use the optimal tool for each application?



WOULD YOU LIKE TO REDUCE THE OPERATING COSTS FOR YOUR ELECTRIC TOOLS?

- Have you calculated the total operating cost of your tools and the impact a Preventive Maintenance Program could have?
- Are you currently performing any preventive maintenance, or just repairs when tools break down?

With our ToolScan RCM process we can optimize a Preventive Maintenance Program for your type of production. This can provide cost savings of up to 60% and, in some cases, even more. Our RCM Operating Cost Savings Calculator helps you to identify your total potential savings.

HOW COULD YOUR PRODUCTION BE OPTIMIZED?

- Is your operation really a zero-fault production?
- Could productivity be improved on your line?
- In new production projects is the focus on quality and efficiency?

Bolted joint issues arise in all types of assembly. While the tooling is often wrongly blamed, in most cases there are other factors affecting the bolted joint. In Production Optimization we take care of these issues, both in existing production and in new projects.

Your ideal Service Partner

At Atlas Copco, we continuously seek ways to improve our customers' operations, as well as our own. With this in mind, we are determined to be the world's most professional supplier of industrial service solutions for fixtured and hand-held power tools. To achieve that we have developed a range of standard service packages that will help our customers to improve their quality and productivity in production.

EFFECTIVE SERVICE PACKAGES

REPAIR

With today's high demands on minimizing downtime for our customers, we focus on specialized workshops that can handle quick repairs and complete overhauls in the most cost-efficient way. To do that we keep a large inventory of spare parts in stock, and we have upgraded with factory fixtures and test equipment to increase our efficiency. With all this, plus certified mechanics dedicated to specific tool models, we've minimized lead times and improved the quality of each repair. After service all tools are rigorously tested to Atlas Copco specifications.

Using the box system:

- Place the broken tool in the box.
- Sign up for direct repair according to the fixed price or a quote.
- The tool is repaired, tested and sent back to you with a full report.

TOOLSCAN™

Our ToolScan™ report informs you of the status of your air tools and air supply at each workstation. The service is carried out by a highly experienced certified technician and covers the following areas:

- AirScan of the air supply at each workstation.
- Status and performance check of the tools.
- Other services can be added.
- A report informing you of the status of your air supply and tools, including recommendations for improvements. You can then, together with your team, decide the next step without a binding agreement.



CALIBRATION

With our network of calibration laboratories we can offer a complete package of calibration services to help you control quality for all assembly tools and measurement equipment in your production.

An efficient way to control quality:

- Traceability and document management.
- Calibration/verification of transducerized tools and controllers.
- Torque adjustment and capability test.
- Verification test for a specific application.
- Accredited and factory calibration of measurement equipment.
- Testing and calibration of click and torque wrenches.
- Other special requests, such as angle calibration, etc.
- We remind you for your next calibration.



PREVENTIVE MAINTENANCE

Like other machines, Atlas Copco industrial power tools need regular maintenance in order to fulfill their full potential in terms of performance and reliability. Different agreements are available, tailored to your needs. We offer maintenance both on-site or off-site, or a combination. With our Operating Cost Calculator, you can calculate the potential savings a preventive maintenance program will provide for your specific operation.

FULL COVERAGE

A fixed budget for all tool maintenance. Our Full Coverage option keeps power tools in top operating condition and provides a fixed budget for all tool maintenance. Other services can be added. To develop the optimum service program for their specific manufacturing operation, customers can take advantage of our unique ToolScan RCM process. For your new tools, take a look at our ToolCover.

Full Coverage includes:

- Repair, including parts.
- Calibration.
- Preventive maintenance program.
- On-site/off-site options.
- Other services can be added.

TOOLSCAN RCM

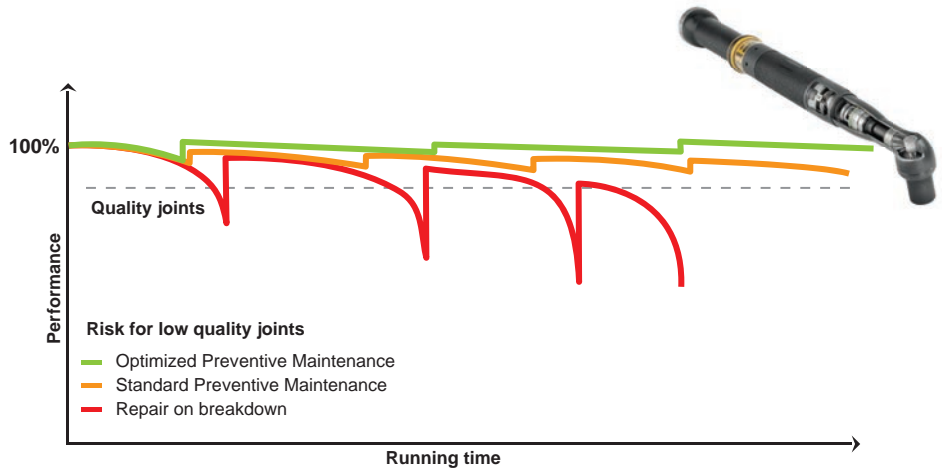
RCM (Reliability Centered Maintenance) is a proven method of rationalizing and optimizing maintenance costs in manufacturing industries. With ToolScan RCM we balance maintenance against the operational cost of a failure. Based on our extensive tool failure statistics, we analyze your total operating costs, the tool applications and the probability of tool failure. With this information we create the optimum maintenance program for your specific production operation.

OUTSOURCING SOLUTIONS

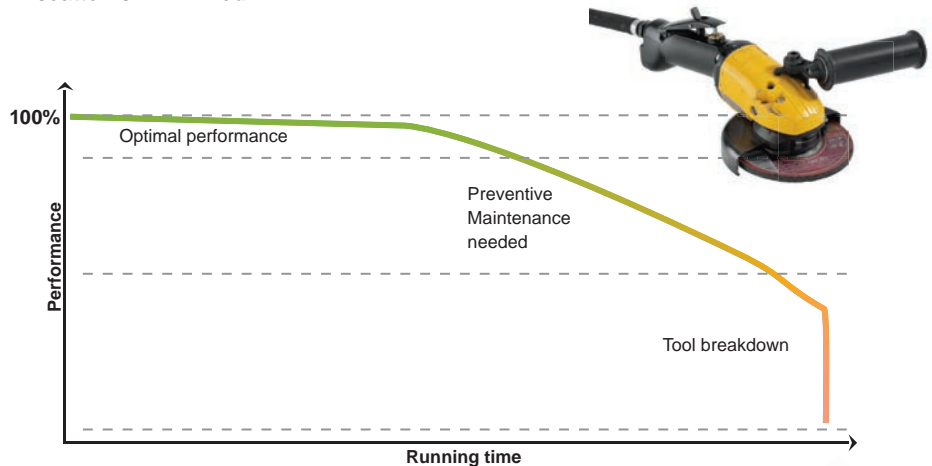
We have extensive experience of outsourcing solutions and currently have more than 120 Tool Management Centers located inside customer facility. These are examples of the areas we cover:

Focus on your core business:

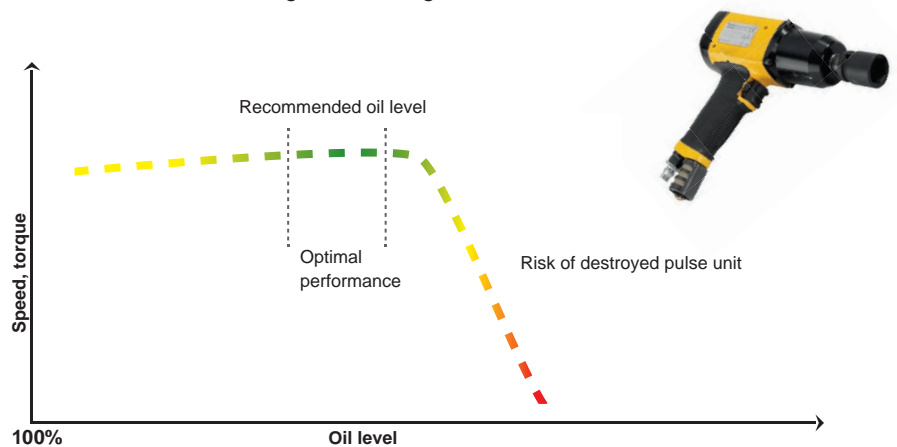
- Preventive maintenance, repair and calibration of all brands and types of tools.
- Installation and start-up support.
- Service management system, including developing Key Performance Indicators.
- Line and process support.
- Back-up tool/equipment and spare parts management.
- Other customer requests.



By keeping your assembly tool in the low risk area the chance of failures and torque scatter is minimized.



Correct lubrication of all gears is crucial for highly productive industrial tools. The most common cause of oil/grease leakage is worn seals.



Oil level decrease in small steps during operation and could end up in a destroyed pulse unit. Most of our customer have to replace the tool because of that.

SOME TYPICAL KPI INDICATORS USED:

- Turnaround time for repair.
- MTRR (Mean Time To Repair).
- MTBF (Mean Time Between Failures).
- Number of preventive maintenance actions vs. repair/failure development.
- Root cause analysis.
- Top 5 problem applications with actions.
- Availability of equipment.

Service packages for new equipment

Maximize your investment. Investing in new tools to upgrade an existing production line? Or perhaps you're designing, installing and commissioning an entirely new line. In either case Atlas Copco's specialists are there every step of the way to help you focus on quality and efficiency. With your production up and running our service programs will help keep you online with minimum interruptions.

INSTALLATION

Ensure trouble-free operation. A certified Atlas Copco technician ensure the highest quality installation and management of new tools and surrounding equipment. After each installation you receive an installation report that also suggests improvements in your production. With our fixed price installation and startup programs you always know the cost in advance.

PRODUCTION START-UP

Solve issues before going into full production. One of the most critical phases with your new equipment is start-up. Here we have the opportunity to solve issues in a way that will avoid problems during full production. Our certified technicians have long experience of starting up our equipment. With our expertise we make sure you get the best possible start for your full production.

CUSTOMER TRAINING

Helps raise productivity. Having well-trained operators, line engineers and quality people in your operation, means improved tool performance, higher productivity and correct use of your tools and equipment.

Our training also gives your personnel the capability to determine whether production issues and interruptions are the result of problems with the tools or with the parts used in assembly.

We have developed an extensive range of training courses that are supported from our larger Customer Centers throughout the world.



Service Packages for new equipment

PRODUCTION OPTIMIZATION

Zero fault production at the lowest total cost. One of our core competences is production optimization. We help you to improve productivity in your existing assembly, or in your new production project. We ensure that the focus remains on quality and efficiency from concept/R&D through to full production. While bolted joint issues are the common denominator, there are many other factors involved.

IMPROVE PRODUCTIVITY ON YOUR EXISTING LINE

Program optimization: Taking advantage of the functionality of our advanced controllers, our field engineers optimize monitoring and control limits to identify faulty joints.

Friction analysis: When quality issues like broken or elongated bolt are identified, the cause can be frictional changes in the bolted joint. A laboratory analysis can highlight the root cause enabling a solution to be found.

Joint analysis: If the problem is more complex, a full joint analysis might be necessary. Atlas Copco has the laboratory equipment, expertise and software to evaluate the development of clamp load in bolted joints, as well as optimized rundown specifications.

Production optimization: Analysis of the entire workstation from the perspective of the bolted joint is Atlas Copco's unique method of optimizing production. It can help raise product quality and achieve cost-effective production.

FOCUS ON QUALITY AND EFFICIENCY IN NEW PROJECTS

Concept R&D: Actions include – Bolted joint review, clamp load and friction analysis, tool accessibility and rundown specification analysis.

Strategy development: Actions include – Bolted joint analysis, SW simulation, joint classification, tool selection, fastening process and error-proofing development.

Pilot test: Actions include – Bolted joint analysis, implementation of customized fastening processes and sequences, clamp load, frictional and quality validation.

Pre production: Actions include – Bolted joint analysis, evaluating process limits, joint analysis, optimizing sequencing, cycle time, bolt relaxation and product quality.

Full production: Actions include – Bolted joint analysis, determination of Cp/Cpk, quality status, overview of assembly potentials, quality system potentials and ergonomic improvement.



SERVICE PROGRAMS – FULL COVERAGE PROGRAMS AND ON-SITE TECHNICIAN

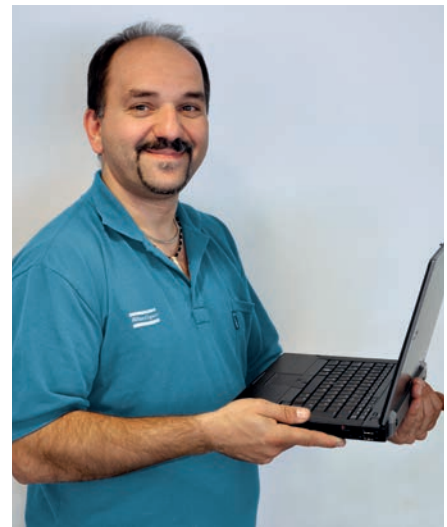
Depending on the size of your operation, different service programs are available for your new Atlas Copco equipment. Atlas Copco ToolCover programs ensure trouble-free operation for your tools. If you have a new plant or larger new production line, an on-site Atlas Copco technician is a recommended option. We have long experience of handling new tool and installation issues in an efficient way.

TOOLCOVER

- Full coverage option for two or three years.
- Cover both repairs and parts.
- Preventive Maintenance program tailored to your production rate.
- Yearly calibration with protocol.
- Inspection protocol checking critical points on tools/system.
- Off-site / On-site options.

REMOTE SERVICE

Today we can offer remote service as part of our contracts in some markets. Please contact your service representative for more information.



Vibration and Noise Emission Values

The values you will find in this table are the official declared values both for vibration and noise. On December 29, 2009 the Machinery Directive, 2006/42/EC repealed the old directive 98/37/EC. From that date the 3-axes vibration total values are the official values. Our tools are measured according to the relevant part in the ISO 28927 series. For machines where no specific test code exists the ISO 20643 is used.

MEASURING VIBRATIONS

Our declared vibration values are expressed as vibration total value and a vibration total value is the vector sum of the weighted vibration in three directions.

On machines intended to be used with two hands, two positions are measured and the position with the highest value is declared.

MEASURING NOISE

Our declared noise emission information is derived according to the standard EN ISO 15744. The A-weighted emission sound pressure level is measured in a semi-anechoic room at 5 points around the tool. The declared sound pressure level for the tool is the average sound pressure level from the 5 microphones. If the declared sound pressure level exceeds 80 dB(A), the A-weighted sound power level is declared in addition to the sound pressure level.

Because each tool can be used in many different applications, it is impossible to predict what the process sound pressure level will be, therefore EN ISO 15744 specifies that most types of tools are run under no load conditions with the supplied accessories mounted.

SUITABLE FOR COMPARISON PURPOSES ONLY

The declared values given in this table were obtained by laboratory type testing in accordance with the stated standards and are suitable for comparison with the declared values of other tools tested in accordance with the same standards.

These declared values are not adequate for use in risk assessments and values measured in individual work places may be higher. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, the workpiece and the workstation design, as well as upon the exposure time and the physical condition of the user.



Atlas Copco has a well equipped laboratory for measuring tool noise and vibration emissions. It contains advanced vibration measurement tools, a state-of-the-art acoustics laboratory and dedicated computer software for analysing measurement and test results.

Atlas Copco Industrial Technique 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 work place situation over which we have no control.

MANAGING EXPOSURE TO NOISE AND VIBRATION

Power Tools may cause hand-arm vibration syndrome if the use is not adequately managed. An EU guide to managing hand-arm vibration can be found by accessing <http://www.pneurop.eu/index.php> and selecting 'Tools' then 'Legislation'.

We recommend a programme 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.

Vibration and Noise Emission Values

Assembly tools

Model	Vibration total value (3 axes value) according to ISO 28927-2 Valid from 2010		Sound pressure levels and sound power levels ^a according to ISO 15744		Model	Vibration total value (3 axes value) according to ISO 28927-2 Valid from 2010		Sound pressure levels and sound power levels ^a according to ISO 15744	
	Value 3-axes m/s ²	Uncertainty m/s ²	Sound pressure dB(A)	Sound power dB(A)		Value 3-axes m/s ²	Uncertainty m/s ²	Sound pressure dB(A)	Sound power dB(A)
Pneumatic screwdrivers					Impact Wrenches				
Pistol grip					Pistol grip				
Shut-off					Non shut-off				
LUM22 HR	<2.5	-	78	-	LMS08 HR	<2.5	-	85	96
LUM32 HR	<2.5	-	77	-	LMS18 HR	5.3	1.5	90	101
LUM12 HRX	<2.5	-	74	-	LMS28 HR	5.2	1.3	92	103
LUM22 HRX	<2.5	-	78	-	LMS38 HR	3.5	1.5	88	99
LUM10 HRX	<2.5	-	72	-	LMS48 HR	5.0	1.4	89	100
LUM12 HRF	<2.5	-	<70	-	LMS58 HR	5.5	1.6	92	103
Straight					Straight				
Shut-off					Non shut-off				
LUM02 PR	<2.5	-	71	-	LMS08 SR	5.6	2.4	85	96
LUM10 PR	<2.5	-	<70	-	LMS68 GIR/GOR	8.1	2.8	98	109
LUM12 PR	<2.5	-	75	-	LMS88 GIR/GOR	4.8	2.0	100	111
LUM22 PR	<2.5	-	75	-					
LUM12 SR	<2.5	-	75	-					
LUM22 SR	<2.5	-	78	-					
Angle					Hydraulic impulse nutrunners				
Shut-off					Pistol grip				
LTV009	<2.5	-	75	-	Shut-off				
LTV18	<2.5	-	71	-	EP3PTX5 HR42	<2.5	-	76	-
Pistol grip					EP4PTX9 HR42	<2.5	-	<70	-
Direct drive					EP4PTX9 HR10	<2.5	-	<70	-
LUD12 HRX	<2.5	-	74	-	EP5PTX17 HR42	<2.5	-	74	-
LUD22 HR	<2.5	-	76	-	EP5PTX19 HR10	<2.5	-	73	-
LUF34 HRD	<2.5	-	79	-	EP6PTX28 HR42	3.0	1.0	77	-
COMBI22	<2.5	-	76	-	EP6PTX32 HR10	<2.5	-	75	-
COMBI34	<2.5	-	79	-	EP7PTX55 HR10	4.2	0.8	79	-
Slip clutch^b					EP8PTX70 HR10	3.5	1.0	80	-
Pistol grip					EP9PTX80 HR13	5.6	0.8	82	93
TWIST12 HRF	<2.5	-	80	-	EP11PTX120 HR13	5.4	1.2	83	94
TWIST12 HRX	<2.5	-	80	-	EP13PTX150 HR13	4.7	0.7	85	96
TWIST22 HR	<2.5	-	86	97	EP15PTX250 HR20	6.5	0.4	88	99
TWIST22 HRX	<2.5	-	86	97	EP19PTX450 HR20	8.2	1.0	88	99
TWIST HRF	<2.5	-	80	-	EP5PTS12 HR42	4.3	0.7	75	-
LUF34 HR	<2.5	-	81	92	EP5PTS14 HR10	2.8	0.8	73	-
Straight					EP6PTS20 HR42	3.4	0.5	76	-
TWIST12 SR3	<2.5	-	85	96	EP6PTS22 HR10	2.9	0.7	77	-
TWIST12 SR4	<2.5	-	85	96	EP7PTS30 HR42	5.9	0.9	78	-
TWIST22 PR	<2.5	-	86	97	EP7PTS35 HR10	4.3	0.8	76	-
TWIST22 SR6	<2.5	-	86	97	EP8PTS40 HR42	5.7	0.7	79	-
TWIST22 SR10	<2.5	-	86	97	EP8PTS55 HR10	4.6	1.5	76	-
Angle					EP10PTS90 HR13	4.8	0.9	80	-
TWIST VR07	<2.5	-	81	92	EP12PTS150 HR13	4.7	0.6	82	93
TWIST VR13	<2.5	-	82	93	EP14PTS250 HR20	6.3	1	85	96
					EP18PTS410 HR20	7.1	0.8	87	98
					EP7PTS35 HRF10	4.3	0.8	76	-
					EP8PTS55 HRF10	4.6	1.5	76	-
					EP10PTS90 HRF13	4.8	0.9	80	-

^a The uncertainty in the sound levels is 3 dB(A).

^b 1-axis value measured with clutch slipping.

Continued...

Vibration and Noise Emission Values

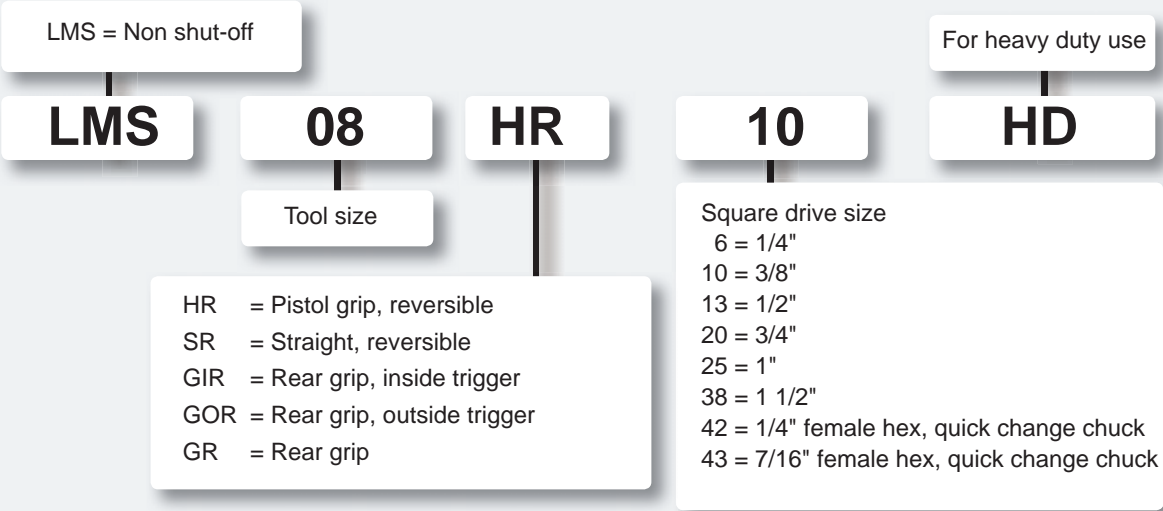
Assembly tools

Model	Vibration total value (3 axes value) according to ISO 28927-2 Valid from 2010		Sound pressure levels and sound power levels ^a according to ISO 15744		Model	Vibration total value (3 axes value) according to ISO 28927-2 Valid from 2010		Sound pressure levels and sound power levels ^a according to ISO 15744	
	Value 3-axes m/s ²	Uncertainty m/s ²	Sound pressure dB(A)	Sound power dB(A)		Value 3-axes m/s ²	Uncertainty m/s ²	Sound pressure dB(A)	Sound power dB(A)
Hydraulic impulse nutrunners					Pneumatic nutrunners				
Pistol grip					Angle				
Non shut-off					LTV29-2 R				
EP5XS HR42	<2.5	-	78	-	LTV39-2 R				
EP6XS HR42	3.0	0.5	81	92	LTV28 R				
EP6XS HR10	<2.5	-	79	-	LTV38 R				
EP6PS HR42	3.7	0.5	81	92	LTV48 R				
EP6PS HR10	3.1	0.7	79	-	LTV69 R				
EP8PS HR10	4.1	1.2	82	93	LTV69 N				
EP7XS HR42	2.7	0.7	80	-	LMV28 R				
EP7XS HR10	2.8	1.0	79	-	LMV28 N				
EP8XS HRX42	2.8	0.6	78	-	LMK22				
EP8XS HRX10	3.0	0.7	82	93	LMK33				
EP10XS HR13	4.6	0.8	83	94	Straight				
EP12XS HR13	6.0	1.1	85	96	LTD28 N				
EP14XS HR13	4.0	1.4	85	96	LTD38 N				
EP16XS HR20	6.7	0.9	86	97	LTD28 R				
EP20XS HR20	6.8	1.4	87	98	LTD38 R				
Hydraulic impulse nutrunners					LTD48 R				
Straight					LTD61 H				
Shut-off					LMD61 H				
EP3PTX5 SR42	5.7	1.2	76	-	Pistol grip				
EP4PTX9 SR42	7.1	1.6	77	-	RTP1300				
EP4PTX9 SR10	4.0	1.4	77	-	RTP4100				
EP5PTX14 SR42	6.5	2.1	78	-	LTP61 PH				
EP5PTX15 SR10	4.6	0.8	78	-	LTP61 H				
EP6PTX18 SR42	8.4	1.2	81	92	LTP61 HR				
EP6PTX19 SR10	6.2	1.4	81	92	LMP61 H				
EP7PTX28 SR42	11.5	2.4	78	-	LMP61 HR				
EP7PTX31 SR10	7.8	1.8	79	-	LMP24 H				
EP8PTX38 SR42	11.5	5.5	80	-	LMP24 HR				
EP8PTX45 SR10	7.0	1.2	81	92	Open end				
EP25PTX GR25	9.4	2.6	86	97	LTO28 R				
Non shut-off					LTO38 R				
EP6XS SR42	5.1	1.7	80	-	Crowfoot				
EP6XS SR10	6.0	2.2	82	93	LTC009 R				
EP7XS SR42	6.4	1.4	79	-	LTC28 R				
EP7XS SR10	6.7	1.5	78	-	LTC29-2 R				
EP8XS SR42	6.9	0.8	81	92	LTC38 R				
EP8XS SR10	9.5	2.2	81	92	LTC39-2 R				
Monitoring impulse nutrunners					LTC48 R				
Pistol grip									
EPP6C40 HR	<2.5	-	78	-					
EPP8C55 HR	3.4	0.8	81	92					
EPP10C90 HR	3.3	0.9	83	94					
EPP11C110 HR	3.5	0.9	82	93					
EPP13C150 HR	3.8	0.9	87	98					
EPP15C250 HR	4.9	1.5	88	99					
EPP19C400 HR	5.6	1.0	86	97					

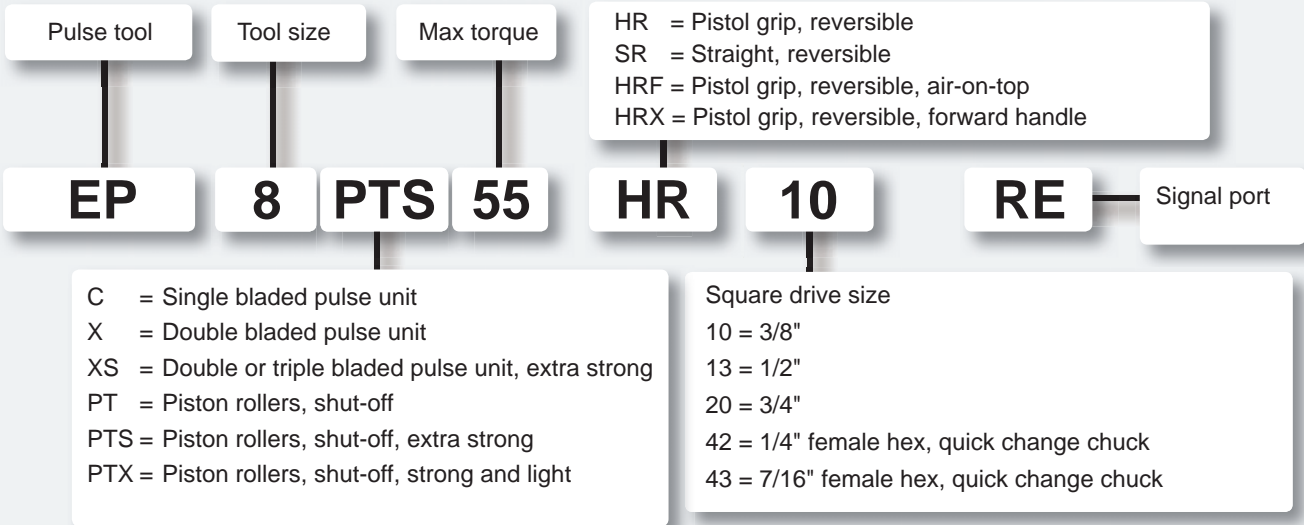
^a The uncertainty in the sound levels is 3 dB(A).

The tool key below explains the significance of the letters/numbers forming the name of the tool model.

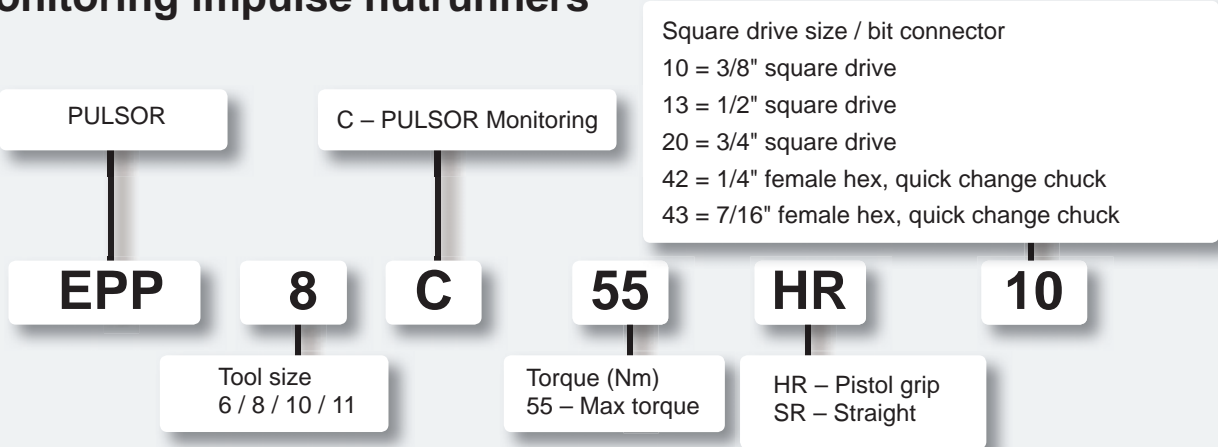
Impact wrenches



Hydraulic impulse nutrunners



Monitoring impulse nutrunners



Pneumatic screwdrivers

Torque control

LUM = Shut-off clutch
 TWIST/LUF = Slip clutch
 LUD/COMBI = Direct drive
 LTV = Shut-off angle tool

HRF = 3-way air inlet with balanced grip

HRX = Balanced pistol grip

HR = Pistol grip

PR = Straight tool with push start

SR = Straight tool with lever start

R = Reversible angle tool

P = Push start

RE = Reporting signal

Special rpm models

42 = 1/4" female hex, quick change chuck

10 = 3/8" female hex

6 = 1/4" male hex

Q = 1/4" quick change chuck

LUM

22

HRX

6

-P

Tool size
 12 – LUM, TWIST, LUD
 22 – LUM, TWIST, LUD
 009 – LTV
 19 – LTV

Torque (Nm)

Pneumatic nutrunners

L = Pneumatic

T = Shut-off
 B, M = Stall

L

T

V

V = Right angle
 D = In-line
 P = Pistol grip
 C = Crowfoot
 O = Tube nut
 R = Ratchet
 K = Worm-drive

Motor size

Generation

2

8

R

29

10

Options

Torque
 10 = 10 Nm
 15 = 15 Nm
 etc.

R, SR = Reversible
 N, S = Non reversible
 HR = Reversible (pistol grip)
 H = Non reversible (pistol grip)

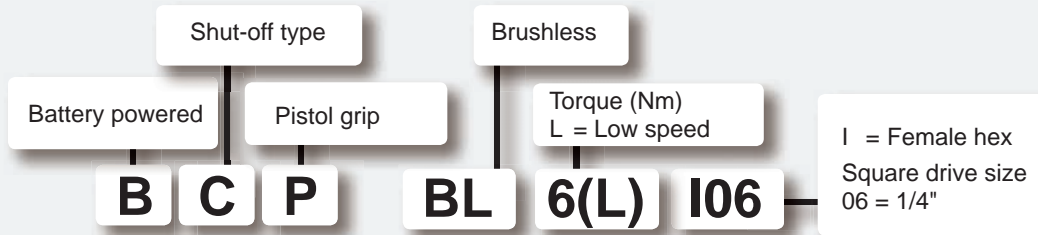
RE = Signal port
 FS = Flush socket
 HAD = Hold-and-drive

Square drive size

6 = 1/4"
 8 = 5/8"
 10 = 3/8"
 12, 13 = 1/2"
 19, 20 = 3/4"
 25 = 1"
 38 = 1 1/2"
 42 = 1/4" female hex
 Q = 1/4" quick chuck

The tool key below explains the significance of the letters/numbers forming the name of the tool model.

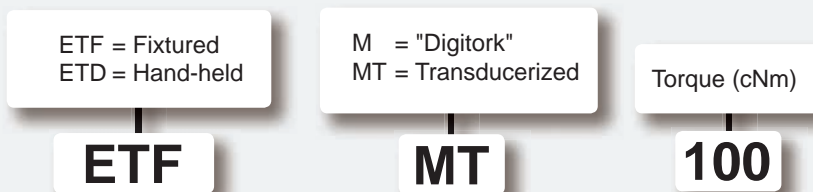
Battery screwdriver – BCP



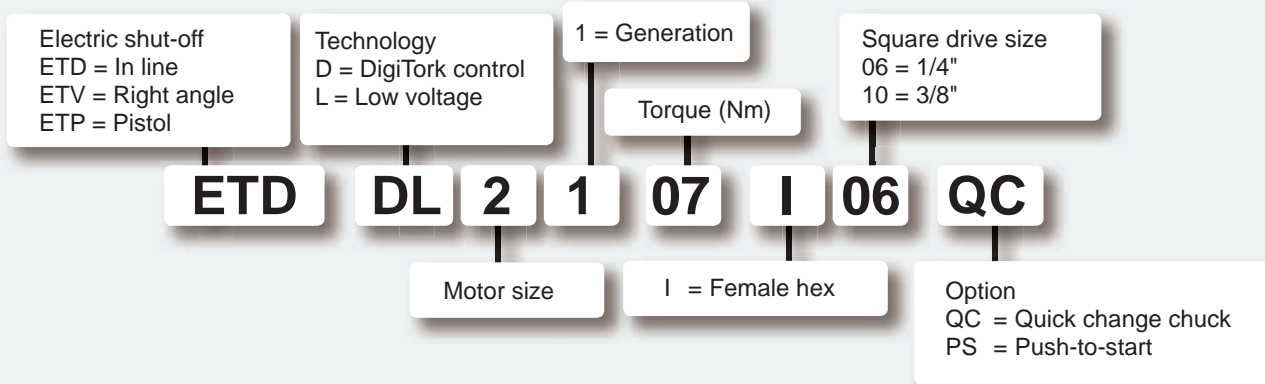
Electric screwdriver – EBL



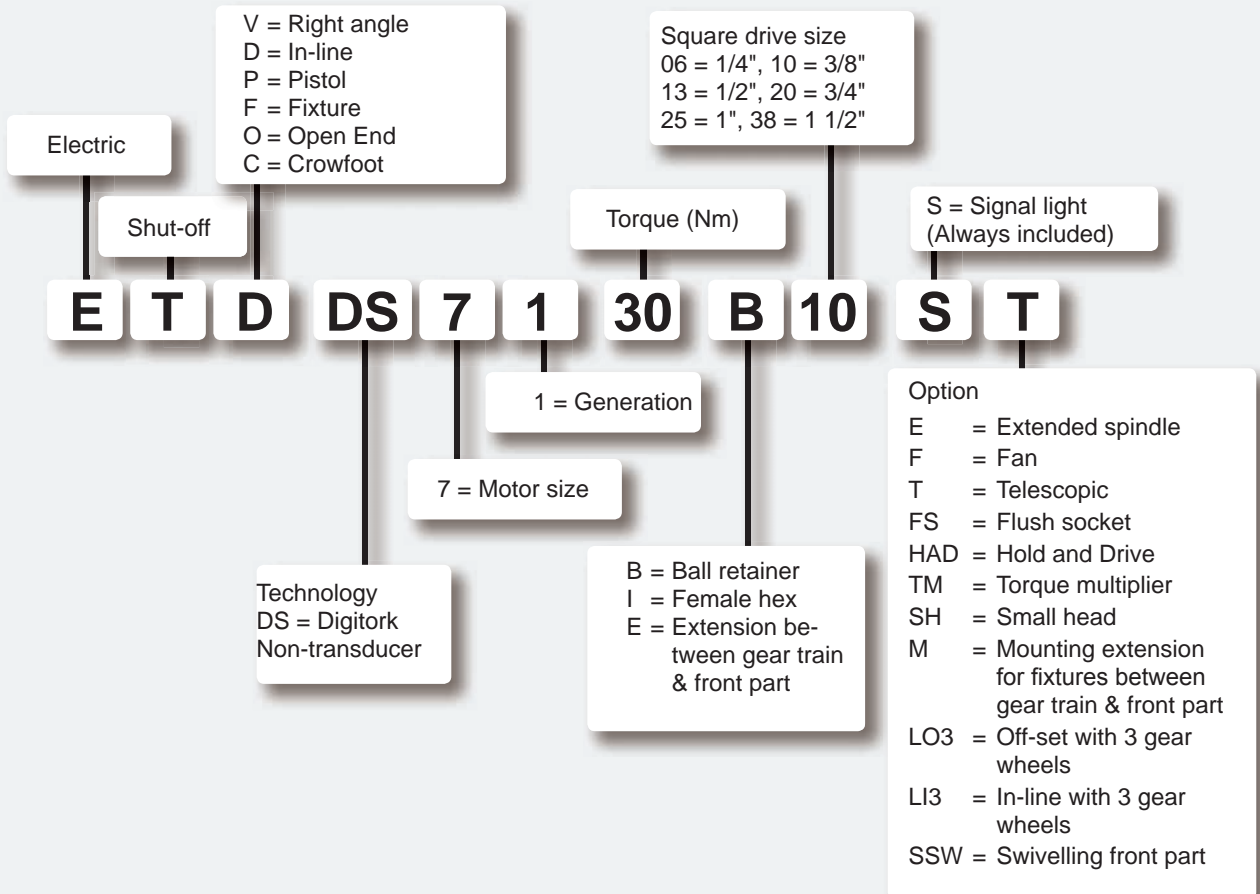
Electric screwdriver – MicroTorque



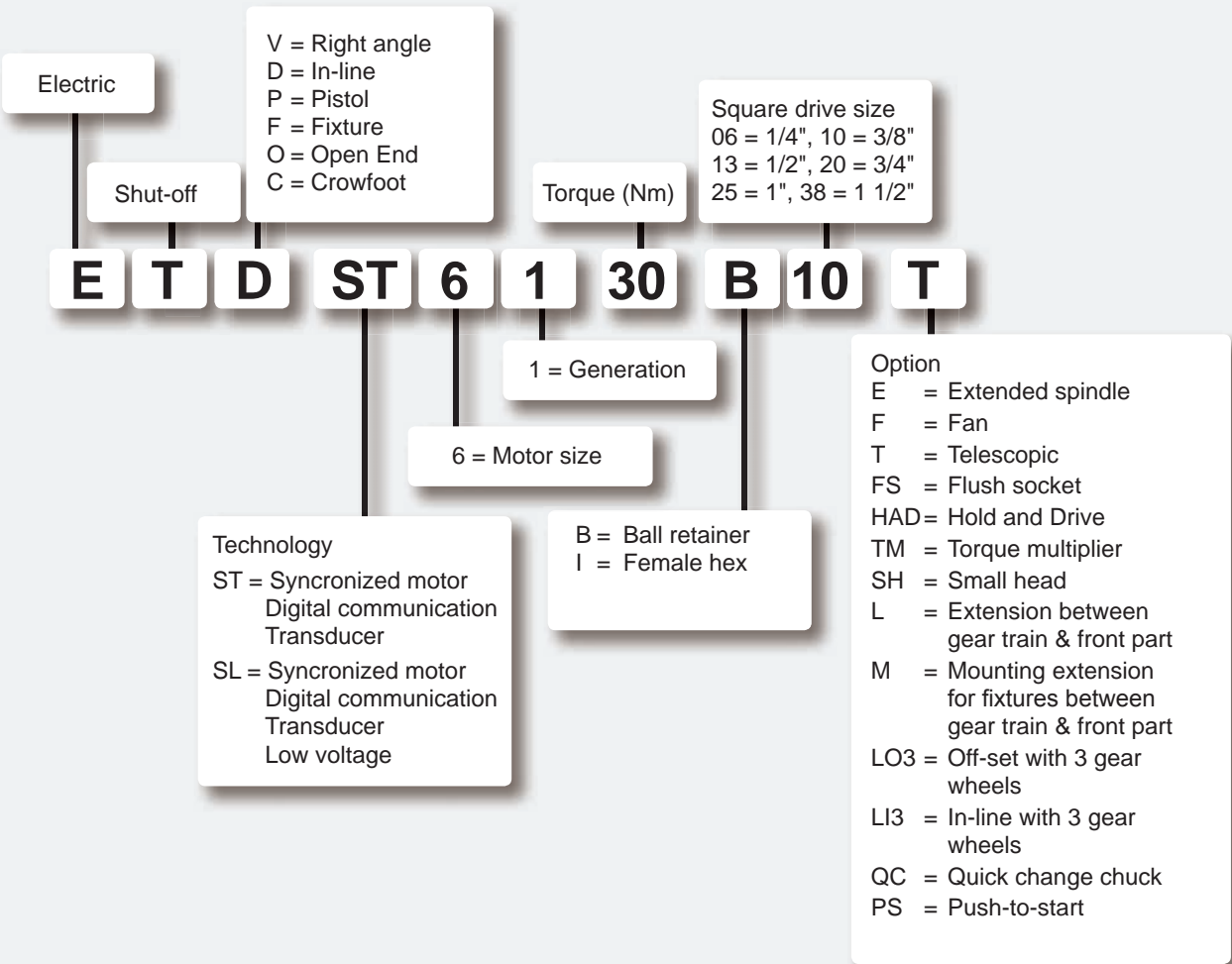
Electric screwdriver – Tensor DL



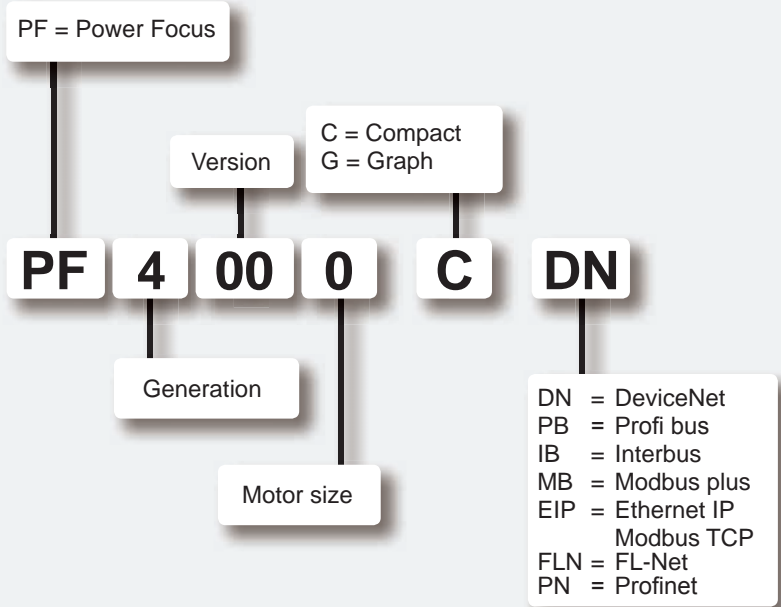
Electric nutrunner – Tensor DS



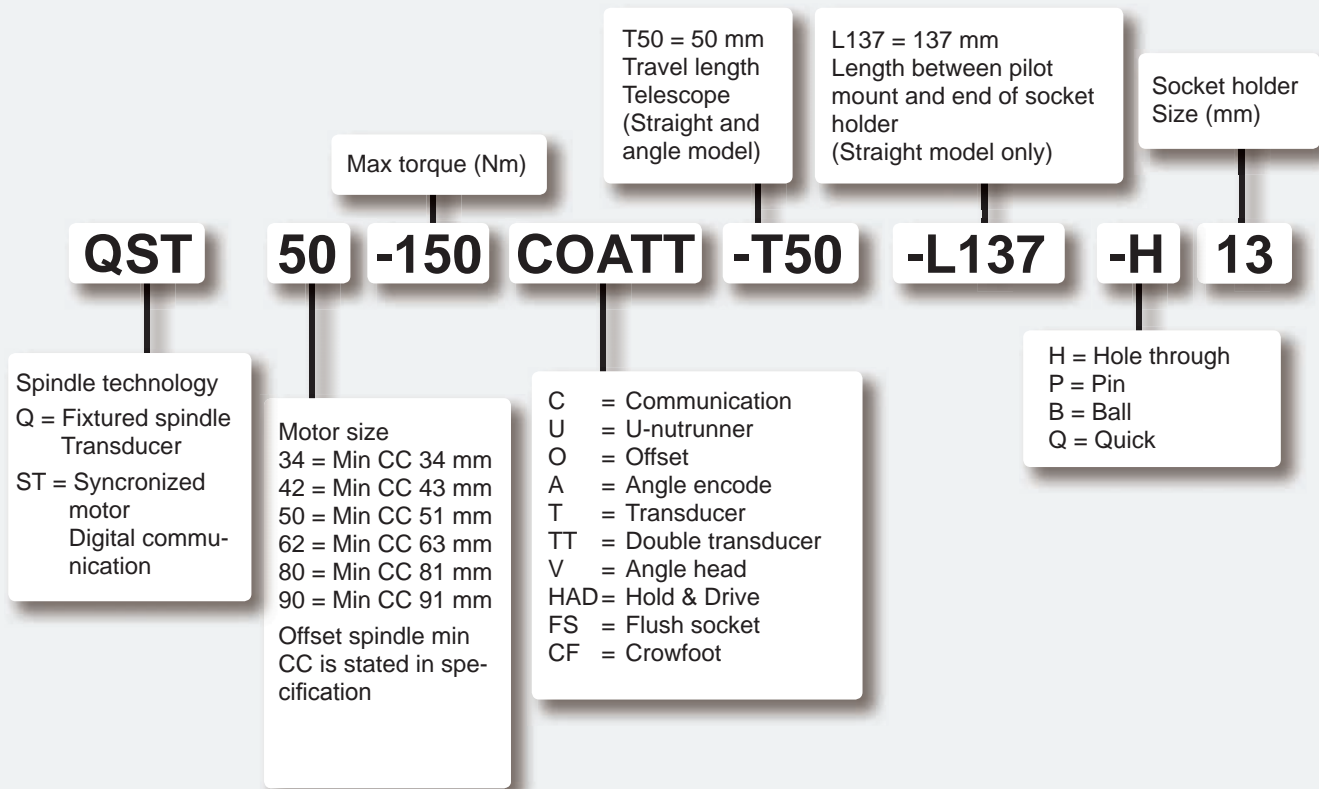
Electric nutrunner – Tensor ST/SL



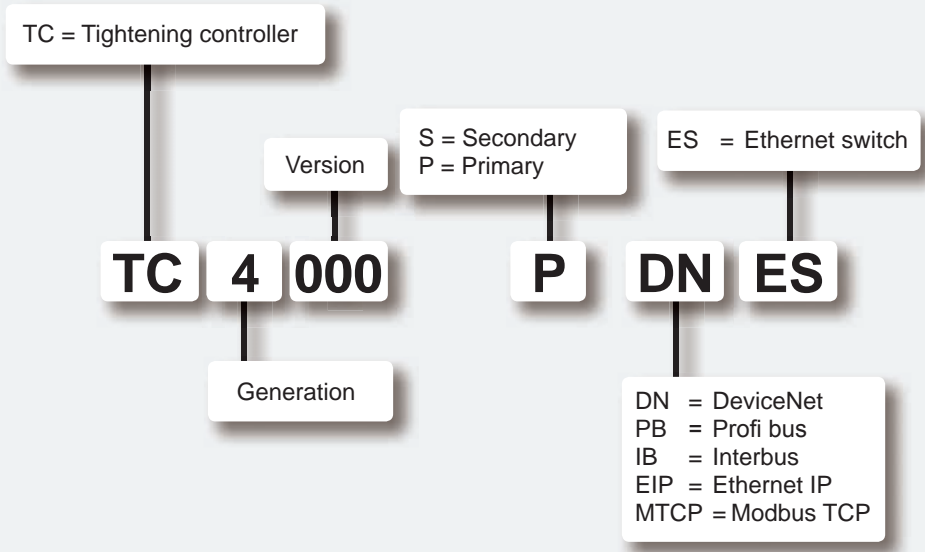
Power Focus



Fixtured nutrunner – QST



Power MACS 4000



Tool Designations

BAL – Ball valve	LLA – Air hoist
BCP BL – Battery screwdriver, pistol grip, clutch type	LLT – Trolley
BCV – Battery nutrunner, angle model, clutch type	LMD – Pneumatic nutrunner, stall type, straight model
BLOCK – Blow protector	LMK – Pneumatic nutrunner, stall type, worm drive
CABLAIR – CABLAIR hose	LMP – Pneumatic nutrunner, stall type, pistol grip
CLAW – Claw coupling	LMS – Impact wrenches, non shut-off type
COL – Colibri balancer	LMV – Pneumatic nutrunner, stall type, angle model
COMBI – Pneumatic screwdriver, direct drive	LSF – Die grinder
COMBI – Pistol grip drill	LSK – Routers
DIM – Air preparation unit, lubricator	LSO – Orbital sander
EBL – Electric screwdriver, brushless clutch type	LSR – Straight grinder
EP C/X/XS – Hydraulic impulse nutrunner, non shut-off, ERGOPULSE	LST – Random orbital sander
EP PT/PTS/PTX – Hydraulic impulse nutrunner, shut-off, ERGOPULSE	LSV – Angle grinder and sander
EPP – Monitoring impulse nutrunner, PULSOR C	LTC – Pneumatic nutrunner, shut-off type, crowfoot
ErgoNIP – Nipple	LTD – Pneumatic nutrunner, shut-off type, straight model
ErgoQIC – Quick coupling	LTO – Pneumatic nutrunner, shut-off type, tube nut
ETC DS – Electric nutrunner, shut-off type, crowfoot, TENSOR DS	LTP – Pneumatic nutrunner, shut-off type, pistol grip
ETC ST – Electric nutrunner, shut-off type, crowfoot, TENSOR ST	LTV – Pneumatic nutrunner/screwdriver, shut-off angle model
ETC STB – Battery nutrunner, crowfoot, TENSOR STB	LUD – Pneumatic screwdriver, direct drive
ETD DL – Electric screwdriver, shut-off type, straight model, TENSOR DL	LUF – Pneumatic screwdriver, slip-clutch
ETD DS – Electric nutrunner, shut-off type, straight model, TENSOR DS	LUM – Pneumatic screwdriver, shut-off clutch
ETD ES – Electric nutrunner, shut-off type, straight model, TENSOR ES	LZB – Small vane air motor
ETD M – Electric screwdriver, hand-held "Digitork", MicroTorque	LZL – Vane air motor
ETD SL – Electric screwdriver, straight model, TENSOR SL	MRTT-B – Screwdriver for low torque applications
ETD ST – Electric nutrunner, shut-off type, straight model, TENSOR ST	MT TH – Torque In/Line rotary transducer
ETD STR – Electric screwdriver, straight model, TENSOR STR	MT TR – Torque & Angle In/Line rotary transducer
ETF DL – Electric screwdriver, shut-off type, fixture, TENSOR DL	MT TRA – Stationary torque transducer
ETF M – Electric screwdriver, fixtured "Digitork", MicroTorque	MT TS – Manual screwdriver torque transducer
ETF MT – Electric screwdriver, fixtured transducerized, MicroTorque	MultiFlex – Swivel connectors
ETF SL – Electric screwdriver, shut-off type, fixture, TENSOR SL	NIP – Nipple
ETO DS – Electric nutrunner, shut-off type, open end, TENSOR DS	Optimizer – Air tool oil
ETO ST – Electric nutrunner, shut-off type, open end, TENSOR ST	PFD – Power feed drills
ETO STB – Battery nutrunner, tube nut, TENSOR STB	POLUR – Polyurethane hose
ETP DL – Electric screwdriver, shut-off type, pistol grip, TENSOR DL	PVC – PVC hose
ETP DS – Electric nutrunner, shut-off type, pistol grip, TENSOR DS	QIC – Quick coupling
ETP SB – Battery nutrunner, pistol grip TENSOR SB	QRTT – Transducer for spindle and fixtured tool calibration
ETP SL – Electric screwdriver, shut-off type, pistol grip, TENSOR SL	QST – Fixtured electric nutrunner, shut-off type
ETP STB – Battery nutrunner, pistol grip TENSOR STB	RAB – Screw-feed drill
ETP ST – Electric nutrunner, shut-off type, pistol grip, TENSOR ST	RBB – Bucking bar, vibration damped
ETP STR – Electric screwdriver, pistol grip, TENSOR STR	REG – Air preparation unit, regulator
ETV DL – Electric screwdriver, shut-off type, angle model, TENSOR DL	RIL – Balancer
ETV DS – Electric nutrunner, shut-off type, angle model, TENSOR DS	RRC – Chipping hammer, conventional type
ETD ES – Electric nutrunner, shut-off type, angle model, TENSOR ES	RRD – Chipping hammer, vibration damped
ETV SB – Battery nutrunner, angle model, TENSOR SB	RRF – Chipping hammer, vibration damped
ETV SL – Electric screwdriver, angle model, TENSOR SL	RRH – Riveting hammers, vibration damped
ETV ST – Electric nutrunner, shut-off type, angle model, TENSOR ST	RRN – Riveting hammer, conventional type
ETV STR – Electric screwdriver, angle model, TENSOR STR	RTP – Pneumatic nutrunner, pistol grip
ETV STB – Battery nutrunner, angle model, TENSOR STB	RUBAIR – Rubber hose
ETX – Fixtured electric nutrunner, shut-off type	RVM – Scaler, vibration damped
FIL – Air preparation unit, filter	SM – Torque arm, parallel
GHP – Torque arm, MicroTorque	SMC – Carbon arm
GTG – Turbine grinder	SML – Torque arm, linear
GTR – Straight turbine grinder	SPI – Spiral hose
GUN – Blow gun	SMS – Torque arm, linear
HM – Hose reel	SRTT-B – Static reaction torque transducer
HRIL – Hose reel	SRTT-L – Transducer for STAnalyser
HT – Torque testers	STB – Static Transducer Bench
IRTT-B – In-line rotary torque and torque/angle transducer	TLT – Trolley
JSB – Joint Simulator Bench	TPS – Tool Positioning System
LBB – Pistol grip and straight drill	TT – Torque testers
LBD M – Modular drill, straight model	TURBO – Rubber hose
LBL – Automatic drilling and tapping unit	TWIST – Pneumatic screwdriver, slip-clutch
LBR – Pneumatic nutrunner, stall type, ratchet wrenches	WP – Balancer
LBS – Micro stop drill	
LBV – Angle drill	
LBP M – Modular drills, pistol model	
LCS – Circular cutters	
LGB – Tapper	

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- B. All 2000 Series Tools, accessories and parts, three (3) months from date of shipment of customer.

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