

Industrial Power Tools



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Your global partner –locally



▲ Atlas Copco assembly tools are used in manufacturing plants in a wide range of industries.



▲ Twice the power, half the weight! GTG turbine grinders offer an extremely high rate of material removal.



▲ Tensor electric tools are a key to error proofing and productivity.



▲ PowerMACS tightening systems are supplied to the automotive industry worldwide.

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Our global organization is dedicated to serving you, wherever you are. By combining a strong local presence with the latest information technology, we have simplified all aspects of interfacing with a tool supplier. In other words, it is easy to do business with us.

Customer centers

We know the importance of being close to our customers. For this reason we have fully equipped Customer centers in many parts of the world. Here, in addition to our complete range of products and services, we offer global project management for multinational customers.

Application centers

Advances in tightening technology demand the highest level of engineering expertise. Using Atlas Copco core components, specialized Application centers around the globe configure Atlas Copco as-sembly systems as complete assembly stations for the automotive industry.

Wherever you are

Atlas Copco power tools and assembly systems are available through our own sales companies in some 50 countries and a network of independent distributors in an additional 90 countries.

Making your tool selection

On our website www.atlascopco.com/tools you will find tool selection guides that help you choose precisely the correct tool for your application. Also available is a range of drawings, from simple dimension sketches to 3D CAD drawings.



After your purchase

Atlas Copco ServAid streamlines your tools maintenance. ServAid is a CD-ROM containing an illustrated spare parts list. With ServAid in your computer you have comprehensive parts data at your fingertips.

Talk to your local distributor

Using our e-solution, AC Connect, your distributor can give you a lightning fast response to your inquiries, and the best possible service.

The power of choice...



▲ *Atlas Copco regularly introduces innovative new designs. We currently have nearly 300 active basic patents and registered designs.*



▲ *Before dispatch each Atlas Copco tool is subjected to rigorous quality control.*

▲ *Our Tierp plant in Sweden is one of the most efficient of its kind in the world. Production is order-driven and a dedicated workforce keeps throughput times short.*

...is in your hands!

Atlas Copco has exactly the right power tool for your job. Make your choice from nearly 3,000 air powered, electrical and battery driven tools, assembly systems, and a wide range of accessories.

Innovation through interaction

Atlas Copco launches more new products each year than any other tool supplier. We start by asking what you, our customers, want. We then combine your needs with our own innovative thinking and technical expertise. The result? Advanced tools offering levels of performance, reliability and safety you never thought possible.

Quality that speaks for itself

Pick up one of our tools. The quality speaks for itself. Before dispatch from our modern factory in Sweden, each tool is subjected to rigorous quality control. The latest equipment is used to check power, speed, accuracy and air consumption.

All products are accompanied by instructions in 12 languages. Video training films and pocket guides are also available in all major languages.

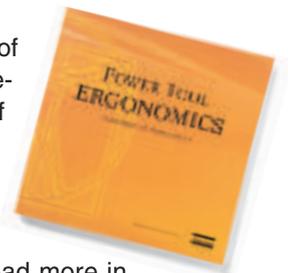
Ergonomics boost productivity

How productive are your operators? Change to light,

powerful, ergonomically designed tools from Atlas Copco and you'll notice an increase in individual productivity.

Less physical strain

Atlas Copco has a long tradition of ergonomic tool design. Handle designs that optimize the transfer of high feed forces from the hand-arm system direct to the workpiece substantially reduce physical strain on the operator. Noise and vibration are minimized. Read more in our book, "Power Tool Ergonomics".



Lubrication-free

Many Atlas Copco tools are lubrication-free, thus eliminating oil mist from the work area.

Who cares about your productivity?



▲ Atlas Copco offers a complete range of calibration services in compliance with ISO 17025 for all your tools and equipment.

Call us and we'll be there. We're as close as your phone. ▶



▲ Our aim is to provide service that will keep your plant running efficiently and smoothly.

We do –it drives our business

All aspects of our operations, from product development to global customer support, are driven by our determination to raise productivity in your plant. Our tools and systems will keep you ahead.

A unique commitment

When you purchase Atlas Copco tools, it's just the beginning of a long and profitable partnership. We get to know your process, your needs and objectives. In this way we can make a genuine contribution to raising your productivity.

International operation?

Atlas Copco global service agreements make life simple. Unique among tool suppliers, we provide a common quality standard for all tool service we provide, worldwide.

Maximizing uptime

Our mission is to help maximize uptime in your plant.



We're standing by to provide:

- ◆ On-site or off-site service and repairs.
- ◆ Calibration and certification.
- ◆ Power tool surveys.
- ◆ Preventive maintenance.
- ◆ Tightening and joint analysis.
- ◆ Operator training.
- ◆ Full service agreements.

Rapid deliveries

Place an order with your local Atlas Copco office before 4 pm local time. Your new tools or spare parts will be despatched the same day from our central tool warehouse in Belgium. Our network of regional warehouses enables us to offer a similar service to customers in other parts of the world.

You know what you're getting



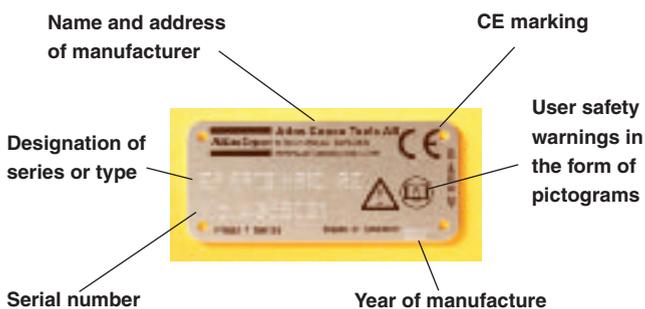
Atlas Copco has an overall quality target: To attain maximum quality at all stages –from initial development to spare part deliveries.

Proof of company excellence

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

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

In effect it means you know what you're getting. Carefully specified manufacturing processes guarantee 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 EC Machine Directive 98/37/EC which focuses on safety.

Each Atlas Copco tool bears the CE marking and is

accompanied by detailed operator's instructions and a declaration of conformity. This is your guarantee that it conforms to the relevant EC Directives.

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 contain the following basic information:
 - Name and address of manufacturer.
 - Product designation and technical data, defined in the relevant standard.
 - The CE marking.
 - Country and year of manufacture.
- ◆ The machine must be accompanied by Operator's 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.

How we measure noise and vibration

When measuring noise, Atlas Copco uses the standard ISO 15744. To the measured level, 3 dB(A) can be added to incorporate variations in production and method. The figure given in this catalogue is the measured sound pressure level. If the measured value exceeds 85 dB(A), we also state the sound power level which is 13 dB(A) higher than the sound pressure level. The standard describes how to calculate this figure.

Vibration is measured using the test code ISO 8662. The vibration value stated consists of a measured value and a tolerance. The tolerance varies from machine to machine and is given in the instructions.

If the registered value is less than 2.5 m/s², we normally just state less than 2.5 m/s², because values less than 2.5 m/s² indicate minimal risk from vibration.

Environment

As a part of Atlas Copco's environmental policy, Atlas Copco Tools and Assembly Systems product company has received the ISO 14001 certification early 2002. We continuously work with improvements such as:

- ◆ Energy efficiency in our production as well as in our products.
- ◆ Supplier evaluation from an environmental perspective.
- ◆ Reduction of hazardous substances both in our production and in our products.
- ◆ Information to our customers in the environmental area.
- ◆ Environmental awareness training of all employees.

Your guide to the catalogue

Accessories included

Under this heading a specification is given for each type of tool and of the parts (nipples, keys, guards, etc.) supplied with the tool.

Instructions and a list of spare parts are always included in the package.

Optional accessories

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

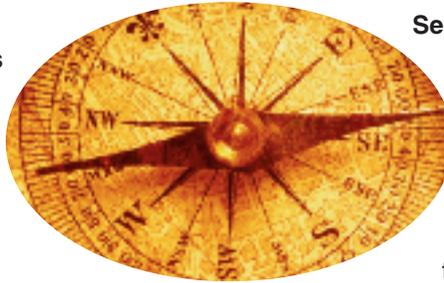
Air consumption

The air consumption of the tools is stated in litres 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.

Vibrations

Nowadays it is known that vibrations are not only unpleasant for the operator, but in the long term can also cause vascular problems.

We consider ourselves the leaders in the industry with regards to our efforts and dedication towards finding a solution to this problem. We are convinced that we offer tools with lower vibrations than our competitors and our claim to offer tools with low vibrations is based on this comparison. Vibrations are aggravated by factors beyond our control such as poor maintenance, pirate parts, unbalanced grinding wheels, etc.

We are therefore unable to guarantee that the use of our tools will never cause vascular problems. Therefore, even if you choose our tools, you still need to monitor your workforce. The vibration values indicated in this catalogue are measured in accordance with ISO 8662. This standard offers guidance on how to conduct laboratory measurements. To be able to make comparisons, the standard has been developed to give reproducible results.

Sound level

Most values indicated in this catalogue are measured in accordance with the Pneurop test code. From 2002 the official test code for sound measurements is changed to ISO 15744. The differences between the two standards are however minor, and are in most cases negligible. When we state that a sound level is low we obviously relate this to competitors' similar tools. We do not imply that extended use of our tools will never cause hearing impairment. Particularly since in many applications the sound from the process is higher than the unloaded tool noise. It is therefore always advisable to wear hearing protection.

LENGTH	1 in	=	0.0254 m
	1 m	=	39.3701 in
	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
	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	=	0.01 bar 0.0101972 kp/cm ² (at)
POWER	1 kpm/s	=	9.8067 W
	1 hp	=	745.7 W
	1 kW	=	101.972 kpm/s 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



◀ Ergonomists are involved at every step of the tool development process.

Noise level testing ▶ in the acoustics laboratory.



Pneumatic assembly tools



Get it together fast!

With ergonomically designed screwdrivers, pulse tools, nutrunners and impact wrenches from Atlas Copco. Correct grip diameters reduce reaction forces, vibration and noise levels. High power-to-weight ratios ensure maximum operator comfort.

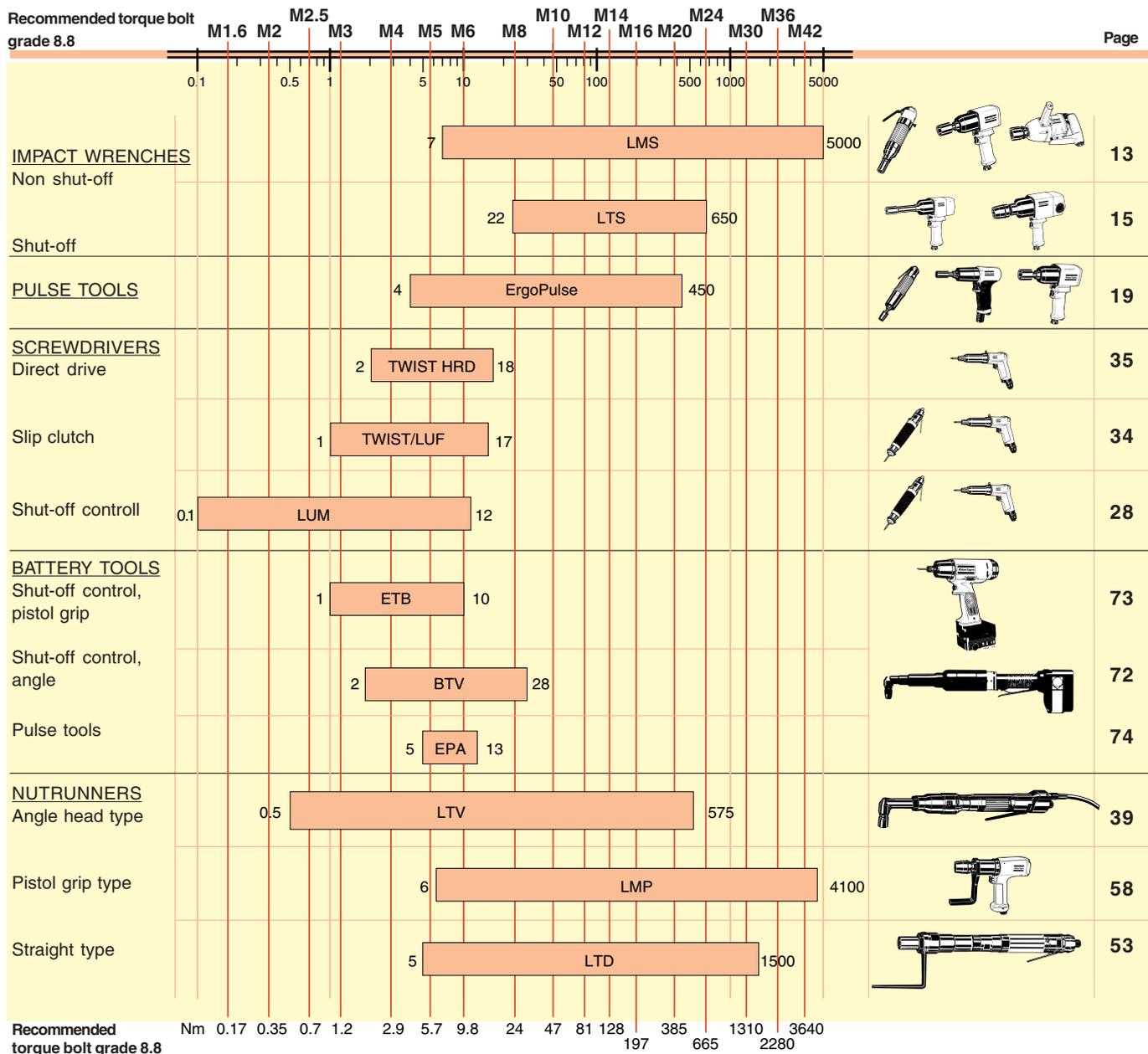
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PNEUMATIC ASSEMBLY TOOLS

Selection guide



IMPACT WRENCHES (LMS, LTS)

Impact wrenches are suitable for general assembly and repair jobs when a powerful and lightweight tool is required. They are the best tools for loosening joints.

Atlas Copco LMS and LTS reversible impact wrenches can handle tough tightening and loosening jobs quickly, with minimum operator fatigue. The LMS non shut-off range is designed for all-purpose tightening with high availability. To cut tightening times, independent of operator influence, the LTS models should be used.

IMPULSE TOOLS (ErgoPulse)

Suitable both for general assembly and serial production. They have the same advantages as impact wrenches with higher accuracy. In addition you will have a tool with good ergonomics which means lower sound levels and less vibrations. Pulse tools also have a longer service life.

SCREWDRIVERS

The biggest range on the market when it comes to extremely accurate screwdrivers with ergonomic design. All models are lubrication-free.

For all kinds of jobs involving smaller screw sizes, up to M6.

Shut-off control (LUM, ETB)

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

Slip clutch (TWIST/ LUF)

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

Direct drive (TWIST/LUF HRD)

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

NUTRUNNERS

Angle type (LTV)

Suitable for high volume serial production.

Extremely good accuracy, small angle head, suitable for use where space is limited. Low sound and vibration levels.

Pistol grip type (LMP, LTP)

An outstanding tool for fast and extremely accurate assembly. A low weight alternative with extremely high torque capacity and low sound level.

PNEUMATIC ASSEMBLY TOOLS

Selection guide

TORQUE RECOMMENDATIONS

The torque is important to ensure the required clamping force. These tables show the recommended torque for the most common types of screws and bolts.

SCREWS

Recommended max tightening torque (Nm) for untreated oil-smeared screws (friction coefficient = 0.125).

Metric coarse thread. The torque corresponds to approximately 62% of tensile stress.

M-THREADED SCREWS/BOLTS

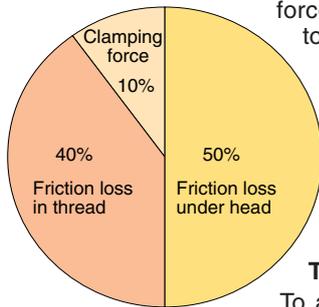
Tightening torque Nm, according to ISO 898/1

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	

Basic tightening technique

The material

The material is decisive for the choice of which type of screw and fastening tools you should choose. The most common materials are steel, aluminium, plastic, wood and various types of construction material. Different materials withstand different clamping forces. The clamping force is the force that holds the joint together and assures its function. Clamping force is attained in practice by transmitting a specific torque. Out of the total torque applied in tightening, roughly 10% is consumed for clamping force, while the remaining 90% is used in overcoming the friction.



The friction

To assure the best possible results you should endeavour to achieve uniform quality and friction in the joint. This means that you must consider the dimensions of predrilled and punched holes, threads, washers etc. If there is too much variation in the dimensions, and thus in the friction, this could be very costly.

The screw/bolt

In most constructions the screw is the weakest link in the joint. If anything happens, it is usually cheaper to replace screws. There are exceptions, however, such as when materials like sheet metal and plastic are involved, when the screw is the strongest link. Replacement of parts with defective threads can be expensive. For such applications, it is therefore very important to work with a tool that has an accurate clutch.

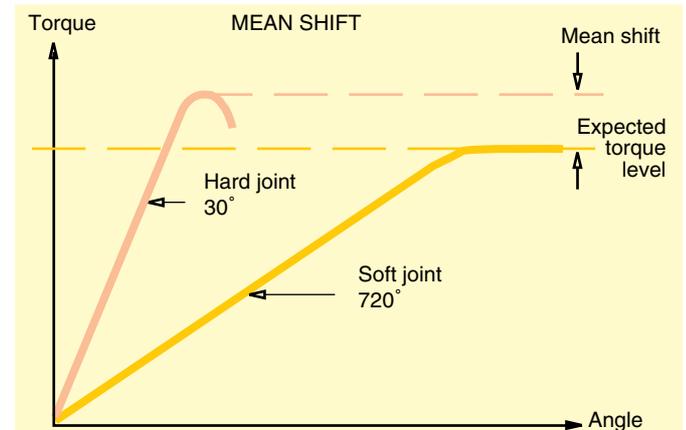
Hard and soft joints

A joint is usually classified as either hard or soft. A hard joint is tightened to full torque through a tightening angle of roughly 30° after the screw has reached snug level. In a soft joint, the screw sometimes has to be tightened more than two complete turns before the full torque is achieved. The same tools often give different torque values on hard and soft joints respectively. This difference in torque values is generally known as "mean shift".

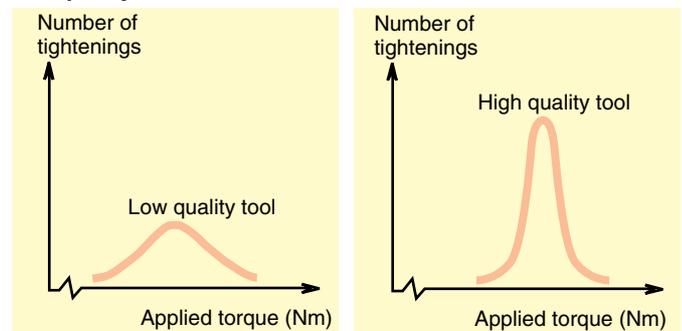
By measuring the torque from a series of tightening operations on the same joint, a measure is obtained of how accu-

rately the tool can repeat a tightening. This is known as the scatter of the tool.

For more information about test procedure, see ISO 5393.



The scatter is small for a high quality tool, and wide for a low quality tool



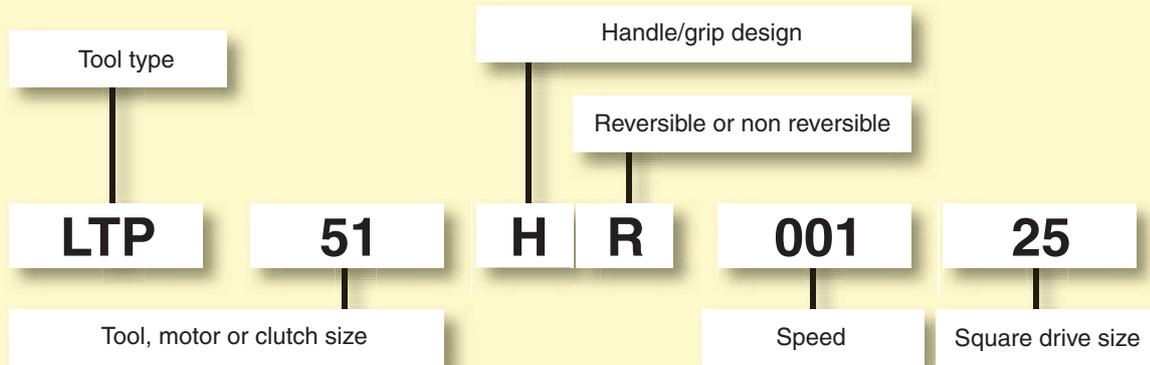
GENERAL

Performance figures for all pneumatic assembly tools are at a working pressure of 6.3 bar.

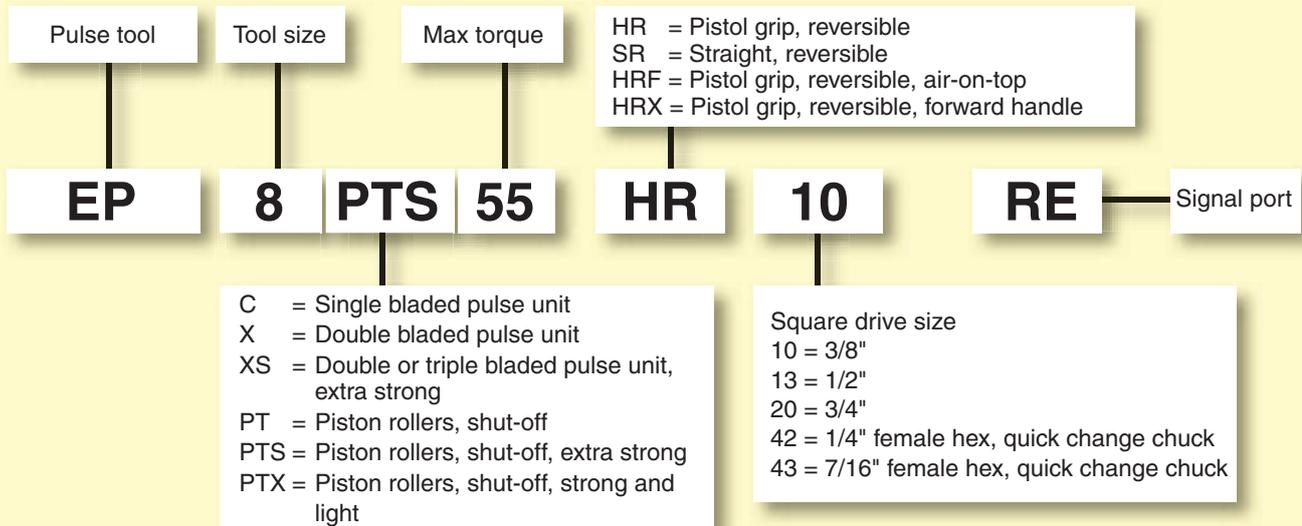
TOOL KEY

The designator/ordering number of Atlas Copco assembly tools is a combination of letters and numbers indicating various properties and characteristics of the tool concerned.

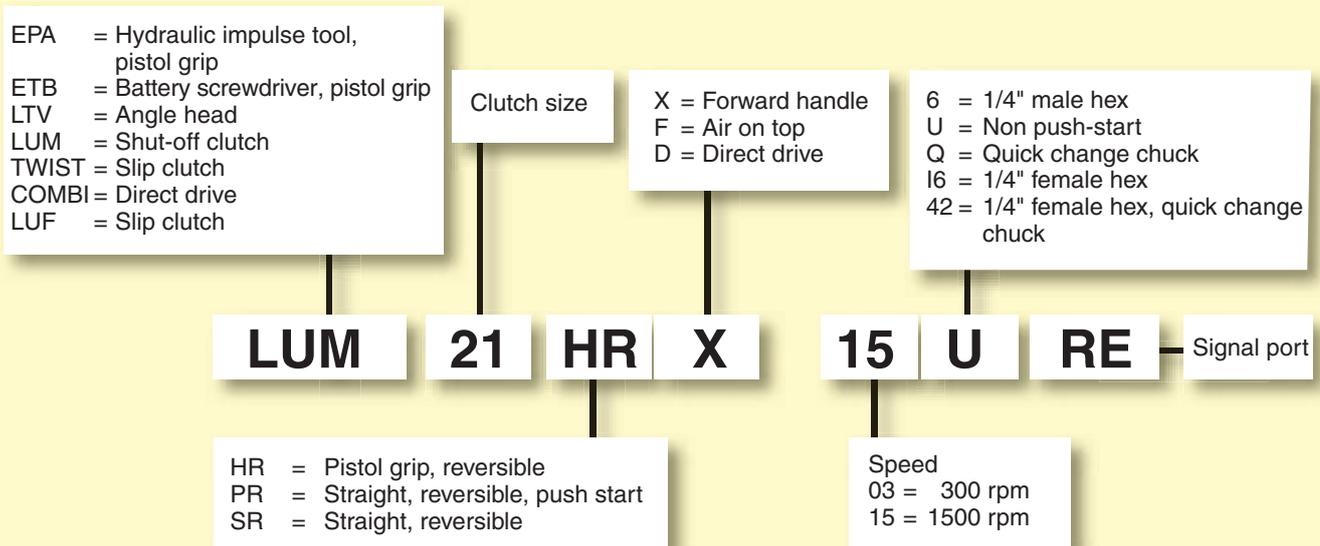
Below is a guide showing the general significance of each group of letters/numbers and specific guides to the individual tool types.



Hydraulic impulse nutrunners

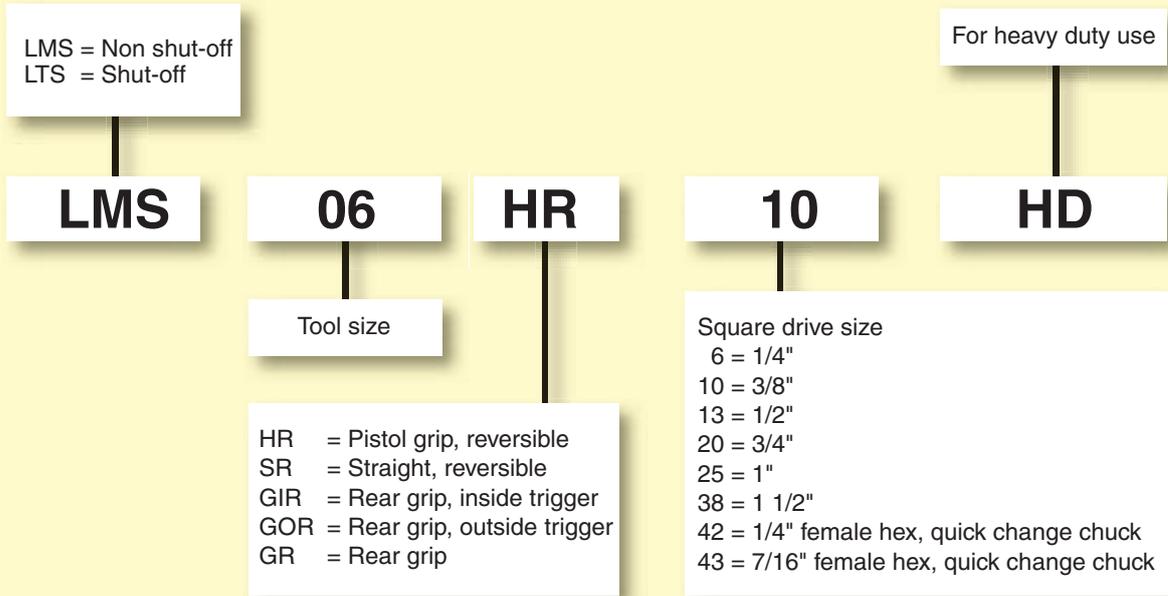


Screwdrivers

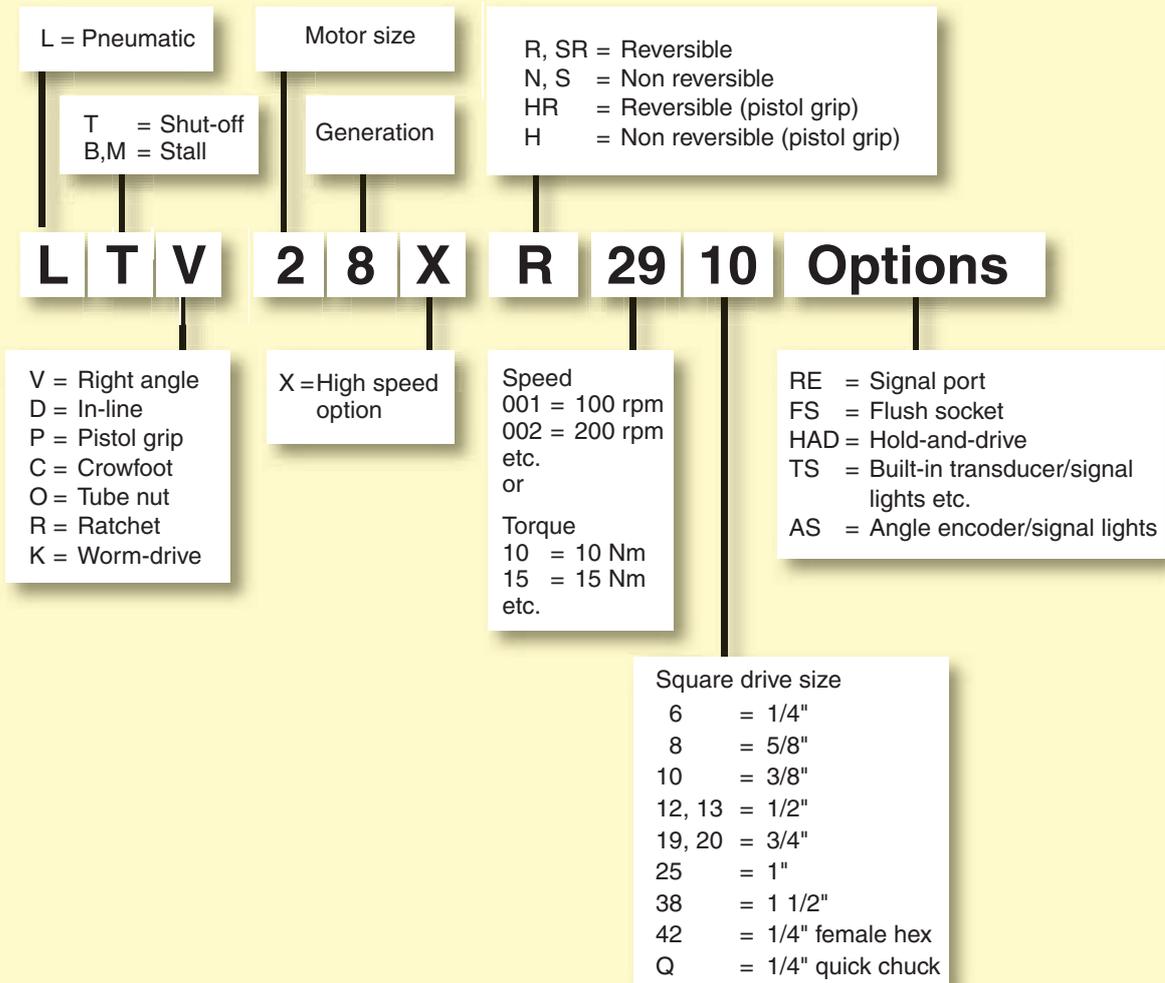


TOOL KEY

Impact wrenches



Nutrunners



IMPACT WRENCHES

Selection guide

Atlas Copco's powerful, high-speed impact wrenches are designed to cut production times by providing fast run-down and quick tightening.

Impact wrenches build up torque in joints through a series of rotary impacts. The torque obtained depends on:

- Air pressure.
- Tightening time on the actual joint.

These factors should be considered when choosing an impact wrench.

As a general rule, if a wrench impacts longer than 5 seconds on a fastener, a larger wrench should be used or a shorter life will result.

This guide will assist you in recommending an impact wrench for a specific application.



	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	LMS06	LMS17	LMS17	LMS27	LMS37	LMS37	LMS47	LMS57	LMS57	LMS61	LMS61	LMS64	LMS86	LMS86	LMS86	LMS86
	LMS06	LMS17	LMS27	LMS37	LMS37	LMS47	LMS57	LMS57	LMS57	LMS64	LMS64	LMS64	LMS86			
LTS		LTS17	LTS17	LTS27	LTS27	LTS37	LTS57	LTS57	LTS57							
		LTS17	LTS17	LTS37	LTS37	LTS37	LTS57	LTS57								
	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	LMS06	LMS17	LMS27	LMS27	LMS37	LMS37	LMS47	LMS57	LMS61	LMS61	LMS64	LMS86	LMS86	LMS86	LMS86	
	LMS17	LMS17	LMS27	LMS37	LMS47	LMS47	LMS57	LMS61	LMS64	LMS64	LMS86					
LTS		LTS17	LTS17	LTS27	LTS37	LTS57	LTS57	LTS57								
		LTS17	LTS27	LTS37	LTS37	LTS57	LTS57									
	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	LMS06	LMS17	LMS27	LMS27	LMS37	LMS47	LMS57	LMS61	LMS61	LMS64	LMS86	LMS86	LMS86	LMS86		
	LMS17	LMS17	LMS27	LMS37	LMS47	LMS57	LMS61	LMS64	LMS64	LMS86						
LTS		LTS17	LTS17	LTS27	LTS37	LTS57	LTS57									
		LTS17	LTS27	LTS37	LTS57	LTS57										

■ = 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.

IMPACT WRENCHES

Non shut-off type – Reversible

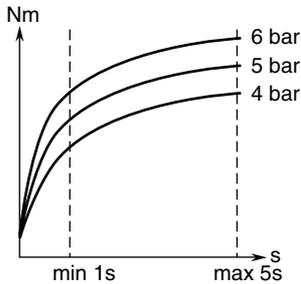
LMS06 –LMS37

Atlas Copco series of impact wrenches are designed for the toughest conditions. They are built to provide the ultimate in dependability and a long, trouble-free service life. There is nothing that matches the Atlas Copco impact wrench when it comes to flexibility, capacity-to-weight ratio and simplicity in use and maintenance.

- ❑ Fast tightening and disassembly.
- ❑ Wide torque range (7-480 Nm).
- ❑ Low weight.
- ❑ Negligible reaction force.
- ❑ Soft-start throttle.
- ❑ LMS06 – LMS27 are lubrication-free.



LMS Operating Range



The tightening time should not exceed 5 seconds, to avoid excess wear of the tool.

Model	Bolt capacity mm	Square drive size in	Recommended torque range		Max. torque Nm	Impacts per min	Free speed r/min	Weight		Length excl anvil mm	Air consumption under load		Recommended hose size mm	Distance centre to side mm	Ordering No.
			Nm	ft lb				kg	lb		l/s	cfm			
LMS06 SR10	6-8	3/8	7- 30	5- 22	55	2100	12500	0.9	2.0	182	4	8	6.3	20	8434 1060 12
LMS06 HR10	6-8	3/8	7- 30	5- 22	55	2100	13500	0.9	2.0	184	4	8	6.3	20	8434 1060 04*
LMS06 HR10-HD	6-8	3/8	7- 30	5- 22	55	2100	10000	0.9	2.0	184	4	8	6.3	20	8434 1060 08
LMS06 HR42	6-8	1/4 ^a	7- 30	5- 22	55	2100	13500	0.9	2.0	184	4	8	6.3	20	8434 1060 20
LMS06 HR42-HD	6-8	1/4 ^a	7- 30	5- 22	55	2100	10000	0.9	2.0	184	4	8	6.3	20	8434 1060 16
LMS17 HR10	10	3/8	10- 70	7- 52	110	1260	10000	1.7	3.8	141	10	21	10.0	24	8434 1170 60
LMS17 HR13	10	1/2	10- 70	7- 52	110	1260	10000	1.7	3.8	141	10	21	10.0	24	8434 1170 29
LMS27 HR13	12	1/2	30-180	22-133	220	1200	8700	2.1	4.6	142	10	21	10.0	29	8434 1270 02*
LMS27 HR43	12	7/16 ^a	30-180	22-133	220	1200	8700	2.1	4.6	142	10	21	10.0	29	8434 1270 77
LMS37 HR13	14-16	1/2	40-340	30-251	480	1200	7800	2.7	6.0	165	13	27	10.0	33	8434 1360 41*
LMS37 HR16	14-16	5/8	40-340	30-251	480	1200	7800	2.7	6.0	165	13	27	10.0	33	8434 1370 01

^a Female hex. quick change chuck.

Air inlet thread inch: LMS06 = 1/4", LMS17, LMS27 and LMS37 = 3/8".

* Basic tools of the range, cover most needs.

HD = Suitable for soft joints.

ACCESSORIES INCLUDED

Silenced air exhaust through handle
Hose fitting

OPTIONAL ACCESSORIES

Page 16-17



SELECTED SERVICE KITS

Page 17

IMPACT WRENCHES

Non shut-off type – Reversible

LMS47 –LMS86

These tools provide enormous power, yet you are in full control, and there is virtually no reaction force during tightening. The torque is applied to the joint, not your wrist. All Atlas Copco impact wrenches have a wide torque range, so each tool can be adjusted to handle many applications.

- Fast tightening and disassembly.
- Wide torque range (70-10000 Nm).
- Low weight.
- Negligible reaction force.
- Soft-start throttle.



Model	Bolt capacity mm	Square drive size in	Recommended torque range		Max. torque Nm	Impacts per min	Free speed r/min	Weight		Length excl anvil mm	Air consumption under load		Recommended hose size mm	Distance centre to side mm	Ordering No.
			Nm	ft lb				kg	lb		l/s	cfm			
LMS47 HR20	16-19	3/4	70- 460	52- 339	550	900	4800	3.5	7.7	170	14	30	12.5	37	8434 1470 42
LMS57 HR20	18-20	3/4	100- 500	74- 369	900	960	4500	4.3	9.5	189	16	34	12.5	38	8434 1570 09*
LMS57 HR25	18-22	1	100- 650	74- 479	900	960	4500	4.3	9.5	189	16	34	12.5	38	8434 1570 41
LMS61 HR20	20-24	3/4	300-1300	220- 960	1800	900	4000	5.1	11.2	212	12	25	12.5	44	8434 1611 00
LMS61 HR25	20-24	1	300-1300	220- 960	1800	900	4000	5.1	11.2	212	12	25	12.5	44	8434 1610 00
LMS61 HRS4	20-24	1 1/4 ^b	300-1300	220- 960	1800	900	4000	5.1	11.2	212	12	25	12.5	44	8434 1612 00
LMS64 HR25	24-32	1	400-1400	295-1030	2300	600	3100	9.0	20.0	195	21	44	12.5	57	8434 1640 03
LMS64 GR25	24-32	1	400-1400	295-1030	2300	600	3100	9.0	20.0	280	21	44	12.5	57	8434 1641 02*
LMS64 S GR25	24-32	1	400-1500	295-1100	2300	620	3380	9.0	20.0	280	35	73	12.5	57	8434 1641 06
LMS64 GRS5	24-32	1 5/8 ^a	400-1400	295-1030	2300	600	3100	9.0	20.0	280	21	44	12.5	57	8434 1641 44
LMS64 S GRS5	24-32	1 5/8 ^a	400-1500	295-1100	2300	620	3380	9.0	20.0	280	35	73	12.5	57	8434 1641 08
LMS86 GOR38	32-45	1 1/2	1000-5000	737-3688	10000	450	3720	16.4	36.0	376	29	61	16.0	63	8434 1860 14
LMS86 GIR38	32-45	1 1/2	1000-5000	737-3688	10000	450	3720	16.4	36.0	376	29	61	16.0	63	8434 1860 22*
LMS86 GORS5	32-45	1 5/8 ^a	1000-5000	737-3688	10000	450	3720	16.4	36.0	376	29	61	16.0	63	8434 1860 16
LMS86 GIRS5	32-45	1 5/8 ^a	1000-5000	737-3688	10000	450	3720	16.4	36.0	376	29	61	16.0	63	8434 1860 24

^a Spline drive No. 5.

^b Spline drive No. 4.

* Basic tools of the range, cover most needs.

GOR = Outside trigger

GR/GIR = Inside trigger

Air inlet thread inch: LMS47, LMS57 and LMS61 = 3/8", LMS64 and LMS86 = 1/2".

ACCESSORIES INCLUDED

Silenced air exhaust through handle (LMS47/57/61)

Hose fitting

OPTIONAL ACCESSORIES



SELECTED SERVICE KITS

IMPACT WRENCHES

Shut-off type –Torsion bar principle

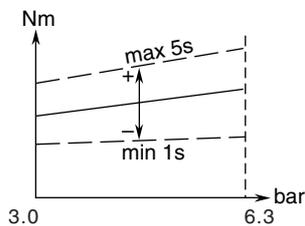
LTS17 –LTS27

Equipped with automatic shut-off, the LTS models provide a perfect result, every time. This means proper tightening with less risk for over-tightening due to operator influence, improving joint quality as well as operator confidence.

- ❑ Automatic shut-off shortens tightening time.
- ❑ Consistent torque accuracy.
- ❑ No over-torquing.
- ❑ Low weight.
- ❑ Adjustable torque settings (22-165 Nm).
- ❑ LTS17 and LTS27 are lubrication-free.

The purpose of the torsion bar principle is to increase the bounce angle of the impact mechanism. The tool shuts off once it has reached the pre-set bounce angle.

LTS Adjustment Range



The tightening time should not exceed 5 seconds, to avoid excess wear of the tool.



Model	Bolt capacity mm	Square drive size in	Recommended torque range		Impacts per min	Free speed r/min	Weight		Length excl anvil mm	Air consumption under load		Air inlet thread in	Recommended hose size mm	Distance centre to side mm	Ordering No.
			Nm	ft lb			kg	lb		l/s	cfm				
LTS17 HR10	8-10	3/8	22 ^b - 45	16- 33	960	10000	2.0	4.4	214	6	13	3/8	8	24	8434 1172 19
LTS17 HR13	8-10	1/2	34 ^b - 66	25- 49	1100	10000	2.0	4.4	214	6	13	3/8	8	24	8434 1172 01*
LTS27 HR13-1	10-12	1/2	50 ^b -110	37- 82	960	9300	2.6	5.7	226	6	13	3/8	10	29	8434 1272 00
LTS27 HR13-2	12-14	1/2	70 ^b -140	52-104	1100	9300	2.6	5.7	226	8	17	3/8	10	29	8434 1272 18
LTS27 HR43	10-14	7/16 ^a	40 ^b -165	29-123	1200	11500	2.5	5.5	164	8	17	3/8	10	29	8434 1272 59*

^a Female hex. quick change chuck – 1/2" square drive on torsion bar.

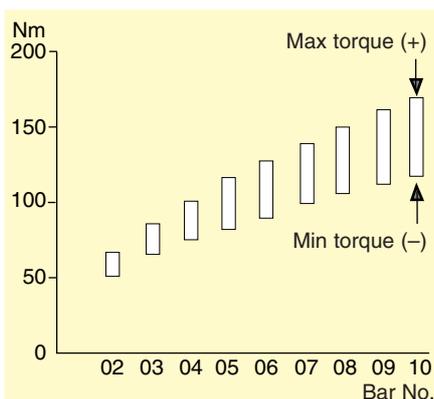
^b Min torque at 3 bar air pressure and min setting of torque control mechanism.

* Basic tools of the range, cover most needs.

ACCESSORIES INCLUDED

Silenced air exhaust through handle
 Hose fitting
 Torsion bar No. 06 LTS27 HR43
 Adjusting key LTS17 and LTS27

LTS17 and -27 torsion bar – bounce angle shut-off



LTS27 HR43

Female hexagon quick-change chuck for separate torsion bars with 1/2" square drive. The design is specially suitable for the tightening of different bolt sizes at the same work place.

LTS17, -27 HR13 (10) built-in torsion bar

The anvil of the impact mechanism is extended with a built-in torsion bar to increase accuracy and reduce vibration level. These types are designed for frequent tightening of the same bolt size.

Torsion bar No.	Torque Nm	Ordering No.	Colour of bar
02	60	4250 1230 82	orange
03	75	4250 1230 83	yellow
04	90	4250 1230 84	green
05	100	4250 1230 85	blue
06	115	4250 1230 86	red (Standard)
07	125	4250 1230 87	orange
08	140	4250 1230 88	yellow
09	150	4250 1230 89	green
10	165	4250 1230 90	blue

Valid at 6 bar air pressure

IMPACT WRENCHES

Shut-off type – Added bounce energy principle

LTS37 –LTS57

LTS shut-off tools automatically shut off when the preset torque is reached, eliminating the need for guesswork. Place the tool on the joint to be fastened and press the trigger. The tool will automatically shut-off at a predetermined torque level, which provides for an operator independent tightening.

- Automatic shut-off shortens tightening time.
- Consistent torque accuracy.
- No over-torquing.
- Low weight.
- Adjustable torque settings (80-650 Nm).

The purpose of the added bounce energy principle is that the energy content of each impact is added to the next and following impact until the preset level is reached and the tool shuts off.



Model	Bolt capacity mm	Square drive size in	Recommended torque range		Impacts per min	Free speed r/min	Weight		Length excl anvil mm	Air consumption under load		Air inlet thread in	Recommended hose size mm	Distance centre to side mm	Ordering No.	
			Nm	ft lb			kg	lb		l/s	cfm					
LTS37 HR13	12-14	1/2	80 ^a -340	59-250	1140	8800	3.7	8.1	200	10	21	3/8	10	33	8434 1372	41*
LTS37 HR16	12-16	5/8	120 ^a -340	88-250	1140	8800	3.7	8.1	220	10	21	3/8	10	33	8434 1372	09
LTS57 HR20	18-20	3/4	200 ^a -500	147-369	960	4600	5.3	12.0	225	13	27	3/8	10	38	8434 1571	08
LTS57 HR25	18-22	1	200 ^a -650	147-479	960	4600	5.3	12.0	225	13	27	3/8	10	38	8434 1571	40*

^a Min torque at 4 bar air pressure and min setting of torque control mechanism.

* Basic tools of the range, cover most needs.

OPTIONAL ACCESSORIES

Extended anvils



Model	Dimensions		Ordering No.
	Drive size in	Extension mm	
Extended square drive anvil for			
LMS17	1/2	75	4250 1147 80 ^{ab}
LMS27	1/2	75	4250 1085 80 ^{ab}
LMS27	1/2	150	4250 1086 80 ^{ab}
LMS37/LTS37	1/2	75	4250 1031 80 ^{ab}
LMS37/LTS37	1/2	150	4250 1032 80 ^{ab}
LMS37/LTS37	5/8	75	4250 1034 80 ^{ab}
LMS37/LTS37	5/8	150	4250 1035 80 ^{ab}
LMS47/LTS47	3/4	75	4250 1208 00
LMS47/LTS47	3/4	150	4250 1209 00
LMS57/LTS57	3/4	75	4250 1109 00
LMS57/LTS57	3/4	150	4250 1110 00
LMS57/LTS57	3/4	200	4250 1111 00
LMS57/LTS57	1	75	4250 1113 00
LMS57/LTS57	1	150	4250 1114 00
LMS64	1	80	4250 0774 00
LMS64	1	160	4250 0775 00
Spline type anvil for			
LMS64	1 5/8-14	-	4250 0967 80
Heavy duty anvil (thru hole) for			
LMS37/LTS37	1/2	80	4250 1041 01

Quick change chuck



Model	Dimensions		Ordering No.
	Drive size in	Extension mm	
Anvil with female hexagon quick change chuck for			
LMS06	1/4	-	4250 1513 80
LMS17	7/16	-	4250 1154 80
LMS27	7/16	-	4250 1088 80
LMS37	7/16	-	4250 1050 80 ^c

Ordering No.

^a Retainer pin – locking type 4250 0851 00

^b Retainer pin – quick change type 4250 1190 00

^c NOTE: To be used together with reversing valve 4250 1345 95 (marked "1") only.

Socket holders



Model	Drive size in	Length mm	Ordering No.	
Tool holder with square drive, for 7/16" quick change chuck, for				
LMS17,-27	3/8	75	4023 1210	03
	1/2	75	4023 1211	03



SELECTED SERVICE KITS

Page 17

ACCESSORIES

Suspension yokes



Model	Ordering No.		
	Horizontal	Vertical	Swivelling
LMS06 HR	-	-	4210 0243 00
LMS17	-	-	4250 1365 00
LMS27	4250 0872 00	4250 1159 00	-
LMS37	4250 0872 00	4250 1058 00	-
LMS47	4250 0872 00	4250 1327 00	-
LMS57	4250 0872 00	4250 1160 00	-
LMS61	4250 0872 00	4250 1620 90	-
LMS64	4250 0677 80	-	-
LMS86	0371 1102 00	-	-
LTS17	-	-	4250 1365 00
LTS27	4250 0872 00	-	4250 1365 00
LTS37	4250 0872 00	-	4250 1253 00
LTS57	4250 0872 00	-	4250 1283 00

Protective covers



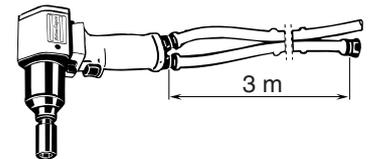
Model	Ordering No.
LMS17	4250 1503 00
LMS27	4250 1273 00
LMS37	4250 1213 00
LMS47	4250 1338 00
LMS57	4250 1282 00
LMS61	4250 2464 00
LMS64	4250 0828 00
LTS17	4250 1410 00
LTS27 HR13	4250 1411 00
LTS27 HR43	4250 1340 00
LTS37	4250 1337 00
LTS57	4250 1339 00

Power regulators



Model	Ordering No.
Power regulator valve for	
LMS17/LTS17	4250 1091 90
LMS27/LTS27	4250 1091 91
LMS37/LTS37	4250 1091 92
LMS47	4250 1091 93
LMS57/LTS57	4250 1091 94
LTS17	4250 1091 87
LTS27	4250 1091 86
LTS37	4250 1091 85
LTS57	4250 1091 88

Exhaust kit



Model	Ordering No.
Piped-away exhaust kit for	
LMS06 HR	4210 2052 00
LMS17,-27,-37,-47,-57, LTS17,-27,-37,-57	4250 1366 90



SELECTED 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
LMS06	4081 0008 90
LMS06 SR	4081 0168 90
LMS17/LTS17	4081 0204 90
LMS27/LTS27	4081 0205 90
LMS37/LTS37	4081 0206 90
LMS47	4081 0207 90
LMS57/LTS57	4081 0208 90
LMS61	4081 0257 90
LMS64	4081 0015 90
LMS86	4081 0016 90

ERGOPULSE

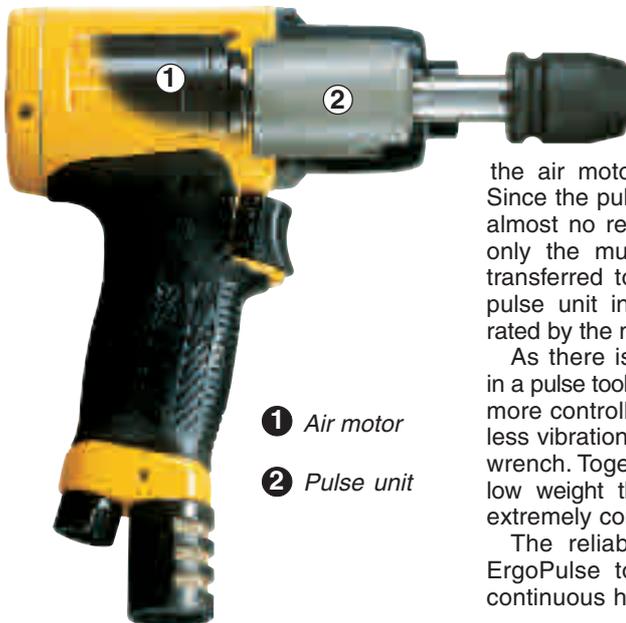
Hydraulic impulse nutrunners

The successful combination of high productivity and good working environment.

- ❑ **Productivity** –Very high speed means short cycle times for hard to semi-soft joints.
- ❑ **Accuracy** –High torque independent of joint stiffness gives high joint quality.
- ❑ **Reliability** –Long service life with simple maintenance requirements.
- ❑ **Ergonomics:**
 - Virtually no reaction forces.
 - Low noise and vibration levels.
 - Low weight.
 - Lubrication-free.



The successful combination of high productivity and good working environment



- 1 Air motor
- 2 Pulse unit

The ErgoPulse principle

The heart of a pulse tool is the hydraulic pulse unit, positioned between the air motor and the outgoing shaft. 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. The pulse unit increases the torque generated by the motor 50-100 times!

As there is no metal-to-metal impact in a pulse tool, pulse tools provide a softer, more controlled pulse with considerably less vibrations and noise than an impact wrench. Together with good balance and low weight the result is a tool that is extremely comfortable to operate.

The reliability and accuracy of the ErgoPulse tools make them ideal for continuous heavy production.

A complete range

The ErgoPulse range covers torque from 2-450 Nm which means that you can tighten screws from M4 to M20.

ErgoPulse tools are available in both shut-off and non shut-off versions. The shut-off pulse tools –PT, PTS and PTX types – will shut-off the air supply as soon as the pre-set torque has been reached. With a shut-off tool the operator influence is minimized. The result is increased accuracy and faster tightening. The non shut-off tools –C and XS types – produce pulses until the operator releases the trigger. They are preferred in applications where it is an advantage for the operator to be able to control the process by shutting off the tool manually.

Atlas Copcos pulse tools are available in straight and pistol grip versions.

ERGOPULSE

Shut-off type

PT/PTS/PTX torque sensing shut-off system – an active part of the tightening process

The ErgoPulse PT, PTS and PTX nut-runners incorporate a shut-off system based on retardation instead of timers or bypass valves. Torque is “sensed” by means of a rotatable inertial mass acting against an adjustable spring. When the force of the mass is sufficient to overcome the preset force in the spring, a lock pin releases a disc valve to shut off the air supply. The result is a highly accurate and easily adjustable shut-off system.

A pulse mechanism with pistons for minimum weight and long service life

The ErgoPulse PT/PTS/PTX pulse unit features a more efficient transfer of the impulse energy. 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.

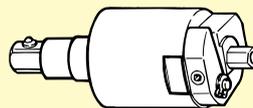
The unique piston principle makes the PT/PTS/PTX tools extremely light.

Twin chamber motor

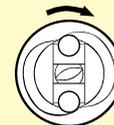
The ErgoPulse PT, PTS and PTX nut-runners have a twin chamber vane motor. It is designed for giving high torque at low speed, which gives the best characteristics for fast, reliable and accurate tightening.



PT, PTS and PTX pulse unit and shut-off system



Twin piston mechanism



Twin chamber motor



TRIM valve for enhanced performance on hard joints and at low torque levels

The PT, PTS and PTX tools incorporate a patented adjustable valve at the air outlet. This feature enhances the tool's performance on hard joints and at low torque levels.

The PTS/PTX-RE tools are reporting as standard. This means that they supply an air signal that can be connected to a RE-Controller to count the number of tightenings and to detect premature shut-off and rehits.

AUTOTRIM valve, the optimal solution for mixed hard and soft joints

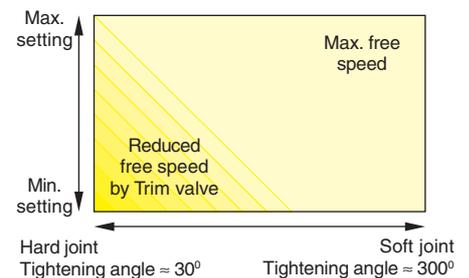
The PTS/PTX-AT tools are equipped with an automatic two-stage Trim valve. The tool runs down the screw with reduced free speed. After 1-2 pulses it shifts automatically to full power thus enabling both hard and soft joints to be tightened with excellent result without any adjustments.

The PTS/PTX-AT tools can also be used for reporting applications.

Recommended operating area

Max recommended tightening time for a pulse tool is 3 seconds. Longer time indicates that the joint is too soft for the tool used. If so, it is recommended to choose a bigger size of tool or another type of nutrunner.

Minimum recommended number of pulses per tightening is 5. Fewer pulses will result in increased scatter. By reducing the free speed with the TRIM valve (PT/PTS/PTX) there will be more pulses per tightening and improved accuracy.



ERGOPULSE

Shut-off type

Bolt capacity M6 –M20

- Safer joints and fewer after-checks.
- Fast and accurate tightening.
- Minimum operator fatigue.
- Independence of operator influence.



- 1 Twin chamber air motor.
- 2 Pulse unit with cam-guided pistons and rollers.
- 3 Patented shut-off system with inertia body.
- 4 Silencer with TRIM or AUTOTRIM valve.



ErgoPulse PTS

- The PTS/PTX-RE tools are reporting as standard. You connect an air signal hose to the Trim valve. With the air signal hose connected to a monitoring instrument you can count the number of approved tightenings and detect premature shut-off, rehits and other irregularities.
- The PTS/PTX AUTOTRIM 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

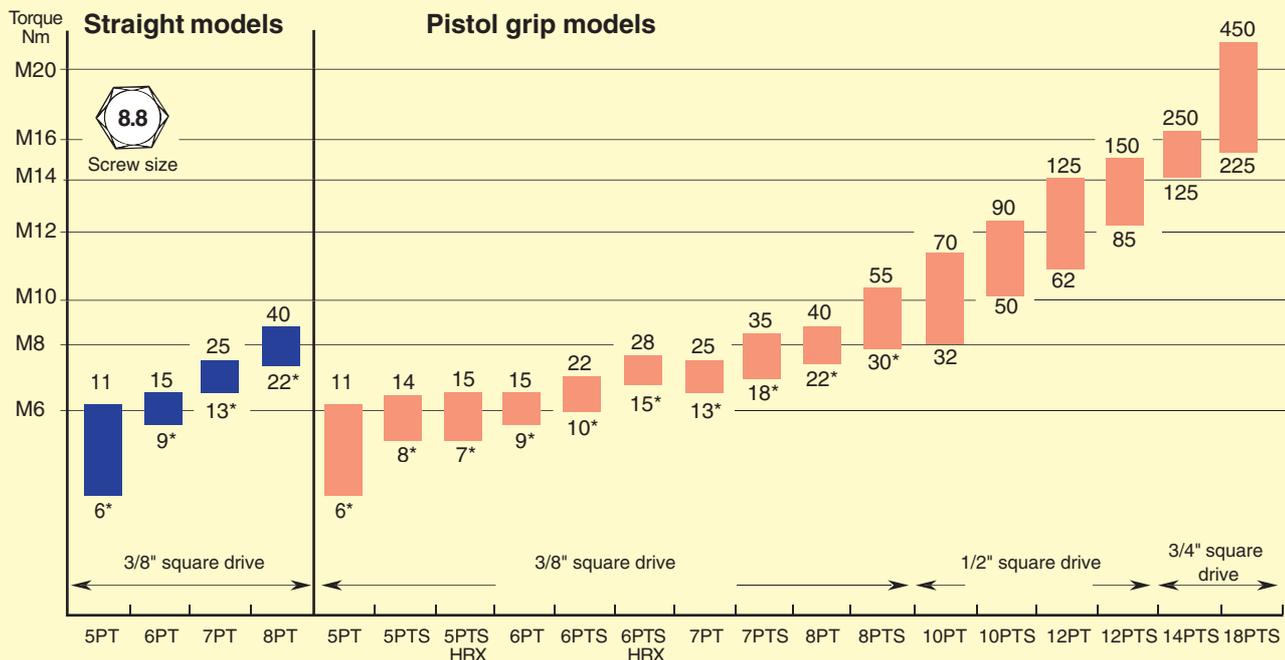
soft joints to be tightened with excellent result. Old PTS-RE tools can be retrofitted with AUTOTRIM valves by replacing the existing Trim valve, see page 22. The PTS/PTX-AT tools are reporting as standard.

ErgoPulse PTS-HRF

- The new Air on Top versions give you full flexibility, either you 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. The Air on Top is ideal for work stations.

SELECTION GUIDE

The ErgoPulse PT and PTS 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.



* For tools with quick change chuck, see technical data.

ERGOPULSE

Shut-off type

Model	Bolt size mm	Square drive size in	Recommended torque range ^a		Free speed r/min	Weight		Length mm	Dis- tance centre to side mm	Air con- sumption under load		Recom- mended hose size mm	Air inlet thread in	Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm				
Straight models. ErgoPulse 5-8PT															
EP5PT SR42	M6	1/4 ^b	5 - 10	4 - 7	5000 ^c	0.9	1.9	212	21	6	13	8	1/4	74	8431 0368 02
EP5PT SR10	M6	3/8	6 - 11	4 - 8	5000 ^c	0.9	1.9	208	21	6	13	8	1/4	74	8431 0368 00
EP6PT SR42	M6	1/4 ^b	8 - 14	6 - 10	6000 ^c	0.9	2.0	212	21	6	13	8	1/4	74	8431 0368 12
EP6PT SR10	M6	3/8	9 - 15	7 - 11	6000 ^c	0.9	2.0	208	21	6	13	8	1/4	74	8431 0368 08
EP7PT SR42	M8	1/4 ^b	12 - 23	9 - 17	4500 ^c	1.2	2.5	240	25	7	15	8	1/4	78	8431 0368 37
EP7PT SR10	M8	3/8	13 - 25	10 - 18	4500 ^c	1.2	2.5	236	25	7	15	8	1/4	78	8431 0368 31
EP8PT SR42	M8	1/4 ^b	20 - 35	15 - 26	6000 ^c	1.2	2.6	240	25	8	17	8	1/4	78	8431 0367 90
EP8PT SR10	M8	3/8	22 - 40	16 - 29	6000 ^c	1.2	2.6	236	25	8	17	8	1/4	78	8431 0367 80
Pistol grip models. ErgoPulse 5-12PT															
EP5PT HR42	M6	1/4 ^b	5 - 10	4 - 7	5500 ^c	0.95	2.1	205	21	6	13	8	1/4	74	8431 0368 05
EP5PT HR10	M6	3/8	6 - 11	4 - 8	5500 ^c	0.95	2.1	200	21	6	13	8	1/4	74	8431 0368 04
EP6PT HR42	M6	1/4 ^b	8 - 14	6 - 10	6000 ^c	1.0	2.2	205	21	6	13	8	1/4	74	8431 0368 23
EP6PT HR10	M6	3/8	9 - 15	7 - 11	6000 ^c	1.0	2.2	200	21	6	13	8	1/4	74	8431 0368 16
EP7PT HR42	M8	1/4 ^b	12 - 23	9 - 17	4500 ^c	1.3	2.9	175	26	7	15	8	1/4	77	8431 0368 36
EP7PT HR10	M8	3/8	13 - 25	10 - 18	4500 ^c	1.3	2.9	177	26	7	15	8	1/4	77	8431 0368 30
EP8PT HR42	M8	1/4 ^b	20 - 35	15 - 26	6000 ^c	1.4	3.0	175	26	8	17	8	1/4	77	8431 0367 94
EP8PT HR10	M8	3/8	22 - 40	16 - 29	6000 ^c	1.4	3.0	177	26	8	17	8	1/4	77	8431 0367 85
EP10PT HR13	M10	1/2	32 - 70	24 - 51	4000 ^c	1.8	4.0	192	29	10	21	10	1/4	81	8431 0367 66
EP12PT HR13	M12	1/2	62 - 125	46 - 92	3500 ^c	2.4	5.3	201	34	12	25	10	1/4	81	8431 0368 40
TRIM-RE															
Pistol grip models. ErgoPulse 5-6PTS^d															
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	74	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	74	8431 0374 00
EP6PTS20 HR42-RE	M6	1/4 ^b	8 - 20	6 - 15	7300 ^c	1.0	2.2	196	21	7	15	8	1/4	74	8431 0374 15
EP6PTS22 HR10-RE	M6	3/8	10 - 22	7 - 16	7300 ^c	1.0	2.2	191	21	7	15	8	1/4	74	8431 0374 20
Pistol grip models. Balanced grip. ErgoPulse 5-18PTS^d															
EP7PTS30 HR42-RE	M8	1/4 ^b	16 - 31	12 - 23	5700 ^c	1.4	3.0	175	26	8	17	10	1/4	77	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	77	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	77	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	77	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	83	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	83	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	82	8431 0374 95
EP18PTS450 HR20-RE	M16-M20	3/4	225 - 450	166 - 332	3000 ^c	4.3	9.5	202	42	22	46	13	3/8	85	8431 0374 98
Pistol grip. Air on top models. ErgoPulse 7-10PTS															
EP7PTS35 HRF10-RE	M8	3/8	18 - 35	13 - 26	5700 ^c	1.4	3.0	176	31	8	17	10	1/4	77	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	77	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	81	8431 0374 81
AUTOTRIM															
Pistol grip models. ErgoPulse 6PTS															
EP6PTS20 HR42-AT	M6	1/4 ^b	8 - 20	6 - 15	3600 ^e	1.0	2.2	196	21	7	15	8	1/4	74	8431 0374 16
EP6PTS22 HR10-AT	M6	3/8	10 - 22	7 - 16	3600 ^e	1.0	2.2	191	21	7	15	8	1/4	74	8431 0374 21
Pistol grip models. Balanced grip. ErgoPulse 5-18PTS^d															
EP7PTS30 HR42-AT	M8	1/4 ^b	16 - 31	12 - 23	3600 ^e	1.4	3.0	175	26	8	17	10	1/4	77	8431 0374 37
EP7PTS35 HR10-AT	M8	3/8	18 - 35	13 - 26	3600 ^e	1.4	3.0	176	26	8	17	10	1/4	77	8431 0374 42
EP8PTS40 HR42-AT	M8	1/4 ^b	22 - 40	16 - 29	4000 ^e	1.4	3.0	175	26	9	19	10	1/4	77	8431 0374 57
EP8PTS55 HR10-AT	M8-10	3/8	30 - 55	22 - 40	4000 ^e	1.4	3.0	176	26	9	19	10	1/4	77	8431 0374 62
EP10PTS90 HR13-AT	M10-12	1/2	50 - 90	37 - 66	3400 ^e	1.8	4.0	193	29	11	23	10	1/4	83	8431 0374 82
EP12PTS150 HR13-AT	M12-14	1/2	85 - 150	63 - 110	2800 ^e	2.5	5.5	201	34	13	27	13	3/8	83	8431 0374 92
EP14PTS250 HR20-AT	M12-16	3/4	125 - 250	92 - 185	2200 ^e	3.3	7.2	216	37	20	42	13	3/8	82	8431 0374 97
EP18PTS450 HR20-AT	M16-20	3/4	225 - 450	166 - 332	1900 ^e	4.3	9.5	202	42	22	46	13	3/8	85	8431 0374 99
Pistol grip. Air on top models. ErgoPulse 7-10PTS															
EP7PTS35 HRF10-AT	M8	3/8	18 - 35	13 - 26	3600 ^e	1.4	3.0	176	31	8	17	10	1/4	77	8431 0374 43
EP8PTS55 HRF10-AT	M8-10	3/8	30 - 55	22 - 40	4000 ^e	1.4	3.0	176	31	9	19	10	1/4	77	8431 0374 63
EP10PTS90 HRF13-AT	M10-12	1/2	50 - 90	37 - 66	3400 ^e	1.8	4.0	193	34	11	23	10	1/4	81	8431 0374 83

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

^b Female hexagon drive. Quick change chuck.

^c With TRIM valve fully open.

^d Approximate maximum torque included in designation.

^e In reduced speed mode.

ERGOPULSE

Shut-off type

ErgoPulse PTX

The new ErgoPulse PTX series is intended for applications where weight is critical. The PTX tools are based on the well-proven technology from ErgoPulse PTS. They are available in both Trim and AutoTrim versions. AutoTrim is recommended for applications where same tool is used both for hard and soft joints.



Model	Screw size mm	Square drive size in	Recommended torque range ^a		Free speed approx. r/min	Weight		Length mm	Distance centre to side mm	Air consumption under load		Recommended hose size mm	Air inlet thread in	Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb			l/s	cfm				
Trim-RE Pistol grip															
EP5PTX17 HR42-RE	M6	1/4 ^b	7 - 17	5 - 13	6500 ^c	0.88	1.9	164	22	7	15	8	1/4	74	8431 0375 00
EP5PTX19 HR10-RE	M6	3/8	8 - 19	6 - 14	6500 ^c	0.88	1.9	164	22	7	15	8	1/4	74	8431 0375 04
EP6PTX28 HR42-RE	M6-M8	1/4 ^b	15 - 28	11 - 21	8500 ^c	0.92	2.0	164	22	7	15	8	1/4	74	8431 0375 10
EP6PTX32 HR10-RE	M6-M8	3/8	16 - 32	12 - 23	8500 ^c	0.92	2.0	164	22	7	15	8	1/4	74	8431 0375 20
EP7PTX55 HR10-RE	M8-M10	3/8	30 - 55	22 - 40	7300 ^c	1.14	2.5	176	25	9	19	10	1/4	77	8431 0375 30
EP9PTX80 HR13-RE	M10	1/2	50 - 80	37 - 59	5300 ^c	1.50	3.3	188	29	11	23	10	1/4	83	8431 0375 40
AutoTrim Pistol grip															
EP5PTX17 HR42-AT	M6	1/4 ^b	7 - 17	5 - 13	3600 ^d	0.91	2.0	164	22	7	15	8	1/4	74	8431 0375 02
EP5PTX19 HR10-AT	M6	3/8	7 - 17	5 - 13	3600 ^d	0.91	2.0	164	22	7	15	8	1/4	74	8431 0375 06
EP6PTX28 HR10-AT	M6-M8	1/4 ^b	15 - 28	11 - 21	3600 ^d	0.95	2.0	164	22	7	15	8	1/4	74	8431 0375 12
EP6PTX32 HR10-AT	M6-M8	3/8	16 - 32	12 - 23	3600 ^d	0.95	2.0	164	22	7	15	8	1/4	74	8431 0375 22
EP7PTX55 HR10-AT	M8-M10	3/8	30 - 55	22 - 40	3900 ^d	1.16	2.5	176	25	9	19	10	1/4	77	8431 0375 32
EP9PTX80 HR13-AT	M10	1/2	50 - 80	37 - 59	3400 ^d	1.53	3.4	188	29	11	23	10	1/4	83	8431 0375 42

^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 reduced speed mode.

OPTIONAL ACCESSORIES

Protective covers for ErgoPulse PTX

Model	Ordering No.
EP5/6PTX	4250 2465 00
EP7PTX	4250 2466 00
EP9PTX	4250 2467 00

AUTOTRIM valves for ErgoPulse PTS/PTX-RE

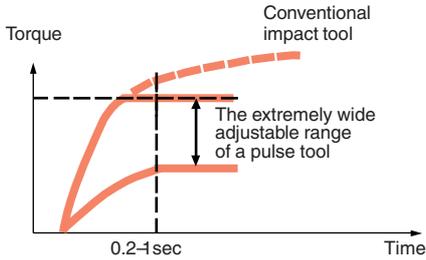
Model	Ordering No.
EP5/6PTS/PTX	4250 1878 90
EP7/8PTS/PTX	4250 1878 91
EP10PTS/9PTX	4250 1878 92
EP12PTS	4250 1878 93
EP14PTS	4250 1878 94
EP18PTS	4250 1878 95

ERGOPULSE

Non shut-off type

Bolt capacity M4 –M20

- Fast and accurate tightening.
- Low weight and small dimensions.



Twin chamber motor

The ErgoPulse XS nutrunners have a twin chamber vane motor. It is designed for giving high torque at low speed, which provides the best characteristics for fast, reliable and accurate tightening.

Pulse mechanisms with one, two or three blades

The ErgoPulse non shut-off tools are equipped with pulse units with one (C-tools), two (XS up to size 8) or three blades (XS from size 10). The double and triple blade pulse units use the Atlas Copco patented cam-guided design to push out the blades, giving a very high reliability. These 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, which gives possibilities for most accurate adjustment of the tightening torque of the tool.

ErgoPulse 6PS

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

Single-bladed pulse unit



Twin-bladed pulse unit



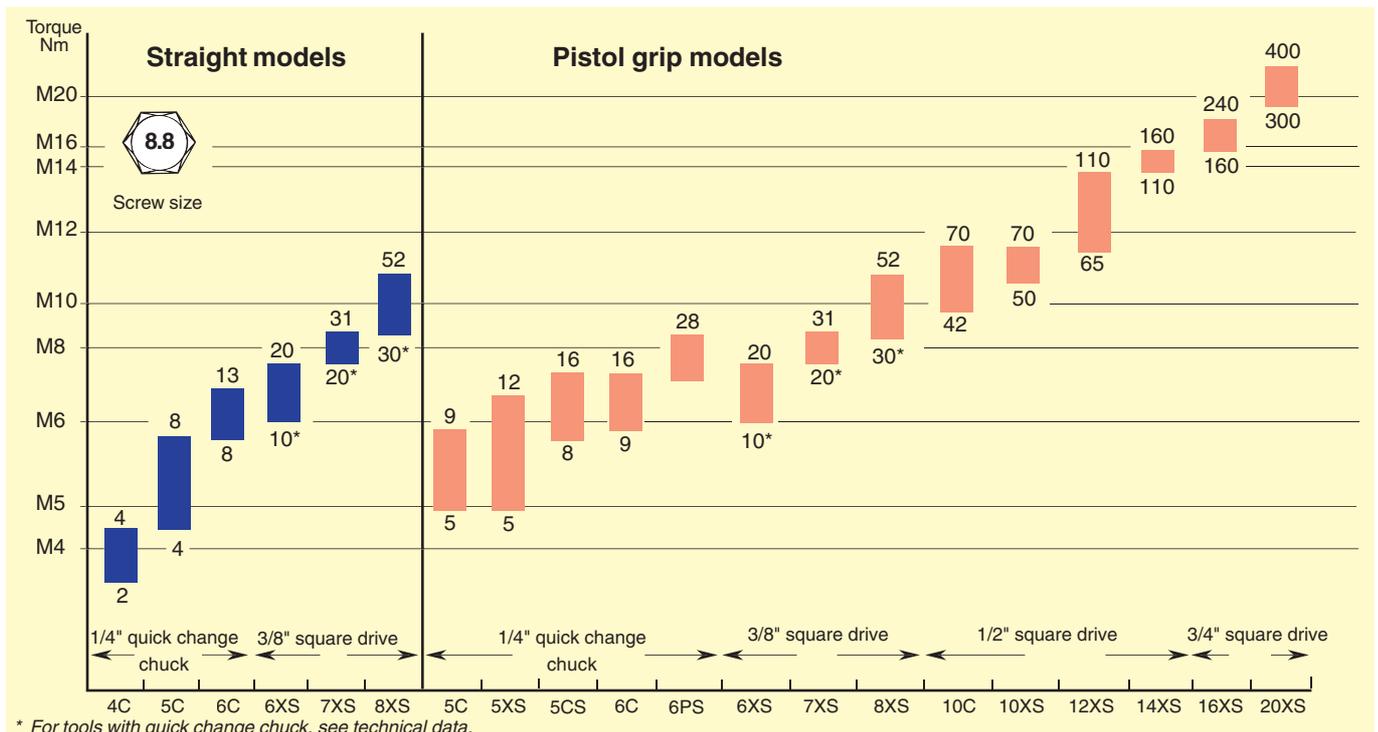
Twin-bladed pulse unit



Camshaft guiding the blades

SELECTION GUIDE

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.



ERGOPULSE

Non shut-off type

Model	Bolt size mm	Square drive size in	Recommended torque range ^a		Free speed r/min	Weight		Length mm	Dis- tance centre to side mm	Air consumption under load		Recom- mended hose size mm	Air inlet thread in	Sound level ^b dB(A)	Ordering No.	
			Nm	ft lb		kg	lb			l/s	cfm					
Air on top models																
EP5C HRF42	M5	1/4 ^c	5 - 9	4 - 7	4800	1.1	2.4	201	25	6	13	8	1/4	70	8431 0260	23
EP6C HRF42	M6	1/4 ^c	9 - 16	7 - 12	4800	1.2	2.6	226	25	6	13	8	1/4	70	8431 0260	30
EP8X HRF42	M8	1/4 ^c	18 - 30	13 - 22	9000	1.2	2.6	184	25	6	13	8	1/4	70	8431 0360	97
EP8X HRF10	M8	3/8	20 - 35	15 - 26	9000	1.2	2.6	184	25	6	13	8	1/4	77	8431 0360	89
Straight models																
EP4C SR42	M4	1/4 ^c	2 - 4	1 - 3	8200	0.8	1.8	255	19	2.5	5	6	1/4	70	8431 0350	02
EP5C SR42	M5	1/4 ^c	4 - 8	3 - 6	10500	0.9	2.0	238	20	5	10	8	1/4	72	8431 0261	14
EP6C SR42	M6	1/4 ^c	8 - 13	6 - 9	10500	1.0	2.2	263	20	5	10	8	1/4	72	8431 0261	22
EP6XS SR42	M6	1/4 ^c	9 - 19	6 - 14	8000	0.7	1.5	219	22	8	17	8	1/4	74	8431 0372	27
EP6XS SR10	M6	3/8	10 - 20	7 - 15	8000	0.7	1.5	221	22	8	17	8	1/4	74	8431 0372	25
EP7XS SR42	M8	1/4 ^c	17 - 28	13 - 21	10000	0.7	1.5	219	22	8	17	8	1/4	74	8431 0372	15
EP7XS SR10	M8	3/8	20 - 31	15 - 23	10000	0.7	1.5	221	22	8	17	8	1/4	74	8431 0372	05
EP8XS SR42	M8	1/4 ^c	22 - 40	16 - 29	8000	0.9	2.0	242	24	9	19	8	1/4	78	8431 0369	30
EP8XS SR10	M8	3/8	30 - 52	22 - 38	8000	0.9	2.0	244	24	9	19	8	1/4	78	8431 0369	20
Pistol grip models																
EP5C HR42	M5	1/4 ^c	5 - 9	4 - 7	4800	1.0	2.2	225	22	6	13	8	1/4	70	8431 0260	15
EP5XS HR42	M5-M6	1/4 ^c	5 - 12	4 - 9	8500	0.8	1.8	165	21	9	19	8	1/4	75	8431 0372	30
EP5CS HR42	M5-M6	1/4 ^c	8 - 16	6 - 12	4800	1.0	2.2	225	22	6	13	8	1/4	70	8431 0260	17
EP6C HR42	M6	1/4 ^c	9 - 16	7 - 12	4800	1.1	2.4	250	22	6	13	8	1/4	70	8431 0262	13
EP6XS HR42	M6	1/4 ^c	9 - 19	6 - 14	8000	0.8	1.8	150	22	8	17	8	1/4	75	8431 0372	23
EP6XS HR10	M6	3/8	10 - 20	7 - 15	8000	0.8	1.8	152	22	8	17	8	1/4	75	8431 0372	20
EP6PS HR42	M8	1/4 ^c	^d 28	^d 21	8000	0.8	1.8	148	21	9	19	10	1/4	74	8431 0368	22
EP6PS HR10	M8	3/8	^d 30	^d 22	8000	0.8	1.8	150	21	9	19	10	1/4	74	8431 0368	21
EP7XS HR42	M8	1/4 ^c	17 - 28	13 - 21	9000	0.8	1.8	150	22	8	17	8	1/4	75	8431 0372	10
EP7XS HR10	M8	3/8	20 - 31	15 - 23	9000	0.8	1.8	152	22	8	17	8	1/4	75	8431 0372	00
EP8XS HRX42	M8	1/4 ^c	22 - 40	16 - 29	7000	1.0	2.0	172	23	9	19	10	1/4	80	8431 0369	16
EP8XS HRX10	M8	3/8	30 - 52	22 - 38	7000	1.0	2.0	174	23	9	19	10	1/4	80	8431 0369	09
EP10C HR13	M10	1/2	42 - 70	31 - 52	7500	2.0	4.4	163	27	7	15	8	1/4	79	8431 0365	01
EP10XS HR13	M10	1/2	50 - 70	37 - 52	6000	1.3	2.9	168	26	11	23	10	1/4	78	8431 0369	40
EP12XS HR13	M12	1/2	65 - 110	48 - 81	4500	1.6	3.5	178	29	12	25	10	1/4	79	8431 0371	00
EP14XS HR13	M14	1/2	110 - 160	81 - 118	3500	2.4	5.3	188	34	14	30	13	3/8	79	8431 0371	50
EP16XS HR20	M16	3/4	160 - 240	118 - 177	2800	3.3	7.3	205	37	15	32	13	3/8	81	8431 0371	55
EP20XS HR20	M20	3/4	300 - 400	221 - 295	3700	5.1	11.2	240	43	16	34	13	3/8	80	8431 0371	60

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

^b When exhaust hose is used.

^c Female hexagon drive. Quick change chuck.

^d Torque is adjusted by regulating the air pressure.



SELECTED 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	O-ring kit	pulse unit	Service kit	Model	O-ring kit	pulse unit	Service kit
EP5C/6C SR			4081 0110 90	EP5/6PT HR	4250 2058 90	4081 0122 90	
EP5C/6C HR			4081 0111 90	EP5/6PT SR	4250 2058 90	4081 0123 90	
EP10C HR			4081 0115 90	EP7/8PT HR	4250 2059 90	4081 0120 90	
EP5XS	4210 2532 93		4081 0264 90	EP7/8PT SR	4250 2059 90	4081 0198 90	
EP6/7XS HR	4250 2084 90		4081 0188 90	EP10PT HR	4250 2060 90	4081 0124 90	
EP6/7XS SR	4250 2084 90		4081 0189 90	EP12PT HR	4250 2061 90	4081 0125 90	
EP6PS HR	4250 2058 91		4081 0274 90	EP5/6PTS HR	4250 2058 90	4081 0122 90	
EP8XS HRX	4250 2085 90		4081 0119 90	EP7/8PTS HR	4250 2267 91	4081 0225 90	
EP8XS SR	4250 2085 90		4081 0190 90	EP10PTS HR	4250 2267 90	4081 0222 90	
EP10XS HR	4250 2086 90		4081 0191 90	EP12PTS HR	4250 2267 92	4081 0226 90	
EP12XS HR	4250 2087 90		4081 0192 90	EP14PTS HR	4250 2267 93	4081 0242 90	
EP14XS HR	4250 2170 90		4081 0200 90	EP18PTS HR	4250 2267 94	4081 0256 90	
EP16XS HR	4250 2281 90		4081 0223 90				
EP20XS HR	4250 2281 91		4081 0245 90				

Oil filling kit (150 ml oil, syringe) 4081 0121 90

For complete information, see spare parts list.

ACCESSORIES

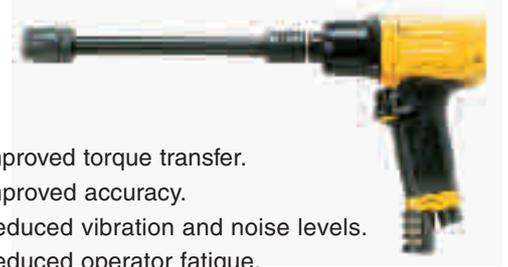
Extensions

Available for ErgoPulse models	Square drive in	Diameter of outgoing spindle		Length mm	Marking	Ordering No.
		mm	mm			
6-8XS and 5-8PT/PTS/PTX	3/8	13	100	EP10-13-100	4023 3600 00	
	3/8	13	150	EP10-13-150	4023 3601 00	
	3/8	13	200	EP10-13-200	4023 3611 00	
	3/8	13	250	EP10-13-250	4023 3612 00	
	3/8	13	300	EP10-13-300	4023 3613 00	
10C and 10-12XS	1/2	16	100	EP13-16-100	4023 3602 00	
	1/2	16	150	EP13-16-150	4023 3603 00	
	1/2	16	200	EP13-16-200	4023 3604 00	
	1/2	16	250	EP13-16-250	4023 3614 00	
	1/2	16	300	EP13-16-300	4023 3615 00	
14XS, 9PTX and 10-12PT/PTS	1/2	18	100	EP13-18-100	4023 3605 00	
	1/2	18	150	EP13-18-150	4023 3606 00	
	1/2	18	200	EP13-18-200	4023 3607 00	
	1/2	18	250	EP13-18-250	4023 3616 00	
	1/2	18	300	EP13-18-300	4023 3617 00	
16XS/20XS and 14PTS/18PTS	3/4	25	100	EP20-25-100	4023 3608 00	
	3/4	25	150	EP20-25-150	4023 3609 00	
	3/4	25	200	EP20-25-200	4023 3610 00	
	3/4	25	250	EP20-25-250	4023 3618 00	
	3/4	25	300	EP20-25-300	4023 3619 00	



GUIDED SOCKETS AND EXTENSIONS

Specially designed for ErgoPulse nutrunners, Atlas Copco guided sockets and extensions provide deep engagement over the anvil bringing tool and attachment together as "one unit". They give quality, ergonomic and cost saving benefits.



- Improved torque transfer.
- Improved accuracy.
- Reduced vibration and noise levels.
- Reduced operator fatigue.
- Extends tool and attachment life.

Sockets

Available for ErgoPulse models	Square drive in	Width across flats mm/in	Diameter of outgoing spindle		Marking	Ordering No.
			mm	mm		
Metric sockets						
6-8XS and 5-8PT/PTS/PTX	3/8	10	13	EP10-13	4026 4210 00	
	3/8	13	13	EP13-13	4026 4213 00	
	3/8	16	13	EP16-13	4026 4216 00	
	3/8	17	13	EP17-13	4026 4217 00	
	3/8	18	13	EP18-13	4026 4218 00	
14XS, 9PTX and 10-12PT/PTS	1/2	13	18	EP13-18	4026 4313 00	
	1/2	16	18	EP16-18	4026 4316 00	
	1/2	17	18	EP17-18	4026 4317 00	
	1/2	18	18	EP18-18	4026 4318 00	
	1/2	24	18	EP24-18	4026 4324 00	
16XS/20XS and 14PTS/18PTS	3/4	18	25	EP18-25	4026 4418 00	
	3/4	24	25	EP24-25	4026 4424 00	
	3/4	30	25	EP30-25	4026 4430 00	
UNC/UNF-sockets						
6-8XS and 5-8PT/PTS/PTX	3/8	7/16	13	EP7/16-13	4026 4211 00	
	3/8	1/2	13	EP1/2-13	4026 4212 00	
	3/8	9/16	13	EP9/16-13	4026 4214 00	
	3/8	3/4	13	EP3/4-13	4026 4219 00	
14XS, 9PTX and 10-12PT/PTS	1/2	1/2	18	EP1/2-18	4026 4312 00	
	1/2	9/16	18	EP9/16-18	4026 4314 00	
	1/2	3/4	18	EP3/4-18	4026 4319 00	
	1/2	15/16	18	EP15/16-18	4026 4323 00	
16XS/20XS and 14PTS/18PTS	3/4	3/4	25	EP3/4-25	4026 4419 00	
	3/4	15/16	25	EP15/16-25	4026 4423 00	
	3/4	11/8	25	EP11/8-25	4026 4429 00	



Quick change chuck for power tools

Available for ErgoPulse models	Square drive in	Female hex in	Diameter of outgoing spindle		Marking	Ordering No.
			mm	mm		
6-8XS and 5-8PT/PTS/PTX	3/8	1/4	13	EP3/8-1/4-13	4026 4501 00	
	3/8	7/16	13	EP3/8-7/16-13	4026 4502 00	
10/14XS, 9PTX and 10-12PT/PTS	1/2	7/16	18	EP1/2-7/16-18	4026 4503 00	



OPTIONAL ACCESSORIES

Pistol grip models	Protective cover	Support handle
EP6/7XS HR	4250 2089 00	Included
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	
EP20XS HR	4250 2288 00	
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	
EP18PTS HR	4250 2319 00	4250 2396 90



For complete information, see spare parts list.

SCREWDRIVERS

Ergonomic tools improve productivity

All Atlas Copco screwdrivers are designed with ergonomics in mind. Our philosophy is simple: each job shall be performed with a minimum of effort and a minimum amount of wear and tear on the operator. By reducing the physical load, noise and oil mist the operator will be less tired and this improves productivity.

The main benefits are:

- ❑ **High torque accuracy.**
- ❑ **Lower sound level reduces fatigue.**
- ❑ **Optimum grip and fast clutch give minimum reaction force.**
- ❑ **Ergonomic handle shape to reduce operator strain.**

Lubrication-free

Atlas Copco screwdrivers are lubrication-free. Oil-free screwdrivers offer the following benefits:

- ❑ **Pollution-free** exhaust air contributes to better working environment.
- ❑ **No oil contamination** on critical components.
- ❑ No air line lubrication **saves installation** costs and reduces air line inspection and maintenance.

A complete range

Our pneumatic screwdrivers are named LUM, TWIST, LUF and LUD for pistol and straight models and LTV and TWIST VR for angle models. The battery screwdrivers ETB, BTP and BTV as well as the low voltage electric screwdrivers Eliza are also presented here for easy reference.

LUM and LTV models have a fast and accurate shut-off clutch for smooth performance and precise tightening. They are the ideal tools for joints with high torque accuracy demands.

TWIST/LUF screwdrivers have a slip clutch, implying a pulsating force when the torque level is reached. These tools are suitable for soft joints or when the torque level may temporarily rise during the homing phase, for instance when using sheet metal screws, wood screws or self-tapping screws.

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

ELIZA is the family name of our low-voltage electric screwdrivers. These are available in four basic models covering needs for joints in the range from 0.05 to 3.5 Nm.



ETB/BTP/BTV battery screwdrivers combine the accurate and operator friendly performance of our famous mechanical shut-off clutch design and the most advanced battery tool technique. They offer air hose and cable free operation with industrial precision and service life. The range includes pistol grip models and angle head screwdrivers.

Air on Top and interchangeable handles –HRF

The Air on Top range is a good example of how Atlas Copco has adapted the tools to the operator instead of the other way round.

- ❑ **Air on Top** –Means air supply inlet is on top and hose connection is from above. No exhaust air via the handle and no “hose hook” disturbing the operator.

- ❑ **Interchangeable handles** –All HRF tools have optional size handles for different sizes of hands. The HRF tools have a nice warm grip and the ergonomic design reduces gripping and triggering efforts needed.

- ❑ **Wide range** –Includes screwdrivers with air shut-off and slip-clutch and ErgoPulse tools up to size M8.

Reporting, RE-versions with air signals

LUM screwdrivers are also available in RE-versions for process control. The RE-tools supply an air signal that can be connected to a controller to count the number of tightenings and to detect premature shut-off and rehits. One signal port in the back of the tool ensures maximum durability and ergonomics.

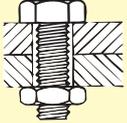
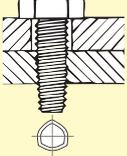
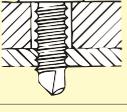
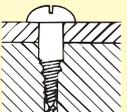
For electric and battery screwdrivers, see page 70-78.

SCREWDRIVERS

Selection guide

SCREW TYPE

SCREWDRIVER

Machine screw 4.8	Ø Screw size	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6		
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					ETB		BTP			
		ELIZA									
		LUM10									
				LUM12/13							
				LUM21							
						LUM25					
				LTV008							
				LTV08							
								LTV18			
								ERGOPULSE			
Machine screw 8.8	Ø Screw size	M1.6	M2	M2.5	M3	M3.5	M4	M4.5	M5	M6	
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					ETB		BTP			
		ELIZA									
		LUM10									
				LUM12/13							
				LUM21							
						LUM25					
				LTV008							
				LTV08							
								LTV18			
								ERGOPULSE			
Thread rolling screw-M	Ø Screw size	M2	M3	M4	M5	M6					
Property class between 8.8 and 10.9 due to case hardening. Taprite ® and Swageform are examples	Torque Nm/in lb	0.5/4.4	1.4/12.4	3.2/28.3	6.5/57.5	11.0/97.3					
	Recommended tool			ETB		BTP					
		ELIZA									
		LUM10									
				LUM12/13							
				LUM21							
						LUM25					
				LTV008							
				LTV08							
								LTV18			
								ERGOPULSE			
Thread forming screw-ST	Ø Screw size	ST2.2	ST2.9	ST3.5	ST4.2	ST4.8	ST5.5	ST6.3			
	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	LUM SM									
		LUF10									
		LUF20									
				TWIST							
				LUF34							
						ERGOPULSE					
Thread forming screw-ST for plastic	Ø Screw size	ST2.2	ST2.9	ST3.5	ST4.2	ST4.8	ST5.5	ST6.3			
	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	ELIZA									
		LUM SM									
		LUM10									
				LUM12/13							
				LUM21							
						LUM25					
				LTV008							
				LTV08							
								LTV18			
								ERGOPULSE			
Self drilling screw-ST	Ø Screw size	ST2.2	ST2.9	ST3.5	ST4.2	ST4.8	ST5.5	ST6.3			
	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	LUF20HR									
				TWIST HRD							
				TWIST HR16							
						LUF34					
Wood screw	Torque Nm/in lb	1.5/13.3		3/26.5		5/44.2		7.5/66.4		12/106.2	
	Recommended tool	TWIST HRD									
		TWIST HR08									
				TWIST HR05							
						LUF34					

Shut-off clutch ErgoPulse Slip clutch Direct drive

With optional coupling-ring. Ordering No. 4210 2316 01
With optional spring. 4210 1831 00

SCREWDRIVERS

Air shut-off control –Pistol grip models

Screw size M2.2 –M6
Torque range 0.4 –12.5 Nm

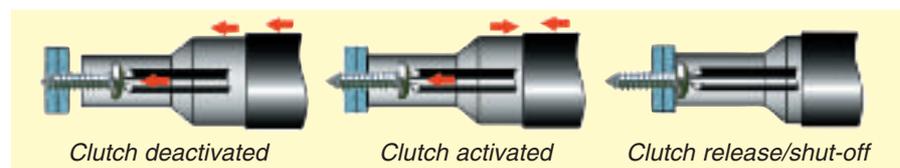
- ❑ **More reliable joints** –The LUM shut-off mechanism means accurate tightening, time after time, independent of variations in joint stiffness.
- ❑ **Low reaction force** – Rapid clutch with air shut-off reduces the reaction force on the wrist.
- ❑ **Low sound levels** –The housing with patented silencer gives a low sound level.
- ❑ **Operator comfort** – Thanks to the ergonomic designed pistol grip. High grip when high feeding force is needed, i.e., cross recess screws. Low grip for minimum reaction force.
- ❑ **Lubrication-free.** Oil free exhaust. Easy installation.
- ❑ **Air on Top** –Means air supply inlet is on top and hose connection is from above. No exhaust air via the handle and no hose hook disturbing the operator. As Air on Top tools are easier to manoeuvre than traditional suspended tools, they are ideal for work stations.
- ❑ **The new LUM12/13 HR series** offers an amazingly compact and light tool and yet possesses power and speed comparable to many screwdrivers of double the size. Still accuracy and durability are of common Atlas Copco standard which means quality joints over an extended time of operation.
- ❑ **RE-reporting** – All LUM pistol type screwdrivers are also available in reporting, -RE versions for process control. Kits are also available for local conversion of standard models.



LUM SM –for sheet metal screws

When tightening screws in sheet metal you might need a high torque to produce the threads in the metal and low final torque. LUM SM runs the screw down at maximum torque with the clutch deactivated. Towards the end of the

tightening the shut-off clutch is automatically activated. The clutch then releases at the desired torque. The front nose is modified to fit different applications and screw types.



Model	Screw Ø mm	Torque range Soft joint		Air consumption at free speed			Sound level dB(A)	Weight		Length mm	Air inlet thread in	Distance centre to side mm	Ordering No.
		Nm	in lb	Free speed r/min	l/s	cfm		kg	lb				
Pistol grip models with trigger start													
LUM12 HR02-U	M2.2-M4	0.4 - 5	3.5 - 44	170	6	13	78	0.7	1.5	195	1/8	16.3	8431 0280 24
LUM12 HR03-U	M2.2-M4	0.4 - 5	3.5 - 44	370	6	13	78	0.6	1.4	185	1/8	16.3	8431 0280 20
LUM12 HR03-U-RE	M2.2-M4	0.4 - 5	3.5 - 44	370	6	13	78	0.6	1.4	185	1/8	16.3	8431 0280 21
LUM12 HR09-U	M2.2-M4	0.4 - 5	3.5 - 44	850	6	13	78	0.6	1.4	184	1/8	16.3	8431 0280 16*
LUM12 HR09-U-RE	M2.2-M4	0.4 - 5	3.5 - 44	850	6	13	78	0.6	1.4	184	1/8	16.3	8431 0280 17
LUM12 HR12-U	M2.2-M4	0.4 - 3.6	3.5 - 31	1100	6	13	78	0.6	1.4	184	1/8	16.3	8431 0280 15*
LUM12 HR12-U-RE	M2.2-M4	0.4 - 3.6	3.5 - 31	1100	6	13	78	0.6	1.4	184	1/8	16.3	8431 0280 14
LUM12 HR17-U	M2.5-M3.5	0.6 - 2.5	5.3 - 22	1600	6	13	78	0.6	1.4	174	1/8	16.3	8431 0280 12
LUM12 HR17-U-RE	M2.5-M3.5	0.6 - 2.5	5.3 - 22	1600	6	13	78	0.6	1.4	174	1/8	16.3	8431 0280 13
LUM12 HR23-U	M2.5-M3.5	0.6 - 1.8	5.3 - 16	2200	6	13	78	0.6	1.4	174	1/8	16.3	8431 0280 10
LUM12 HR23-U-RE	M2.5-M3.5	0.6 - 1.8	5.3 - 16	2200	6	13	78	0.6	0.9	174	1/8	16.3	8431 0280 11
LUM13 HR05-U	M3-M5	1 - 8	8.8 - 70	500	6	13	78	0.7	1.5	184	1/8	16.3	8431 0280 18
LUM13 HR05-U-RE	M3-M5	1 - 8	8.8 - 70	500	6	13	78	0.7	1.5	184	1/8	16.3	8431 0280 19
LUM21 HR05-U	M2.5-M5	0.5 - 4.5	4.4 - 40	480	7	15	78	0.9	2.0	219	1/4	23	8431 0267 58
LUM21 HR08-U	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	75	0.9	2.0	219	1/4	23	8431 0267 60*
LUM21 HR08-U-RE	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	75	0.9	2.0	219	1/4	23	8431 0264 80
LUM21 HR12-U	M2.5-M4	0.5 - 3.5	4.4 - 31	1200	4-6	8	76	0.8	1.8	209	1/4	23	8431 0267 64*
LUM21 HR15-U	M2.5-M4	0.5 - 3.5	4.4 - 31	1600	7	15	76	0.8	1.8	209	1/4	23	8431 0267 68*
LUM21 HR15-U-RE	M2.5-M4	0.5 - 3.5	4.4 - 31	1500	7	15	76	0.8	1.8	209	1/4	23	8431 0264 82
LUM21 HR23-U	M2.5-M4	0.5 - 2.5	4.4 - 22	2300	7	15	76	0.8	1.8	209	1/4	23	8431 0267 70
LUM25 HR01-U	M4-M6 ^a	3.5 ^b - 12.5 ^c	25 - 120 ^b	100	7	15	78	1.1	2.4	260	1/4	23	8431 0264 50
LUM25 HR03-U	M4-M6	3.5 ^b - 12.5 ^c	25 - 110 ^b	390	7	15	78	1.1	2.4	250	1/4	23	8431 0264 45
LUM25 HR05-U	M2.5-M6	3.5 ^b - 12.0 ^c	25 - 110 ^b	480	7	15	78	1.1	2.4	250	1/4	23	8431 0264 03*
LUM25 HR05-U-RE	M2.5-M6	3.5 ^b - 12.0 ^c	25 - 110 ^b	500	7	15	78	1.1	2.4	250	1/4	23	8431 0264 84
LUM25 HR08-U	M2.5-M6	3.5 ^b - 7.5 ^c	25 - 66 ^b	800	7	15	75	1.1	2.4	250	1/4	23	8431 0264 11*
LUM25 HR08-U-RE	M2.5-M6	3.5 ^b - 7.5 ^c	25 - 66 ^b	800	7	15	75	1.1	2.4	250	1/4	23	8431 0264 88
LUM25 HR11-U	M4-M5	3.5 ^b - 5.5	25 - 49	1100	6	13	75	1.1	2.4	226	1/4	23	8431 0264 16

Continued . . .

SCREWDRIVERS

Air shut-off control –Pistol grip models

Model	Screw Ø mm	Torque range Soft joint		Free speed r/min	Air consumption at free speed		Sound level dB(A)	Weight		Length mm	Air inlet thread in	Dis- tance centre to side mm	Ordering No.
		Nm	in lb		l/s	cfm		kg	lb				
Pistol grip models with trigger and push start													
LUM21 HR05	M2.5-M5	0.5 - 4.5	4.4 - 40	480	7	15	78	0.9	2.0	222	1/4	23	8431 0267 38*
LUM21 HR08	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	75	0.9	2.0	222	1/4	23	8431 0267 40*
LUM21 HR12	M2.5-M4	0.5 - 3.5	4.4 - 31	1200	4-6	8	76	0.8	1.8	212	1/4	23	8431 0267 44*
LUM21 HR15	M2.5-M4	0.5 - 3.5	4.4 - 31	1600	7	15	76	0.8	1.8	212	1/4	23	8431 0267 48
LUM21 HR23	M2.5-M4	0.5 - 2.5	4.4 - 22	2300	7	15	76	0.8	1.8	212	1/4	23	8431 0267 50
LUM25 HR03	M4-M6	3.5 ^b - 12.5 ^c	25 - 110	390	7	15	78	1.1	2.4	250	1/4	23	8431 0249 33
LUM25 HR05	M4-M6	3.5 ^b - 12.0 ^c	25 - 110	480	7	15	78	1.1	2.4	250	1/4	23	8431 0249 44*
LUM25 HR08	M4-M6	3.5 ^b - 7.5 ^c	25 - 66	800	7	15	75	1.1	2.4	250	1/4	23	8431 0249 55*
LUM25 HR11	M4-M5	3.5 ^b - 5.5	25 - 49	1100	6	13	75	1.1	2.4	226	1/4	23	8431 0249 56
Balanced grip models with trigger start													
LUM21 HRX03-U	M2.5-M5	0.5 - 4.5	4.4 - 40	370	7	15	75	0.9	2.0	180	1/4	20	8431 0263 59
LUM21 HRX08-U	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	75	0.9	2.0	180	1/4	20	8431 0263 54
LUM21 HRX08-U-RE	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	75	0.9	2.0	180	1/4	20	8431 0264 62
LUM21 HRX15-U	M2.5-M4	0.5 - 3.5	4.4 - 31	1600	7	15	76	0.8	1.8	170	1/4	20	8431 0263 56
LUM21 HRX15-U-RE	M2.5-M4	0.5 - 3.5	4.4 - 31	1600	7	15	76	0.8	1.8	170	1/4	20	8431 0264 60
LUM25 HRX03-U	M4-M6	3.5 - 12.5 ^b	31 - 120	390	7	15	77	1.2	2.6	209	1/4	20	8431 0263 79
LUM25 HRX05-U	M4-M6	3.5 - 12.0 ^b	31 - 110	480	7	15	77	1.2	2.6	209	1/4	20	8431 0263 70*
LUM25 HRX05-U-RE	M4-M6	3.5 - 12.0 ^b	31 - 110	500	7	15	77	1.2	2.6	209	1/4	20	8431 0264 64
LUM25 HRX08-U	M4-M6	3.5 - 7.5 ^b	31 - 66	800	7	15	75	1.2	2.6	209	1/4	20	8431 0263 72*
LUM25 HRX08-U-RE	M4-M6	3.5 - 7.5 ^b	31 - 66	800	7	15	75	1.2	2.6	209	1/4	20	8431 0264 66
LUM27 HRX08-U	M6	3.5 - 9.5	31 - 88	750	9	19	79	1.2	2.6	217	1/4	20	8431 0263 83*
LUM27 HRX08-U-RE	M6	3.5 - 9.5	31 - 88	750	9	19	79	1.2	2.6	217	1/4	20	8431 0264 68
LUM27 HRX11-U	M4-M6	3.5 - 7.0	31 - 62	1030	9	19	79	1.2	2.6	217	1/4	20	8431 0263 85*
Air-on-top models with trigger start													
LUM21 HRF03-U	M2.5-M5	0.5 - 4.5	4.4 - 40	370	7	15	71	1.1	2.4	197	1/4	25	8431 0267 99
LUM21 HRF05-U	M2.5-M5	0.5 - 4.5	4.4 - 40	480	7	15	71	1.1	2.4	197	1/4	25	8431 0267 92
LUM21 HRF08-U	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	71	1.1	2.4	197	1/4	25	8431 0267 94*
LUM21 HRF08-U-RE	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	71	1.1	2.4	197	1/4	25	8431 0264 90
LUM21 HRF15-U	M2.5-M4	0.5 - 3.5	4.4 - 31	1600	7	15	71	1.1	2.4	187	1/4	25	8431 0267 96*
LUM21 HRF15-U-RE	M2.5-M4	0.5 - 3.5	4.4 - 31	1600	7	15	71	1.1	2.4	187	1/4	25	8431 0264 92
LUM21 HRF23-U	M2.5-M4	0.5 - 2.5	4.4 - 22	2100	7	15	71	1.1	2.4	187	1/4	25	8431 0267 98
LUM25 HRF05-U	M4-M6	3.5 - 12.0 ^b	31 - 110	500	6	13	73	1.2	2.6	226	1/4	26	8431 0249 05*
LUM25 HRF05-U-RE	M4-M6	3.5 - 12.0 ^b	31 - 110	500	6	13	73	1.2	2.6	226	1/4	26	8431 0264 96
LUM25 HRF08-U	M4-M5	3.5 - 7.5 ^b	31 - 66	800	6	13	73	1.2	2.6	226	1/4	26	8431 0249 07*
LUM25 HRF08-U-RE	M4-M5	3.5 - 7.5 ^b	31 - 66	800	6	13	73	1.2	2.6	226	1/4	26	8431 0264 98
LUM25 HRF11-U	M4-M5	3.5 - 5.5 ^b	31 - 49	1100	6	13	73	1.2	2.6	226	1/4	26	8431 0249 09
Sheet metal screwdrivers with trigger start													
LUM21 HR08-SM ^{df}	M2.5-M5	0.5 - 4.5	4.4 - 40	800	7	15	78	0.9	2.0	255	1/4	23	8431 0267 51*
LUM21 HR15-SM ^{df}	M2.5-M4	0.5 - 3.5	4.4 - 31	1600	7	15	76	0.8	1.8	245	1/4	23	8431 0267 53*

^a Support handle included.

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

^c For operator comfort support handle recommended for high torque, see Optional Accessories.

^d Front end, 11 mm (4210 3918 00), included.

^e Front end, 12.5 mm (4210 3918 01), included.

^f Optional front end, 21 mm (4210 3918 02).

* Basic tools of the range, cover most needs.

Recommended hose size mm: LUM12/13/21 = 6, LUM25 = 8, LUM27 = 10

All models: Are reversible –Have quick change chuck.

All data at an air pressure of 6.3 bar.

OPTIONAL ACCESSORIES

HRF models

Swivel, hose dia 8 mm	4210 3134 80
Handle small size	4210 3139 00
Support handle	4110 1355 86
Hose reel balancer, HRIL 4	8202 0600 29

ACCESSORIES INCLUDED

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OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

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SCREWDRIVERS

Air shut-off control –Straight models

Screw size M1.6 –M6
Torque range 0.1 –11 Nm

- ❑ **Safer joints** – The LUM shut-off mechanism means accurate tightening, time after time, independently of variations in joint stiffness.
- ❑ **Rapid clutch** with air shut-off reduces the reaction force on the wrist.
- ❑ **Low sound levels** –Thanks to non resonating plastics on LUM10/21, patented silencer and exhaust hose.
- ❑ **Operator comfort** –Correct grip diameter means minimum reaction force and less operator fatigue. Optimal grip for women is 34 mm and for men 38 mm. Atlas Copco offers grip diameter between 30 and 40 mm.
- ❑ **Lubrication-free** –Means clean environment, no units to refill or maintain and quicker set-up.
- ❑ **The new LUM12** offers a lightweight tool with amazingly high speed and capacity for its size. The tool comes in push and lever start versions.
- ❑ **RE-reporting** –All LUM straight screwdrivers with lever start can be supplied in reporting, -RE, versions or can be converted locally. (See page 36 for conversion kits).



OPTIONAL ACCESSORIES

Clutch housing metal for LUM21 SR/PR for fixtured applications.

Ordering No. 4210 2933 82



ERGOPUSH

The ergonomic grip for assembly applications where axial force is needed.

All assembly operations require a certain axial force to enter the screw. In most cases the axial force needed is quite low but in some cases a higher force is needed. The axial force depends on the type of screw and screw head that will be used. A self tapping or self drilling screw needs a higher axial force to engage than a machine screw and a Philips head requires a higher axial force than a Torx® head.

The Ergopush grip is the ideal solution where higher axial force is needed. Available as an option for the following straight Atlas Copco screwdrivers.



Model	Ordering No.
LUM21 PR/SR	4210 3842 00
LUM25 PR/SR14	4210 3808 00
LUM25 PR/SR18	4210 3808 00

SCREWDRIVERS

Air shut-off control –Straight models

Model	Screw Ø mm	Torque range Soft joint		Free speed r/min	Air consumption at free speed		Sound level dB(A)	Weight		Length mm	Air inlet thread in	Distance centre to side mm	Ordering No.
		Nm	in lb		l/s	cfm		kg	lb				
Straight models with push start and button reverse													
LUM10 PR03 ^e	M1.6-M4	0.1 - 1.5	0.8 - 13	300	3	6	66	0.4	0.9	206	1/8	15	8431 0146 05*
LUM10 PR05 ^e	M1.6-M4	0.1 - 1.5	0.8 - 13	460	3	6	66	0.4	0.9	206	1/8	15	8431 0146 09*
LUM10 PR12 ^e	M1.6-M3	0.1 - 1.1	0.8 - 10	1200	3	6	66	0.4	0.9	196	1/8	15	8431 0146 17*
LUM10 PR21 ^e	M1.6-M2.5	0.1 - 0.7	0.8 - 6	2000	3	6	67	0.4	0.9	196	1/8	15	8431 0146 25
LUM12 PR20-P ^e	M2.2-M3	0.6 - 1.6	5.3 - 14	1900	6	13	78	0.4	0.9	185	1/8	16	8431 0280 50
LUM12 PR15-P ^e	M2.2-M3.5	0.4 - 2.2	3.5 - 19	1400	6	13	78	0.4	0.9	185	1/8	16	8431 0280 52
LUM12 PR10-P ^e	M2.2-M4	0.4 - 3.2	3.5 - 28	1000	6	13	78	0.4	0.9	195	1/8	16	8431 0280 54*
LUM12 PR07-P ^e	M2.5-M4	0.5 - 4.2	3.5 - 37	700	6	13	78	0.4	0.9	185	1/8	16	8431 0280 56
LUM21 PR04-P	M2.5-M5	0.5 - 4.5	4.4 - 40	320	4	8	70	0.7	1.5	239	1/8	18	8431 0277 02
LUM21 PR07-P	M2.5-M5	0.5 - 4.5	4.4 - 40	700	4	8	70	0.7	1.5	239	1/8	18	8431 0277 00*
LUM21 PR10-P	M2.5-M5	0.5 - 3.2	4.4 - 30	1000	4	8	71	0.7	1.5	239	1/8	18	8431 0277 08*
LUM21 PR14-P	M2.5-M4	0.5 - 2.4	4.4 - 21	1400	4	8	71	0.7	1.5	239	1/8	18	8431 0277 14*
LUM21 PR23-P	M2.5-M3	0.5 - 1.5	4.4 - 13	2200	4	8	69	0.7	1.5	239	1/8	18	8431 0277 20
LUM25 PR05-P	M4-M6	3.5 - 11.0 ^a	30 - 97	430	6	13	70	1.0	2.2	242	1/4	19	8431 0265 41*
LUM25 PR07-P	M4-M5	3.5 - 7.0 ^a	30 - 62	700	6	13	70	1.0	2.2	242	1/4	19	8431 0265 43*
LUM25 PR10-P	M4	3.5 - 5.5 ^a	30 - 49	1000	6	13	71	1.0	2.2	242	1/4	19	8431 0265 46
LUM25 PR14-P	M2.5-M4	0.6 - 3.5	5.3 - 31	1400	6	13	71	1.0	2.2	205	1/4	19	8431 0265 49*
LUM25 PR18-P	M2.5-M4	0.6 - 3.2	5.3 - 28	1800	6	13	71	1.0	2.2	205	1/4	19	8431 0265 52
Straight models with lever start and without push start													
LUM12 SR20-U ^e	M2.5-M3	0.6 - 1.8	5.3 - 16	2100	6	13	78	0.4	0.9	185	1/8	16	8431 0280 58
LUM12 SR17-U ^e	M2.5-M3.5	0.5 - 2.5	3.5 - 22	1700	6	13	78	0.4	0.9	185	1/8	16	8431 0280 60
LUM12 SR11-U ^e	M2.5-M4	0.5 - 3.5	3.5 - 31	1100	6	13	78	0.4	0.9	195	1/8	16	8431 0280 62*
LUM12 SR07-U ^e	M2.2-M4	0.4 - 4.5	3.5 - 40	800	6	13	78	0.4	0.9	195	1/8	16	8431 0280 64
LUM21 SR04-U ^e	M2.5-M5	0.5 - 4.5	4.4 - 40	320	4	8	70	0.7	1.5	240	1/8	18	8431 0277 22
LUM21 SR07-U ^e	M2.5-M5	0.5 - 4.5	4.4 - 40	700	4	8	70	0.7	1.5	240	1/8	18	8431 0277 24*
LUM21 SR07-U-RE ^e	M2.5-M5	0.5 - 4.5	4.4 - 40	700	4	8	70	0.7	1.5	240	1/8	18	8431 0264 70
LUM21 SR10-U ^e	M2.5-M5	0.5 - 3.2	4.4 - 30	1000	4	8	71	0.7	1.5	240	1/8	18	8431 0277 28*
LUM21 SR10-U-RE ^e	M2.5-M5	0.5 - 3.2	4.4 - 30	1000	4	8	71	0.7	1.5	240	1/8	18	8431 0264 72
LUM21 SR14-U ^e	M2.5-M4	0.5 - 2.4	4.4 - 21	1400	4	8	71	0.7	1.5	240	1/8	18	8431 0277 30
LUM21 SR23-U ^e	M2.5-M4	0.5 - 1.5	4.4 - 13	2200	4	8	71	0.7	1.5	240	1/8	18	8431 0277 34
LUM25 SR05-U	M4-M6	3.5 - 11.0 ^a	25 - 97 ^a	430	6	13	71	1.1	2.4	266	1/4	19	8431 0264 29*
LUM25 SR05-U-RE	M4-M6	3.5 - 11.0 ^a	25 - 97 ^a	430	6	13	71	1.1	2.4	266	1/4	19	8431 0264 74
LUM25 SR07-U	M4-M5	3.5 - 7.0 ^a	25 - 62 ^a	700	6	13	71	1.1	2.4	266	1/4	19	8431 0264 37*
LUM25 SR07-U-RE	M4-M5	3.5 - 7.0 ^a	25 - 62 ^a	700	6	13	71	1.1	2.4	266	1/4	19	8431 0264 76
LUM25 SR10-U	M4	3.5 - 5.5 ^a	25 - 49 ^a	1000	6	13	71	1.1	2.4	266	1/4	19	8431 0264 39
LUM25 SR14-U	M2.5-M4	0.6 - 3.5	5.3 - 31	1400	6	13	71	1.0	2.2	229	1/4	19	8431 0264 41
LUM25 SR18-U	M2.5-M4	0.6 - 3.2	5.3 - 28	1800	6	13	71	1.0	2.2	229	1/4	19	8431 0264 43
LUM37 SR36-U	M3-M5	1.5 - 4.5	13.3 - 40	3500	16	34	80	1.5	3.3	317	1/4	20	8431 0266 20
LUM37 SR25-U	M4-M6	5.0 - 7.5	44.2 - 66	2500	16	34	80	1.6	3.5	338	1/4	20	8431 0266 15
Sheet metal screwdrivers with lever start													
LUM21 SR07-U-SM ^{bcd}	M2.5-M5	0.5 - 4.5	4.4 - 40	700	6	13	71	1.1	2.4	229	1/4	19	8431 0264 56
LUM25 SR07-U-SM ^{bcd}	M4-M5	3.5 - 7.0	31 - 62	700	6	13	71	1.1	2.4	317	1/4	20	8431 0264 52
LUM25 SR05-U-SM ^{bcd}	M4-M6	3.5 - 11.0	31 - 97	450	6	13	71	1.1	2.4	338	1/4	20	8431 0264 54

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

^b Front end 12.5 mm (4210 3918 01) included.

^c Optional front end 21 mm (4210 3918 02).

^d See page 28 for more information about SM models.

^e ESD approved.

Recommended hose size mm: LUM10/12/13/21 = 6, LUM25 = 8, LUM37 = 10

All models: Are reversible –Have quick change chuck.

SR-models have ring reverse control.

PR-models have push button reverse.

* Basic tools of the range, cover most needs.

START OPTIONS



Push start

Common for straight tools on assembly lines. The tool starts when you push the bit towards the screw. Minimizes tightening time. Pistol grip tools with push-start have the combined function push and trigger start.



Reverse options

Straight screwdrivers with lever throttle have a ring for reverse operation. All push start models are equipped with push button for frequent and fast reversing.

Lever start

Recommended when a proper engagement between bit and screw head and/or screw and workpiece is essential before starting the operation.

ACCESSORIES INCLUDED

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OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

Page 36

SCREWDRIVERS

Angle head models

Screw size M2.2 –M6
Torque range 0.4 –15 Nm

- ❑ **Good accessibility** –The small size, slim design angle head provides for excellent access in limited spaces and awkward positions. Note, new extremely slim and low head.
- ❑ **Safer joints** –The rapid mechanism in shut-off models means accurate tightening, time after time, independent of variations in joint stiffness.
- ❑ **High capacity** –Despite the small size, the angle screwdrivers have a high capacity and wearing properties to match the highest demands in industrial line production. Note, the new small size angle head up to 15 Nm.
- ❑ **Less operator fatigue** –The balance and the slim lines contribute to the ergonomic design and make the tools convenient to work with for maximum operator performance.
- ❑ **Lubrication-free.** Oil free exhaust. Easy installation.
- ❑ **The new LTV008** angle head screwdrivers, designed with focus on accessibility, ease of handling and highest productivity without sacrificing accuracy in tightening. The result is a series of screwdrivers with unmatched performance for its size. Contributing to this are a slim design, an exceptionally compact angle head and a small and lightweight clutch design.
- ❑ **RE-reporting** –Connection ports for reporting signal, -RE, are easily arranged on the angle screwdrivers with a conversion kit available as optional equipment (see page 36).



SCREWDRIVERS

Angle head models

Model	Screw Ø mm	Torque range Soft joint		Free speed r/min	Air consump- tion at free speed		Sound level dB(A)	Weight		Length mm	Air inlet thread in	Angle head centre to side mm	Angle head height mm	Ordering No.
		Nm	in lb		l/s	cfm		kg	lb					
Air shut-off control models														
LTV008 R025-6 ^a	M2.2-M3.5	0.4 - 2.5	3.5 - 22	1650	6	13	78	0.7	1.5	265	1/8	9	25	8431 0281 10
LTV008 R025-42 ^a	M2.2-M3.5	0.4 - 2.5	3.5 - 22	1650	6	13	78	0.7	1.5	265	1/8	9	25	8431 0281 12
LTV008 R025-Q ^a	M2.2-M3.5	0.4 - 2.5	3.5 - 22	1650	6	13	78	0.7	1.5	265	1/8	9	25	8431 0281 14
LTV008 R03-10 ^a	M2.5-M4	0.5 - 3	4.4 - 26	1400	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 52
LTV008 R035-6 ^a	M2.2-M4	0.4 - 3.5	3.5 - 31	1100	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 16
LTV008 R035-42 ^a	M2.2-M4	0.4 - 3.5	3.5 - 31	1100	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 18
LTV008 R035-Q ^a	M2.2-M4	0.4 - 3.5	3.5 - 31	1100	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 20
LTV008 R043-10 ^a	M2.5-M4	0.5 - 4.3	4.4 - 38	900	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 54
LTV008 R05-6 ^a	M2.2-M4	0.4 - 5	3.5 - 44	850	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 22
LTV008 R05-42 ^a	M2.2-M4	0.4 - 5	3.5 - 44	850	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 24
LTV008 R05-Q ^a	M2.2-M4	0.4 - 5	3.5 - 44	850	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 26
LTV008 R058-10 ^a	M2.5-M5	0.5 - 5.8	4.4 - 51	700	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 56*
LTV008 R07-6 ^a	M3-M5	1 - 7	8.8 - 62	500	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 28*
LTV008 R07-42 ^a	M3-M5	1 - 7	8.8 - 62	500	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 30*
LTV008 R07-Q ^a	M3-M5	1 - 7	8.8 - 62	500	6	13	78	0.7	1.5	275	1/8	9	25	8431 0281 32*
LTV008 R09-6 ^a	M3.5-M5	1.6 - 9	11.5 - 79	430	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 34
LTV008 R09-10 ^a	M3.5-M5	1.6 - 9	11.5 - 79	430	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 35
LTV008 R09-42 ^a	M3.5-M5	1.6 - 9	11.5 - 79	430	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 36
LTV008 R09-Q ^a	M3.5-M5	1.6 - 9	11.5 - 79	430	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 38
LTV008 R11-6 ^a	M3.5-M6	1.6 - 11	11.5 - 97	320	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 40
LTV008 R11-10 ^a	M3.5-M6	1.6 - 11	11.5 - 97	320	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 41
LTV008 R11-42 ^a	M3.5-M6	1.6 - 11	11.5 - 97	320	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 42
LTV008 R11-Q ^a	M3.5-M6	1.6 - 11	11.5 - 97	320	6	13	78	0.7	1.5	275	1/8	11	28.5	8431 0281 44
LTV08 R03-6	M2.5-M4	0.5 - 3	4.4 - 26	1000	4	8	69	0.8	1.7	275	1/8	10	28.5	8431 0325 88
LTV08 R03-42	M2.5-M4	0.5 - 3	4.4 - 26	1000	4	8	69	0.8	1.7	275	1/8	10	28.5	8431 0325 84
LTV08 R03-Q	M2.5-M5	0.5 - 3	4.4 - 26	1000	4	8	69	0.8	1.7	275	1/8	10	28.5	8431 0325 92
LTV08 R05-6	M2.5-M4	0.5 - 4.5	4.4 - 39	700	4	8	69	0.8	1.7	275	1/8	10	28.5	8431 0325 78
LTV08 R05-42	M2.5-M4	0.5 - 4.5	4.4 - 39	700	4	8	69	0.8	1.7	275	1/8	10	28.5	8431 0325 74
LTV08 R05-Q	M2.5-M5	0.5 - 4.5	4.4 - 39	700	4	8	69	0.8	1.7	275	1/8	10	28.5	8431 0325 81
LTV18 R07-6	M4-M5	3.5 - 7	31 - 61	700	6	13	71	1.2	2.6	290	1/4	10	28.5	8431 0326 72
LTV18 R07-42	M4-M5	3.5 - 7	31 - 61	700	6	13	71	1.2	2.6	290	1/4	10	28.5	8431 0326 61
LTV18 R07-Q	M4-M5	3.5 - 7	31 - 61	700	6	13	71	1.2	2.6	290	1/4	10	28.5	8431 0326 76
LTV18 R15-6	M6	6.0 - 15	53-132	360	7	15	71	1.2	2.6	308	1/4	11	28	8431 0326 55
LTV18 R15-10	M6	6.0 - 15	53-132	360	7	15	71	1.2	2.6	308	1/4	11	28	8431 0326 56
LTV18 R15-42	M6	6.0 - 15	53-132	360	7	15	71	1.2	2.6	308	1/4	11	28	8431 0326 54
LTV18 R15-Q	M6	6.0 - 15	53-132	360	7	15	71	1.2	2.6	308	1/4	11	28	8431 0326 58
Slip clutch models with 1/4" square drive														
TWIST VR07-6	M4-M5	1.3 - 7.0	12 - 62	700	4	8	72	1.0	2.2	280	1/4	10	29	8431 0256 11*
TWIST VR13-6	M4-M5	2.0 - 6.0	18 - 53	1300	4	8	72	1.0	2.2	280	1/4	10	29	8431 0256 37
Slip clutch models with 1/4" female hexagon drive														
TWIST VR07-16	M4-M5	1.3 - 7.0	12 - 62	700	4	8	72	1.0	2.2	280	1/4	10	29	8431 0256 03*
TWIST VR13-16	M4-M5	2.0 - 6.0	18 - 53	1300	4	8	72	1.0	2.2	280	1/4	10	29	8431 0256 29

^a ESD approved.

Recommended hose size mm: LTV008, LTV08 = 6,
LTV18/TWIST = 8

All models: Are reversible.

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

-10 = 3/8" square drive.

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

-Q = 1/4" quick change chuck.

* Basic tools of the range, cover most needs.

Extended lever for LTV08/18

Ordering No. 4210 2306 02



ACCESSORIES INCLUDED

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OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

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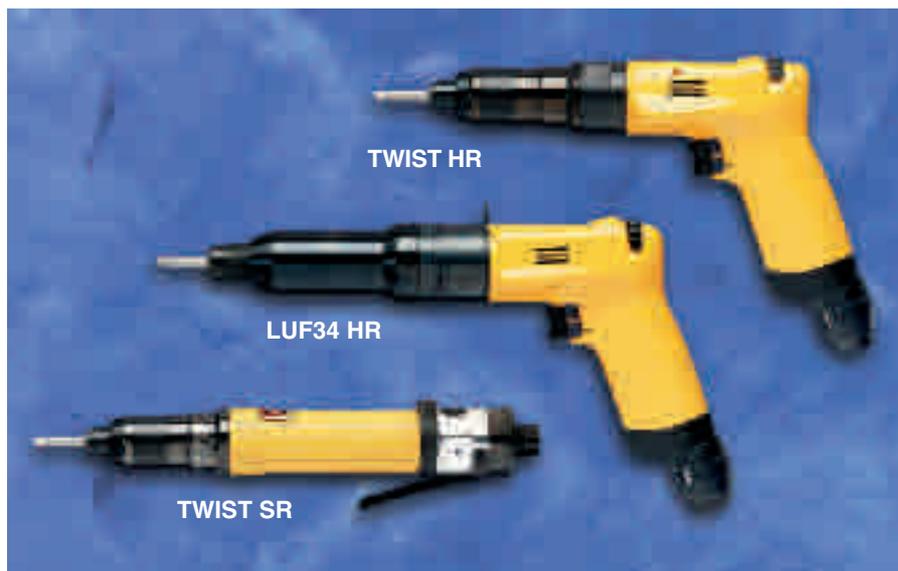
SCREWDRIVERS

Slip-clutch

Screw size M1.6 –M6
Torque range 0.1 –17 Nm

The slip clutch is the most suitable alternative for sheet metal screws.

- ❑ **Flexible** –All models are reversible and designed for both left and right hand operations.
- ❑ **Fast tightening** –Fast rundown and tightening by the high speed/high torque combination.
- ❑ **Operator comfort** –Thanks to the ergonomic design of the pistol grip. High grip when high feeding force is needed, i.e., cross recess screws. Use low grip for minimum twisting force.
- ❑ **Lubrication-free** –Oil free exhaust. Easy installation.



Model	Screw Ø mm	Torque range Soft joint		Free speed r/min	Air consumption at free speed		Sound level dB(A)	Weight		Length mm	Air inlet thread in	Distance centre to side mm	Ordering No.
		Nm	in lb		l/s	cfm		kg	lb				
Straight models with push start													
LUF10 PR12	M1.6-M3.5	0.1 - 1.0	0.9 - 9	1200	3	6	66	0.4	0.9	196	1/8	15	8431 0136 33
LUF10 PR21	M1.6-M3.5	0.1 - 1.2	0.9 - 11	2100	3	6	67	0.4	0.9	196	1/8	15	8431 0136 41
LUF20 PR14	M2.5-M4	1.0 - 2.0	8.8 - 18	1400	4	8	64	0.5	1.2	213	1/8	18	8431 0258 84
Straight models with lever start													
LUF20 SR14	M2.5-M4	1.0 - 2.0	8.8 - 18	1400	4	8	71	0.7	1.5	240	1/8	18	8431 0258 43
TWIST12 SR11	M2.5-M4	0.5 - 4.2	4 - 37	1000	6	13	78	0.4	0.9	195	1/8	16	8431 0280 90
TWIST12 SR17	M2.5-M4	0.7 - 3.3	6.2 - 30	1450	6	13	78	0.4	0.9	185	1/8	16	8431 0280 92
TWIST SR07	M4-M5	1.3 - 7.0	12 - 62	700	4	8	76	0.9	2.0	260	1/4	19	8431 0252 15*
TWIST SR13	M4-M5	2.0 - 6.0	18 - 53	1300	4	8	72	0.9	2.0	260	1/4	19	8431 0252 23*
TWIST SR20	M4	2.2 - 4.5	20 - 40	2000	7	15	70	0.9	2.0	250	1/4	19	8431 0252 31*
Pistol grip models with trigger and push start													
TWIST12 HR09	M2.5-M4	0.5 - 4.4	4 - 40	750	6	13	78	0.6	1.3	185	1/8	16.3	8431 0280 70
TWIST12 HR12	M2.5-M4	0.6 - 3.5	5 - 31	1000	6	13	78	0.6	1.3	185	1/8	16.3	8431 0280 72
TWIST12 HR17	M2.5-M3.5	0.6 - 2.4	5 - 21	1450	6	13	78	0.6	1.3	175	1/8	16.3	8431 0280 74
TWIST HR05	M5-M6	5.0-12.0	44 - 106	500	7	15	78	1.1	2.4	245	1/4	20	8431 0252 56*
TWIST HR08	M4-M5	1.5 - 7.5	13 - 66	800	7	15	75	1.1	2.4	245	1/4	20	8431 0252 64*
TWIST HR11	M4-M5	1.5 - 7.5	13 - 66	1200	7	15	75	1.0	2.4	245	1/4	20	8431 0252 60*
TWIST HR16	M4-M5	2.2 - 6.5	20 - 58	1600	7	15	76	1.0	2.2	245	1/4	20	8431 0252 72*
TWIST HR23	M4-(M5)	2.4 - 5.0	21 - 44	2200	7	15	76	1.0	2.2	235	1/4	20	8431 0252 80*
LUF34 HR04	M4-M6	3.0-17.0	27 - 150	440	9.5	19	79	1.4	3.1	265	1/4	21	8431 0311 05
LUF34 HR08	M4-M6	2.0-15.0	18 - 133	750	9.5	19	79	1.4	3.1	265	1/4	21	8431 0311 09*
LUF34 HR16	M4-M6	3.0-12.0	27 - 107	1600	9.5	19	79	1.4	3.1	265	1/4	21	8431 0311 17
Pistol grip models with trigger and without push start													
LUF20 HR16-U	M2.5-M4	0.5 - 1.9	4.4 - 17	1600	3.4	7	76	0.8	1.8	212	1/8	23	8431 0259 59
LUF20 HR23-U	M3-M4	0.6 - 2.5	5.3 - 22	2300	6.4	14	76	0.8	1.8	212	1/8	23	8431 0259 42
HRX models with trigger start and push start													
TWIST HRX08	M4-M5	1.5 - 7.5	13 - 68	800	7	15	75	1.1	2.4	196	1/4	20	8431 0263 26
TWIST HRX16	M4-M5	2.2 - 6.5	20 - 68	1600	7	15	76	1.1	2.4	196	1/4	20	8431 0263 28*
Air on Top models with trigger start and push start													
TWIST HRF08	M4-M5	1.5 - 7.5	13 - 66	800	7	15	74	1.2	2.6	212	1/4	25	8431 0252 42
TWIST HRF16	M4-M5	2.2 - 6.5	20 - 58	1600	7	15	74	1.2	2.6	212	1/4	25	8431 0252 44*

Recommended hose size mm: LUF10/14/20 = 6, LUF34 = 10, TWIST = 8

* Basic tools of the range, cover most needs.

All models: Are reversible.

Female hexagon drive for bits: 1/4".

Have quick change chuck except LUF14.

Non push start washer for TWIST SR/HR 4210 2760 03.

ACCESSORIES INCLUDED

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OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

Page 36

SCREWDRIVERS

Direct drive

Screw size M3 –M8
Torque range 1.1 –18 Nm

- Suitable** for sheet metal, self tapping and wood screws.
- Flexible** –All models are reversible and designed for both left and right hand operations.
- Combination tools** –COMBI models including drill chuck, can be used for screwdriving, drilling and tapping.
- Good accessibility** –The short length on the pistol models gives very good accessibility. The angle types provide good access in limited spaces and awkward positions.
- Lubrication-free** –Oil free exhaust. Easy installation.



Model	Screw Ø mm	Torque range Soft joint		Free speed r/min	Air con- sumption at free speed		Sound level dB(A)	Weight		Length mm	Air inlet thread in	Dis- tance centre to side mm	Angle head centre to side mm	Angle head height mm	Ordering No.
		Nm	in lb		l/s	cfm		kg	lb						
Pistol grip models with trigger start															
TWIST HRD08	M6	5.0-10.0	44- 89	800	7	15	75	1.0	2.2	225	1/4	20	–	–	8431 0255 20*
TWIST HRD16	M4-M5	2.7- 5.7	24- 50	1600	7	15	76	0.8	1.7	195	1/4	20	–	–	8431 0255 12
TWIST HRD36	M3.5	2.0- 2.7	18- 24	3600	7	15	76	0.8	1.7	195	1/4	20	–	–	8431 0255 04
LUD12 HR05 ^a	M5	3.8- 8.5	29- 75	500	6	13	78	0.5	1.1	125	1/8	16.3	–	–	8431 0281 04*
LUD12 HR09 ^a	M3.5-M4	1.8- 5.7	16- 50	900	6	13	78	0.5	1.1	125	1/8	16.3	–	–	8431 0281 06*
LUD12 HR17 ^a	M3-M3.5	1.1- 2.9	10- 26	1700	6	13	78	0.5	1.1	115	1/8	16.3	–	–	8431 0281 08
Pistol grip models with trigger start. Direct drive															
LUF34 HRD04	M6-M8	8.0-18.0	71-160	440	9	19	79	1.2	2.6	212	1/4	20	–	–	8431 0311 22*
LUF34 HRD08	M6	8.0-11.0	71- 97	750	9	19	79	1.2	2.6	212	1/4	20	–	–	8431 0311 24
LUF34 HRD16	M5-M6	4.0- 8.0	35- 71	1600	9	19	79	0.9	2.0	179	1/4	20	–	–	8431 0311 26
LUF34 HRD21	M4-M6	2.2- 4.5	20- 40	2000	9	19	79	0.9	2.0	179	1/4	20	–	–	8431 0311 28
Reversible drill, tapper and screwdriver															
COMBI24 HR08	M6	5.0-10.0	44- 89	800	7	15	75	1.1	2.4	240	1/4	20	–	–	8431 0255 61
COMBI24 HR16	M4-M5	2.7- 5.7	24- 50	1600	7	15	75	0.9	2.0	205	1/4	20	–	–	8431 0255 79
COMBI24 HR36	M3.5	2.0- 2.7	18- 24	3600	7	15	75	0.9	2.0	205	1/4	20	–	–	8431 0255 88
COMBI34 HR04	M6-M8	8.0-18.0	71-160	400	9	19	79	1.5	3.3	228	1/4	20	–	–	8431 0311 32
COMBI34 HR08	M6	8.0-11.0	71- 97	750	9	19	79	1.3	2.9	218	1/4	20	–	–	8431 0311 34
COMBI34 HR16	M5-M6	4.0- 8.0	35- 71	1600	9	19	79	1.0	2.2	179	1/4	20	–	–	8431 0311 36
Angle head models with 1/4" square drive															
TWIST VRD07-6	M4-M5	1.6- 6.0	14- 53	700	4	9	72	1.0	2.2	280	1/4	–	10	29	8 431 0256 78
TWIST VRD13-6	M4-M5	2.5- 5.0	22- 44	1300	4	9	72	1.0	2.2	280	1/4	–	10	29	8431 0256 94
Angle head models with 1/4" female hexagon drive															
TWIST VRD07-I6	M4-M5	1.6- 6.0	14- 53	700	4	9	72	1.0	2.2	280	1/4	–	10	29	8431 0256 60
TWIST VRD13-I6	M4-M5	2.5- 5.0	22- 44	1300	4	9	72	1.0	2.2	280	1/4	–	10	29	8431 0256 86
TWIST VRD20-I6	M4-M5	2.7- 4.0	24- 35	2000	7	15	74	1.0	2.2	270	1/4	–	10	29	8431 0257 02

^a Torque at min 2 and max 6.3 bar.

* Basic tools of the range, cover most needs.

Recommended hose size mm: TWIST/LUD12/COMBI24 = 8, LUF34/COMBI34 = 10

All models: Are reversible.

Female hexagon drive for bits: 1/4" on pistol grip models.

Combi-tools are delivered with drill chuck and 1/4" female hex drive for bits.

Torque at min 3 bar and max 6 bar.

ACCESSORIES INCLUDED

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OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

Page 36

ACCESSORIES

OPTIONAL ACCESSORIES

Designation	Exhaust hose	Lever start assembly kit, only PR models	Support handle	Front part for slotted screws bit finders see page 116	Reversing knob extended	ESD-hose
LUM/LUF10	–	4210 2067 80	–	4210 2906 80	–	8202 0501 06
LUM21/LUF20 HR	–	–	–	4210 2906 80	4210 3204 90	8202 0501 06
LUM21 PR/SR	–	4210 2067 80	4210 2054 81	4210 2906 80	–	–
LUM25 PR	–	4210 2061 80	4210 2054 80	–	–	–
LUM25 HR	4210 2052 00	–	4110 1355 86	4210 2906 80	4210 3204 90	–
LUM25 PR/SR	–	4210 2061 80	4210 2054 80	4210 2906 80	–	–
TWIST SR	4210 2053 00	–	4210 2054 80	4210 2323 90	–	–
TWIST VR/VRD	4210 2053 00	–	–	–	–	–
TWIST HR	4210 2053 00	–	4210 2054 80	4210 2323 90	4210 3204 90	–
TWIST HRD	4210 2053 00	–	4210 2054 80	–	4210 3204 90	–
LUF34 HR	–	–	4110 1355 82 ^a	–	4210 3204 91	–
LUF34 HRD	–	–	4110 1355 82 ^a	–	4210 3204 91	–

^a Standard for LUF34 HR/HRD04.

Non push start washer for TWIST SR/HR 4210 2760 03
Coupling ring for TWIST, 0.5-2 Nm 4210 2316 01

Angle head for LTV008, LTV08, LTV18 and TWIST VR/VRD

Designation	Quick change chuck set for power bits	90° hex drive magnetic bitholder	90° hex drive magnetic bitholder	30° hex drive magnetic bitholder	30° hex drive	Magnetic bitholder set
LTV008	–	4210 3857 91	–	–	–	–
LTV08/18	4210 2934 83	–	4110 1404 89	4110 1436 81	4110 1436 80	4210 2367 91
TWIST VR/VRD	4210 2934 83	–	–	–	–	4210 2367 91

ACCESSORIES INCLUDED



Clutch adjustment key

Included for all shut-off and slip clutch tools



Suspension yoke

Included for all straight and pistol grip tools



Hose nipple

Included for all tools



Quick change chuck

Included on all straight and pistol grip tools except LUF14



Exhaust hose

Included for straight and air-on-top models



Quick change chuck kit

Extra wide diameter for easy handling 4210 2326 91



SELECTED 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.



Kits for screwdrivers

Model	Ordering No.
LUM10 PR	4081 0070 90
LUM21 PR	4081 0071 90
LUM21 SR-U	4081 0072 90
LUM21 HR/HRF	4081 0076 90
LUM25 HR	4081 0077 90
LUM25 SR-U	4081 0073 90
LUM25 PR	4081 0074 90
LUM25 HRF	4081 0075 90
TWIST HR/HRF	4081 0079 90
TWIST SR/VR	4081 0078 90
TWIST HRD	4081 0082 90
LUF20 SR	4081 0083 90
LTV08 SR	4081 0084 90
LTV18 SR	4081 0085 90
LUF34 HR	4081 0086 90

RE-Conversion kits for LUM/LTV models

Model	Ordering No.
LUM21/25 HR	4210 1927 50
LUM21 SR	4210 2912 92
LUM25 SR	4210 3067 92
LUM12 SR ^a	4210 4137 90
LUM12 HR	4210 4032 81
LUM HRX	4210 3617 91
LTV008	4210 4137 90
LTV08	4210 4022 90
LTV18	4210 4023 90

^a Please note: the RE-conversion kit is not recommended for use with LUM12 PR.

NUTRUNNERS

Power, speed, accuracy and complete easy handleness

An unbeatable combination of power, speed and accuracy are the main criterias for Atlas Copco's range of nutrunners.

Those criterias make the Atlas Copco nutrunners a unique choice:

- ❑ **Power** –A high power output in relation to weight and dimension is decisive for productivity, i.e. the combined performance of operator and tool.
- ❑ **Speed** –Atlas Copco nutrunners have speed optimised for every torque capacity rating.
- ❑ **Accuracy** –The constantly high accuracy, a matter of balance between speed and clutch response, decides torque repeatability independently of joint characteristics.
- ❑ **Ergonomics** – The low weight, thermally insulated grip and low noise and vibration levels are all factors that help to reduce operator fatigue. This raises individual performance and contributes to higher overall productivity in your plant.
- ❑ **Complete easy handleness** –Simplicity in selection and installation allows you to set the torque once and that is the torque you will get, joint after joint, without complicated analyses.

It is easy to choose the right tool –no joint is complicated for a nutrunner. To set the torque –just adjust it to the required level, regardless of joint conditions.



Our wide range of nutrunners consists of the three main categories:

- Angle nutrunners
- Straight nutrunners
- Pistol grip nutrunners

These versions are also available in optional models such as torque monitored, crowfoot, Hold and Drive, Flush socket etc.



ANGLE AND STRAIGHT NUTRUNNERS

Shut-off type torque control

Productivity and accuracy

Bolt capacity M2.5 –M20

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

Easy to choose, easy to set, easy to run.

Nutrunners from Atlas Copco will help you solve your tightening problems.

- ❑ **Accurate every time** –the clutch shuts off at the same torque, tightening after tightening.
- ❑ **Hard or soft joint** –do not bother, the tool gives the torque you adjust it for, independent of joint variations.
- ❑ **Air pressure fluctuations** –The torque accuracy is unaffected by variations in air pressure and lubrications.
- ❑ **Highest productivity** – Instant disengagement of the clutch keeps torque over-shoot to a minimum even on the fastest tools. New models developed to meet the most extreme requirements on operational speeds.
- ❑ **Less operator fatigue** –Well balanced, slim and comfortable handle combined with extremely low reaction forces.
- ❑ **Reliability** –Certified for accuracy and durability by major car manufacturers.
- ❑ **Job verification** – For remote indication of clutch release function the tools can be equipped with air signal outlet –RE. Often used for counting the number of fasteners in a tightening cycle.
- ❑ **Electronic monitoring** –Most tools in the range can be equipped with integrated electronics for monitoring applications.



Sophisticated monitoring

For joints classified as critical, most nutrunners in the LTV range can also be equipped with integrated electronics for torque monitoring. Built-in options include:

- Torque transducer and tool mounted signal lights – **TS**.
- Torque transducer, angle encoder and tool mounted signal lights – **TAS**.

The -TS and -TAS versions are available on request.

Reporting, RE-versions

LTV angle nutrunners can also be equipped with an RE-signal port. RE-tools give out a pneumatic signal that can be connected to a controller to count the number of tightenings and to detect premature shut-offs and rehits.

ANGLE NUTRUNNERS

Shut-off type torque control

The LTV 8 series

Bolt capacity M2.5 –M22

- ❑ **Accurate** –The consistent clutch disengagement is your guarantee for a minimum of torque scatter.
- ❑ **Low mean shift** – The adjustable mechanism in the shut-off clutch is not affected by variations in joint rate or air pressure.
- ❑ **Extremely fast** –The unique clutch design allows you to select high speed models without compromising accuracy.
- ❑ **Ergonomic and safe** –Most of the reaction is taken up by the inertia of the tool thanks to the rapid clutch shut-off.
- ❑ **Serviceability** –The tools are built to last but are at the same time designed for easy, effective service and maintenance.
- ❑ **Accessible and convenient** –Qualities offered by the lean and smooth exterior in combination with small size angle head and perfect balance. New small size angle head up to 15 Nm.



❑ **ISO 5393 tested** –Many models certified by major car manufacturers.

❑ **Cycle complete signal** – Report

function (RE) optional for many models. See page 66 for further information.

Model	Suitable for bolt size mm	Square drive size in	Torque range Soft joint		Free speed r/min	Weight		Length mm	Distance centre to side angle head mm	Angle head height mm	Recom- mended hose size mm	Air consumption at free speed		Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb					l/s	cfm		
Torque control LTV. Reversible models															
LTV08 R03-6	M2.5-M4	1/4	0.5 - 3	0.4 - 2.2	1000	0.8	1.7	275	10	28.5	6.3	4	8	69	8431 0325 88
LTV08 R03-42	M2.5-M4	1/4 ^a	0.5 - 3	0.4 - 2.2	1000	0.8	1.7	275	10	28.5	6.3	4	8	69	8431 0325 84
LTV08 R03-Q	M2.5-M5	1/4 ^b	0.5 - 3	0.4 - 2.2	1000	0.8	1.7	275	10	28.5	6.3	4	8	69	8431 0325 92
LTV08 R05-6	M2.5-M4	1/4	0.5 - 4.5	0.4 - 3.3	700	0.8	1.7	275	10	28.5	6.3	4	8	69	8431 0325 78
LTV08 R05-42	M2.5-M4	1/4 ^a	0.5 - 4.5	0.4 - 3.3	700	0.8	1.7	275	10	28.5	6.3	4	8	69	8431 0325 74
LTV08 R05-Q	M2.5-M5	1/4 ^b	0.5 - 4.5	0.4 - 3.3	700	0.8	1.7	275	10	28.5	6.3	4	8	69	8431 0325 81
LTV18 R07-6	M4-M5	1/4	3.5 - 7	2.6 - 5	700	1.2	2.6	290	10	28.5	8	6	13	71	8431 0326 72
LTV18 R07-42	M4-M5	1/4 ^a	3.5 - 7	2.6 - 5	700	1.2	2.6	290	10	28.5	8	6	13	71	8431 0326 61
LTV18 R07-Q	M4-M5	1/4 ^b	3.5 - 7	2.6 - 5	700	1.2	2.6	290	10	28.5	8	6	13	71	8431 0326 76
LTV18 R15-6	M6	1/4	6 - 15	4 - 11	360	1.2	2.6	308	11	28	8	6	13	71	8431 0326 55
LTV18 R15-10	M6	3/8	6 - 15	4 - 11	360	1.2	2.6	308	11	28	8	6	13	71	8431 0326 56
LTV18 R15-42	M6	1/4 ^a	6 - 15	4 - 11	360	1.2	2.6	308	11	28	8	6	13	71	8431 0326 54
LTV18 R15-Q	M6	1/4 ^b	6 - 15	4 - 11	360	1.2	2.6	308	11	28	8	6	13	71	8431 0326 58
LTV28 R07-6	M5	1/4	2.5 - 7	1.8 - 5	1100	1.3	2.9	334	10	28.5	8	8	17	76	8431 0601 65
LTV28 R07-42	M5	1/4 ^a	2.5 - 7	1.8 - 5	1100	1.3	2.9	334	10	28.5	8	8	17	76	8431 0601 73
LTV28 R07-Q	M6	1/4 ^b	2.5 - 7	1.8 - 5	1100	1.3	2.9	334	10	28.5	8	8	17	76	8431 0601 68
LTV28 R15-6	M6	1/4	7 - 15	5 - 11	560	1.4	3.1	349	11	28	10	10	21	76	8431 0601 52
LTV28 R15-42	M6	1/4 ^a	7 - 15	5 - 11	560	1.4	3.1	349	11	28	10	10	21	76	8431 0601 58
LTV28 R15-Q	M6	1/4 ^b	7 - 15	5 - 11	560	1.4	3.1	349	11	28	10	10	21	76	8431 0601 53
LTV28 R15-10	M6	3/8	7 - 15	5 - 11	560	1.4	3.1	349	11	28	10	10	21	76	8431 0601 55
LTV28 R20-10	M6	3/8	10 - 19	7 - 15	530	1.4	3.1	355	13.5	34.5	10	10	21	76	8431 0601 50
LTV28 R20-42	M6	1/4 ^a	10 - 20	7 - 15	420	1.4	3.1	350	13.5	34	10	10	21	76	8431 0601 48
LTV28 R28-10	M8	3/8	14 - 28	10 - 21	340	1.4	3.1	350	13.5	29.5	10	10	21	76	8431 0601 40
LTV28 RL28-10	M8	3/8	14 - 28	10 - 21	80	1.4	3.1	350	13.5	29.5	10	10	21	76	8431 0601 33
Non-reversible models															
LTV28 N11-6	M5-M6	1/4	5 - 11	4 - 8	1250	1.2	2.6	305	11	28	10	11	23	76	8431 0600 06
LTV28 N11-42	M5-M6	1/4 ^a	5 - 11	4 - 8	1250	1.2	2.6	305	11	28	10	11	23	76	8431 0600 17
LTV28 N11-Q	M5-M6	1/4 ^b	5 - 11	4 - 8	1250	1.2	2.6	305	11	28	10	11	23	76	8431 0600 13
LTV28 N11-10	M5-M6	3/8	5 - 11	4 - 8	1250	1.2	2.6	305	11	28	10	11	23	76	8431 0600 10
LTV28 N15-10	M6	3/8	7 - 15	5 - 11	950	1.2	2.6	305	13.5	29.5	10	11	23	76	8431 0600 99
LTV28 N22-10	M6	3/8	11 - 22	8 - 16	620	1.3	2.9	330	13.5	34.5	10	11	23	76	8431 0600 87
LTV28 N28-10	M8	3/8	14 - 28	10 - 21	500	1.3	2.9	325	13.5	29.5	10	11	23	76	8431 0600 84
LTV28 N30-10	M8	3/8	15 - 30	11 - 22	400	1.3	2.9	325	13.5	29.5	10	11	23	76	8431 0600 81

Air inlet thread in: LTV08 = 1/8, LTV18/28 = 1/4.

^a Female hex drive.

^b Quick change chuck.

ACCESSORIES INCLUDED

Hose fitting

Clutch adjustment key

OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

Page 43

ANGLE NUTRUNNERS

Torque control

LTV 28 XX series –for maximum productivity

Atlas Copco LTV 28 XX angle nutrunners are the perfect choice for high speed and good accuracy. These tools are designed for M6 and M8 screws and offer outstanding performance in lean production. The well proven motor provides high speed for maximum productivity. The mechanical clutch is unique of its kind, giving the accuracy you need.



Model	Suitable for bolt size mm	Square drive size in	Torque range Soft joint		Free speed r/min	Weight		Length mm	Distance centre to side angle head mm	Angle head height mm	Recommended hose size mm	Air consumption at free speed		Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb					l/s	cfm		
Torque control LTV. Reversible models															
LTV28XX R15-6	M6	1/4	8 - 15	6 - 11	1000	1.5	3.3	378	11	28	10	16	34	80	8431 0531 76
LTV28XX R15-42	M6	1/4 ^a	8 - 15	6 - 11	1000	1.5	3.3	378	11	28	10	16	34	80	8431 0531 77
LTV28XX R15-Q	M6	1/4 ^b	8 - 15	6 - 11	1000	1.5	3.3	378	11	28	10	16	34	80	8431 0531 74
LTV28XX R15-10	M6	3/8	8 - 15	6 - 11	1000	1.5	3.3	378	11	28	10	16	34	80	8431 0531 78
LTV28XX R25-10	M8	3/8	12 - 25	9 - 18	660	1.6	3.5	385	13.5	34.5	10	16	34	80	8431 0531 79
LTV28XX R29-10	M8	3/8	15 - 29	11 - 21	550	1.6	3.5	385	13.5	34.5	10	16	34	80	8431 0531 81
LTV28XX R32-10	M8	3/8	18 - 32	13 - 24	520	1.6	3.5	385	13.5	34.5	10	16	34	80	8431 0531 84
LTV28XX R40-10	M8	3/8	20 - 40	15 - 29	420	1.8	4.0	400	18	34.5	10	16	34	80	8431 0531 87
LTV28XX R44-10	M8	3/8	25 - 44	18 - 32	350	1.8	4.0	400	18	34.5	10	16	34	80	8431 0531 90
Non-reversible models															
LTV28XX N29-10	M8	3/8	18 - 29	13 - 21	875	1.5	3.3	353	13.5	34.5	10	20	42	80	8431 0600 29
LTV28XX N44-10	M10	3/8	22 - 44	16 - 33	560	1.6	3.5	353	13.5	34.5	10	20	42	80	8431 0600 44

^a Female hex drive.

Air inlet thread in: LTV28 = 1/4.

^b Quick change chuck.

LTV 38 series –the clear M10 choice

The LTV 38 series offer the highest reliability when tightening M10 screws. Small, durable gears in combination with a precise clutch and reliable motor put this tool at the top master of its class.



Model	Suitable for bolt size mm	Square ^c drive size in	Torque range Soft joint		Free speed r/min	Weight		Length mm	Distance centre to side angle head mm	Angle head height mm	Recommended hose size mm	Air consumption at free speed		Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb					l/s	cfm		
Torque control LTV. Reversible models															
LTV38 R42-10	M8	3/8	20 - 42	15 - 31	400	2.0	4.4	436	18	34.5	10	16	34	80	8431 0603 55
LTV38 R42-13	M8	1/2	20 - 42	15 - 31	400	2.2	4.8	453	20	41	10	16	34	80	8431 0603 69
LTV38 R50-10	M10	3/8	25 - 50	18 - 36	330	2.0	4.4	436	18	34.5	10	16	34	80	8431 0603 63
LTV38 R50-13	M10	1/2	25 - 50	18 - 36	330	2.2	4.8	453	20	41	10	16	34	80	8431 0603 71
LTV38 R57-13	M10	1/2	30 - 57	22 - 41	280	2.2	4.8	453	20	41	10	16	34	80	8431 0603 51
LTV38 R70-13	M10	1/2	34 - 70	24 - 50	225	2.4	5.3	487	20	41	10	16	34	80	8431 0603 46
LTV38 R85-13	M10-M12	1/2	40 - 85	29 - 61	190	2.8	6.1	530	25	52	10	16	34	80	8431 0603 38
Non-reversible models															
LTV38 N31-10	M8	3/8	18 - 31	13 - 23	800	1.7	3.7	400	13.5	34.5	10	20	42	80	8431 0602 04
LTV38 N45-10	M8	3/8	22 - 45	16 - 33	520	1.8	4.0	410	18	34.5	10	20	42	80	8431 0602 06
LTV38 N55-10	M10	3/8	30 - 55	22 - 40	440	1.8	4.0	410	18	34.5	10	20	42	80	8431 0602 14
LTV38 N55-13	M10	1/2	30 - 55	22 - 40	440	2.0	4.4	427	20	41	10	20	42	80	8431 0602 22
LTV38 N68-13	M10	1/2	30 - 68	22 - 40	370	2.0	4.4	427	20	41	10	20	42	80	8431 0602 48
LTV38 N85-13	M10	1/2	40 - 85	29 - 63	300	2.2	4.8	460	20	41	10	20	42	80	8431 0602 52
LTV38 N100-13	M12	1/2	50 - 100	37 - 74	250	2.6	5.7	503	25	52	10	20	42	80	8431 0602 59

^a Female hex drive.

Air inlet thread in: LTV38 = 1/4.

^b Quick change chuck.

ACCESSORIES INCLUDED

- Hose fitting
- Clutch adjustment key

OPTIONAL ACCESSORIES

Page 43



SELECTED SERVICE KITS

Page 43

ANGLE NUTRUNNERS

Torque control

LTV 46 and 48 series –the flexible choice for higher torques

The LTV 46 and 48 series are robust and reliable tools in their class –and they reversible for torques up to 200 Nm. Low weight and smooth handles makes them pleasant tools to use. Suitable reaction bars and other accessories are available.



Model	Suitable for bolt size mm	Square drive size in	Torque range Soft joint		Free speed r/min	Weight		Length mm	Distance centre to side angle head mm	Angle head height mm	Recommended hose size mm	Air consumption at free speed		Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb					l/s	cfm		
Reversible models															
LTV48 R65-13	M10	1/2	40 - 65	29 - 47	380	3.1	6.7	550	20	45	12.5	28	59	82	8431 0534 82
LTV48 R120-L13	M12	1/2	70 -120	51 - 88	215	3.5	7.6	590	25	52	12.5	28	59	82	8431 0534 88
LTV48 R150-L13	M12	1/2	70 -150	51 -111	170	3.5	7.6	590	25	52	12.5	28	59	82	8431 0534 93
LTV48 R200-L13	M14	1/2	115 -200	85 -148	100	3.8	8.3	610	25	52	12.5	28	59	82	8431 0534 98
Non-reversible models															
LTV46 N55-13	M10	1/2	20 - 57	15 - 40	500	2.9	6.3	495	20	45	12.5	27	57	81	8431 0460 70
LTV46 N70-13	M10-M12	1/2	25 - 73	18 - 51	400	2.9	6.3	495	20	45	12.5	27	57	81	8431 0460 05
LTV46 N90-L13	M12	1/2	35 - 90	26 - 66	280	3.3	7.2	515	25	52	12.5	27	57	81	8431 0460 47
LTV46 N115-L13	M12-M14	1/2	50 -116	37 - 84	220	3.3	7.2	515	25	52	12.5	27	57	81	8431 0460 13
LTV46 N150-L13	M14	1/2	60 -150	44 -111	180	3.3	7.2	515	25	52	12.5	27	57	81	8431 0460 62

Air inlet thread in: LTV46 and LTV48 = 1/2.

Torque range is achieved at min 5 bar on LTV46.

^a Double square drive is available as optional for LTV46.

LTV 58 series

LTV 58 incorporates a twin motor for high rundown speed and accurate tightening. These tools are intended for the highest torques and cramped spaces. Screw sizes from M16 up to M22.



Model	Suitable for bolt size mm	Square drive size in	Torque range Soft joint		Free speed r/min	Weight		Length mm	Distance centre to side angle head mm	Angle head height mm	Recommended hose size mm	Air consumption at free speed		Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb					l/s	cfm		
Reversible models															
LTV58 R180-13	M16	1/2	85 -180	63 -133	540	4.4	9.7	595	25	55	10	19	40	79	8431 0529 04
LTV58 R200-13	M16	1/2	130 -200	111 -148	320	4.4	9.7	595	25	55	10	19	40	79	8431 0529 09
LTV58 R350-19	M18	3/4	160 -350	148 -259	240	6.4	14.1	604	34	72	10	19	40	79	8431 0529 15
LTV58 R575-25	M22	1	280 -575	196 -426	180	10.4	22.9	686	54	81	10	19	40	79	8431 0529 21
Non-reversible models															
LTV58 N180-13	M16	1/2	85 -180	63 133	540	4.4	9.7	595	25	55	10	19	40	79	8431 0529 18
LTV58 N200-13	M16	1/2	130 -200	111 -148	320	4.4	9.7	595	25	55	10	19	40	79	8431 0529 24
LTV58 N350-19	M18	3/4	160 -350	148 -259	240	6.4	14.1	604	34	72	10	19	40	79	8431 0529 29
LTV58 N575-25	M22	1	280 -575	196 -426	180	10.4	22.9	686	54	81	10	19	40	79	8431 0529 34

Air inlet thread in: LTV58 = 1/2.

Signal connection kit

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ACCESSORIES INCLUDED

Hose fitting

Clutch adjustment key

OPTIONAL ACCESSORIES

Page 43



SELECTED SERVICE KITS

Page 43

ANGLE NUTRUNNERS

Angle, stall type –Ratchet wrenches –Worm drive

Angle nutrunners

Bolt capacity M6

- **Independent of joint variation** –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.

Ratchet wrenches

Bolt capacity M8 –M10

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

Worm-drive nutrunners

Bolt capacity M8 –M12

- **Teasing throttle characteristics** – Give you a significantly reduced free speed. The worm-drive nutrunners can therefore be used for:



– Nutrunning
– Tapping

– Light reaming
– Tube-rolling

Can also be used for incorporation in rigs as air motors for intermittent operation.

Model	Suitable for bolt size mm	Square drive size in	Torque at 6 bar		Free speed r/min	Weight		Length mm	Distance centre to side angle head mm	Angle head height mm	Air consumption at free speed		Recommended hose size mm	Air inlet thread in	Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb				l/s	cfm				
Angle nutrunners stall type, reversible model																
LMV28 R11-10	M6	3/8	11	8	1200	1.1	2.4	264	11	28	10	21	10	1/4	76	8431 0591 07
LMV28 R14-10	M6	3/8	14	10	910	1.1	2.4	264	13.5	29.5	10	21	10	1/4	76	8431 0591 09
Angle nutrunners stall type, non reversible model																
LMV28 N16-10	M6	3/8	16	12	1000	1.0	2.2	239	13.5	29.5	11	23	10	1/4	76	8431 0590 17
Ratchet wrenches																
LBR33 S26/114-13	M8	13 ^a	22	16	185	1.4	3.1	290	13	15	9.5	20	10	1/4	90	8431 0345 71
LBR33 S26/118-16	M8-M10	16 ^a	30	22	135	1.4	3.1	300	18	15	9.5	20	10	1/4	91	8431 0346 70
LBR33 S26/118-17	M8-M10	17 ^a	30	22	135	1.4	3.1	300	18	15	9.5	20	10	1/4	91	8431 0346 62
Worm drive nutrunners																
LMK22 S004	M8	7/16 ^a	19	14	450	1.0	2.2	240	31	30	6	13	6	1/4	90	8431 0242 26
LMK22 S002	M10	7/16 ^a	23	17	200	1.0	2.2	240	31	30	6	13	6	1/4	90	8431 0242 18
LMK33 S005	M10	7/16 ^a	29	21	480	1.7	3.7	263	41	39	9.5	20	10	1/4	90	8431 0343 24
LMK33 S002	M10-M12	7/16 ^a	32	24	235	1.9	4.2	291	41	39	9.5	20	10	1/4	90	8431 0343 16
LMK33 S001	M10-M12	7/16 ^a	55	41	130	2.2	4.9	385	41	39	9.5	20	10	1/4	90	8431 0343 08

^a Female hex drive.

OPTIONAL ACCESSORIES. Socket adapters for LBR

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

ACCESSORIES INCLUDED

Hose fitting

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



SELECTED SERVICE KITS

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Female hex sockets for LBR

Dimensions in	Ordering No. LBR33 S26/114	Ordering No. LBR33 S26/118	Dimensions mm	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	–	4 210 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.

ACCESSORIES

For angle nutrunners

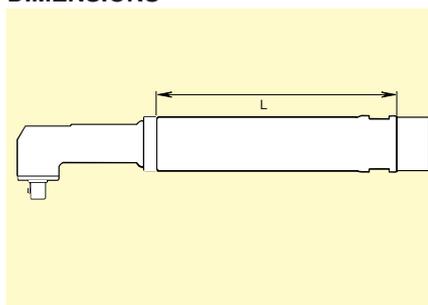


Model	Exhaust hose	Suspension yoke		Protective cover	Reaction bar kit	Signal connection kit (-RE)
		Fixed	Swivelling			
LTV08				4210 4015 00		4210 4022 90
LTV18 R07		4210 1631 81		4210 4014 00		4210 4023 90
LTV18 R15		4210 1631 81		4210 4013 00		4210 4023 90
LTV28 R07	4210 2053 00	4210 1631 82	4210 3931 80	4210 3990 00		4210 4019 90
LTV28, all models except R07	4210 2053 00	4210 1631 82	4210 3931 80	4210 3990 00		4210 4018 90
LTV28XX R15/R25/R29/R32	4210 2053 00	4210 1631 82	4210 3931 80	4210 3990 00		4210 4017 90
LTV28XX R40/44	4210 2053 00	4210 1631 82	4210 3931 80	4210 3991 00		4210 4017 90
LTV38 R42/R50/R57/N31/N45/N55/N68, LTC38, LTV38 FS	4210 2053 00	4210 1631 82	4210 3931 81	4210 3992 00 (not LTC)		4210 4017 90
LTV38 R70/N85	4210 2053 00	4210 1631 82	4210 3931 81	4210 4003 00		4210 4017 90
LTV38 R85/N100, LTV38 HAD	4210 2053 00	4210 1631 82	4210 3931 81	4210 4004 00	4210 4020 80	4210 4017 90
LTV48 R65	4210 4011 00	4210 4061 80	4210 4021 80	4210 4058 00	4210 4020 80	4210 4057 90
LTV48 R120/R150/R200, LTC48, LTV48 FS, LTV48 HAD	4210 4011 00	4210 4061 80	4210 4021 80	4210 4059 00	4210 4020 80	4210 4057 90
LTV58 R200	4210 4011 00		4210 4021 80	4210 4059 00	4210 4020 80	
LTV58 R350			4210 3088 80		included	
LTV46, LTC46, LTV46 FS, LTV46 HAD					4220 0312 90	

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
LTV38R70/R85/LTV48	75	3		4210 4303 80
LTV38R70/R85/LTV48	150	6		4210 4304 80

DIMENSIONS



SELECTED 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
LTV46 SR/LTC46	4081 0104 90
LTV08 R	4081 0084 90
LTV18 R	4081 0085 90
LTV28 R	4081 0102 90
LTV28 X	4081 0209 90
LTV28 N	4081 0107 90
LTV38 N	4081 0108 90
LTV38 R	4081 0103 90

Including the most common wear parts. For complete information, see spare parts list.

ANGLE NUTRUNNERS

Flush socket type

LTV FS Flush Socket tools

A good solution for access problems where minimum angle head size and high torque accuracy is required is the LTV FS. The flush socket tools have integrated sockets to achieve a reduced angle head height.

The LTV46 FS nutrunners are based upon the LTV range of angle nutrunners and offer the same tightening characteristics. They have the same motor, clutch and gear parts as the LTV range.



LTV38 FS

Model	Suitable for bolt size mm	Socket size mm	Torque range Soft joint		Free speed r/min	Weight		Length mm	Angle head height incl socket mm	Distance centre to side angle head mm	Re-com-mended hose size mm	Air consumption at		Air inlet thread in	Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb					l/s	cfm			
Flush socket angle nutrunners LTV FS. Reversible models																
LTV28 R20 FS	M6	13	8- 20	6- 15	500	1.4	3.1	352	34	13.5	10	10	21	1/4	76	8431 0608 02
LTV28 R28 FS	M8	13	14- 28	10- 21	340	1.4	3.1	350	34	—	10	10	21	1/4	76	8431 0608 00
LTV38 R50 FS	M10	15	25- 50	18- 37	360	2.2	4.8	454	53	20	10	18	38	1/4	80	8431 0609 85
LTV38 R65 FS	M12	16	34- 65	25- 48	280	2.6	5.7	515	53	20	10	18	38	1/4	80	8431 0609 87
LTV48 R65 FS	M10	16	30- 65	22- 48	400	3.1	6.7	550	53	20	12.5	28	59	3/8	82	8431 0610 08
LTV48 R120 FS	M12	19	70-120	37- 88	220	3.5	7.6	590	70	25	12.6	28	59	3/8	82	8431 0610 12
LTV48 R150 FS	M12	19	70-150	44-111	180	3.5	7.6	590	70	25	12.7	28	59	3/8	82	8431 0610 17
LTV48 R200 FS	M14	19	115-200	85-148	100	3.8	8.3	610	70	25	12.8	28	59	3/8	82	8431 0610 21
Non-reversible models																
LTV38 N55 FS	M10	15	30- 55	22- 40	440	2.0	4.4	441	53	20	10	20	42	1/4	80	8431 0609 89
LTV38 N85 FS	M10	15	40- 85	29- 63	300	2.2	4.8	460	53	20	10	20	42	1/4	80	8431 0609 93
LTV46 N55 FS	M10	16	20- 57	15- 42	500	2.9	6.3	495	53	20	12.5	27	57	1/2	81	8431 0463 77
LTV46 N70 FS	M10-M12	16	25- 73	18- 54	400	2.9	6.3	495	53	20	12.5	27	57	1/2	81	8431 0463 69
LTV46 N90 FS	M12	19	35- 90	26- 66	280	3.3	7.2	515	70	25	12.5	27	57	1/2	81	8431 0463 51
LTV46 N115 FS	M12	19	50-116	37- 85	220	3.3	7.2	515	70	25	12.5	27	57	1/2	81	8431 0463 44
LTV46 N150 FS	M12-M14	19	60-150	44-111	180	3.3	7.2	515	70	25	12.5	27	57	1/2	81	8431 0463 36

Torque range is achieved at min 5 bar on LTV46/48.

NOTE: Socket mounted according to table above, other sizes available according to page 45.

ACCESSORIES INCLUDED

- Hose fitting
- Clutch adjustment key

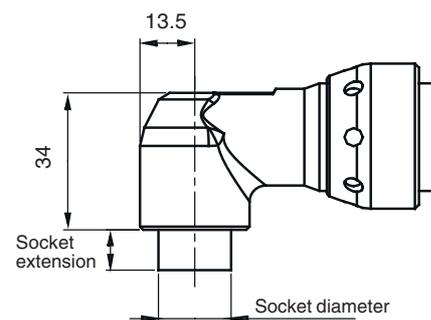
ACCESSORIES

For flush socket tools

Sockets for LTV28 R20 FS/R28 FS

Integrated sockets

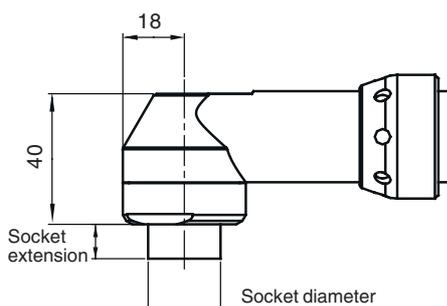
Width across flats mm/in	Socket extension mm	Socket diameter mm	Socket type	Bit lock principle	Ordering No.
10	0	17.9	HEX		4220 1589 10
10	15	17.9	HEX		4220 1589 20
13	0	17.9	HEX		4220 1589 13
13	2	17.9	HEX		4220 1589 33
13	5	17.9	HEX		4220 1589 23
13	15	17.9	HEX		4220 1589 34
6.35=1/4"	0	17.9	HEX, bit holder	magnet	4220 1589 14
8=5/16"	0	17.9	HEX, bit holder	magnet	4220 1589 08



Socket for LTV38 R50 FS/N55 FS

Integrated sockets

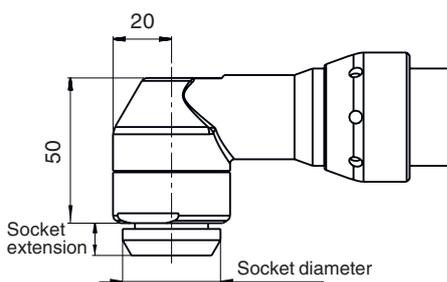
Width across flats mm/in	Socket extension mm	Socket diameter mm	Socket type	Bit lock principle	Ordering No.
12.7=1/2"	0.1	20.9	HEX		4220 1676 33
13	0.1	20.9	HEX		4220 1676 01
13	10.1	20.9	HEX		4220 1676 13
13	21.1	20.9	HEX		4220 1676 23
14	0.1	20.9	HEX		4220 1676 14
15	0.1	20.9	HEX		4220 1676 15
7.95=5/16"	0.1	20.9	HEX	special	4220 1676 04
8=5/16"	12.1	20.9	HEX	special	4220 1676 06



Sockets for LTV38 R65/N85 FS, LTV48 R65 FS and LTV46 N55 FS/N70 FS

Integrated sockets

Width across flats mm/in	Socket extension mm	Socket diameter mm	Socket type	Bit lock principle	Ordering No.
10	3.3	27.5	HEX		4220 1621 04
11	2.8	27.5	HEX	Side hole	4220 0815 01
12	3.3	27.5	HEX		4210 2749 03
13	3.3	27.5	HEX		4210 2749 01
13	22.3	27.5	HEX		4220 0815 00
14	3.3	27.5	HEX		4220 2749 04
15	1.3	27.5	HEX		4220 1621 01
15	3.3	27.5	HEX		4210 2749 02
15	8.3	27.5	HEX	Special	4210 2749 10
15	16.3	27.5	HEX		4220 1621 00
16	0.5	27.5	HEX		4220 1251 00
16	4.3	27.5	HEX		4220 2882 01
17	4.3	27.5	HEX		4220 2882 02
18	4.3	27.5	HEX		4220 2882 03
7/16"	3.3	27.5	HEX		4210 2749 06
9/16"	3.3	27.5	HEX		4210 2749 05

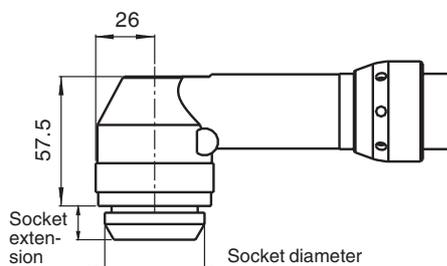


Other dimensions on request.

Sockets for LTV46 N90 FS/N115 FS/N150 FS and LTV48 R120 FS/R150 FS/R200 FS

Integrated sockets

Width across flats mm	Socket extension mm	Socket diameter mm	Bit lock principle	Ordering No.
Hex				
15	6.5	37.5	SF	4210 3534 15
17	8.5	37.5	SF	4210 3534 17
18	2	37.5	SF	4210 3534 68
18	5.5	41.5	SF	4210 1595 02
18	8.5	37.5	SF	4210 3534 18
19	9.5	37.5	SF	4210 3534 19
21	10.5	37.5	SF	4210 3534 21
22	10.5	37.5	SF	4210 3534 22
24	10.5	37.5	SF	4210 3534 24
24	13.5	41.5	SF	4210 1595 01
27	13.8	40.5	SF	4210 3534 27
Female Torx				
E-10	5.5	37.5	Female TX	4210 3534 30
E-12	5.5	37.5	Female TX	4210 3534 32
E-14	5.5	37.5	Female TX	4210 3534 34
E-16	5.5	37.5	Female TX	4210 3534 36
E-18	5.5	37.5	Female TX	4210 3534 38
E-20	5.5	37.5	Female TX	4210 3534 40
E-20	8.5	40.5	Female TX	4220 2044 01



Other dimensions on request.

ANGLE NUTRUNNERS

Crowfoot type

LTC Crowfoot tools

Bolt capacity M8 –M14

A good solution in many cases of inaccessibility is the crowfoot, which has the smallest height and side to centre dimensions.

The LTC range of nutrunners are based on the LTV range of angle nutrunners and offers the same tightening characteristics. They have the same motor, clutch and gear parts as the LTV range.

The crowfoot is attached to a standard angle nutrunner LTV and can easily be adjusted $\pm 90^\circ$ of centre line.

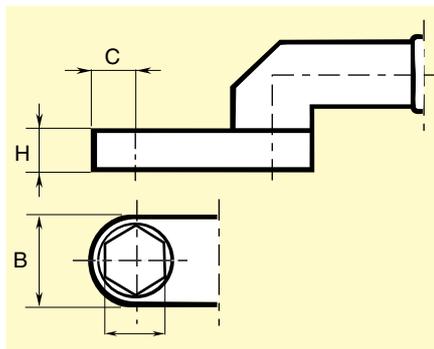


Model	Suitable for bolt size mm	Socket size mm	Torque range Soft joint		Free speed r/min	Weight		Length mm	Crowfoot dimensions			Recommended hose size mm	Air consumption at free speed		Sound level dB(A)	Ordering No.
			Nm	ft lb		kg	lb		H mm	B mm	C mm		l/s	cfm		
Reversible																
LTC38 R33-13-A-O-3	M8	13	16- 33	12-24	430	2.6	5.7	508	19	32	16	10	18	38	80	8431 0611 01
LTC38 R40-17-A-O-3	M10	13	23- 40	17-29	360	3.0	6.6	540	19	39	20	10	18	38	80	8431 0611 08
LTC48 R56-17-A-O-3	M10-M12	17	24- 56	18-41	400	3.9	8.6	600	19	39	20	12.5	28	59	82	8431 0611 06
LTC48 R96-19-A-O-3	M12	19	40- 96	30-71	220	4.3	9.5	640	25	39	20	12.5	28	59	82	8431 0611 11
LTC48 R120-19-A-O-3	M12-M14	19	48-120	36-89	180	4.3	9.5	640	25	39	20	12.5	28	59	82	8431 0611 15
Non-reversible																
LTC38 N41-13-A-O-3	M8	13	18- 41	13-30	520	2.4	5.3	479	19	32	16	10	20	42	80	8431 0611 10
LTC38 N48-17-A-O-3	M10	17	24- 48	17-35	440	2.8	6.1	511	19	39	20	10	20	42	80	8431 0611 09
LTC46 N46-17-A-O-3	M10	17	16- 46	12-34	500	3.5	7.7	561	19	39	20	12.5	27	57	81	8431 0468 07
LTC46 N55-17-A-O-3	M10	17	20- 55	15-40	400	3.5	7.7	561	19	39	20	12.5	27	57	81	8431 0469 06
LTC46 N78-19-A-O-3	M12	19	28- 78	21-57	280	4.1	9.0	577	25	39	20	12.5	27	57	81	8431 0470 03
LTC46 N93-19-A-O-3	M12	19	40- 93	29-69	220	4.1	9.0	577	25	39	20	12.5	27	57	81	8431 0471 02
LTC46 N120-19-A-O-3	M12	19	48-120	35-88	180	4.1	9.0	577	25	39	20	12.5	27	57	81	8431 0472 01

Air inlet thread inch: LTC38 = 1/4", LTC46 = 1/2", LTC48 = 3/8".

NOTE: Sockets mounted according to table above, optional sizes see page 47.

DIMENSIONS



Extensive range of crowfoot and open end tools, see special leaflet, "Atlas Copco tool attachments" Ordering No. 9833 1361 01 and CD "Ordering information" Ordering No. 9833 1381 01.

ACCESSORIES

For crowfoot tools

OPTIONAL HEX SOCKETS FOR LTC CROWFOOT NUTRUNNERS

Sockets for LTC38 R33/N41-13-A-O-3^a

Width across flats		Ordering No.
mm	in	
12	7/16	4210 2625 03
		4210 2625 04
13	1/2	4210 2625 01
		4210 2625 00
14		4210 2625 02
15		4210 2625 06

^a 13 mm socket mounted on tool.

Sockets for LTC38 R40/N48-17-A-O-3^b, LTC48 R56-17-A-O-3^b LTC46 N46/N55-17-A-O-3^b

Width across flats		Ordering No.
mm	in	
13		4210 2626 06
14		4210 2626 04
15		4210 2626 03
	1/2	4210 2626 05
	5/8	4210 2626 02
		4210 2626 00
16		4210 2626 01
17		4210 2626 10
18		4210 2626 08
19		4210 2626 08

^b 17 mm socket mounted on tool.

Sockets for LTC48 R96/R120-19-A-O-3^c, LTC46 N78/N93/N120-19-A-O-3^c

Width across flats		Ordering No.
mm	in	
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

^c 19 mm socket mounted on tool.

ANGLE NUTRUNNERS

Open end type –Torque control

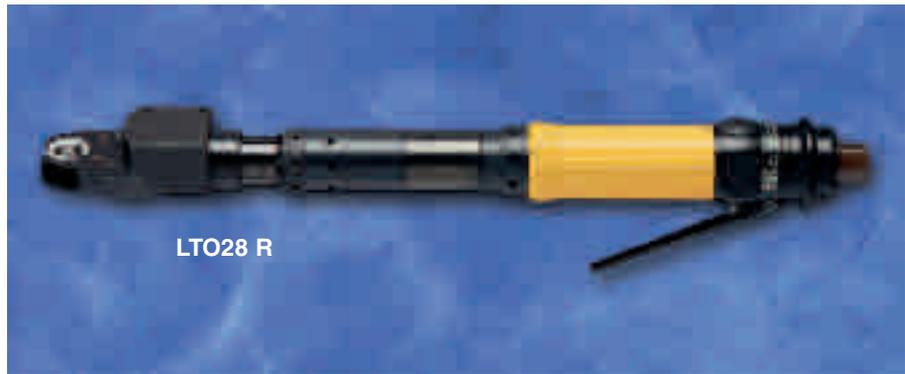
10-23 mm hexagon nut capacity

Based on the well-known LTV 8 series of angle nutrunners the LTO torque control open end nutrunners offer tightening of tube nuts in high-pace line production.

Applications are mainly in the assembly of hydraulic and pneumatic brake pipes and other hose and cable connections in the automotive and aircraft industries.

The power from the air motor is transferred to the nut through a gear drive mechanism without impacting or ratcheting.

The one-hand operated two step mechanism simplifies the socket release back to open position.



Model	Torque range Soft joint		Socket size mm	Max socket size mm	Free speed r/min	Weight		Tool dimensions			Ordering No.
								Total length mm	Tube nut head		
	Nm	ft lb	mm	mm	mm	kg	lb		mm	width mm	
LTO28 R12-10-K-I-3	8-12	7- 9	10	14	380	1.9	4.2	400	40	14/39	8431 0536 17
LTO28 R17-13-K-I-3	12-17	4-12	13	23	285	2.1	4.6	410	52	14.4/39	8431 0536 11
LTO28 R24-10-K-I-3	15-24	6-18	10	14	160	1.9	4.2	420	40	14/39	8431 0536 12
LTO28 R31-17-K-I-3	18-31	7-23	17	23	140	2.1	4.6	430	52	14.4/39	8431 0536 14

Recommended hose size 10 mm.

Air inlet thread: 1/4 in.

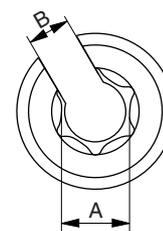
NOTE: The tools are supplied with a socket gear according to table above. Optional sockets according to page 49.

ACCESSORIES

For open end tools

Sockets for LTO28 R12-10-K-I-3/R24-10-K-I-3^a

Socket size A	Open end B	Ordering No.
10 mm	9	4210 3998 00
11 mm	9	4210 3998 01
12 mm	9	4210 3998 02
13 mm	9	4210 3998 03
14 mm	9	4210 3998 04
3/8"	7	4210 3998 05
7/16"	7	4210 3998 06
1/2"	7	4210 3998 07
9/16"	9	4210 3998 08



^a These models comes with a 10 mm socket gear mounted.

Sockets for LTO28 R17-13-K-I-3^b/R31-17-K-I-3^c

Socket size A	Open end B	Ordering No.
13 mm	9	4210 3999 00
14 mm	11	4210 3999 01
15 mm	11	4210 3999 02
16 mm	11	4210 3999 03
17 mm	11	4210 3999 04
18 mm	11	4210 3999 05
19 mm	11	4210 3999 06
20 mm	11	4210 3999 07
21 mm	11	4210 3999 08
22 mm	11	4210 3999 09
23 mm	11	4210 3999 10
9/16"	9	4210 3999 11
5/8"	11	4210 3999 12
3/4"	11	4210 3999 13
7/8"	11	4210 3999 14

^b This model comes with a 13 mm socket gear mounted.

^c This model comes with a 17 mm socket gear mounted.

ANGLE NUTRUNNERS

Hold and drive type

Tools for hold and drive bolts

Bolt capacity M10 –M14

What used to be a two-man operation has now become a one-man task. No reaction arms.

The distinguishing feature of a hold and drive bolt is that one part is held and the other is tightened from the same side.

Hold and drive bolts are being used increasingly by, for example, truck manufacturers on the frame assembly line. The LTV HAD is especially suitable for shock absorber assembly.

Atlas Copco has developed special tools for use on hold and drive bolts based on the standard LTV series. The reaction torque is absorbed while the bolt is gripped during assembly.

The HAD sockets are available in three different lengths, special sockets are available upon request.

Also suitable for break away bolts, Hi Lok/Hi Shear.



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

Model	Bolt size	Torque range ^a		Weight		Free speed r/min	Ordering No.
		Nm	ft lb	kg	lb		
LTV38 R42 HAD	M8	20- 42	15- 31	2.2	4.8	430	8431 0603 75
LTV38 R50 HAD	M10	25- 50	18- 36	2.2	4.8	360	8431 0603 82
LTV46 N90 HAD	M10-12	35- 90	26- 52	3.3	7.3	280	8431 0463 28
LTV46 N115 HAD	M12-14	50- 115	37- 85	3.3	7.3	220	8431 0463 10
LTV46 N150 HAD	M14	60- 150	44- 111	3.3	7.3	180	8431 0463 02
LTV38 R85 HAD	M10-12	40- 85	30- 67	3.0	6.5	210	8431 0609 58
LTV38 R40 LT HAD ^b	M8-10	15- 40	11- 30	3.0	6.5	210	8431 0609 52
LTV48 R120 HAD	M12-14	70- 120	52- 89	3.3	7.3	220	8431 0610 26
LTV48 R150 HAD	M14	70- 150	52- 111	3.3	7.3	180	8431 0610 30
LTV48 R200 HAD	M14	115- 200	85- 150	3.3	7.3	100	8431 0610 32
LTV58 R350 HAD	M18	160- 350	150- 260	6.4	14.1	240	8431 0529 65

^a At min 5 bar.

^b For low torque applications.

NOTE: Sockets and holders have to be ordered separately see page 51.
Other types of Hold and Drive equipped tools are available on special request.

ACCESSORIES INCLUDED

Hose fitting
Clutch adjustment key

OPTIONAL ACCESSORIES

Page 43



SELECTED SERVICE KITS

Page 43

ACCESSORIES

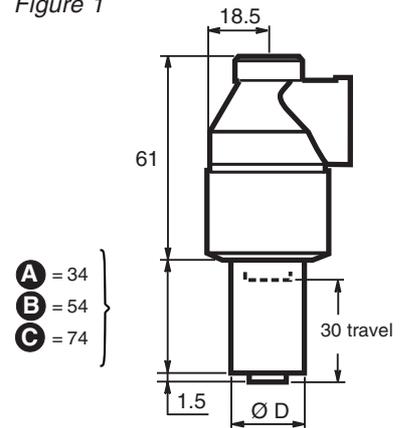
For hold and drive tools

Nut socket For LTV38 R42-HAD/LTV38 R50-HAD (Fig. 1)

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

Measurements in mm

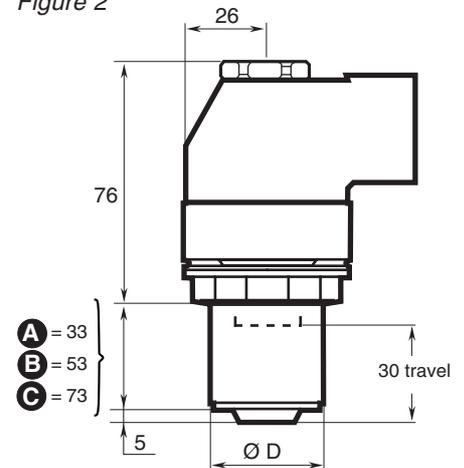
Figure 1



Nut socket For LTV38 R40 LT/R 85 HAD, LTV48 HAD and LTV46 HAD (Fig. 2)

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

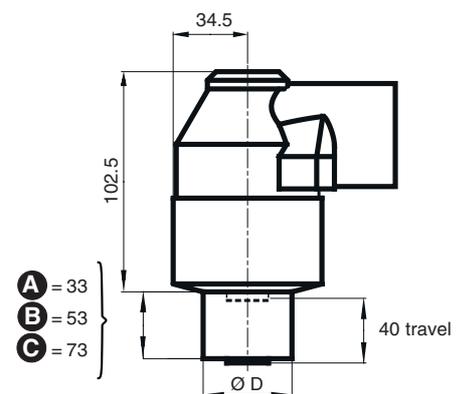
Figure 2



Nut socket For LTV58 R350-HAD (Fig. 3)

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

Figure 3



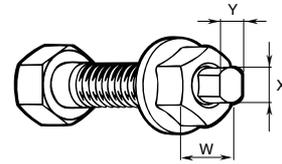
ACCESSORIES

For hold and drive tools

Screw holder –Two flats for LTV38 R42-HAD/LTV38 R50-HAD

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

Two flats



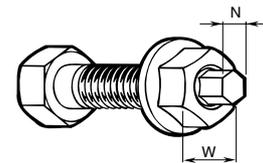
Screw holder –Two flats for L TV38 R40 LT/R85 HAD, LTV48 HAD and LTV46 HAD

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

Screw holder –Male hexagon for L TV38 R40 LT/R85 HAD, LTV48 HAD and LTV46 HAD

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

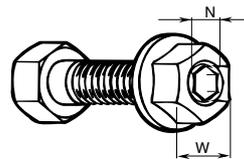
Male hexagon



Screw holder –Female hexagon for LTV38 R42-HAD/LTV38 R50-HAD

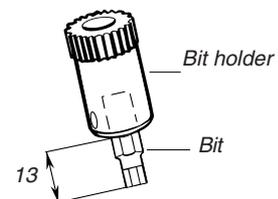
Bit holder 1/4"				
A	B	C	Width N, mm	Bits
4220 1959 01	4220 1959 04	4220 1959 03	10-21	1/4"

Female hexagon



Screw holder –Female hexagon for LTV38 R40 LT/R85 HAD, LTV48 HAD and LTV46 HAD

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



Screw holder –Female hexagon for L TV58 R350-HAD

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

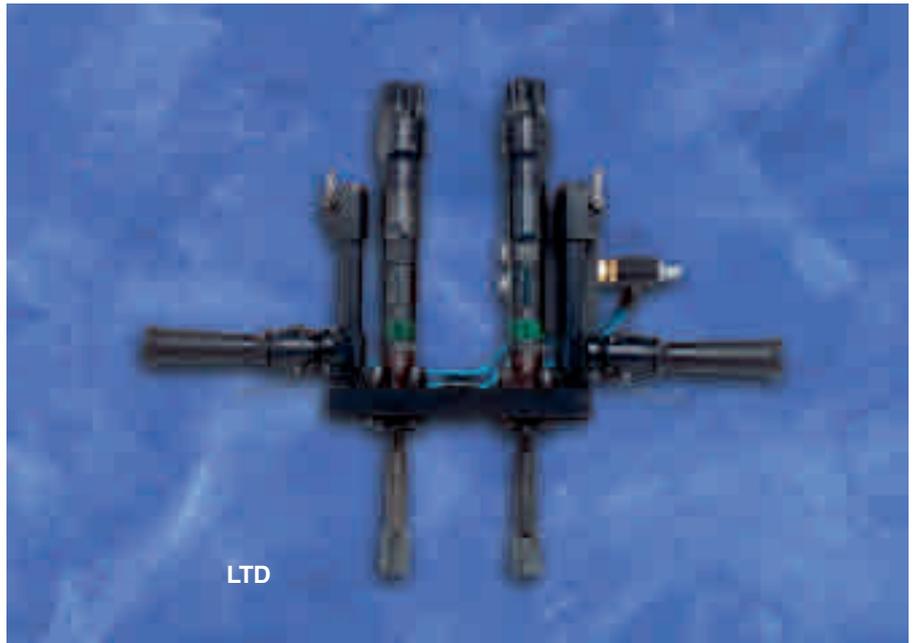
NOTE: 8 mm bit is included in the bit holders.

STRAIGHT NUTRUNNERS

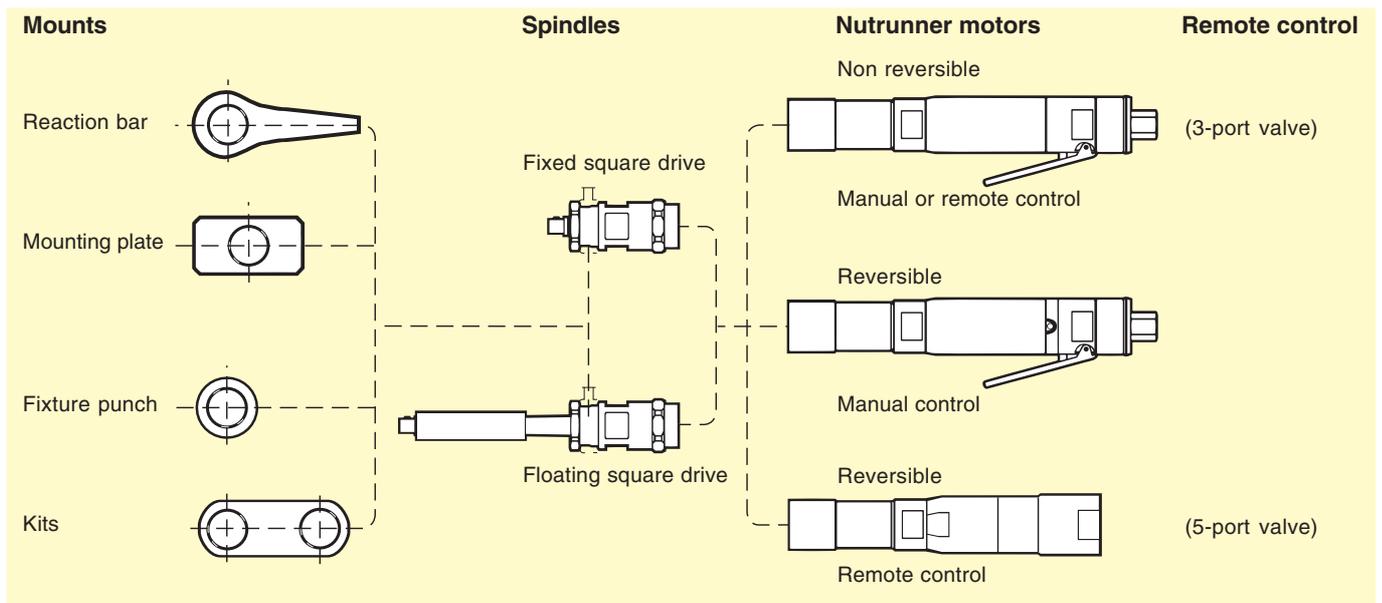
Hand-held and fixture mounted

The Atlas Copco LTD straight nutrunners are used in hand-held applications and as components in systems for assembly stations, e.g. for:

- ❑ **Articulating arms** – Where a fixed support on the work piece for a reaction bar is not available a telescopic or articulated arm mounted LTD nutrunner might be the ideal solution.
- ❑ **Second fastener** – By combining two LTD straight nutrunners in a twin spindle unit the screws can be tightened simultaneously.
- ❑ **Sequence tightening** – The LTD system offers a flexible, low-cost solution to many advanced tightening requirements.
- ❑ **Automatic systems** – The LTD straight nutrunner is the ideal basic tightening unit in automatic and remotely controlled assembly systems.
- ❑ **Torque accuracy** – Fixtured tools means that operator influence is minimized.



The LTD system



- ❑ **Reaction bar blanks** – For single spindle hand-held applications.
- ❑ **Mounting plates** – The LTD/LMD straight nutrunners have a splined reaction bar connection which can also be used for fixed assembly of the nutrunner. A number of standard mounting plates are available to order.
- ❑ **Floating square drive** – For two or more spindles the units must usually have floating spindles to compensate for run-down variations. Models with floating square drive or telescopic front parts are available.
- ❑ **Fixture punches** – For mounting of the nutrunner to locally made base plates a punch for the splines connection is available as optional equipment.
- ❑ **TwinSpin Kit** – A kit for building your own twin spindle assembly unit is available as extra equipment.
- ❑ **Remote control** – Remote control valves are available as optional equipment.
- ❑ **Air signal outlets** – All LTD models are equipped with air signal outlets for completed operation.
- ❑ **Electronic control** – Integrated torque and angle transducers and electronic instruments offer a wide selection of options for advanced tightening monitoring and control. Tools with angle encoders and torque transducers on request.

STRAIGHT NUTRUNNERS

Shut-off type

Bolt capacity M5 –M24

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

The LTD/LMD51 nutrunners are based on the unique LTP/LMP51 range of twin motor pistol grip nutrunners with fast run-down and automatic torque-up at low speed offering high productivity and unmatched torque accuracy and joint independence.

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



Model	Suitable for bolt size mm	Square drive size in	Torque range Soft joint		Free speed r/min	Weight without reaction bar/bracket		Length mm	Distance centre to side max width mm	Recommended hose size mm	Air inlet thread in	Sound level dB(A)	Air consumption at free speed		Ordering No.
			Nm	ft lb		kg	lb						l/s	cfm	
Models with fixed square drive															
Non reversible, lever start															
LTD28 N9-RE	M5-M6	3/8	5 - 9	4 - 6	1400	1.1	2.4	339	20	10	1/4	76	9	19	8431 0534 05
LTD28 N18-RE	M6	3/8	8 - 18	6-13	780	1.2	2.6	358	20	10	1/4	76	9	19	8431 0534 08
LTD28 N21-RE	M6	3/8	10 - 21	7-15	570	1.2	2.6	358	20	10	1/4	76	9	19	8431 0534 13
LTD28 N22-RE	M6	3/8	10 - 22	7-16	140	1.2	2.6	358	20	10	1/4	76	9	19	8431 0534 18
Reversible, lever start															
LTD28 R8-RE	M5-M6	3/8	3 - 8	2 - 6	1100	1.2	2.6	363	20	10	1/4	76	8	17	8431 0534 61
LTD28 R16-RE	M6	3/8	7 - 16	6-12	610	1.3	2.9	383	20	10	1/4	76	8	17	8431 0534 65
LTD28 R20-RE	M6-M8	3/8	10 - 20	7-15	520	1.3	2.9	383	20	10	1/4	76	8	17	8431 0534 51
LTD28 R22-RE	M6-M8	3/8	10 - 22	7-16	125	1.3	2.9	383	20	10	1/4	76	8	17	8431 0534 54
Reversible, remote control back head															
LTD28 R8-RR	M5-M6	3/8	3 - 8	2 - 6	1100	1.2	2.6	294	20	10/13	^a	76 ^b	8	17	8431 0703 80
LTD28 R16-RR	M6	3/8	7 - 16	6-12	610	1.3	2.9	313	20	10/13	^a	76 ^b	8	17	8431 0703 82
LTD28 R20-RR	M6-M8	3/8	10 - 20	7-15	520	1.3	2.9	313	20	10/13	^a	76 ^b	8	17	8431 0703 83
Models with 25 mm (1") floating square drive															
Non reversible, lever start															
LTD28 N9F-RE	M5-M6	3/8	5 - 9	4 - 6	1400	1.5	3.3	447	20	10	1/4	76	9	19	8431 0534 21
LTD28 N18F-RE	M6	3/8	8 - 18	6-13	780	1.6	3.5	466	20	10	1/4	76	9	19	8431 0534 27
LTD28 N21F-RE	M6	3/8	10 - 21	7-15	570	1.6	3.5	466	20	10	1/4	76	9	19	8431 0534 39
LTD28 N22F-RE	M6	3/8	10 - 22	7-16	140	1.6	3.5	466	20	10	1/4	76	9	19	8431 0534 43
Reversible, lever start															
LTD28 R8F-RE	M5-M6	3/8	3 - 8	2 - 6	1100	1.6	3.5	471	20	10	1/4	76	8	17	8431 0534 78
LTD28 R16F-RE	M6	3/8	7 - 16	6-12	620	1.7	3.7	491	20	10	1/4	76	8	17	8431 0534 85
LTD28 R20F-RE	M6-M8	3/8	10 - 20	7-15	570	1.7	3.7	491	20	10	1/4	76	8	17	8431 0534 37
LTD28 R22F-RE	M6-M8	3/8	10 - 22	7-16	125	1.7	3.7	491	20	10	1/4	76	8	17	8431 0534 89
Reversible, remote control back head															
LTD28 R8F-RR	M5-M6	3/8	3 - 8	2 - 6	1100	1.6	3.5	401	20	10/13	^a	76 ^b	8	17	8431 0703 84
LTD28 R16F-RR	M6	3/8	7 - 16	6-12	620	1.7	3.7	421	20	10/13	^a	76 ^b	8	17	8431 0703 86
LTD28 R20F-RR	M6-M8	3/8	10 - 20	7-15	570	1.7	3.7	421	20	10/13	^a	76 ^b	8	17	8431 0703 88

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

^b With exhaust manifold.

ACCESSORIES INCLUDED

Hose fitting

Clutch adjustment key

STRAIGHT NUTRUNNERS

Non shut-off and shut-off types

Model	Suitable for bolt size mm	Square drive size in	Torque range Soft joint		Free speed r/min	Weight without reaction bar/bracket		Length mm	Distance centre to side max width mm		Recom- mended hose size mm	Air inlet thread in	Sound level dB(A)	Air consumption at free speed		Ordering No.
			Nm	ft lb		kg	lb		mm	mm				l/s	cfm	
Models with fixed square drive																
Non-reversible, lever start																
LTD38 N30-RE	M8	1/2	14 - 30	10 - 21	820	2.2	4.8	414	20	10	1/4	80	16	34	8431 0535 04	
LTD38 N38-RE	M8	1/2	20 - 38	15 - 27	680	2.2	4.8	414	20	10	1/4	80	16	34	8431 0535 12	
LTD38 N44-RE	M8-M10	1/2	18 - 44	13 - 32	580	2.2	4.8	414	20	10	1/4	80	20	42	8431 0535 17	
LTD38 N55-RE	M10	1/2	27 - 55	20 - 40	470	2.2	4.8	487	20	10	1/4	80	20	42	8431 0535 20	
Reversible, lever start																
LTD38 R27-RE	M8	1/2	13 - 27	10 - 20	670	2.1	4.6	441	20	10	1/4	80	16	34	8431 0534 53	
LTD38 R32-RE	M8	1/2	18 - 32	13 - 24	560	2.1	4.6	441	20	10	1/4	80	16	34	8431 0534 52	
LTD38 R38-RE	M8-M10	1/2	19 - 38	14 - 28	480	2.1	4.6	441	20	10	1/4	80	16	34	8431 0535 78	
LTD38 R47-RE	M8-M10	1/2	22 - 47	16 - 35	380	2.3	5.1	513	20	10	1/4	80	20	42	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	10/16	a	80 ^b	16	34	8431 0704 22	
LTD38 R32-RR	M8	1/2	18 - 32	13 - 24	560	2.1	4.6	377	21	10/16	a	80 ^b	16	34	8431 0704 24	
LTD38 R38-RR	M8-M10	1/2	19 - 38	14 - 28	480	2.1	4.6	377	21	10/16	a	80 ^b	16	34	8431 0704 26	
LTD38 R47-RR	M8-M10	1/2	22 - 47	16 - 35	380	2.3	5.1	448	21	10/16	a	80 ^b	16	34	8431 0704 28	
Models with 25 mm, (1") floating square drive																
Non-reversible, lever start																
LTD38 N30F-RE	M8	1/2	14 - 30	10 - 21	820	2.3	5.0	521	20	10	1/4	80	20	42	8431 0535 38	
LTD38 N38F-RE	M8	1/2	20 - 38	15 - 27	680	2.3	5.0	521	20	10	1/4	80	20	42	8431 0535 46	
LTD38 N44F-RE	M8-M10	1/2	18 - 44	13 - 32	580	2.3	5.0	521	20	10	1/4	80	20	42	8431 0535 31	
LTD38 N55F-RE	M10	1/2	27 - 55	20 - 40	470	2.5	5.5	599	23	10	1/4	80	20	42	8431 0535 53	
Reversible, lever start																
LTD38 R27F-RE	M8	1/2	13 - 27	10 - 20	670	2.5	5.5	546	20	10	1/4	80	16	34	8431 0535 65	
LTD38 R32F-RE	M8	1/2	18 - 32	13 - 24	560	2.5	5.5	546	20	10	1/4	80	16	34	8431 0535 91	
LTD38 R38F-RE	M8-M10	1/2	19 - 38	14 - 28	480	2.5	5.5	546	20	10	1/4	80	16	34	8431 0535 95	
LTD38 R47F-RE	M8-M10	1/2	22 - 47	16 - 35	380	2.7	5.9	625	23	10	1/4	80	16	34	8431 0535 99	
Reversible, remote control back head																
LTD38 R27F-RR	M8	1/2	13 - 27	10 - 20	670	2.5	5.5	482	21	10/16	a	80 ^b	16	34	8431 0704 30	
LTD38 R32F-RR	M8	1/2	18 - 32	13 - 24	560	2.5	5.5	482	21	10/16	a	80 ^b	16	34	8431 0704 32	
LTD38 R38F-RR	M8-M10	1/2	19 - 38	14 - 28	480	2.5	5.5	482	21	10/16	a	80 ^b	16	34	8431 0704 34	
LTD38 R47F-RR	M8-M10	1/2	22 - 47	16 - 35	380	2.7	5.9	566	23	10/16	a	80 ^b	16	34	8431 0704 36	
Reversible, lever start																
LTD48 R65-RE ^d	M10	1/2	27 - 65	20 - 48	400	3.1	6.8	582	30	12.5	1/2	82	28	59	8431 0637 07	
LTD48 R81-RE ^d	M12	1/2	32 - 81	24 - 60	330	3.1	6.8	582	30	12.5	1/2	82	28	59	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	12.5/16	c	-	30	63	8431 0704 46	
LTD48 R81-RR	M12	1/2	32 - 81	24 - 60	330	3.5	7.7	410	28	12.5/16	c	-	30	63	8431 0704 48	
Models with 25 mm, (1") floating square drive																
Reversible, lever start																
LTD48 R65F-RE ^d	M10	1/2	27 - 65	20 - 48	400	3.5	7.7	700	30	12.5	1/2	82	28	59	8431 0637 17	
LTD48 R81F-RE ^d	M12	1/2	32 - 81	24 - 60	330	3.5	7.7	700	30	12.5	1/2	82	28	59	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	12.5/16	c	-	30	63	8431 0704 50	
LTD48 R81F-RR	M12	1/2	27 - 65	20 - 48	330	3.7	8.2	522	28	12.5/16	c	-	30	63	8431 0704 52	
Torque control models with fixed square drive																
LTD51 012-13-RE	M12	1/2	45-100	35 - 75	1000	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0525 07	
LTD51 008-13-RE	M14	1/2	70-175	50 - 130	600	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0525 15	
LTD51 006-19-RE	M16	3/4	85-225	60 - 165	450	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0525 23	
LTD51 006-16-RE	M16	5/8	85-225	60 - 165	450	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0525 22	
LTD51 004-20-RE	M18	3/4	145-320	105 - 235	300	3.3	7.3	260	31	10	3/8	79 ^b	19	40	8431 0525 31	
LTD51 002-20-RE	M20	3/4	220-460	165 - 335	200	3.3	7.3	260	31	10	3/8	79 ^b	19	40	8431 0525 49	
LTD51 001-25-RE	M24	1	800-900	220 - 660	52	3.6	7.9	282	32	10	3/8	79 ^b	19	40	8431 0525 21	
Stall type models with fixed square drive																
LMD51 012-13-RE	M12	1/2	60-110	45 - 80	1100	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0526 05	
LMD51 008-13-RE	M14	1/2	95-190	70 - 140	680	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0526 13	
LMD51 006-19-RE	M16	3/4	182-250	95 - 185	520	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0526 69	
LMD51 006-16-RE	M16	5/8	182-250	95 - 185	520	2.6	5.7	223	29	10	3/8	79 ^b	19	40	8431 0526 22	
LMD51 004-20-RE	M18	3/4	195-380	140 - 275	305	3.3	7.3	260	31	10	3/8	79 ^b	19	40	8431 0526 39	
LMD51 002-20-RE	M20	3/4	260-550	190 - 400	210	3.3	7.3	260	31	10	3/8	79 ^b	19	40	8431 0526 47	
LMD51 001-25-RE	M24	1	470-950	345 - 695	125	3.7	8.2	282	32	10	3/8	79 ^b	19	40	8431 0526 37	

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

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

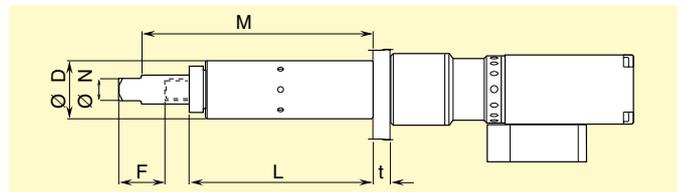
LTD51/LMD51: Change over torque is around 7% of maximum torque on a given air pressure.

^b With exhaust manifold.

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

DIMENSIONS

	Dimensions						Ordering No.
	N in	D mm	F mm	L mm	M mm	t mm	
LMD/LTD51 008/012	1/2	34	25	101	127	12	4210 3864 80
LMD/LTD51 006-16-RE3/4	41	25	117	148	12	4210 3789 80	
LMD/LTD51 002/004	3/4	50	40	160	201	15	4210 3781 81
LMD/LTD51 001	1	67	50	226	278	15	4210 3788 80



STRAIGHT AND SPECIAL NUTRUNNERS

Twin spindle fixtures

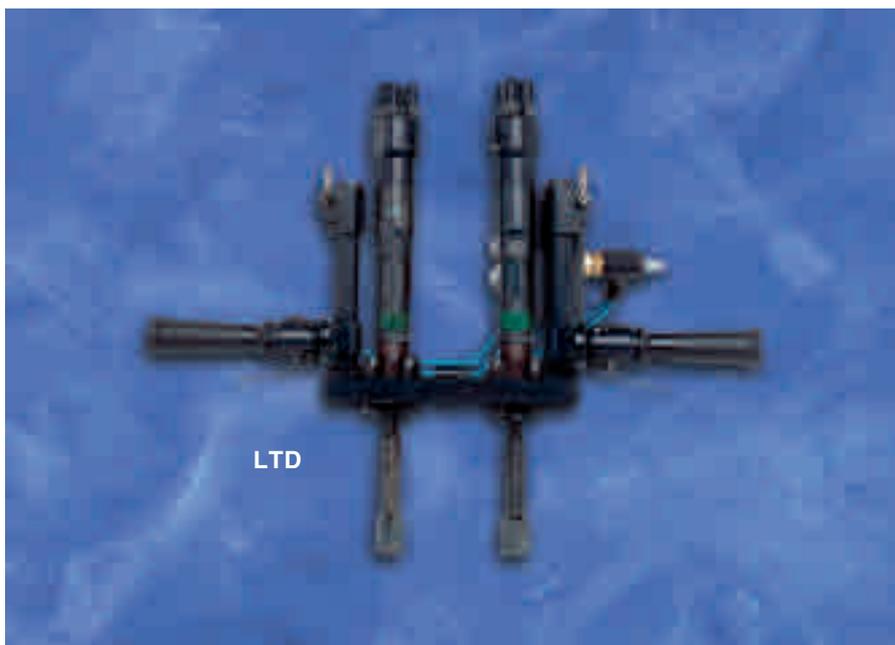
Atlas Copco Tools offers three sizes of twin spindle multiples, intended for 28, 38 and 48/51 sizes. The CC-distance in the TwinSpin is changeable and the largest size has a max CC-distance of 364 mm. The smallest size has a minimum CC-distance of 53 mm. The complete set has two throttle handles, one for forward and one for reverse, (if the system is non reversible there is only one throttle handle).

The following kits are available;

- TwinSpin air LTD28
- TwinSpin air LTD38
- TwinSpin air LTD48/51

The TwinSpin kit includes;

- 2 x support handle
- 2 x mounting plate, (with corresponding splines)
- 2 x handle attachment
- 1 x suspension wire
- 1 x reaction arm
- 2 x beam
- 1 x assembly tool
- 1 x mounting plate for reaction bar
- 2 x post
- 2 x bracket



TwinSpin kit	Max CC-distance ^a	Min CC-distance ^a	Ordering No.
LTD28 RE/RR	383	53	4210 4159 80
LTD38 N30/N38/N44/R27/R32/R38-RE/RR	376	60	4210 4160 80
LTD38 N55/R47-RE/RR	364	72	4210 4161 80
LTD48 RE/RR	364	72	4210 4161 80
LMD/LTD51 006, 008, 012	364	72	4210 4161 82
LMD/LTD51 002/004	362	87	4210 4161 81

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

Valves kits

Valves have to be ordered separately. 3-gate valves are available for non reversible applications and 5-gate valves for reversible. Mounting brackets for the valve kits have to be ordered separately. For stated noise levels on RR-versions, exhaust manifolds have to be used. Exhaust manifolds have to be ordered separately.

Valve kits include

- 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
LMD/LTD51 006, 008, 012	3-gate for non reversible	4210 4166 80

Exhaust manifolds include

- Block
- Silencer with gasket
- Nipples

Intended for tool type	Ordering No.
LTD28 RR	4210 4168 80
LTD38 RR	4210 4168 81
LTD48 RR	4210 4168 81

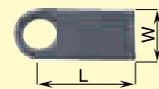
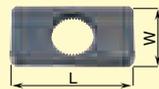
ACCESSORIES

For straight nutrunners

Reaction bar

Bar blank (steel)	Dimensions mm	LTD28		LTD38		LTD38 N55/R47 LTD46/48 LMD/LTD51	LMD/LTD51 3/4" square models	LMD/LTD51 1" square models
		L						
	L							
	250	4210 1798 00		4210 2134 00				
	200				4210 2219 02			
	500						4210 2726 80	4210 2183 80
Bar blank (aluminium)	400				4210 2219 01			

Mounting plate

Side mount	Dimensions mm	LTD28		LTD38		LTD38 N55/R47 LTD46/48 LMD/LTD51 006/008/012	LMD/LTD51 002/004	LMD/LTD51 001
		L x W						
	L x W							
	90 x 40	4210 1798 01		4210 2134 01				
	120 x 70						4210 2809 80	4210 2808 80
Centre mount	L x W							
	L x W							
	70 x 40	4210 1798 02		4210 2134 02				
	100 x 50				4210 2219 03			
	125 x 65						4210 2183 01	4210 2726 01
Flange mount	D							
	D 55				4210 2219 10			

PISTOL GRIP NUTRUNNERS

The pistol grip nutrunners from Atlas Copco are a unique combination of torque, speed and weight.

With the Atlas Copco LMP/LTP51 range you get the highest possible rate of torque and speed in relation to the weight of the tool.

- ❑ **Extremely fast** –Due to the twin motor concept of LTP/LMP51.
- ❑ **Good torque accuracy** – Even on soft joints.
- ❑ **No reaction forces** due to the reaction bar.
- ❑ **Low sound level** –Exhaust through handle.
- ❑ **Single handed operation** –The low weight and the perfectly balanced pistol grip design make the single hand operated LMP24 and -51 and LTP51 nutrunners safer and comfortable to use.
- ❑ **Reversible for maximum flexibility** –Being able to loosen fasteners without changing tools improves productivity and is a major operator benefit in terms of time and effort.

Electronic monitoring and control

In order to obtain the highest possible production quality all tools can be equipped for electronic monitoring and control.

- ❑ **Torque transducer** –The LMP24 can be used together with the accurate and easy to use PRT add on transducers, for torque monitoring.



- ❑ **Torque transducer and angle encoder** –The LMP/LTP51 series can be used with the accurate and easy to use PRT add on transducers. For total control of the tightening process, the tool can be equipped with a PRT transducer and built-in angle encoder. For torque and angle monitoring.

- ❑ **Signal lights** –The LMP/LTP51 series can also be equipped with integrated signal lights when used together with electrical control equipment.

- ❑ **Designations** –LMP51 with PRT transducer is designated LMP51T (PRT=T). The signal lights are called “S” and the Angle encoder “A”. Thus an LMP51 with PRT transducer built-in signal lights and angle encoder is designated LMP51 TAS.



PISTOL GRIP NUTRUNNERS

Stall type –Non reversible

LMP24. Bolt capacity M6 –M10

- High torque accuracy, regardless of joint stiffness.
- Swivelling function as option.
- High torque capacity, in relation to weight.
- Low vibration level.

LMP51 H. Bolt capacity M12 –M42

Patented standard twin motors give faster production and an increased accuracy with a minimum of air consumption.

- Very high torque accuracy.
- The swivelling function facilitates tool positioning.
- Fast rundown motor for time saving.
- Extremely good weight to torque output ratio compared to single motor pistol grip nutrunners.
- Special model for fast tightening of prevailing applications, LMP51 PH.



Model	Suitable for bolt size	Square drive size	Torque range Soft joint				Free speed r/min	Weight ^a		Length mm	Distance centre to side mm	Air inlet thread in	Air consumption at free speed		Recommended hose size mm	Sound level dB(A)	Ordering No.
			at 6.3 bar Nm	ft lb	at 3 bar Nm	ft lb		kg	lb				l/s	cfm			
Pistol grip nutrunners																	
LMP24 H011-10	M6	3/8	13	10	6	4	1550	1.0	2.2	210	18	1/4	11	23	10	78	8431 0245 56
LMP24 H005-10	M8	3/8	30	22	14	10	500	1.0	2.2	210	18	1/4	11	23	10	78	8431 0245 49*
LMP24 H003-13	M8	1/2	40	30	14	10	330	1.2	2.6	210	18	1/4	11	23	10	78	8431 0245 64
LMP24 H002-13	M10	1/2	58	43	27	20	240	1.3	2.9	230	21	1/4	11	23	10	78	8431 0245 31*
LMP51 H012-13	M12	1/2	110	80	60	45	1100	2.6	5.7	223	29	3/8	19	40	10	79	8431 0510 05
LMP51 H008-13	M14	1/2	190	140	95	70	680	2.6	5.7	223	29	3/8	19	40	10	79	8431 0510 13*
LMP51 H006-19	M16	3/4	250	185	130	96	520	2.6	5.7	223	29	3/8	19	40	10	79	8431 0513 69
LMP51 H004-20	M18	3/4	380	275	195	140	305	3.3	7.3	260	31	3/8	19	40	10	79	8431 0510 39*
LMP51 H002-20	M20	3/4	550	400	260	190	210	3.3	7.3	260	31	3/8	19	40	10	79	8431 0510 47*
LMP51 H001-25	M24	1	950	695	470	345	125	3.7	8.2	282	32	3/8	19	40	10	79	8431 0512 37*
LMP51 H0007-25	M30	1	1500	1105	750	550	75	6.5	14.3	323	42	3/8	19	40	10	79	8431 0510 57
LMP51 H0005-38	M30	1 1/2	2100	1512	1100	792	52	13.8	30.4	380	68	3/8	19	40	10	79	8431 0510 59
LMP51 H0004-38	M36	1 1/2	3000	2160	1600	1152	36	13.8	30.4	380	68	3/8	19	40	10	79	8431 0510 64
LMP51 H0003-38	M42	1 1/2	4100	2952	2100	1512	26	13.8	30.4	380	68	3/8	19	40	10	79	8431 0510 68

LMP51 H: Change over torque is around 7% of maximum torque on a given air pressure.

* Basic tools of the range, cover most needs.

LMP51 PH. Bolt capacity M12 –M27

For prevailing applications

The LMP51 PH and LTP51 PH are specially designed to handle prevailing applications, such as locking nuts. A special gear gives a higher change over torque. This allows the fast rundown motor to handle most of the rundown before the slower but stronger tightening motor is used.

Model	Suitable for bolt size	Square drive size	Torque range Soft joint				Free speed r/min	Weight ^a		Length mm	Distance centre to side mm	Air consumption at free speed		Recommended hose size mm	Sound level dB(A)	Ordering No.
			at 6.3 bar Nm	ft lb	at 3 bar Nm	ft lb		kg	lb			l/s	cfm			
LMP51 PH005-13	M12	1/2	125	90	65	45	470	2.6	5.7	223	29	19	40	10	79	8431 0510 96
LMP51 PH004-13	M12	1/2	200	145	105	75	300	2.6	5.7	223	29	19	40	10	79	8431 0510 88
LMP51 PH003-19	M16	3/4	280	205	140	100	220	2.6	5.7	223	29	19	40	10	79	8431 0513 85
LMP51 PH002-20	M18	3/4	420	305	210	155	135	3.3	7.3	260	31	19	40	10	79	8431 0510 62
LMP51 PH001-20	M20	3/4	590	430	290	215	90	3.3	7.3	260	31	19	40	10	79	8431 0510 54
LMP51 PH0005-25	M27	1	950	695	470	345	55	3.7	8.2	282	32	19	40	10	79	8431 0512 45

LMP51 PH: Change over torque is around 15% of maximum torque on a given air pressure.

^a Without reaction bar.

ACCESSORIES INCLUDED

LMP24: Suspension yoke, reaction bar
LMP51: Swivel type reaction bar

OPTIONAL ACCESSORIES

Page 63



SELECTED SERVICE KITS

Page 63

PISTOL GRIP NUTRUNNERS

Torque control type – Non reversible

LTP51 H. Bolt capacity M12 –M42

Torque control type

Patented standard twin motors give faster production and an increased accuracy with a minimum of air consumption.

- The LTP51 has all the features of the LMP51 plus an easy to use shut-off valve.
- Automatic shut-off at preset level.
- Gives fast and reliable tightening.
- Very high torque accuracy.
- The swivelling function facilitates tool positioning.
- Fast rundown motor for time saving.
- Extremely good weight to torque output ratio compared to single motor pistol grip nutrunners.
- Special model for fast tightening of prevailing applications, LTP51 PH.



LTP51 H001

Model	Suitable for bolt size	Square drive size	Torque range at 5 bar				Min torque at 3 bar		Max torque at 6.3 bar		Free speed r/min	Weight ^a		Length mm	Distance centre to side mm	Air consumption at free speed		Ordering No.
			Nm	ft lb	Nm	ft lb	Nm	ft lb	kg	lb		l/s	cfm					
Pistol grip nutrunners –Torque control type																		
LTP51 H012-13	M12	1/2	85	65	60	45	45	35	100	75	900	2.6	5.7	223	29	19	40	8431 0500 07*
LTP51 H008-13	M14	1/2	150	110	85	60	70	50	175	130	550	2.6	5.7	223	29	19	40	8431 0500 15*
LTP51 H006-19	M16	3/4	185	135	120	85	85	60	225	165	400	2.6	5.7	223	29	19	40	8431 0513 77*
LTP51 H004-20	M18	3/4	270	200	200	145	145	105	320	235	255	3.3	7.3	260	31	19	40	8431 0500 31*
LTP51 H002-20	M20	3/4	380	280	265	195	220	160	460	335	175	3.3	7.3	260	31	19	40	8431 0500 49*
LTP51 H001-25	M24	1	700	510	450	330	300	220	900	660	100	3.6	7.9	282	32	19	40	8431 0502 21*
LTP51 H0007-25	M30	1	1100	810	740	545	700	516	1500	1106	55	6.5	14.3	323	42	19	40	8431 0500 53
LTP51H0005-38	M30	1 1/2	2100	1512	1000	720	800	576	2000	1440	52	13.8	30	380	68	19	40	8431 0500 58
LTP51H0004-38	M36	1 1/2	3000	2160	1500	1080	1200	864	3000	2160	36	13.8	30	380	68	19	40	8431 0500 60
LTP51H0003-38	M42	1 1/2	4100	2952	2000	1440	1600	1152	4000	2880	26	13.8	30	380	68	19	40	8431 0500 63

LTP51 H: Change over torque is around 7% of maximum torque on a given air pressure.

* Basic tools of the range, cover most needs.

LTP51 PH. Bolt capacity M12 –M27

For prevailing applications

The LMP51 PH and LTP51 PH are specially designed to handle prevailing applications, such as locking nuts. A special gear gives a higher change over torque. This allows the fast rundown motor to handle most of the rundown before the slower but stronger tightening motor is used.

Model	Suitable for bolt size	Square drive size	Torque range at 5 bar				Min torque at 3 bar		Max torque at 6.3 bar		Free speed r/min	Weight ^a		Length mm	Distance centre to side mm	Air consumption at free speed		Ordering No.
			Nm	ft lb	Nm	ft lb	Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm	
LTP51 PH005-13	M12	1/2	90	65	65	45	50	35	110	80	425	2.6	5.7	223	29	19	40	8431 0500 98
LTP51 PH004-13	M14	1/2	155	115	100	75	80	60	190	140	255	2.6	5.7	223	29	19	40	8431 0500 80
LTP51 PH003-19	M16	3/4	205	150	150	110	95	70	260	190	190	2.6	5.7	223	29	19	40	8431 0513 93
LTP51 PH002-20	M18	3/4	300	220	220	160	160	115	380	280	130	3.3	7.3	260	31	19	40	8431 0500 64
LTP51 PH001-20	M20	3/4	415	305	305	220	220	160	520	380	85	3.3	7.3	260	31	19	40	8431 0500 56
LTP51 PH0005-25	M27	1	805	590	595	435	450	330	950	695	50	3.7	8.2	282	32	19	40	8431 0502 39

LTP51 H: Change over torque is around 15% of maximum torque on a given air pressure.

^aWithout reaction bar.

Air inlet thread inch: 3/8"

Recommended hose size: 10 mm

Sound level: 79 dB(A)

ACCESSORIES INCLUDED

LTP51: Swivel type reaction bar

OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

Page 63

PISTOL GRIP NUTRUNNERS

Stall type and torque control type –Reversible

LMP24 HR, LMP51 HR, PHR –
LTP51 HR, PHR

Bolt capacity M6 –M42

LMP51 HR

Bolt capacity M14 –M42

- Patented standard twin motors give faster production and an increased accuracy with a minimum of air consumption.
- Very high torque accuracy.
- Fast rundown motor for time saving.
- Extremely good weight to torque output compared to single motor pistol grip nutrunners.
- The swivelling function facilitates tool positioning.
- Reversible for maximum flexibility** –Being able to loosen fasteners without changing tools improves productivity and is a major operator benefit in terms of time and effort.



Model	Suitable for bolt size	Square drive size	Torque range Soft joint				Free speed r/min	Weight ^a		Length mm	Distance centre to side mm	Air inlet thread in	Air consumption at free speed		Recommended hose size mm	Sound level dB(A)	Ordering No.
			at 6.3 bar		at 3 bar			kg	lb				l/s	cfm			
Pistol grip nutrunners –Stall type																	
LMP24 HR011-10	M6	3/8	10	7	5	4	860	1.0	2.2	210	18	1/4	7	15	10	79	8431 0245 85
LMP24 HR005-10	M8	3/8	22	16	10	7	380	1.0	2.2	210	18	1/4	7	15	10	79	8431 0245 77
LMP24 HR003-13	M8	1/2	30	22	14	10	250	1.2	2.6	210	18	1/4	7	15	10	79	8431 0245 91
LMP24 HR002-13	M10	1/2	40	33	20	15	180	1.3	2.9	230	21	1/4	7	15	10	79	8431 0245 70
LMP51 HR008-13	M14	1/2	190	140	95	70	680	2.6	6.6	238	30	3/8	19	40	10	79	8431 0528 13
LMP51 HR004-20	M18	3/4	380	275	195	140	305	3.9	8.6	275	34	3/8	19	40	10	79	8431 0528 39
LMP51 HR002-20	M20	3/4	550	400	260	190	210	3.9	8.6	275	34	3/8	19	40	10	79	8431 0528 47
LMP51 HR001-25	M24	1	950	695	470	345	125	4.3	9.5	305	34	3/8	19	40	10	79	8431 0528 37
LMP51 PHR0005-25	M27	1	950	695	470	345	55	4.3	9.5	305	34	3/8	19	40	10	79	8431 0528 45
LMP51 HR0007-25	M30	1	1500	1105	750	550	75	6.6	14.6	345	42	3/8	19	40	10	79	8431 0528 57
LMP51HR0005-38	M30	1 1/2	2100	1512	1100	792	52	13.8	30.0	380	68	3/8	19	40	10	79	8431 0528 62
LMP51HR0004-38	M36	1 1/2	3000	2160	1600	1152	36	13.8	30.0	380	68	3/8	19	40	10	79	8431 0528 65
LMP51HR0003-38	M42	1 1/2	4100	2952	2100	1512	26	13.8	30.0	380	68	3/8	19	40	10	79	8431 0528 72

Model	Suitable for bolt size	Square drive size	Torque range at 5 bar				Min torque at 3 bar		Max torque at 6.3 bar		Free speed r/min	Weight ^a		Length mm	Distance centre to side mm	Air consumption at free speed		Ordering No.
			Nm	ft lb	Nm	ft lb	Nm	ft lb	kg	lb		l/s	cfm					
Pistol grip nutrunners –Torque control type																		
LTP51 HR008-13	M14	1/2	150	110	85	60	70	50	175	130	550	3.0	6.6	238	30	19	40	8431 0527 15
LTP51 HR004-20	M18	3/4	270	200	200	145	145	105	320	235	255	3.9	8.6	275	34	19	40	8431 0527 31
LTP51 HR002-20	M20	3/4	380	280	265	195	220	160	460	235	175	3.9	8.6	275	34	19	40	8431 0527 49
LTP51 HR001-25	M24	1	700	510	450	330	300	220	900	660	100	4.3	9.5	305	34	19	40	8431 0527 21
LTP51 PHR0005-25	M27	1	805	590	595	435	450	330	950	695	50	4.3	9.5	305	34	19	40	8431 0527 39
LTP51 HR0007-25	M30	1	1100	810	740	545	700	516	1500	1106	55	6.6	14.6	345	42	19	40	8431 0527 53
LTP51HR0005-38	M30	1 1/2	1500	1080	1000	720	800	576	2000	1440	52	13.8	30	380	68	19	40	8431 0527 55
LTP51HR0004-38	M36	1 1/2	2200	1584	1500	1080	1200	864	3000	2160	36	13.8	30	380	68	19	40	8431 0527 58
LTP51HR0003-38	M42	1 1/2	3000	2160	2000	1440	1600	1152	4000	2880	26	13.8	30	380	68	19	40	8431 0527 60

^a Without reaction bar.

Air inlet thread inch: LMP24 = 1/4", LMP/LTP51 = 3/8"

Recommended hose size: 10 mm

Sound level: 79 dB(A)

LMP51/LTP51 H/HR: Change over torque is around 7% of maximum torque on a given air pressure.

LMP51/LTP51 PH/PHR: Change over torque is around 15% of maximum torque on a given air pressure.

ACCESSORIES INCLUDED

LMP24: Suspension yoke, reaction bar

LMP51/LTP51: Swivel type reaction bar

OPTIONAL ACCESSORIES

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SELECTED SERVICE KITS

Page 63

PISTOL GRIP NUTRUNNERS

Angle head versions

LTV51, LMV51, LTPV51 and LMPV51

Bolt capacity M14 –M18

Patented standard twin motors give faster production and an increased accuracy with a minimum of air consumption.

- ❑ Very high torque accuracy.
- ❑ The swivelling function facilitates tool positioning.
- ❑ Fast rundown motor for time saving.
- ❑ Extremely good weight to torque output ratio compared to single motor pistol grip nutrunners.
- ❑ **Remote control** –The LTV51/LMV51 straight nutrunners are designed for operation with a separate throttle valve.
- ❑ **Integrated electronics** – Angle encoders and LED's are incorporated on special request.



Model	Suitable for bolt size mm	Square drive size in	Torque range at 5 bar				Min torque at 3 bar		Max torque at 6.3 bar		Free speed r/min	Weight		Length mm	Distance centre to side mm	Air consumption at free speed		Ordering No.
			Nm	ft lb	Nm	ft lb	Nm	ft lb	Nm	ft lb		kg	lb			l/s	cfm	
Straight tools with angle head – Shut-off type																		
LTV51 006-L13	M14	1/2	150	115	110	85	85	65	180	135	540	4.4	9.7	405	25	19	40	8431 0527 61
LTV51 004-L13	M16	1/2	200	150	170	130	130	100	200	150	320	4.4	9.7	405	25	19	40	8431 0527 62
LTV51 003-L19	M18	3/4	350	265	210	160	160	120	350	265	240	6.8	15.0	445	34	19	40	8431 0527 63
Stall type																		
LMV51 006-L13	M16	1/2	–	–	–	–	110	85	200	150	590	4.4	9.7	405	25	19	40	8431 0527 81
LMV51 004-L13	M16	1/2	–	–	–	–	175	135	200	150	360	4.4	9.7	405	25	19	40	8431 0527 82
LMV51 003-L19	M16	3/4	–	–	–	–	245	185	350	265	280	6.8	15.0	445	34	19	40	8431 0527 83
Pistol grip tools with angle head – Shut-off type																		
LTPV51 S006-L13	M14	1/2	150	115	110	85	85	65	180	135	540	4.4	9.7	405	25	19	40	8431 0527 71
LTPV51 S004-L13	M16	1/2	200	150	170	130	130	100	200	150	320	4.4	9.7	405	25	19	40	8431 0527 72
LTPV51 S003-L19	M18	3/4	350	265	210	160	160	120	350	265	240	6.8	15.0	445	34	19	40	8431 0527 73
Stall type																		
LMPV51 S006-L13	M16	1/2	–	–	–	–	110	85	200	150	590	4.4	9.7	405	25	19	40	8431 0527 91
LMPV51 S004-L13	M16	1/2	–	–	–	–	175	135	200	150	360	4.4	9.7	405	25	19	40	8431 0527 92
LMPV51 S003-L19	M16	3/4	–	–	–	–	245	185	350	265	280	6.8	15.0	445	34	19	40	8431 0527 93

ACCESSORIES

For pistol grip nutrunners

OPTIONAL ACCESSORIES

For LMP24/51 and LTP51

Hose nipple	Ordering No.
LMP24	9000 0247 00
LMP/LTP51	9000 0242 00



Hose nipple



Support handle

For LMP24	Ordering No.
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/HR0011/005 only)	4210 2158 80
1/4" hex bit holder (for H/HR0011/005 only)	4021 0443 00
1/2" square adapter (for H/HR0011/005 only)	4210 2157 80



Exhaust hose for LMP24



Bit holder



Spindle extension

For LMP/LTP51	Ordering No.
Suspension yoke –horizontal/vertical	4250 1365 00
–swivelling	4210 3088 80
Exhaust hose	4210 2201 00
Protective cover	4210 3044 00
Aluminium reaction bar (only for LMP/LTP51 H012/H008)	4210 2219 01
Reaction bar blanks –1/2" square models	4210 2219 03
–3/4" square models	4210 2183 01
–1" square models (0005-25)	4210 2726 01
–1" square models (0007-25)	4210 3899 00
Prevailing modification kit –for H/HR008	4210 2592 80
–except H/HR008	4210 2593 80
Quick change retainer –1/2" square models	4250 1190 00
–3/4" square models	4210 3476 80
–1" square models	4210 3524 80
Shut-off override for LTP51	4210 3545 80



Exhaust hose for LMP/LTP51



Suspension yoke



Protective cover



Suspension yoke



Reaction bar blanks



Aluminium reaction bar



SELECTED SERVICE KITS

Model	Trigger kit	Valve kit	General service kit
LMP24	4210 1934 90	4110 1338 90	4081 0105 90
LMP51/LTP51		4210 2356 90	4081 0106 90
LMD51/LTD51			4081 0106 90

ELECTRONIC ACCESSORIES

High quality cables for industrial use

Atlas Copco has developed a special Kevlar reinforced cable to meet the demands for flexibility and wearing properties in portable tool applications. This cable design is standard in all factory mounted pigtail signal cables for torque, angle, lights and the built-in solenoid valve as well as in all the connection cables for the FOCUS 2000 instrument. The cables intended for continuous or semi-continuous monitoring of torque with the ACTA 3000 instrument are of conventional heavy-duty design, whereas the cable for spot checking with the ACTA 3000, the IRTT in-line torque transducer cables and control cable for the solenoid valve are standard laboratory quality.

Signal cable type	For Instrument	Length m	Number of pins Tool - Instrument	Ordering No.
Tool cables for continuous monitoring/control				
Torque only	FOCUS 2000	5	6-19	4145 0953 05
		10	6-19	4145 0953 10
		15	6-19	4145 0953 15
Torque/Angle/Signal light/ Solenoid combinations	FOCUS 2000	5	19-19	4145 0952 05
		10	19-19	4145 0952 10
		15	19-19	4145 0952 15
All 19 pin tool cables –extension	FOCUS 2000/ ACTA 3000	10	19-19	4145 0951 10
IRTT/ MRTT transducer cables				
Curled cable	FOCUS 2000/ ACTA 3000	3	19-19	4145 0949 03
		10	19-19	4145 0949 10
		3	19-19	4145 0971 03
Solenoid valve cable				
Control cable	FOCUS 2000	10	4	4210 3083 80

NOTE: Check number of connector pins on both instrument end and tool end to make sure the correct cable is ordered.



Add-on electronics

PRT torque transducers

The PRT torque transducers are intended for the reaction bar supported pistol and straight nutrunners type LMP, LTP and LTD. Two models are available; The PRT -A model with a connector fixed to the transducer housing and the PRT -C model with a 1.5 m pigtail connector cable.

The -A model is suitable for the LTD straight nutrunners and for spot checking of the LMP/LTP pistol grip versions. For continuous monitoring the -C model is recommended due to the ability to stand rough treatment.



PRT torque transducers

Model	Tool	Calibration torque		Ordering No.
		0.59 mV/V Nm	0.8 mV/V ft lb	
PRT50A	LMP24 (except LMP24 H002-13), LTD28	50	37	8092 1110 15
PRT60A	LMP24 H002-13, LTD38	60	44	8092 1110 23
PRT200A	LMD/LTD51-13, -19, LTD38 S003, LTD46	200	148	8092 1110 64
PRT500A	LMD/LTD51-20	500	369	8092 1110 72
PRT1000A	LMD/LTD51-25	1000	738	8092 1110 80
PRT200C	LMP/LTP51-13, -19, LTD38 S003, LTD46	200	148	8092 1121 00
PRT500C	LMP/LTP51-20, LTD46	500	369	8092 1122 00
PRT1000C	LMP/LTP51-25	1000	738	8092 1123 00
PRT1500C	LMP/LTP51H/HR0007-25	1500	1106	8092 1124 00

Solenoid valves

Description	Dimension	For	Ordering No.
Solenoid valve	1/4"	LMP24	8092 1110 07
	3/8"	LMD/LMP51	8092 1111 06

Solenoid valves

The solenoid valves for tools air supply are primarily intended for general remote control of the straight nutrunners LMD51 and LTD51 and for electronic tightening control of the small pistol nutrunners LMP24. They can also be used for upgrading of existing nutrunners with mechanical torque control only. For best torque accuracy the valve should be installed close to the tool.

INSTRUMENT FOR TORQUE/ANGLE CONTROL

FOCUS 2000 –For Statistic Process Control (SPC)

The FOCUS 2000 series, Atlas Copco's purpose-built control and monitoring system, is ideal for virtually all tightening applications. The system is specifically designed to support the zero fault philosophy and includes a wide range of tightening functions – from torque monitoring to prevailing torque control.

To ensure maximum flexibility, it can be used for both air tool monitoring and air tool control. An advanced level of operator-friendliness saves time and reduces down-time.

The FOCUS 2000's modular construction enables you to tailor an entire system to your own specific needs.

FOCUS 2000 can also be expanded cost-effectively to meet future requirements, including unforeseen ones.

- Modular concept.
- One or two channels.
- Sophisticated quality assurance functions.
- Advanced operator information and documentation.
- Quick-programming option.
- Automatic calibration.
- Time monitoring.
- Adaptive learning function.
- Advanced diagnostic functions.
- Prevailing torque functions.
- Multistage function.



Designation	Ordering No.	Designation	Ordering No.
FOCUS 2101-VR	8092 1126 04	FOCUS 2102-VR	8092 1126 14

2101= Instrument for one tool.

2102 = Instrument for two tools.

R –with built-in Relay board.

V –with built-in Valve board for Air tool control.

OPTIONAL ACCESSORIES

Pages 64 and 65.

ACCESSORIES –PARAMETER SELECTOR

Socket tray

Choose the required torque level or parameter set by picking a socket.

Up to six different sockets/tray.

Well protected design with proximity sensors and replaceable socket holders.

Fool proof –only one socket at a time.

If more than six different sockets are in use, one or more slave trays can be connected to the master allowing up to 15 torque levels to be selected. Both the socket tray and the selector can be used with the Parameter Control Unit or the FOCUS.

Designation	Type	Ordering No.
Master tray	Selector 15	8433 0601 13
Slave tray	Selector 15-SL	8433 0603 65
Length of cable:		
	Selector 15	5 meters
	Selector 15-SL	1 meters
5 m extension cable		4222 0222 05
Printer cable 5 m		4145 0890 05



Turn Selector

With six positions for six or fifteen torque levels or parameter sets. Can be attached to the tool, cable/hose.

Turn Selector-R	8431 0417 90
Turn Selector 15R	8433 0606 41



RE-Alarm

The RE-Alarm is a remote signal light panel with a sound alarm.

The RE-Alarm is available in two versions for connection to FOCUS 2000, either to repeat the yellow, green and red lights on FOCUS and give an acoustic alarm (RE-Alarm 02F), or in a version that also provides –“n OK” signal when a preset number of tightenings is achieved (RE-Alarm 01F).

RE-Alarm 01F	8431 0455 36
RE-Alarm 02F	8431 0455 44

5 meter cable included

RE-CONTROLLER

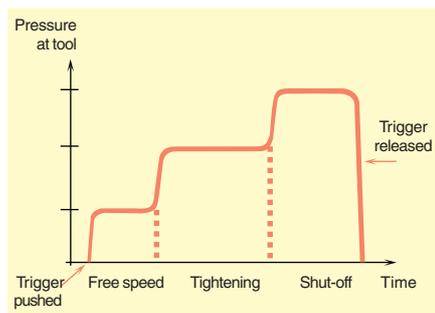
RE-Controller –the easy and cost effective way to ensure quality

The RE-Controller helps the operator to control the assembly process when using a pneumatic assembly tool of RE-type (reporting). It counts all correct tightenings in a batch and detects premature shut-off, re-hits, stripped threads, wrong screw length and pressure fluctuations. On an assembly line it is also possible to use it as a process line control unit which ensure that no errors will pass on to the next station.

The RE-Controller has a robust design, and is easy to handle. The flexibility and durability of the equipment makes it suitable to use in an industrial environment. For further information see separate leaflet 9833 1358 01.



Typical signal from a pneumatic assembly tool of RE-type



Basic kit

Model	Ordering No.
RE-Controller	8092 1126 21
Pressure transducer (1-10 bar)	4250 2401 00
Electric signal cable to the pressure transducer (2 couplings) (5 m)	4250 2404 00
Proximity sensor ^a	4250 2461 00
Data entry unit including cable (only one is needed to program several controllers)	4250 2408 00
RE-signal tube soft 120 mm	4250 1854 00
Coupling M5 thread	0583 8100 60

^a The proximity sensor is used to sense the moving workpiece in order to automatically activate the RE-Controller when the workpiece is in place and to reset the RE-Controller when tightening sequence is finished and the workpiece is removed. If you do not need this function, order instead the relay "K50" Ordering No. 4250 2403 00 (to be mounted inside the controller).

Optional

Model	Ordering No.
Cover ^b	4250 2433 80

^b Make sure that the pressure transducer is protected. If not protected, there is a risk that the transducer will be damaged. The covering kit is especially suitable for pistol grip EP5-12 PT/PTS tools.



Model

EP5-18PTS HR-RE
 LTP- RE
 LTD28 / 38 / 48 / 51
 LTV008 / 08 / 18 / 28 / 28X / 38 / 48 / 58
 LUM12 / 13 / 21 / 25 / 27 - RE

The background image shows a silver car on an assembly line. A yellow Atlas Copco robotic arm is positioned to the left of the car, with its gripper mechanism near the front wheel. The car's front headlight and wheel are visible. The scene is set in a factory environment with overhead lighting and structural elements.

Electric assembly tools and systems

Right the first time...

The Atlas Copco range of electric and battery assembly tools, control systems and associated software packages define the global benchmark in smart, cost-efficient and error-proof assembly management.

Browse the following pages and discover how our built-in error proofing functions can protect you from costly operator errors: no more forgotten, loose or over tightened screws. Now you can really know it's right –first time!

Contents

Page

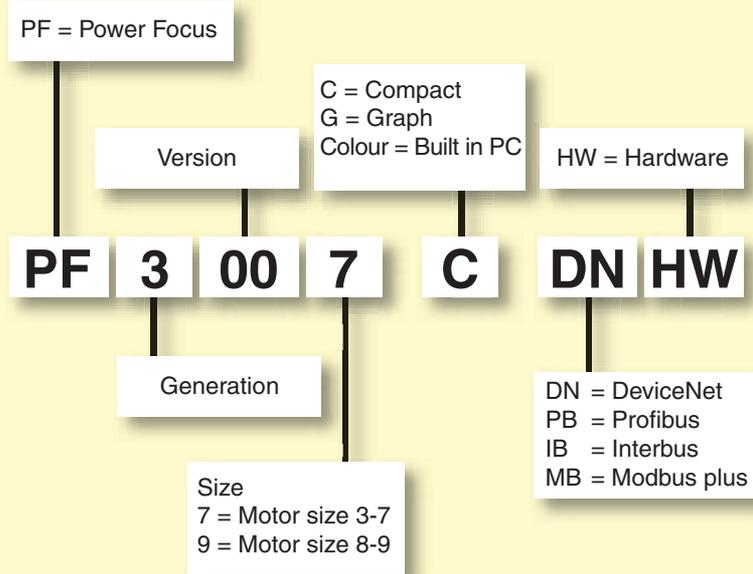
Tool key	68
Electric screwdrivers	70
Industrial battery screwdrivers	75
Electric nutrunners Tensor DS	80
Electric nutrunners Tensor S	86
DS 300 Drive	94
Power Focus 3000	95
PowerMACS	107
Bits and power sockets	116
Torque arms	125

TOOL KEY

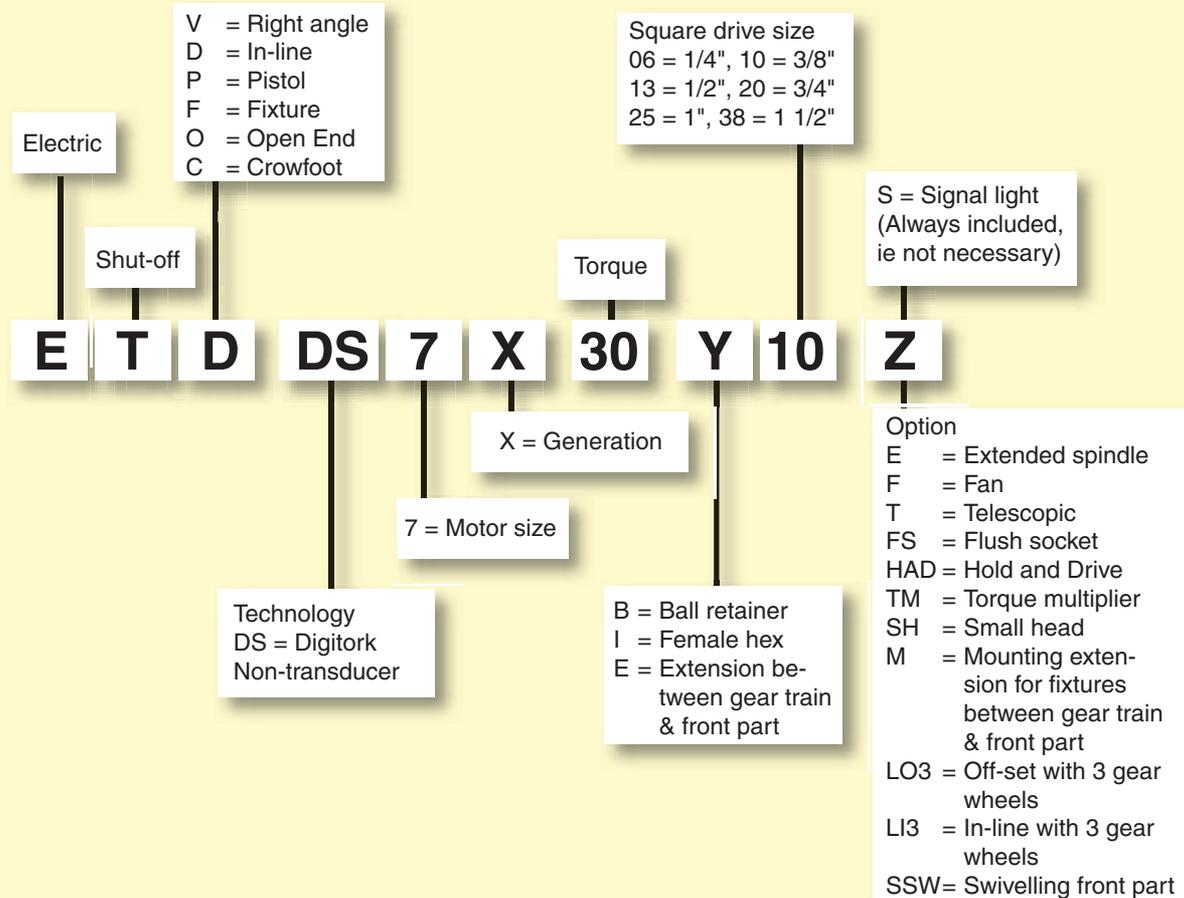
The designator/ordering numbers of Atlas Copco assembly tools is a combination of letters and numbers indicating various properties and characteristics of the tool concerned.

Below is a guide showing the general significance of each group of letters/numbers and specific guides to the individual tool types.

Power Focus

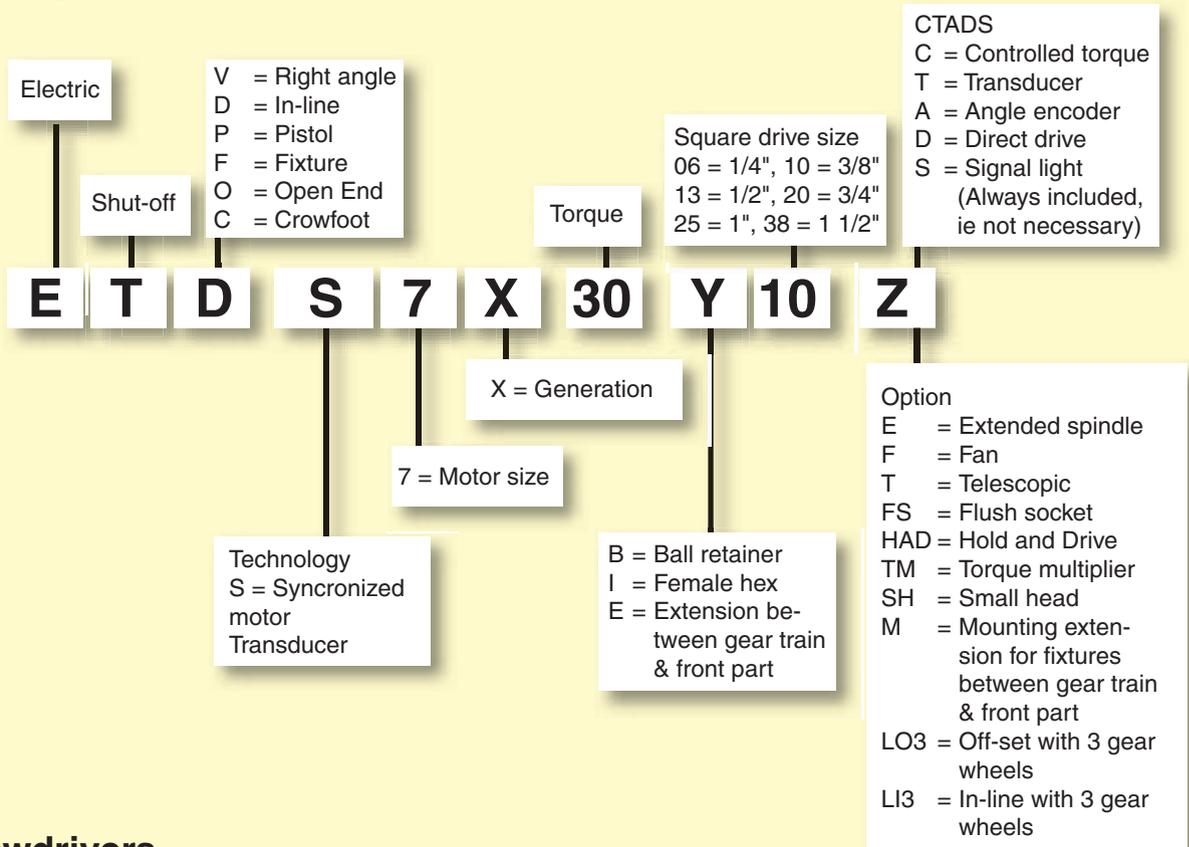


Tensor DS



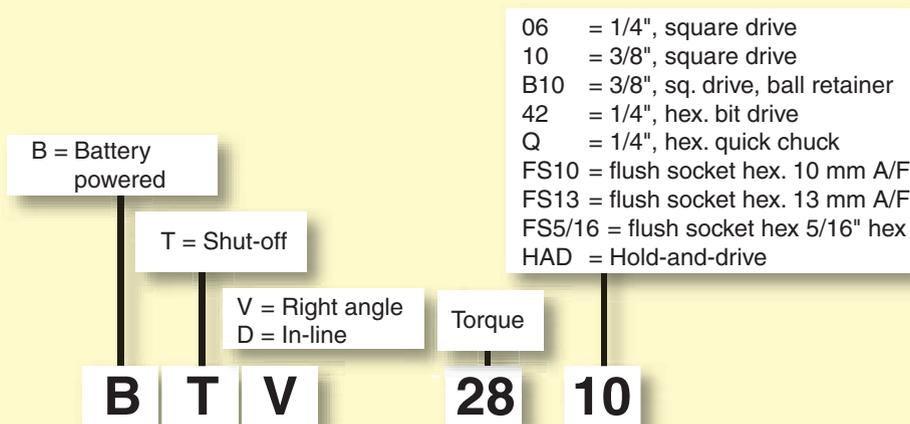
TOOL KEY

Tensor S

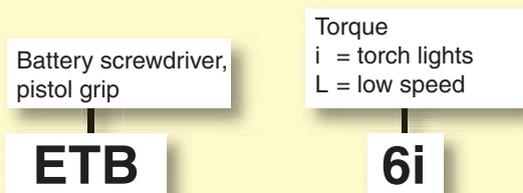


Screwdrivers

BTV



ETB



BATTERY AND ELECTRIC SCREWDRIVERS



Low voltage electric screwdrivers and nutrunners

Atlas Copco offers a complete range of electric powered assembly tools including battery screwdrivers and nutrunners, small transformer powered screwdrivers and advanced current controlled screwdrivers, nutrunners and assembly systems.

Low voltage electric motors have their obvious place as power source for battery screwdrivers and nutrunners. Low voltage electric screwdrivers – powered from the mains via a transformer and rectifier – are many times also preferred for small screws tightening in industrial applications where a clean and low-noise environment is a primary demand. Atlas Copco's wide experience in design of industrial assembly tools, from the high performance air screwdrivers and nutrunners with mechanical shut-off clutch to the sophisticated current controlled electric assembly tools, also forms a natural platform for the development of industrial battery tools and low voltage screwdrivers.

Eliza shut-off electric screwdrivers

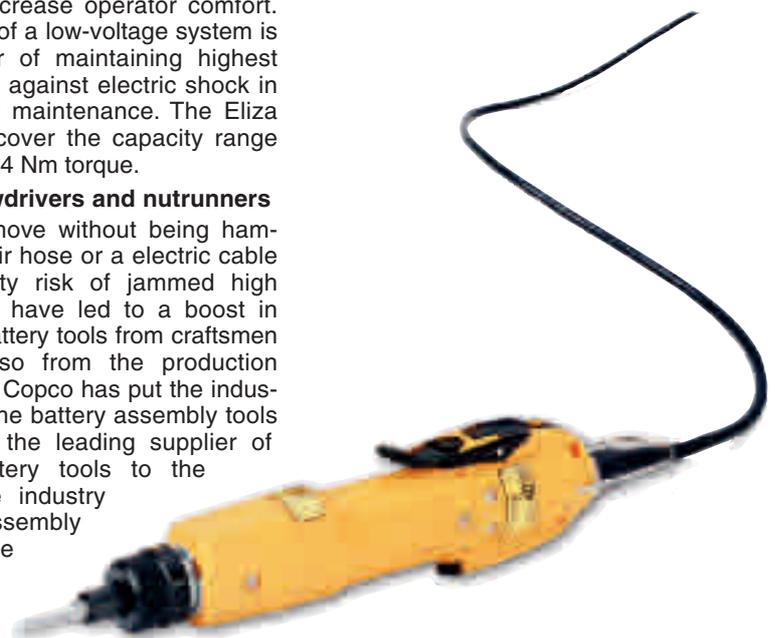
The Eliza range of low voltage screwdrivers is recognised for reliability in operation. The basic design has remained the same for many years but up-grades have been made on premium values

such as ESD certification as standard, new soft stop models and soft touch grip – features that improve product quality and increase operator comfort. The selection of a low-voltage system is also a matter of maintaining highest level of safety against electric shock in operation and maintenance. The Eliza screwdrivers cover the capacity range from 0.03 to 3.4 Nm torque.

Battery screwdrivers and nutrunners

Freedom to move without being hampered by an air hose or a electric cable and the safety risk of jammed high voltage cords have led to a boost in demand for battery tools from craftsmen and lately also from the production industry. Atlas Copco has put the industrial touch to the battery assembly tools and is today the leading supplier of industrial battery tools to the motor vehicle industry and other assembly line works. The

range includes ETB pistol screwdrivers up to 10 Nm and BTV angle screwdrivers and nutrunners up to 28 Nm.

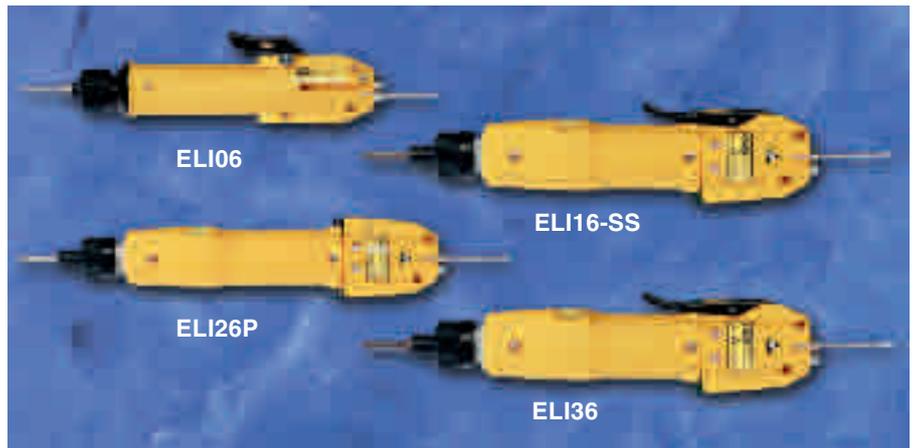


ELECTRIC SCREWDRIVERS

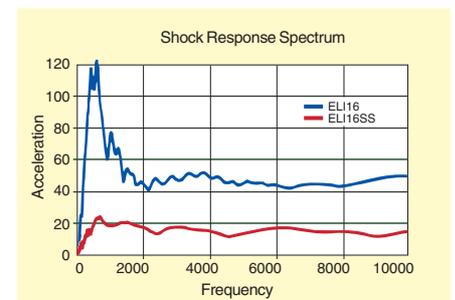
Screw size M1 –M4
Torque range 0.03 –3.4 Nm

The Eliza electric screwdrivers are the ideal choice in the electronic industry, among small components manufacturers, the appliance industry and other industries where cleanliness in operation, ease of installation, low noise level and limited total investment are essential.

- ❑ **Safe** –Via a transformer the tools are powered by a mere 30 VDC, which means that there is no risk for dangerous electric shock in operation or during service and maintenance.
- ❑ **Ergonomic** – Soft touch grip, low weight, small dimensions, perfect balance, a minimum of vibration and reaction force.
- ❑ **Accurate** – Combined mechanical clutch and electric shut-off provides for excellent torque repeatability.
- ❑ **High productivity** –Careful balance between speed and torque, electrically and mechanically dimensioned for continuous production, meet the highest demands for production rate and service life.
- ❑ **ESD certified** – Dissipative plastic casing and electric connection of the tool body to ground potential prevent static electricity from being built up in or on the face of the tool and discharge to sensitive electronic components.



- ❑ **Soft stop options** –Special models are available for those applications where shock sensitive electronic devices might be harmed by the vibrations from the clutch action. The smooth shut-off also reduces the jerk to the hand of the operator.



Model	Screw capacity	Torque range		Free speed r/min ^a	Weight		Length mm	Bit drive	Ordering No.
		Nm	in lb		kg	lb			
Trigger start screwdrivers (excl. control box)									
ELI006	M1.0-M2.0	0.03-0.2	0.3-1.7	1000	0.35	0.8	183	Ø 4 mm	8431 0156 06
ELI06	M1.2-M2.5	0.05-0.5	0.4-4.4	1000	0.38	0.8	197	1/4 hex	8431 0156 00
ELI16	M2-M3	0.15-1.6	1.3-14	825	0.6	1.4	235	1/4 hex	8431 0156 18
ELI26	M2.5-M4	0.3 -2.5	2.6-22	700	0.7	1.5	255	1/4 hex	8431 0156 26
ELI36	M2.5-M4	0.4 -3.4	3.5-30	700	0.6	1.4	235	1/4 hex	8431 0156 34
Push start screwdrivers (excl. control box)									
ELI16-P	M2-M3	0.15-1.6	1.3-14	825	0.6	1.4	235	1/4 hex	8431 0156 42
ELI26-P	M2.5-M4	0.3 -2.5	2.6-22	700	0.7	1.5	255	1/4 hex	8431 0156 59
ELI36-P	M2.5-M4	0.5 -1.8	4.3-16	1500	0.6	1.4	235	1/4 hex	8431 0156 63
Soft-stop screwdrivers with trigger start (excl. control box)									
ELI06-SS	M1.4-M2.5	0.1 -0.44	0.9-3.9	1000	0.4	0.9	197	1/4 hex	8431 0156 67
ELI16-SS	M2-M3	0.25-1.3	2.2-11	825	0.6	1.4	235	1/4 hex	8431 0156 75
ELI26-SS	M2.5-M3	0.5 -1.7	4.4-15	700	0.7	1.5	255	1/4 hex	8431 0156 83
Control boxes ESD certified									
CBE50	Controller for single ELI006, 06, 16 or 26 models								8431 0164 09
CBE65	Controller for single ELI36 models								8431 0164 17
CBE50-S	Slow start controller for single ELI006, 06, 16 or 26 models								8431 0164 25
Transformers									
PFS60-ESD	For single ELI006, 06, 16 or 26 models - 230V. ESD certified								8431 0160 11
PFS60-ESD-115	For single ELI006, 06, 16 or 26 models - 115V. ESD certified								8431 0160 13
PFS151	For ELI36 models and power network - 230V. Not ESD certified ^{ab}								8431 0160 15
PFS151-115	For ELI36 models and power network - 115V. Not ESD certified ^{ab}								8431 0161 15
Power packages ESD certified									
CTB50	Transformer/controller for single ELI006, 06, 16 or 26 models								8431 0162 01
CTB65	Transformer/controller for single ELI36 models								8431 0162 19
CTB100	Transformer/controller for two ELI006, 06, 16 or 26 models								8431 0162 27

^a In EPA (Electrostatic Protected Area) use power package CTB65 for ELI36.

^b PFS151 has double socket connection.

ELECTRIC SCREWDRIVERS

Electronic control

Despite the advanced electronic control of the tools the Eliza screwdrivers are small and light. This has been achieved by locating the electronic components in a separate control box. A number of different controllers or combined controller/transformer offers a variety of installation options and functions. For a complete installation the CBE controllers and PFS transformers or the CTB "Power Packs" must be specified separately.



Transformer

In the basic set-up with controller and separate transformer, the transformer is used to lower the mains voltage to 22 VAC before being rectified in the control box. The PFS60 transformer powers sizes ELI006, 06, 16, and 26. The ELI36 must have the bigger PFS151 transformer. The PFS151 transformer can be used for simultaneously powering several Eliza screwdrivers depending on size.



PFS151



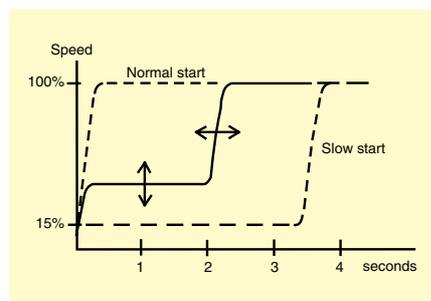
PFS60

Model	Powers simultaneously			Power VA
	ELI006/06	ELI16/26	ELI36	
PFS60	2	1	-	60
PFS151	6	3	2	150

PFS60 –Single socket connection.
PFS151 –Double socket connection.

Slow start controller

High screwdriver speed is sometimes critical for both bit engagement and safe screw entering. With the optional controller, offering adjustable starting speed and time, the problems can be eliminated.



For ELI06, ELI16 and ELI26.

One unit installation

The combined transformer/controller units CTB simplify installation.

For ELI36 screwdrivers the CTB65 must be used as power supply where ESD approval is required.

The CTB Power Packs offer selection of low-speed mode for those applications where a high run-down speed might distort the thread, e.g. tightening self-drilling screws in plastic.

The CTB100 has connectors for simultaneously powering two screwdrivers of sizes ELI006, 06, 16, and 26.



ACCESSORIES

Screw pick-up system

Picking and positioning of screws are many times crucial for productivity in small screw assembly. The Eliza range of optional equipment offers a vacuum pick-up system to simplify pre-tightening preparations. The system consists of a vacuum pump, adapters for the screwdriver a shaker tray and grids for different screw dimensions.

The system components are not ESD certified.

Vacuum pick-up adapters

All Eliza screwdrivers can be equipped with vacuum pick-up adapters ready to connect to a vacuum pump. The adapters are delivered without nozzles.

Nozzle blanks

The following brass blanks are available. They must be machined to fit the specific screw to be picked up.



Shaker tray

Consists of a rubber box. A variety of interchangeable rubber grid plates can be ordered separately.

Ordering No. 4220 0054 00

Grid

Model	Ordering No.
Vacuum pump	4220 0062 00
Vacuum pick-up adapter for ELI06 ^a	4220 0052 00
Vacuum pick-up adapter for ELI16/26/36 ^a	4220 0053 00
Nozzle blank Ø 8 mm for ELI06	4220 0067 03
Nozzle blank Ø 8 mm for ELI16/26/36	4220 0070 03
Nozzle blank Ø 14 mm for ELI16/26/36	4220 0072 03

^a Not ESD certified.

Screw size mm	Ordering No.	Screw size mm	Ordering No.
1.2/1.4	4220 0055 00	2.6	4220 0059 00
1.7	4220 0056 00	3.0	4220 0060 00
2.0	4220 0057 00	4.0	4220 0061 00
2.3	4220 0058 00		

Pistol grip

A pistol grip handle is available for models ELI16, 26 and 36.

(ESD certified)

Ordering No. 4220 0051 00



Push start ELI06

The push start function is also available for the ELI06 size by mounting a sliding grip sleeve replacing the standard trigger start.

(Not ESD certified)

Ordering No. 4220 0106 00



CONNECTORS ISO standard

To build your own 22 V AC network. With these components and an ordinary two core cable, min 1.5 mm², you can quickly arrange the electric supply for a series of screwdrivers.

Designation	Ordering No.
Male plug	4220 0095 00
	
2-way female socket For wall mounting (Not ESD certified)	4220 0096 00
	

Angle head

Eliza screwdriver models ELI16, 26 and 36 can be equipped with a 90° angle head for access in cramped quarters.

Ordering No. 4220 0425 80



Cable options

The tools are supplied with a cable for connection to the controller/power supply unit. Connecting one or two extension cables of 3 m length to the standard cable increases the distance between tool and control box up to 8 m.

(ESD certified)

Ordering No. 4220 0138 01

A spiral cable of 1.3 m length, extracted max 2.4 m, can also be ordered separately.

(Not ESD certified)

Ordering No. 4220 0347 00



SELECTED SERVICE KITS

Model	Small parts kit	Brush kit
ELI06	4220 0030 90	4220 0022 90
ELI16/26/36	4220 0049 90	4220 0041 90
ELI16P/26P	4220 0049 90	4220 0041 90

ESD APPROVED SCREWDRIVERS

Air-powered and low-voltage electric screwdrivers

ESD – Electrostatic discharge – is increasingly recognised as a major cause of damage to electronic devices. ISO 9000 quality certification drives the need for proper ESD control programs and IEC international standard defines the risk potential and protection for the handling of electronic components.

Industrial tools –source of damage by ESD

Industrial screwdrivers used in the assembly of electronic components and devices incorporating microelectronics are naturally critical items with regard to ESD risk potential.

- ❑ The body of the tool, whether air or electrically powered, can hold static electricity and discharge to the work piece via the screwdriver bit.
- ❑ The plastic materials used for insulation of electrical tools and for convenience and thermal isolation on air tools are sources for generating and holding of static charges and also prevent the tool body from being brought to ground potential through the hand of the operator.
- ❑ The plastic material used in electric cords and connectors as well as the plastic air hoses are also liable to build up electrostatic fields that might discharge to any object that comes close enough.



ESD certified screwdrivers

Atlas Copco offers ESD certified tools in the standard range of screwdriver models most frequently used in the electronic industries. This 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, Swedish National Testing and Research Institute. In practice it certifies that the material of the equipment at no point will hold an electrostatic potential above 100 V for more than 2 seconds.

The Atlas Copco ESD protection concept has today been brought into both the low voltage electric screwdrivers type ELI in the capacity range from 0.05 to 3.5 Nm and the small straight screwdrivers LUM10 and LUM21 with torque output between 0.1 and 4.5 Nm.

Air tools installation for ESD protection

The air-powered screwdrivers must be set up in a way that the tool body will discharge to ground in order to meet the ESD approval standard. The simplest way to do this is to install the tools at the work place with the special Atlas Copco conductive air hose that grants that no electrostatic charges are built up at any face of the screwdriver or the bit used.

You will find the ESD approved screwdrivers for airpowered tools on pages 30-33 and pages 71-73 for electric tools.



INDUSTRIAL BATTERY SCREWDRIVERS

Shut-off control

Screw size M3 –M6
Torque range 0.9 –28 Nm

For productivity reasons air tools have generally been preferred in industrial applications due to the favourable power-to-weight ratio of the air motor. On industrial assembly lines today, however, the mode of operation has changed and many screws are best tightened with a battery tool that allows freedom to move along a running production line.

To meet the demands from industrial operation Atlas Copco has developed its own range of industrial battery screwdrivers, utilising know-how from building accurate and reliable industrial screwdrivers and combining this with new innovative technique in battery motor control.

BTV –battery angle screwdrivers

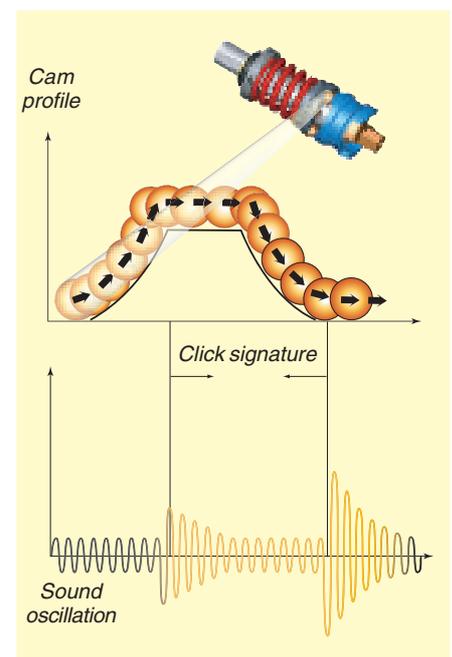
The BTV battery angle screwdriver utilises the best of available techniques to allow a lightweight and handy battery tool, an extensive number of tightenings before recharging the battery, a service life that matches any other power tool and accuracy with electronic precision. Where portability is essential on your assembly line the BTV is the ideal match offering:

- ❑ **Torque accuracy** –Excellent torque repeatability, low mean shift and low reaction force.
- ❑ **Movability** –Freedom to move without air hose or electric cord to provide for the power. Freedom to work inside closed compartments, e.g. inside a vehicle.
- ❑ **Work protection** – Car body finish free from scratches from hoses and cords.
- ❑ **Work place arrangement** – High flexibility and rapid set-up.
- ❑ **A safe work place** –Free from interference of air hoses and risk of jammed electric cords.
- ❑ **Ergonomics** –Low sound level, clean for the operator and his working environment.



ACD control –reliability, low wear and easy service

The ACD, Acoustic Clutch Detection, in the BTV battery tool uses a sophisticated electronic identification of the specific sound signature of the click when the clutch releases to short-circuit the electric motor and brake the rotation when tightening is finished. The lack of wearing mechanical switches, magnets and sensitive electronic components and the elimination of wiring between the mechanical clutch and the electronic control card means a considerable improvement in reliability, wearing properties and service-ability.



INDUSTRIAL BATTERY SCREWDRIVERS

Shut-off control

ETB and BTP cordless pistol screw-drivers

The well-proven pistol screwdrivers ETB and BTP use components of same high quality as in our pneumatic tools and electronic motor control adapted to industrial requirements. Common features are:

- ❑ **Certified accuracy** – Fast shut-off ensures tightening to the most demanding accuracy requirements.
- ❑ **High durability** – Industrial quality means reliability in operation and long service life.
- ❑ **Operator comfort** – Ergonomy and operation feedback with light signals contribute to outstanding performance.

Additionally the **ETB** models feature:

- ❑ **Low mean-shift** – Clutch design ensures same torque on hard and soft joints throughout the full torque range.
- ❑ **Theft protection option** – Models offering electronic theft protection block the operation on battery charging unless reactivated by a coder.

Innovative lights

Torch light now standard –The ETB tools are now also equipped with a built-in LED lamp for illuminating the screw head and simplify positioning when working in confined spaces. The led lamps are placed in an optimal way to avoid disturbing shadows.

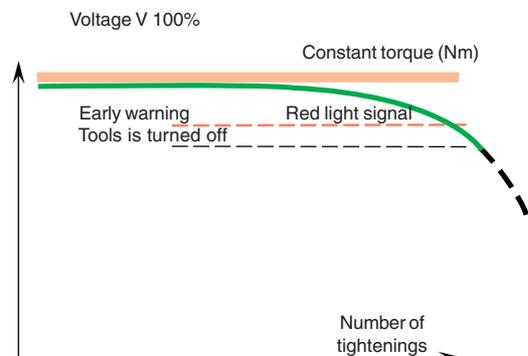


Green light = proper tightening!

A green light and the “click” sound tells the operator that the clutch has released and the tightening is OK.

Red light = time to recharge!

A flashing red light gives an early warning when it is time for recharging. All tools have protection to prevent start when there is not enough battery charge. This means that there is no risk for drop in applied torque due to low battery.



INDUSTRIAL BATTERY SCREWDRIVERS

Shut-off control

The ErgoPulse concept

EPA –battery pulse screwdrivers

The Atlas Copco range of battery tools also includes the ErgoPulse screwdriver utilising the pulse concept; yet another combination of industrial tool techniques.

- **High speed** – Gear-less operation means high rundown speed and short cycle times.
- **High torque, low reaction** – The pulse technique allows high torque without any reaction force to the operator.
- **Shut-off function** – A timer shut-off device eliminates operator influence on the tightening torque.
- **Theft protection option** – Also the EPA is available in a model with electronic theft protection.



Model	Screw size mm	Recommended torque range		Free speed			Weight excl. battery		Tool only Ordering No.	PROT version tool only Ordering No.
		Nm	in lb	9.6 V r/min	12 V r/min	14.4 r/min	kg	lb		
BTV										
BTV7-6	M3-M5	2 - 7	18 - 62	350	450	–	1.4	3.0	8431 0261 42	8431 0261 43
BTV7-42	M3-M5	2 - 7	18 - 62	350	450	–	1.4	3.0	8431 0261 46	8431 0261 47
BTV7-Q	M3-M5	2 - 7	18 - 62	350	450	–	1.4	3.0	8431 0261 50	8431 0261 51
BTV11-6	M4-M6	4 - 11	36 - 97	300	380	–	1.4	3.0	8431 0261 62	8431 0261 63
BTV11-42	M4-M6	4 - 11	36 - 97	300	380	–	1.4	3.0	8431 0261 66	8431 0261 67
BTV11-Q	M4-M6	4 - 11	36 - 97	300	380	–	1.4	3.0	8431 0261 70	8431 0261 71
BTV11-10	M4-M6	4 - 11	36 - 97	300	380	–	1.4	3.0	8431 0261 74	8431 0261 75
BTV15-6	M6	8 - 15	70 - 132	–	340	410	1.7	3.7	8431 0261 81	8431 0261 82
BTV15-42	M6	8 - 15	70 - 132	–	340	410	1.7	3.7	8431 0261 84	8431 0261 85
BTV15-Q	M6	8 - 15	70 - 132	–	340	410	1.7	3.7	8431 0261 87	8431 0261 88
BTV15-10	M6	8 - 15	70 - 132	–	340	410	1.7	3.7	8431 0261 90	8431 0261 91
BTV28-42	M8	15 - 28	132 - 248	–	210	260	1.8	4.0	8431 0261 93	8431 0261 94
BTV28-10	M8	15 - 28	132 - 248	–	210	260	1.8	4.0	8431 0261 96	8431 0261 97
BTV28-B10	M8	15 - 28	132 - 248	–	210	260	1.8	4.0	8431 0261 99	8431 0262 00
BTV28-Q	M8	15 - 28	132 - 248	–	210	260	1.8	4.0	8431 0262 02	8431 0262 03
ETB –screwdrivers with shut-off. Pistol grip models										
ETB4i	M3-M5	0.9 - 4.5	8 - 40	800	970	–	1.2	2.6	8431 0272 46	8431 0272 47
ETB6i	M3-M5	1.9 - 7	16 - 62	520	620	–	1.2	2.6	8431 0272 41	8431 0272 44
ETB6Li	M3-M5	1.9 - 7	16 - 62	290	360	–	1.2	2.6	8431 0272 48	–
ETB10i	M4-M6	3 - 10	26 - 90	360	480	–	1.2	2.6	8431 0272 42	8431 0272 43
(ETB6/10: For low torque 1-3.5 Nm use optional clutch spring 4210 3690 90. NOTE: The torque marking system is adapted to standard spring)										
BTP –screwdrivers										
BTP6	M3-M5	1.5 - 6	13 - 53	390	–	–	1.3	3.7	8431 0266 50	–
BTP12	M5-M6	6 - 12	53 - 110	–	360	–	1.3	3.9	8431 0266 52	–
ErgoPulse –hydraulic impulse screwdrivers										
EPA6	M6	5 - 13	44 - 115	3000	–	–	1.2	3.7	8431 0262 48	8431 0262 49

^a 9.6 V, 2.0 Ah battery for all models except BTP12.

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

INDUSTRIAL BATTERY SCREWDRIVERS

Shut-off control

Modular battery system

❑ **Battery standard** – Basic battery standard for all tools except the BTP12 is 9.6 V. BTV and ETB can also be powered with a 12 V battery to increase speed by approximately 25%.

❑ **Charger standard** –Chargers are of pulse types that ensures long battery life. Standard charger included in tool kits is of the quick charge type.

❑ **Multiple charger system** – By assembly of standard chargers on a common bracket a multiple charger system can be built up. A mounting bracket for up to five chargers or four chargers and a theft decoder is available to order.



The mounting bracket can fit up to five chargers or four chargers and a decoder.

	Voltage	Capacity	Weight gram	Ordering No.
Battery	9.6 V	1.4 Ah	530	4210 3680 00
		1.7 Ah	550	4210 3680 01
		2.0 Ah	570	4210 3680 02
	12 V	1.4 Ah Flat pack	500	4210 3680 03
		2.0 Ah	730	4210 3680 05
14.4 V	2.8 Ah	800	4210 3680 06	
Spare Battery housing 9.6 V				4210 3680 80



Pulse chargers				
15/23 min ^a	(1.4/2.0 Ah)	230/240 V		4210 3675 00
25/36 min	(1.4/2.0 Ah)	110/120 V		4210 3675 01
1/1.3 hour	(1.4/2.0 Ah)	230/240 V		4210 3676 00
Mounting bracket for multiple charger				
Euro-contact		230/240 V		4210 3677 00
US-contact		110/120 V		4210 3677 01
NOTE: Chargers are bought separately.				
Decoder kit				
Decoder kit		230/240 V		4210 3679 90
Decoder kit		110/120 V		4210 3679 91
Protection cover				4210 3810 00
Suspension yoke				
ETB				4211 5000 80
BTV				4211 5080 80

Batteries



Pulse charger

Decoder

^a Not for 14.4 V battery.

Angle head for ETB (gear ratio 1:1.56)	
NOTE: Torque will increase 50% when angle head is used.	
1/4" female hexagon drive for bits	4210 1875 88
3/8" square drive for sockets	4210 1875 89
1/4" square drive for sockets max 7 Nm	4110 1404 76
30° angle head for ETB (up to 7 Nm)	
Quick change chuck for female bits	4110 1436 84
Square drive kit 1/4" for EPA6	4210 2518 90

Colour torque system

The Atlas Copco colour torque system gives you an easily visible torque marking system for all your ETB tools. Select a unique colour combination for each torque level used on your assembly line.



Colour torque marking rings

Red	4210 3795 02
Green	4210 3795 04
Blue	4210 3795 06
Orange	4210 3795 08



Protective cover

TENSOR

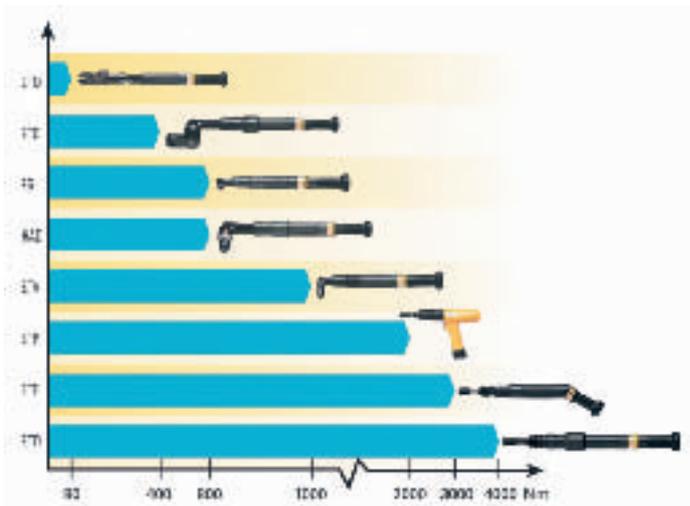
The new generation electrically controlled nutrunners



A complete range

The Tensor electrical tool range covers all assembly line requirements for safety- and quality-critical fasteners. The Tensor S is a world beater in the field of transducerized power tools. Featuring the innovative S motor, based on Atlas Copco's proprietary technology, the Tensor S has rapidly revolutionized the assembly industry.

The first true non-transducerized electric power tool, the Tensor DS, makes it feasible to equip an entire facility with electrical tools.



Productivity gains

Compared with conventional nutrunners, Tensor tools offer superior spindle performance. Faster speeds and high cycle rates mean increased productivity and reduced assembly times.

Green light for quality

Forgotten screws and faulty fasteners are errors that can jeopardise your assembly quality. The green light from the Tensor tool assures that all screws were tightened and that the joint was OK.

Exceptional ergonomics

Ergonomics excellence was a key priority in developing the Tensor tools. The balance, grip and low weight make them a favourite on the assembly line.

Tightens customer satisfaction

All industries with assembly operations have one thing in common – demanding customers who insist on quality and value for money. The Tensor range has been developed to give you the benefits of controlled tightening and advanced electric systems throughout your assembly operations.

Tensor tool configurations

The Tensor family comprises a broad range of tool configurations to cover every hand-held or fixtured application found in an assembly plant. Available for torques ranging from 1 to 4,000 Nm, and in 8 different configurations, the Tensor range of multi-torque electrical tools can be used to equip an entire facility.

TENSOR DS

Angle electric nutrunners

ETV DS

- ETV DS right angle tools are ideal for hand-held operations.
- Torque range from 2 Nm to 600 Nm.
- Complete range of Flush Socket and Hold & Drive Tools.
- Ball retainers for fast and easy socket changes.



Model	Square drive in	Torque		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
		Nm	ft lb		kg	lb			
ETV DS4									
DS4-05-10S	3/8	1.8 - 6	1.4 - 4.4	1135	1.3	2.9	381	13.5	8433 0705 31
DS4-10-10S	3/8	4.5 - 15	3.5 - 11	585	1.3	2.9	381	13.5	8433 0706 14
DS4-20-10S	3/8	6 - 20	4.4-14.5	400	1.3	2.9	381	13.5	8433 0706 49
DS4 Ball Retainer									
DS4-10-B10S	3/8	4.5 - 15	3.5 - 11	585	1.3	2.9	381	13.5	8433 0706 31
ETV DS7									
DS7-15-10S	3/8	5 - 17	3.6-12.4	1160	1.4	3.1	412	13.5	8433 0720 10
DS7-30-10S	3/8	10 - 35	7.3 - 25	800	1.4	3.1	412	13.5	8433 0721 42
DS7-40-10S	3/8	12 - 40	9 - 29	800	1.6	3.6	434	18	8433 0721 94
DS7-50-10S	3/8	17 - 55	12 - 40	480	1.6	3.6	434	18	8433 0722 58
DS7-70-13S	1/2	24 - 80	18 - 58	345	2.1	4.7	461	20	8433 0723 16
DS7-100-13S	1/2	33 - 110	24 - 80	240	2.3	5.1	482	20	8433 0723 70
DS7-160-13S	1/2	45 - 150	33 - 110	150	2.8	6.3	525	25.5	8433 0723 98
DS7-200-13S	1/2	60 - 200	44 - 146	120	2.8	6.3	525	25.5	8433 0724 15
ETV DS7 Ball Retainer									
DS7-30-B10S	3/8	10 - 35	7.3 - 25	800	1.4	3.1	412	13.5	8433 0721 54
DS7-40-B10S	3/8	12 - 40	9 - 29	800	1.6	3.6	434	18	8433 0721 99
DS7-50-B10S	3/8	17 - 55	12 - 40	480	1.6	3.6	434	18	8433 0722 63
DS7-100-B13S	1/2	33 - 110	24 - 80	240	2.3	5.1	482	20	8433 0723 68
ETV DS7 Flush Socket									
DS7-25-S-FS10	-	5 - 25	4 - 18	800	1.4	3.1	412	13.5	8433 0720 55
DS7-30-S-FS13	-	10 - 35	7.3 - 25	800	1.4	3.1	412	13.5	8433 0721 65
DS7-40-S-FS13	-	12 - 40	9 - 29	800	1.6	3.6	434	18	8433 0722 03
DS7-50-S-FS13	-	17 - 55	12 - 40	480	1.6	3.6	434	18	8433 0722 75
DS7-70-S-FS	-	24 - 80	18 - 58	345	2.1	4.7	436	20	8433 0723 26
DS7-100-S-FS	-	33 - 110	24 - 80	240	2.3	5.1	482	20	8433 0723 86
DS7-160-S-FS	-	45 - 150	33 - 110	150	2.8	6.3	525	26	8433 0724 00
DS7-200-FS	-	60 - 200	44 - 146	120	2.8	6.3	525	26	8433 0725 01
ETV DS7 Hold & Drive									
DS7-30-HAD-SH	-	10 - 35	7.3 - 25	800	2.0	4.4	435	18	8433 0721 59
DS7-40-HAD-SH	-	12 - 40	9 - 29	800	2.0	4.4	434	18	8433 0722 15
DS7-50-S-HAD	-	17 - 55	12 - 40	480	3.0	6.6	504	26	8433 0722 65
DS7-70-S-HAD	-	24 - 80	18 - 58	290	3.1	6.8	479	26	8433 0723 30
DS7-100-S-HAD	-	33 - 110	24 - 80	225	3.2	7.1	525	26	8433 0723 73
DS7-160-HAD	-	45 - 150	33 - 110	150	3.3	7.3	525	26	8433 0724 02
DS7-200-HAD	-	60 - 200	44 - 146	120	3.3	7.3	525	26	8433 0724 25
ETV DS9									
DS9-100-13S	1/2	40 - 100	29 - 73	685	3.3	7.4	534	20	8433 0750 21
DS9-180-13S	1/2	72 - 180	53 - 131	385	3.8	8.5	578	25.5	8433 0750 68
DS9-270-20S	3/4	108 - 270	79 - 197	235	7.0	15.6	661	33.5	8433 0751 38
DS9-370-20S	3/4	148 - 370	108 - 270	150	7.1	15.8	661	33.5	8433 0751 86
DS9-450-20S	3/4	180 - 450	131 - 328	145	11.6	25.8	702	54	8433 0752 04
DS9-600-25S	1	240 - 600	175 - 438	125	11.6	25.8	702	54	8433 0752 63
ETV DS9 Flush Socket									
DS9-180-FS	-	72 - 180	53 - 131	385	4.1	9.0	577	26	8433 0750 73
DS9-270-S-FS	-	108 - 270	79 - 197	235	7.0	15.6	661	34	8433 0751 46
DS9-370-S-FS	-	148 - 370	108 - 270	150	7.1	15.8	661	34	8433 0751 90
DS9-600-S-FS	-	240 - 600	175 - 438	125	11.6	25.8	701	53	8433 0752 70
ETV DS9 Hold & Drive									
DS9-100-S-HAD	-	40 - 100	29 - 73	575	4.2	10.3	577	26	8433 0750 25
DS9-180-S-HAD	-	72 - 180	53 - 131	385	4.7	10.3	577	26	8433 0750 70
DS9-270-S-HAD	-	108 - 270	79 - 197	235	9.1	20.0	661	34	8433 0751 44
DS9-370-S-HAD	-	148 - 370	108 - 270	150	9.2	20.2	661	34	8433 0751 95

TENSOR DS

Straight electric nutrunners

ETD DS

- ❑ ETD DS inline tools. The low torque series is ideal for hand-held bench assembly. The high torque tools are well suited for fixtured applications.
- ❑ Torque range from 1 Nm to 2000 Nm.
- ❑ Telescopic spindles for fixtured applications.
- ❑ Female Hex drives for bits.
- ❑ Swivelling front parts for low reaction force.



Model	Square drive in	Torque		Speed r/min	Weight		Length mm	CS distance mm	Splines/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETD DS4										
DS4-05-10S	3/8	2 - 5	1.5 - 3.6	1315	1.1	2.5	380	28	- / 1	8433 0710 29
DS4-10-10S	3/8	4 - 14	3 - 10	620	1.1	2.5	380	28	- / 1	8433 0710 52
ETD DS4 Telescopic										
DS4-05-10ST	3/8	2 - 5	1.5 - 3.6	1315	1.3	2.9	418	28	2 / 2	8433 0710 37
DS4-10-10ST	3/8	4 - 14	1.5 - 3.6	620	1.3	2.9	418	28	2 / 2	8433 0710 73
ETD DS4 Female Hex										
DS4-02-106S	1/4	1.0 - 2.5	0.7 - 1.8	2942	1.1	2.5	371	21.5	- / 1	8433 0710 22
DS4-05-106S	1/4	2 - 5	1.5 - 3.6	1310	1.1	2.5	371	28	- / 1	8433 0710 26
ETD DS7										
DS7-20-10S	3/8	6 - 20	4.4 - 14.5	1240	1.4	3.1	411	28	- / 1	8433 0730 23
DS7-30-10S	3/8	10 - 35	7.3 - 25	745	1.4	3.1	411	28	- / 1	8433 0730 88
DS7-50-13S	1/2	17 - 55	12 - 40	540	1.9	4.2	456	28	2 / 2	8433 0731 12
DS7-70-13S	1/2	21 - 70	15 - 51	370	2.2	4.9	477	28	2 / 2	8433 0731 31
DS7-90-13S	1/2	28 - 95	21 - 69	275	2.2	4.9	477	28	2 / 2	8433 0731 45
DS7-120-13S	1/2	38 - 125	28 - 91	225	2.2	4.9	477	28	2 / 2	8433 0731 84
ETD DS7 Telescopic										
DS7-20-10ST	3/8	6 - 20	4.4 - 14.5	1240	1.5	3.3	449	28	2 / 2	8433 0730 44
DS7-30-10ST	3/8	10 - 35	7.3 - 25	745	1.5	3.3	449	28	2 / 2	8433 0731 05
DS7-50-13ST	1/2	17 - 55	12 - 40	540	2.1	4.7	483	28	3 / 5	8433 0731 24
DS7-70-13ST	1/2	21 - 70	15 - 51	370	2.4	5.4	504	28	3 / 5	8433 0731 40
DS7-90-13ST	1/2	28 - 95	21 - 69	275	2.4	5.4	504	28	3 / 5	8433 0731 52
DS7-120-13ST	1/2	38 - 125	28 - 91	225	2.4	5.4	504	28	3 / 5	8433 0731 96
ETD DS9										
DS9-100-13S	1/2	40 - 100	29 - 73	715	3.0	6.7	529	32	2 / 2	8433 0756 42
DS9-150-13S	1/2	60 - 150	44 - 110	455	3.2	7.1	544	32	2 / 2	8433 0757 54
DS9-200-13S	1/2	80 - 200	58 - 146	340	3.2	7.1	544	32	2 / 2	8433 0758 71
DS9-450-20S	3/4	180 - 450	131 - 328	125	7.4	16.3	639	40.5	6 / 8	8433 0760 71
ETD DS9 Telescopic										
DS9-100-13ST	1/2	40 - 100	29 - 73	715	3.2	7.1	557	32	3 / 5	8433 0756 92
DS9-150-13ST	1/2	60 - 150	44 - 110	455	3.4	7.6	572	32	3 / 5	8433 0758 03
DS9-200-13ST	1/2	80 - 200	58 - 146	340	3.4	7.6	572	32	3 / 5	8433 0759 11
DS9-270-20ST	3/4	108 - 270	79 - 197	225	6.0	13.4	653	36	6 / 8	8433 0760 55
DS9-450-20ST	3/4	180 - 450	131 - 328	125	7.6	17	689	40.5	6 / 8	8433 0760 88
DS9-600-20ST	3/4	240 - 600	175 - 438	110	7.6	17	689	40.5	6 / 8	8433 0761 35
DS9-1000-25ST	1	400 - 1000	292 - 730	68	12.5	28	824	47	7 / 11	8433 0763 63
DS9-2000-38ST	1 1/2	600 - 2000	438 - 1460	34	22.5	50.4	824	68	8 / 12	8433 0764 20
ETD DS9 Swivelling										
DS9-450-20SSW	3/4	180 - 450	79 - 197	125	7.8	17.4	639	40.5	6 / 8	8433 0760 94
DS9-600-20SSW	3/4	240 - 600	175 - 438	110	7.8	17.4	639	40.5	6 / 8	8433 0761 59

TENSOR DS

Pistol grip electric nutrunners

ETP DS

- ETP DS pistol grip tool for both hand-held and fixtured applications.
- Torque range from 2 Nm to 2000 Nm.
- Telescopic spindles for fixtured applications.
- Swivelling front parts for low reaction force.
- Female Hex drives for bits.



Model	Square drive		Torque			Speed r/min	Weight		Length mm	CS distance mm	Splines/ Mounting	Ordering No.
	in		Nm	ft lb			kg	lb				
ETP DS4												
DS4-05-06S	1/4		2- 5	1.5- 3.6		1310	1.1	2.5	193	21.5	-/-	8433 0708 76
DS4-10-06S	1/4		3.5- 12	2.5- 8.8		660	1.1	2.5	193	21.5	-/-	8433 0708 92
DS4-10-10S	3/8		3.5- 12	2.5- 8.8		660	1.1	2.5	193	21.5	-/-	8433 0709 06
ETP DS4 Female Hex												
DS4-02-106S	1/4	1.0-	2.5 0.7-	1.8		2942	1.1	2.5	201	21.5	-/-	8433 0708 57
DS42-02-106	1/4	1.0-	2.5 0.7-	1.8		2950	0.9	2.0	188	21.3	-/-	8433 0708 40
DS4-05-106S	1/4	2-	5 1.5-	3.6		1310	1.1	2.5	201	21.5	-/-	8433 0708 61
DS42-05-106	1/4	2-	5 1.5-	3.6		1770	0.9	2.0	188	21.3	-/-	8433 0708 69
DS4-07-106S	1/4	2.1-	7 1.5-	5.1		905	1.1	2.5	201	21.5	-/-	8433 0708 80
DS4-10-106S	1/4	3.5-	12 2.5-	8.8		660	1.1	2.5	201	21.5	-/-	8433 0708 83
DS42-10-106	1/4	3.5-	12 2.5-	8.8		905	1.0	2.2	188	21.3	-/-	8433 0708 87
ETP DS7												
DS7-20-10S	3/8	6-	20 4.4-	14.5		1240	1.6	3.6	273	22	-/1	8433 0726 36
DS7-30-10S	3/8	10-	35 7.3-	25		750	1.6	3.6	273	22	-/1	8433 0726 53
DS7-50-13S	1/2	17-	55 12-	40		540	1.9	4.2	318	21.5	2/2	8433 0726 87
DS7-70-13S	1/2	21-	70 15-	51		370	2.1	4.7	340	21.5	2/2	8433 0727 01
DS7-90-13S	1/2	28-	95 21-	69		275	2.1	4.7	340	21.5	2/2	8433 0727 19
DS7-120-13S	1/2	38-	125 28-	91		220	2.1	4.7	340	21.5	2/2	8433 0727 47
ETP DS7 Telescopic												
DS7-70-13ST	1/2	21-	70 15-	51		370	2.2	4.9	367	22.5	3/5	8433 0727 05
ETP DS7 Swivelling												
DS7-70-13SSW	1/2	21-	70 15-	51		370	2.2	4.9	339	29.5	2/4	8433 0727 09
DS7-90-13SSW	1/2	28-	95 21-	69		275	2.2	4.9	339	29.5	2/4	8433 0727 28
DS7-120-13SSW	1/2	38-	125 28-	91		220	2.2	4.9	339	29.5	2/4	8433 0727 84
ETP DS9												
DS9-100-13S	1/2	40-	100 29-	73		790	3.8	8.5	378	32	2/2	8433 0765 39
DS9-150-13S	1/2	60-	150 44-	110		510	3.8	8.5	392	32	2/2	8433 0765 58
DS9-200-13S	1/2	80-	200 58-	146		375	3.8	8.5	392	32	2/2	8433 0766 05
DS9-270-20S	3/4	108-	270 79-	197		250	5.8	12.9	451	36	6/8	8433 0766 49
DS9-450-20S	3/4	180-	450 131-	328		140	7.4	16.5	487	40.5	6/8	8433 0767 52
DS9-600-20S	3/4	240-	600 175-	438		120	7.4	16.5	487	40.5	6/8	8433 0768 08
DS9-1000-25S	1	400-	1000 292-	730		76	12.0	27.0	615	47	7/11	8433 0768 66
DS9-2000-38S	1 1/2	800-	2000 584-	1460		40	22.0	48.9	630	68	8/12	8433 0769 20
ETP DS9 Telescopic												
DS9-2000-38ST	1 1/2	800-	2000 584-	1460		34	22.0	48.9	676	68	8/12	8433 0769 20
ETP DS9 Swivelling												
DS9-100-13SSW	1/2	40-	100 29-	73		790	3.9	8.7	394	32	2/4	8433 0765 41
DS9-150-13SSW	1/2	60-	150 44-	110		510	3.9	8.7	394	32	2/4	8433 0765 69
DS9-200-13SSW	1/2	80-	200 58-	146		375	3.9	8.7	394	32	2/4	8433 0766 12
DS9-270-20SSW	3/4	108-	270 79-	197		250	5.9	13.1	451	36	6/8	8433 0766 54
DS9-450-20SSW	3/4	180-	450 31-	328		140	7.5	16.7	487	40.5	6/8	8433 0767 61
DS9-600-20SSW	3/4	240-	600 75-	438		120	7.5	16.7	487	40.5	6/8	8433 0768 20

TENSOR DS

Fixtured electric nutrunners

ETF DS

- ❑ ETF DS inline tools specially designed for build-in and fixtured applications.
- ❑ Torque range from 1 Nm to 100 Nm, with the possibility to make bigger tools.
- ❑ Extra high durability.
- ❑ Remote start button.
- ❑ Small centre to side distance.
- ❑ Easy cable routing.



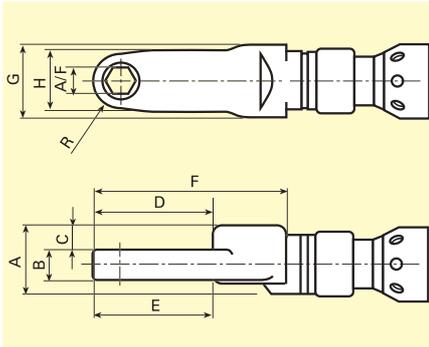
Model	Square drive in	Torque		Speed r/min	Weight		Length mm	CS distance mm	Splines	Ordering No.
		Nm	ft lb		kg	lb				
ETF DS4 Telescopic										
DS4-05-10ST	3/8	2 - 5	1.5 - 3.6	1310	1.1	2.5	398	21.5	2	8433 0450 08
DS4-10-10ST	3/8	4 - 14	3 - 10	620	1.1	2.5	398	21.5	2	8433 0450 31
ETF DS7 Telescopic										
DS7-15-10ST	3/8	5 - 15	3.6 - 11	990	1.3	2.9	429	21.5	2	8433 0455 44
DS7-25-10ST	3/8	8 - 25	6 - 18	595	1.3	2.9	429	21.5	2	8433 0455 59
DS7-40-13ST	1/2	12 - 40	9 - 29	430	2.0	4.4	463	21.5	3	8433 0455 78
DS7-50-13ST	1/2	15 - 50	11 - 36	290	2.3	5.1	484	21.5	3	8433 0456 05
DS7-70-13ST	1/2	21 - 70	15 - 50	220	2.3	5.1	484	21.5	3	8433 0456 42
DS7-100-13ST	1/2	30-100	22 - 73	175	2.3	5.1	484	21.5	3	8433 0456 82
ETF DS9 Telescopic										
DS9-100-13ST	1/2	30-100	22 - 73	340	3.0	7.0	551	32	3	8433 0460 92

TENSOR DS

Crowfoot tools

In-Line crowfoot tools

DIMENSIONS

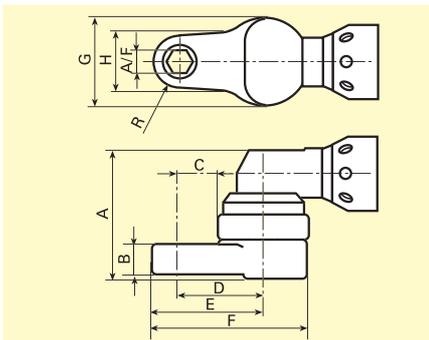


Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
ETC DS7																	
DS7-25-13-LI3	6 - 28	4.4 - 20.7	622	1.9	4.2	507	13	34	15	13	59	71	94	35	30	13	8433 0710 90

For sockets, see separate ordering material (9833 1381 01)

Offset crowfoot tools

DIMENSIONS



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												
ETC DS4																	
DS4-05-7-LO3	1 - 5	0.7- 3.7	844	1.5	3.3	400	7	56	9	6	25	32	47	37	15	7.5	8433 0701 04
DS4-08-8-LO3	2 - 9.5	1.5- 7	582	1.5	3.3	402	8	60	14	8	26	34	49	37	16	8	8433 0701 08
ETC S7																	
DS7-15-10-LO5	3.5- 18	2.6- 13.3	1164	1.7	3.7	474	10	60	15	48	66	76	91	37	22	10	8433 0701 12
DS7-20-13-LO3	4.6- 23	3.4- 17	796	1.7	3.7	460	13	58	10	25	47	62	82	44	31	14.5	8433 0701 16
DS7-25-13-LO3	5.6- 28	4.2- 20.7	796	1.8	4.0	454	13	62	15	20	42	55	76	44	30	13	8433 0701 23
DS7-25-13-LO5	5.6- 28	4.2- 20.7	796	2.0	4.4	514	13	68	15	62	84	97	118	44	30	13	8433 0701 29
DS7-40-13-LO3	8.8- 44	6.5- 32.5	478	2.2	4.8	478	13	68	18	25	47	62	82	44	31	14.5	8433 0701 34
DS7-40-13-LO5	8.8- 44	6.5- 32.5	478	2.2	4.8	425	13	69	18	72	94	108	129	44	31	14.5	8433 0701 38
DS7-60-17-LO3	13 - 65	9.6- 48.1	346	2.7	5.9	507	17	77	24	29	51	66	89	48	30	15	8433 0701 46
DS7-60-17-LO5	13 - 65	9.6- 48.1	346	3.3	7.3	558	17	81	24	78	102	117	140	48	30	15	8433 0701 56
DS7-80-21-LO3	18 - 90	13.3- 66.6	236	3.3	7.3	585	21	90	20	35	66	86	112	63	40	20	8433 0701 60
DS7-80-21-LO5	18 - 90	13.3- 66.6	236	4.1	9.0	651	21	92	20	101	132	152	178	63	40	20	8433 0701 65
ETC DS7 Extra heavy duty																	
DS7-40-13-AO3	8 - 40	6 - 29	480	2.3	5.0	486	13	60.3	19	33	53	69	86	40	17	16	8433 0702 15
DS7-70-17-AO3	14 - 70	11 - 51	345	2.9	6.4	528	17	66.5	19	45	68	87	107	45	21	19.5	8433 0702 32
DS7-120-17-AO3	24 - 120	18 - 88	120	4.1	9.0	587	17	88	25	42	68	88	113	51	25	19.8	8433 0702 55
ETC DS9																	
DS9-140-21-LO3	30 - 150	22.2- 111	287	4.8	10.6	638	21	101	33	35	66	86	112	63	40	20	8433 0701 75
DS9-200-21-LO3	43 - 215	31.8- 159.1	174	10.0	22.0	718	21	146	40	33	70	91	125	77	42	21	8433 0701 80

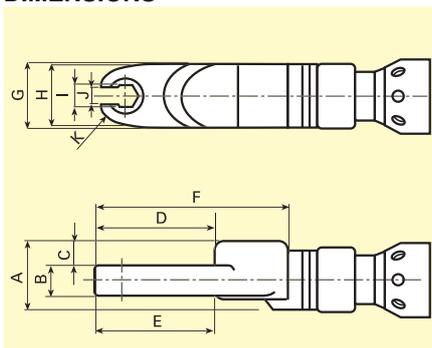
For sockets, see separate ordering material (9833 1381 01)

TENSOR DS

Tube nut tools

In-Line tube nut tools

DIMENSIONS

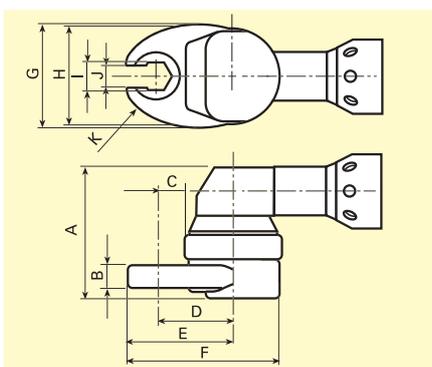


Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R mm	Ordering No.
	Nm	ft lb		kg	lb													
ETO DS4																		
DS4-10-10-LI3	2.5- 12	1.9- 8.9	468	1.5	3.4	449	10	32	10	13	37	26	67	34	31	7	11.5	8433 0703 05
ETO DS7																		
DS7-15-10-LI3	3 - 15	2.2- 11.1	1046	1.7	3.7	483	10	32	12	11	39	26	68	34	32	8	14	8433 0703 10
DS7-18-13-LI3	3.6- 18	2.7- 13.3	743	1.7	3.7	499	13	34	11	15	49	32	84	35	38	8.5	16	8433 0703 15
DS7-30-13-LI3	6.6- 33	4.7- 24.3	453	2.4	5.2	525	13	43	18	14	47	31	83	38	40	10.4	25	8433 0703 21
DS7-35-13-LI3	7 - 35	5.2- 25.9	438	2.6	5.7	569	13	46	11	21	70	48	113	45	55	12.5	32	8433 0703 25
DS7-50-17-LI3	11 - 55	8.2- 40.7	290	3.0	6.6	628	17	46	12	20	81	39	124	45	59	16	32	8433 0703 35
DS7-80-19-LI3	16 - 80	11.9- 59.2	226	3.5	7.7	629	19	46	18	17	74	52	137	64	59	17	32	8433 0703 40

For sockets, see separate ordering material (9833 1381 01)

Offset tube nut tools

DIMENSIONS



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	J mm	R mm	Ordering No.
	Nm	ft lb		kg	lb													
ETO DS4																		
DS4-08-8-LO3	1.7- 8.5	1.3- 6.3	584	1.5	3.3	397	8	59	11	4	22	30	45	37	29	6	10	8433 0703 50
ETC DS7																		
DS7-10-10-LO3	2.4- 12	1.8- 8.9	1164	1.6	3.5	434	10	59	10	7	25	35	50	37	31	7	11.5	8433 0703 60
DS7-18-13-LO3	3.6- 18	2.7- 13.3	796	1.8	3.9	441	13	61	11	8	30	42	63	44	38	8	15	8433 0703 68
DS7-25-13-LO3	5.6- 28	4.2- 20.7	796	1.9	4.2	469	13	65	11	13	37	52	75	48	50	11	31	8433 0703 75
DS7-50-17-LO3	11 - 55	8.2- 40.7	346	2.8	6.2	510	17	76	12	18	49	69	97	63	59	16	32	8433 0703 80
DS7-80-19-LO3	16 - 80	11.9- 59.2	236	3.7	8.1	568	19	91	18	18	49	63	97	63	59	17	32	8433 0703 85
DS7-100-24-LO3	22 - 110	16.3- 81.4	198	4.3	9.5	584	24	92	20	23	60	85	119	74	77	21	33	8433 0703 90

For sockets, see separate ordering material (9833 1381 01)

TENSOR S

Angle electric nutrunners

ETV S

- ❑ ETV S right angle tools are ideal for hand-held operations.
- ❑ Torque range from 1 Nm to 600 Nm.
- ❑ Complete range of Flush Socket and Hold & Drive tools.
- ❑ Ball retainers for fast and easy socket changes.
- ❑ Female Hex drive and Quick Chucks for bits.



Model	Square drive	Torque		Speed r/min	Weight		Length mm	CS distance mm	Ordering No.
	in	Nm	ft lb		kg	lb			
ETV S4									
S4-05-10CTADS	3/8	1 - 5	0.7 - 3.6	930	1.5	3.3	382	13.5	8433 0236 26
S4-10-10CTADS	3/8	3 - 15	2.2 - 11	650	1.5	3.3	382	13.5	8433 0236 51
S4-20-10CTADS	3/8	4 - 20	2.9-14.4	450	1.5	3.3	382	13.5	8433 0236 91
S4-30-10CTADS	3/8	6 - 30	4.4 - 22	270	1.6	3.5	382	13.5	8433 0237 04
ETV S4 Ball Retainer									
S4-10-B10CTADS	3/8	3 - 15	2.2 - 11	650	1.5	3.3	382	13.5	8433 0236 62
ETV S4 Flush Socket									
S4-10-FS10	-	3 - 15	2.2 - 11	650	1.4	3.2	382	13.5	8433 0236 69
ETV S4 Female Hex									
S4-10-I06CTADS	1/4	3 - 15	2.2 - 11	650	1.5	3.3	382	13.5	8433 0236 32
ETV S4 Quick Chuck									
S4-05-QI06	1/4	1 - 5	0.7 - 3.6	930	1.5	3.3	382	13.5	8433 0236 29
ETV S7									
S7-28-10CTADS	3/8	5 - 29	4 - 21	1300	1.6	3.5	413	13.5	8433 0245 20
S7-30-10CTADS	3/8	6 - 35	5 - 25	910	1.6	3.5	413	13.5	8433 0247 33
S7-40-10CTADS	3/8	8 - 40	6 - 29	910	1.7	3.7	435	18	8433 0250 00
S7-50-10CTADS	3/8	10 - 55	7 - 40	545	1.9	4.2	435	18	8433 0252 87
S7-70-13CTADS	1/2	14 - 80	10 - 58	390	2.2	4.8	461	20	8433 0273 09
S7-100-13CTADS	1/2	20 - 110	15 - 80	300	2.5	5.5	482	20	8433 0280 00
S7-150-13CTADS	1/2	30 - 150	22 - 110	185	2.9	6.4	525	25.5	8433 0288 67
S7-200-13CTADS	1/2	40 - 200	29 - 146	160	3.0	6.6	525	25.5	8433 0291 17
ETV S7 Ball Retainer									
S7-28-B10CTADS	3/8	5 - 29	4 - 21	1300	1.6	3.5	413	13.5	8433 0245 23
S7-30-B10CTADS	3/8	6 - 35	5 - 25	910	1.6	3.5	413	13.5	8433 0247 35
S7-40-B10CTADS	3/8	8 - 40	6 - 29	910	1.7	3.7	435	18	8433 0250 42
S7-50-B10CTADS	3/8	10 - 55	7 - 40	545	1.9	4.2	435	18	8433 0252 62
S7-70-B13CTADS	1/2	14 - 80	10 - 58	390	2.2	4.8	461	20	8433 0273 44
S7-100-B13CTADS	1/2	20 - 110	15 - 80	300	2.5	5.5	482	20	8433 0280 31
S7-150-B13CTADS	1/2	30 - 150	22 - 110	185	2.9	6.4	525	25.5	8433 0288 46
S7-200-B13CTADS	1/2	40 - 200	29 - 146	160	3.0	6.6	525	25.5	8433 0291 44
ETV S7 with Fan									
S7-28-10CTADS-F	3/8	5 - 29	4 - 21	1300	1.8	4.0	451	13.5	8433 0245 25
S7-30-10CTADS-F	3/8	5 - 35	5 - 25	910	1.8	4.0	451	13.5	8433 0247 92
S7-40-10CTADS-F	3/8	8 - 40	6 - 29	910	1.9	4.2	474	18	8433 0250 21
S7-50-10CTADS-F	3/8	10 - 55	7 - 40	545	2.1	4.6	474	18	8433 0253 15
S7-70-13CTADS-F	1/2	14 - 80	10 - 58	390	2.4	5.3	499	20	8433 0273 68

TENSOR S

Angle electric nutrunners

Model	Square drive	Torque		Speed	Weight		Length	CS distance	Ordering No.
	in	Nm	ft lb	r/min	kg	lb	mm	mm	
ETV S7 Flush Socket									
S7-25-CTADS-FS13	-	6 - 25	5 - 18	910	1.6	3.5	413	13.5	8433 0244 12
S7-28-FS5/16	-	5 - 29	4 - 21	1300	1.6	3.5	413	13.5	8433 0244 21
S7-30-CTADS-FS13	-	6 - 35	5 - 25	910	1.6	3.5	413	13.5	8433 0247 96
S7-40-CTADS-FS13	-	8 - 40	6 - 29	910	1.8	4.0	435	18	8433 0251 51
S7-50-CTADS-FS13	-	10 - 55	7 - 40	545	1.8	4.0	435	18	8433 0254 14
S7-70-CTADS-FS	-	14 - 80	10 - 58	390	2.6	5.7	461	20.3	8433 0275 15
S7-100-CTADS-FS	-	20 - 110	15 - 80	300	3.0	6.7	482	20.3	8433 0282 49
S7-150-CTADS-FS	-	30 - 150	22 - 110	185	3.3	7.3	525	26	8433 0289 04
S7-200-CTADS-FS	-	40 - 200	29 - 146	160	3.3	7.3	525	26	8433 0291 79
ETV S7 Hold & Drive									
S7-28-HAD-SH	-	5 - 29	4 - 21	1300	2.1	4.7	436	18.3	8433 0245 74
S7-30-HAD-SH	-	6 - 35	5 - 25	910	2.1	4.7	436	18.3	8433 0247 90
S7-40-HAD-SH	-	8 - 40	6 - 29	910	2.1	4.7	436	18.3	8433 0251 64
S7-50-HAD-SH	-	10 - 55	7 - 40	545	2.1	4.7	436	18.3	8433 0253 74
S7-70-CTADS-HAD	-	14 - 80	10 - 58	320	3.3	7.3	504	26	8433 0274 15
S7-100-CTADS-HAD	-	20 - 110	15 - 80	225	3.7	8.2	525	26	8433 0280 97
S7-150-CTADS-HAD	-	30 - 150	22 - 110	185	3.5	7.7	525	26	8433 0288 93
S7-200-CTADS-HAD	-	40 - 200	29 - 146	160	3.5	8.4	525	26	8433 0292 27
ETV S9									
S9-50-13CTADS	1/2	15 - 50	10.8 - 36	1160	4.2	9.2	552	20	8433 0349 47
S9-80-13CTADS	1/2	30 - 80	22 - 58	950	4.3	9.4	552	20	8433 0350 03
S9-90-13CTADS	1/2	27 - 90	19 - 65	520	4.3	9.4	552	20	8433 0350 14
S9-100-13CTADS	1/2	40 - 100	30 - 73	800	4.4	9.7	595	25.5	8433 0350 22
S9-180-13CTADS	1/2	45 - 180	33 - 132	450	4.5	9.9	595	25.5	8433 0350 85
S9-270-20CTADS	3/4	65 - 270	47 - 198	250	7.4	16.3	661	33.5	8433 0352 39
S9-370-20CTADS	3/4	90 - 370	66 - 270	160	7.5	16.5	661	33.5	8433 0352 74
S9-450-20CTADS	3/4	135 - 450	97 - 324	150	10.0	22	702	54	8433 0353 15
S9-600-25CTADS	1	180 - 600	130 - 432	130	10.1	22.2	702	54	8433 0353 81
ETV S9 Flush Socket									
S9-80-CTADS-FS	-	30 - 80	22 - 58	950	4.7	10.3	552	20.3	8433 0350 09
S9-180-CTADS-FS	-	45 - 180	33 - 132	450	4.7	10.3	595	26	8433 0350 91
S9-270-CTADS-FS	-	65 - 270	47 - 198	250	7.4	16.3	661	34.2	8433 0352 45
S9-370-CTADS-FS	-	90 - 370	66 - 270	160	7.5	16.5	661	34.2	8433 0352 78
S9-600-FS	-	180 - 600	130 - 432	130	15.6	34.3	701	53	8433 0353 92
ETV S9 Hold & Drive									
S9-100-CTADS-HAD	-	40 - 100	30 - 73	800	4.9	10.8	595	26	8433 0350 28
S9-180-CTADS-HAD	-	45 - 180	33 - 132	450	5.0	11.0	595	26	8433 0351 01
S9-270-HAD	-	65 - 270	47 - 198	250	8.2	18	661	34.3	8433 0352 46
S9-370-HAD	-	90 - 370	66 - 270	160	8.3	18.3	661	34.3	8433 0352 85

TENSOR S

Straight electric nutrunners

ETD S

- ETD S inline tools. The low torque series is ideal for hand-held bench assembly. The high torque tools are excellent for fixtured applications.
- Torque range from 1 Nm to 2000 Nm.
- Telescopic spindles for fixtured applications.
- Female Hex drives for bits.

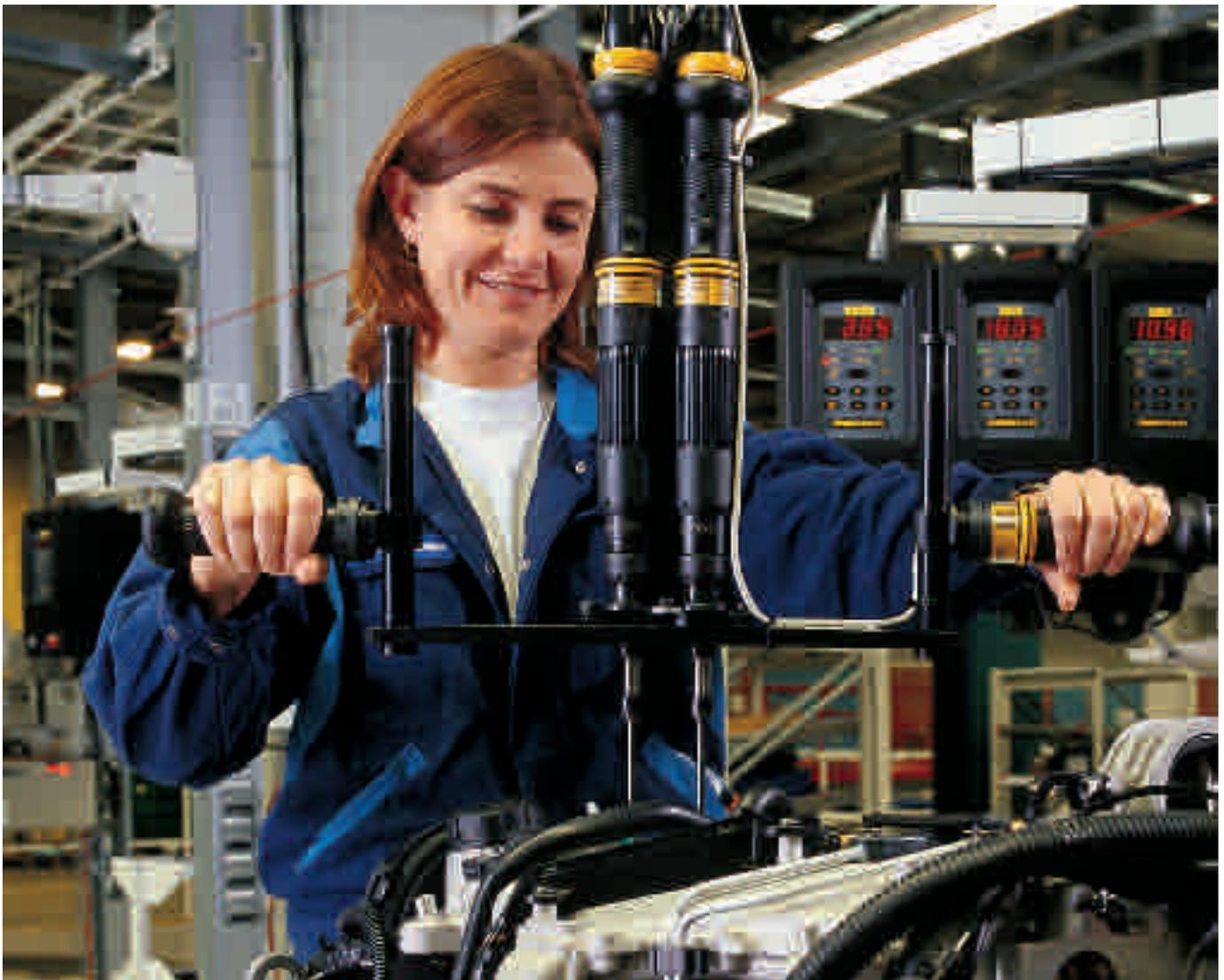


Model	Square drive in	Torque		Speed r/min	Weight		Length mm	CS distance mm	Splines/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETD S4										
S4-04-10CTADS	3/8	1 - 5	0.7 - 3.6	1465	1.4	3.1	381	28	- / 1	8433 0237 81
S4-10-10CTADS	3/8	3 - 14	2.2-10.3	690	1.4	3.1	381	28	- / 1	8433 0238 18
S4-20-10CTADS	3/8	5 - 20	3.6 - 15	415	1.4	3.1	381	28	- / 1	8433 0239 72
ETD S4 Telescopic										
S4-04-10CTADST	3/8	1 - 5	0.7 - 3.6	1465	1.5	3.3	419	28	2 / 2	8433 0237 94
S4-10-10CTADST	3/8	3 - 14	2.2-10.3	690	1.5	3.3	419	28	2 / 2	8433 0238 79
S4-20-10CTADST	3/8	5 - 20	3.6 - 15	415	1.5	3.3	419	28	2 / 2	8433 0239 84
ETD S4 Female Hex										
S4-02-I06CTADS	1/4	0.5 - 2.5	0.35 - 1.8	2930	1.4	3.1	372	28	- / 1	8433 0237 43
S4-04-I06CTADS	1/4	1 - 5	0.7 - 3.6	1465	1.4	3.1	372	28	- / 1	8433 0237 47
S4-10-I06CTADS	1/4	3 - 14	2.2-10.3	690	1.5	3.3	372	28	- / 1	8433 0238 06
ETD S7										
S7-20-10CTADS	3/8	5 - 20	3.6 - 15	1380	1.6	3.6	411	28	- / 1	8433 0294 42
S7-30-10CTADS	3/8	6 - 35	4.4 - 25	830	1.6	3.6	411	28	- / 1	8433 0295 07
S7-50-13CTADS	1/2	10 - 55	7.3 - 40	595	2.1	4.7	456	28	2 / 2	8433 0297 37
S7-70-13CTADS	1/2	14 - 80	11 - 58	410	2.4	4.7	477	29.5	2 / 2	8433 0298 04
S7-90-13CTADS	1/2	20 - 95	15 - 69	335	2.8	6.2	477	29.5	2 / 2	8433 0299 11
S7-120-13CTADS	1/2	25-125	18 - 91	280	2.9	6.5	477	29.5	2 / 2	8433 0299 72
ETD S7 Telescopic										
S7-20-10CTADST	3/8	5 - 20	3.6 - 15	1380	1.7	3.8	450	28	2 / 2	8433 0294 81
S7-20-10CTADS-T50	3/8	5 - 20	3.6 - 15	1380	1.8	4.0	500	28	2 / 2	8433 0294 85
S7-30-10CTADST	3/8	6 - 35	4.4 - 25	830	1.7	3.8	450	28	2 / 2	8433 0295 21
S7-30-10CTADS-T50	3/8	6 - 35	4.4 - 25	830	1.8	4.0	500	28	2 / 2	8433 0295 84
S7-50-13CTADST	1/2	10 - 55	7.3 - 40	595	2.2	4.9	483	28	3 / 5	8433 0297 83
S7-50-13CTADS-T50	1/2	10 - 55	7.3 - 40	595	2.3	5.1	540	28	3 / 5	8433 0297 94
S7-70-13CTADST	1/2	14 - 80	11 - 58	410	2.5	5.6	504	29.5	3 / 5	8433 0298 34
S7-70-13CTADS-T50	1/2	14 - 80	11 - 58	410	2.6	5.7	562	29.5	3 / 5	8433 0298 63
S7-90-13CTADST	1/2	20 - 95	15 - 69	335	2.9	6.5	504	29.5	3 / 5	8433 0299 41
S7-90-13CTADS-T50	1/2	20 - 95	15 - 69	335	3.0	6.6	562	29.5	3 / 5	8433 0299 43
S7-120-13CTADST	1/2	25-125	18 - 91	280	3.0	6.7	504	29.5	3 / 5	8433 0299 85
S7-120-13CTADS-T50	1/2	25-125	18 - 91	280	3.1	6.8	562	29.5	3 / 5	8433 0299 93
S7-140-13CTADST	1/2	35-140	26 - 103	280	3.0	6.7	504	29.5	3 / 5	8433 0299 98

TENSOR S

Straight electric nutrunners

Model	Square drive in	Torque		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting		Ordering No.
		Nm	ft lb		kg	lb					
ETD S7 Ball Retainer											
S7-30-B10CTADS	3/8	6 - 35	3.6 - 15	830	1.6	3.6	411	28	- / 1		8433 0295 09
S7-50-B13CTADS	1/2	10 - 55	7.3 - 40	595	2.1	4.7	456	28	2 / 2		8433 0297 56
S7-70-B13CTADS	1/2	14 - 80	11 - 58	410	2.4	4.7	477	29.5	2 / 2		8433 0298 07
ETD S7 Female Hex											
S7-20-I06CTADS	1/4	5 - 20	3.6 - 15	1380	1.6	3.6	402	28	- / 1		8433 0294 47
ETD S9											
S9-100-13CTADS	1/2	25 - 100	19 - 73	795	4.0	8.9	547	31.8	2 / 2		8433 0361 52
S9-200-13CTADS	1/2	50 - 200	36 - 146	370	4.1	9.1	547	31.8	2 / 2		8433 0362 38
S9-270-20CTADS	3/4	65 - 270	47 - 198	250	6.5	14.5	603	36	6 / 8		8433 0363 83
S9-450-20CTADS	3/4	110 - 450	80 - 330	140	7.9	17.6	639	40.3	6 / 8		8433 0364 52
S9-600-20CTADS	3/4	150 - 600	110 - 440	120	7.9	17.6	639	40.3	6 / 8		8433 0364 82
S9-1000-25CTADS	1	250 - 1000	180 - 730	76	12.6	27.7	770	46.8	7 / 11		8433 0365 32
S9-2000-38CTADS	1 1/2	500 - 2000	360 - 1460	38	16.8	37	727	67.8	8 / 12		8433 0366 15
ETD S9 Telescopic											
S9-100-13CTADST	1/2	25 - 100	19 - 73	795	4.1	9.1	574	31.8	3 / 5		8433 0362 08
S9-150-13CTADST	1/2	40 - 150	30 - 110	510	4.2	9.4	574	31.8	3 / 5		8433 0362 24
S9-200-13CTADST	1/2	50 - 200	36 - 146	370	4.2	9.4	574	31.8	3 / 8		8433 0362 55
S9-270-20CTADST	3/4	65 - 270	47 - 198	250	6.7	14.9	653	36	6 / 8		8433 0364 12
S9-450-20CTADST	3/4	110 - 450	80 - 330	140	8.0	17.8	689	40.3	6 / 8		8433 0364 61
S9-600-20CTADST	3/4	150 - 600	110 - 440	120	8.0	17.8	689	40.3	6 / 8		8433 0364 96
S9-1000-25CTADST	1	250 - 1000	180 - 730	76	13.0	29.0	824	46.8	7 / 11		8433 0365 14
S9-2000-38CTADST	1 1/2	500 - 2000	360 - 1460	38	18.0	39.6	820	67.8	8 / 12		8433 0366 20



TENSOR S

Pistol grip electric nutrunners

ETP S

- ETP S pistol grip tool for both hand-held and fixtured applications.
- Torque range from 1Nm to 2000 Nm.
- Telescopic spindles for fixtured applications.
- Female Hex drives for bits.



Model	Square drive in	Torque		Speed r/min	Weight		Length mm	CS distance mm	Spline/ Mounting	Ordering No.
		Nm	ft lb		kg	lb				
ETP S4										
S4-10-06CTADS	1/4	3 - 12	2.2 - 8.8	735	1.2	2.7	192	21.3	- / -	8433 0235 11
S4-10-10CTADS	3/8	3 - 12	2.2 - 8.8	735	1.2	2.7	194	21.3	- / -	8433 0235 39
S4-20-10CTADS	3/8	5 - 20	3.6 - 15	415	1.7	3.7	243	21.3	- / -	8433 0235 64
ETP S4 Female Hex										
S4-02-I06CTADS	1/4	0.5 - 2.5	0.35 - 1.8	2930	1.2	2.7	200	21.3	- / -	8433 0233 50
S42-02-I06	1/4	0.5 - 2.5	0.35 - 1.8	3275	0.9	2.0	188	21.3	- / -	8433 0233 61
S4-04-I06CTADS	1/4	1 - 5	0.7 - 3.6	1465	1.2	2.7	200	21.3	- / -	8433 0234 75
S42-04-I06	1/4	1 - 5	0.7 - 3.6	1965	0.9	2.0	188	21.3	- / -	8433 0234 84
S4-10-I06CTADS	1/4	3 - 12	2.2 - 8.8	735	1.2	2.7	200	21.3	- / -	8433 0235 01
S4-10-I06	1/4	3 - 12	2.2 - 8.8	1005	1.0	2.2	188	21.3	- / -	8433 0235 45
ETP S4 Ball Retainer										
S4-10-B10CTADS	3/8	3 - 12	2.2 - 8.8	735	1.2	2.7	194	21.3	- / -	8433 0235 53
ETP S7										
S7-20-10CTADS	3/8	5 - 20	3.6 - 15	1380	1.9	4.2	274	21.5	- / 1	8433 0313 84
S7-30-10CTADS	3/8	6 - 35	4.4 - 25	830	1.9	4.2	274	21.5	- / 1	8433 0314 03
S7-50-13CTADS	1/2	10 - 55	7.3 - 40	595	2.2	4.9	318	26.8	2 / 2	8433 0314 91
S7-70-13CTADS	1/2	14 - 80	11 - 58	410	2.4	5.4	340	29.5	2 / 2	8433 0315 02
S7-90-13CTADS	1/2	20 - 95	15 - 69	533	2.5	5.6	340	29.5	2 / 2	8433 0315 27
S7-120-13CTADS	1/2	25 - 125	18 - 91	280	2.7	6.0	340	29.5	2 / 2	8433 0315 43
ETP S7 Telescopic										
S7-30-10CTADST	3/8	6 - 35	4.4 - 25	830	2.0	4.4	313	21.5	2 / 2	8433 0314 15
S7-120-13CTADST	1/2	25 - 125	18 - 91	280	2.9	6.4	367	29.5	3 / 5	8433 0315 59
ETP S7 Female Hex										
S7-20-I06CTADS	1/4	5 - 20	3.6 - 15	1380	1.9	4.2	265	21.5	- / 1	8433 0313 61
S7-30-I06CTADS	1/4	6 - 35	4.4 - 25	830	1.9	4.2	265	21.5	- / 1	8433 0314 28
ETP S7 Ball Retainer										
S7-30-B10CTADS	3/8	6 - 35	4.4 - 25	830	1.9	4.2	274	21.5	- / 1	8433 0314 18
ETP S9										
S9-70-13CTADS	1/2	25 - 70	18 - 49	1180	3.7	8.3	395	31.8	2 / 2	8433 0367 19
S9-100-13CTADS	1/2	40 - 100	29 - 73	795	3.9	8.7	395	31.8	2 / 2	8433 0367 45
S9-200-13CTADS	1/2	50 - 200	36 - 146	370	3.9	8.7	395	31.8	2 / 2	8433 0367 86
S9-270-20CTADS	3/4	65 - 270	47 - 198	250	6.5	14.5	451	36	6 / 8	8433 0368 52
S9-450-20CTADS	3/4	110 - 450	80 - 330	140	7.9	17.6	487	40.5	6 / 8	8433 0368 99
S9-600-20CTADS	3/4	150 - 600	110 - 440	120	7.9	17.8	487	40.5	6 / 8	8433 0369 38
S9-1000-25CTADS	1	250 - 1000	180 - 730	76	12.7	28.3	615	47.5	7 / 11	8433 0370 11
S9-2000-38CTADS	1 1/2	500 - 2000	360 - 1460	38	16.8	37	583	67.8	8 / 12	8433 0371 05
ETP S9 Telescopic										
S9-100-13CTADST	1/2	40 - 100	29 - 73	795	4.0	8.8	422	31.8	3 / 5	8433 0367 51
S9-270-20CTADST	3/4	65 - 270	47 - 198	250	6.7	14.8	501	36	6 / 8	8433 0368 63
S9-450-20CTADST	3/4	110 - 450	80 - 330	140	8.0	17.6	537	40.3	6 / 8	8433 0369 07
S9-600-20CTADST	3/4	150 - 600	110 - 440	120	8.0	17.6	537	40.3	6 / 8	8433 0369 53
S9-1000-25CTADST	1	250 - 1000	180 - 730	76	13.0	29	669	46.8	7 / 11	8433 0370 31

TENSOR S

Fixtured electric nutrunners

ETF S

- ETF S inline tools specially designed for build-in and fixtured applications.
- Torque range from 1.5 Nm to 1500 Nm.
- Extra high durability.
- Remote start button.
- Small centre to side distance.
- Telescopic spindles.
- Easy cable routing.



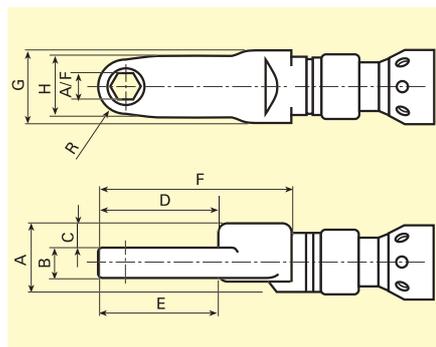
Model	Square drive in	Torque		Speed r/min	Weight		Length mm	CS distance mm	Spline	Ordering No.
		Nm	ft lb		kg	lb				
ETF S4										
S4-10-10CTADS	3/8	3 - 12	2.2 - 8.8	700	1.3	2.9	360	21.5	-	8433 0102 37
ETF S4 Telescopic										
S4-05-10CTADST	3/8	1.5 - 5	0.7 - 3.6	1460	1.3	2.9	399	21.5	2	8433 0102 23
S4-10-10CTADST	3/8	3 - 12	2.2 - 8.8	700	1.3	2.9	399	21.5	2	8433 0102 39
ETF S7 Telescopic										
S7-15-10CTADST	3/8	4 - 15	2.9 - 11	1090	1.5	3.3	430	21.5	2	8433 0105 48
S7-25-10CTADST	3/8	5 - 25	3.6 - 18	680	1.5	3.3	430	21.5	2	8433 0105 67
S7-40-13CTADST	1/2	8 - 40	6 - 29	480	2.1	4.7	463	26.8	3	8433 0105 91
S7-50-13CTADST	1/2	10 - 55	7.3 - 40	305	2.4	5.4	484	29.5	3	8433 0106 04
S7-70-13CTADST	1/2	14 - 80	11 - 58	270	2.8	6.2	484	29.5	3	8433 0106 49
S7-100-13CTADST	1/2	20 - 110	15 - 80	225	2.9	6.5	484	29.5	3	8433 0106 70
ETF S9										
S9-80-13CTADS	1/2	20 - 80	15 - 58	595	4.0	8.9	527	31.8	2	8433 0111 10
S9-120-13CTADS	1/2	30 - 120	22 - 88	380	4.1	9.1	527	31.8	2	8433 0111 30
S9-180-13CTADS	1/2	45 - 180	33 - 132	275	4.1	9.1	527	31.8	2	8433 0111 50
S9-250-20CTADS	3/4	70 - 250	50 - 182	185	6.5	14.5	583	36	6	8433 0111 70
S9-400-20CTADS	3/4	100 - 400	73 - 292	105	7.9	17.6	619	40.3	6	8433 0112 00
S9-500-20CTADS	3/4	125 - 500	92 - 365	90	7.9	17.6	619	40.3	6	8433 0112 20
S9-1000-25CTADS	1	250 - 1000	190 - 730	46	13.0	28.6	749	46.8	7	8433 0112 45
ETF S9 Telescopic										
S9-80-13CTADST	1/2	20 - 80	15 - 58	595	4.1	9.1	554	31.8	3	8433 0111 20
S9-120-13CTADST	1/2	30 - 120	22 - 88	380	4.2	9.4	554	31.8	3	8433 0111 40
S9-180-13CTADST	1/2	45 - 180	33 - 132	275	4.2	9.4	554	31.8	3	8433 0111 60
S9-250-20CTADST	3/4	70 - 250	50 - 182	185	6.7	14.9	633	36	6	8433 0111 80
S9-400-20CTADST	3/4	100 - 400	73 - 292	105	8.0	17.8	669	40.3	6	8433 0112 10
S9-500-20CTADST	3/4	125 - 500	92 - 365	90	8.0	17.8	669	40.3	6	8433 0112 30
S9-800-25CTADST	1	200 - 800	146 - 584	57	13.0	28.6	804	46.8	7	8433 0112 40
S9-1500-38CTADST	1 1/2	375 - 1500	274 - 1095	29	18.0	39.6	800	67.8	8	8433 0112 50

TENSOR S

Crowfoot tools

In-Line crowfoot tools

DIMENSIONS

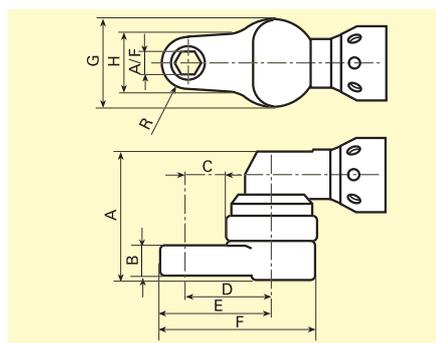


Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	R mm	Ordering No.
	Nm	ft lb		kg	lb												
ETC S7																	
S7-25-13-LI3	6 - 28	4.4- 20.7	622	2.1	4.6	508	13	34	15	13	59	71	94	35	30	13	8433 0210 90

For sockets, see separate ordering material (9833 1381 01)

Offset crowfoot tools

DIMENSIONS



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												
ETC S4																	
S4-05-7-LO3	1 - 5	0.7- 3.7	940	1.7	3.7	401	7	56	9	6	25	32	47	37	15	7.5	8433 0210 04
S4-08-8-LO3	2 - 9.5	1.5- 7	874	1.7	3.7	403	8	60	14	8	26	34	49	37	16	8	8433 0210 08
ETC S7																	
S7-15-10-LO5	3.5- 18	2.6- 13.3	1297	1.9	4.2	475	10	60	15	48	66	76	91	37	22	10	8433 0210 12
S7-20-13-LO3	4.6- 23	3.4- 17	887	1.9	4.2	461	13	58	10	25	47	62	82	44	31	14.5	8433 0210 16
S7-25-13-LO3	5.6- 28	4.2- 20.7	887	2.0	4.4	455	13	62	15	20	42	55	76	44	30	13	8433 0210 23
S7-25-13-LO5	5.6- 28	4.2- 20.7	887	2.2	4.9	515	13	68	15	62	84	97	118	44	30	13	8433 0210 29
S7-40-13-LO3	8.8- 44	6.5- 32.5	533	2.4	5.2	479	13	68	18	25	47	62	82	44	31	14.5	8433 0210 34
S7-40-13-LO5	8.8- 44	6.5- 32.5	533	2.4	5.2	526	13	69	18	72	94	108	129	44	31	14.5	8433 0210 38
S7-60-17-LO3	13 - 65	9.6- 48.1	382	2.8	6.1	507	17	77	24	29	51	66	89	48	30	15	8433 0210 46
S7-60-17-LO5	13 - 65	9.6- 48.1	382	3.4	7.4	558	17	81	24	78	102	117	140	48	30	15	8433 0210 56
S7-80-21-LO3	18 - 90	13.3- 66.6	263	3.4	7.6	585	21	90	20	35	66	86	112	63	40	20	8433 0210 60
S7-80-21-LO5	18 - 90	13.3- 66.6	263	4.3	9.4	651	21	92	20	101	132	152	178	63	40	20	8433 0210 65
ETC S7 Extra heavy duty																	
S7-40-13-AO3	8 - 40	6 - 29	545	2.4	5.5	487	13	60.3	19	33	53	69	86	40	17	16	8433 0211 15
S7-70-17-AO3	14 - 70	11 - 51	390	3.2	7.0	528	17	66.5	19	45	68	87	107	45	21	19.5	8433 0211 32
S7-120-17-AO3	24 - 120	18 - 88	185	4.6	10.1	586	17	88	25	42	68	88	113	51	25	19.8	8433 0211 55
S7-140-17-AO3	28 - 140	21 - 103	160	4.6	10.1	587	17	88	25	42	68	88	113	51	25	19.8	8433 0211 75
ETC S9																	
S9-140-21-LO3	30 - 150	22.2- 111	320	5.7	12.6	655	21	101	33	35	66	86	112	63	40	20	8433 0210 75
S9-200-21-LO3	43 - 215	31.8- 159.1	205	10.4	22.9	718	21	146	40	33	70	91	125	77	42	21	8433 0210 80

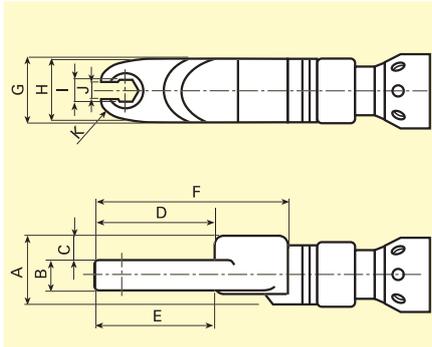
For sockets, see separate ordering material (9833 1381 01)

TENSOR S

Tube nut tools

In-Line tube nut tools

DIMENSIONS

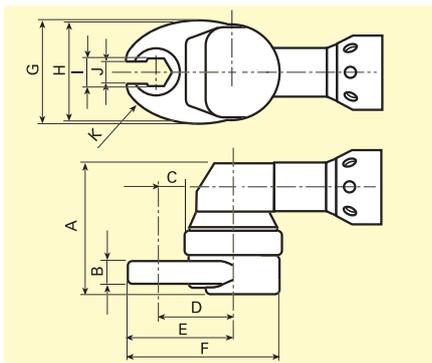


Model	Torque		Speed r/min	Weight		Length mm	A/F mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	R mm	Ordering No.
	Nm	ft lb		kg	lb													
ETO S4																		
S4-10-10-LI3	2.5- 12	1.9- 8.9	555	1.7	3.8	450	10	32	10	13	37	26	67	34	31	7	11.5	8433 0212 05
ETO S7																		
S7-15-10-LI3	3 - 15	2.2- 11.1	1458	1.9	4.2	484	10	32	12	11	39	26	68	34	32	8	14	8433 0212 10
S7-18-13-LI3	3.6- 18	2.7- 13.3	1035	1.9	4.2	500	13	34	11	15	49	32	84	35	38	8.5	16	8433 0212 15
S7-30-13-LI3	6.6- 33	4.7- 24.3	630	2.6	5.6	526	13	43	18	14	47	31	83	38	40	10.4	25	8433 0212 21
S7-35-13-LI3	7 - 35	5.2- 25.9	610	2.8	6.1	570	13	46	11	21	70	48	113	45	55	12.5	32	8433 0212 25
S7-50-17-LI3	11 - 55	8.2- 40.7	405	3.2	6.9	658	17	46	12	20	81	39	124	45	59	16	32	8433 0212 35
S7-80-19-LI3	16 - 80	11.9- 59.2	314	3.7	8.1	629	19	46	18	17	74	52	137	64	59	17	32	8433 0212 40

For sockets, see separate ordering material (9833 1381 01)

Offset tube nut tools

DIMENSIONS



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	J mm	R mm	Ordering No.
	Nm	ft lb		kg	lb													
ETO S4																		
S4-08-8-LO3	1.7- 8.5	1.3- 6.3	648	1.7	3.7	398	8	59	11	4	22	30	45	37	29	6	10	8433 0212 50
ETC S7																		
S7-10-10-LO3	2.4- 12	1.8- 8.9	1880	1.8	4.0	435	10	59	10	7	25	35	50	37	31	7	11.5	8433 0212 60
S7-18-13-LO3	3.6- 18	2.7- 13.3	1297	2.0	4.4	442	13	61	11	8	30	42	63	44	38	8	15	8433 0212 68
S7-25-13-LO3	5.6- 28	4.2- 20.7	533	2.1	4.7	470	13	65	11	13	37	52	75	48	50	11	31	8433 0212 75
S7-50-17-LO3	11 - 55	8.2- 40.7	382	3.0	6.7	510	17	76	12	18	49	69	97	63	59	16	32	8433 0212 80
S7-80-19-LO3	16 - 80	11.9- 59.2	263	3.9	8.5	568	19	91	18	18	49	63	97	63	59	17	32	8433 0212 85
S7-100-24-LO3	22 - 110	16.3- 81.4	179	4.5	10.0	580	24	92	20	23	60	85	119	74	77	21	33	8433 0212 90

For sockets, see separate ordering material (9833 1381 01)

DS 300 Drive

Tensor DS Controller

DS Drive functionality overview

The drive or controller is the heart of any electrical quality-fastening process. Used both to control and monitor Tensor DS tools, the DS Drive provides a high degree of functionality with minimal set-up and configuration. There are two versions: the Basic (D302) model, for stations not requiring multi-torque capability, and the Advanced (D312) model.

Simplified installation with DS Compact

Both Basic and Advanced DS Drives are available as a Compact Hardware unit. The size and configuration of the Compact Hardware unit makes it easy to install and ideal for multi-controller installations involving more than one spindle. The DS Drive display itself shows the torque value applied and provides clear operator feedback, even at a considerable distance. The unit also features a built-in six-button keypad for basic programming.

AutoSet –programming made easy

Programming the DS Drive could not be easier. Hit the Autoset button, set the target torque using the +/- keys on the keypad, press "Set" –and start fastening! It's that simple. The DS Drive automatically configures the correct speeds and torque shift points for the specific application. AutoSet functionality is a patented Atlas Copco design that greatly simplifies the set-up process and reduces start-up times.

PLC functions banish missing bolts

Forgotten screws, the most common assembly problem related to fastening, jeopardize assembly quality and can create a potential hazard. In-built PLC functions such as 'batch counting', and 'line control' (Advanced) combined with digital inputs/outputs, alarms and line-interlocking options prevents forgotten screws and/or parts being passed down the assembly line or to the next assembly station. The Tensor DS ensures that it is 'right first time' –every time.

Wireless calibration for zero faults

Manual entry of torque values during the calibration process is time consuming and introduces the risk of human error. The DS Drive is linked to the Atlas Copco ACTA 3000 torque calibration unit via an infrared port, or via a cable connected to the RS232 serial port. This 'closed loop' process simplifies both torque verification and calibration processes, while ensuring complete process integrity.

DigiTork

The Tensor DS uses DigiTork, the new digital way of torque control developed by Atlas Copco. Unlike current controlled tools, the microprocessor in the DS Drive takes into consideration the speed and the temperature of the motor as well as the current and the voltage with which you feed the motor.



POWER FOCUS 3000

Tensor DS and S Controller

Market leader

Atlas Copco is the global market leader for fastening equipment and secures this position with the Power Focus 3000 product range.

Power Focus 3000 is a modular range of controllers with flexibility to be used for applications ranging from single spindle hand-held operations to fixturised multiple nutrunning systems. Advanced process control and monitoring functions make it easy to view and collect data using the Internet infrastructure.

Total quality control

The Power Focus 3000 can be combined with both Tensor S or DS tools and is used to control the fastening and assembly process in the station. The Power Focus 3000 and associated software packages provide easy to understand information for everyone from operators to plant managers.

All the building blocks

The Power Focus 3000 is based on standard hardware and software components which when combined will fulfill all demands from the most basic non-networked system to a fully integrated unit with the factory network. The modules fit together using the 'plug and play' concept.

Control the assembly process

The Power Focus 3000 incorporates advanced control functions to prevent the worker deviating from the required process. On receipt of assembly information, the Power Focus automatically selects the correct tightening sequence and parameters. This is a process control function called Job.

Built-in connectivity

Fastening data management and communications is a major requirement in modern assembly operations. Many plants demand to have instant fastening data accessible at different levels in the factory. Atlas Copco provides standardized communication solutions with a solid base for integration and the flexibility for future needs.

RBU cuts downtime

Atlas Copco's patented Rapid Backup Unit (RBU) concept transfers functionality to an 'empty' hardware unit, ensuring that hardware can easily be upgraded should functionality requirements change. The RBU also acts as backup 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

Colour

Graph

Three control units are available for the Tensor S tools: Compact, Graph and Colour. All have the capability to power and control every Tensor S spindle produced.

Compact

Offers minimum hardware expenditure. Easily stackable to form multiple tool configurations.

Graph

Gives you full stand alone programming capability. Functions as a programming terminal for one or more compact units.

Colour

Provides full programming functionality, 12" TFT colour screen, built-in keyboard.



POWER FOCUS 3000

Tensor DS and S Controller

StepSync spindle synchronization

Tensor spindles are easily fixtured using our standard range of TwinSpin components. StepSync synchronizes Tensor spindles to provide consistent clamp forces over the entire component mating face. Synchronization is performed via the proprietary I/O bus. Depending on user-interface preferences and budget, the SyncMaster may be a Compact, Graph or Color 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.

Network the controllers with 'Cells'

The 'Cell' concept provides a network without the need for a PC. A 'Cell' may comprise up to 20 units, with a 'CellMaster' (Compact, Graph or Colour) and the appropriate number of 'CellMembers'. If the 'Master' is a Graph unit, it can function



Tensor spindles are easily fixtured using our standard range of TwinSpin components. StepSync synchronizes Tensor spindles to provide consistent clamp forces over the entire component mating face.

as a programming and monitoring console for the other 'CellMembers', via the high-speed integral Ethernet network. This saves space and cuts hardware costs.

Advanced statistics for better quality control

Statistical data is collected, analyzed and presented on the Power Focus 3000

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

SOFTWARE

Functionality

The functionality is unlocked with a key called RBU (Rapid Backup Unit). This patented device gives you access to the functionality you need and provides backup for your individually programmed data. Four levels of functionality are available: Gold, Silver, Bronze and DS.

DS

Stand alone functionality:

- DS tools only
- 64 PSETs
- Integrated Ethernet
- OK/NOK reporting
- Job functionality
- MultiStage functionality
- Cell functionality
- Fieldbus option

Bronze

Stand alone functionality:

- 64 PSETs
- Autoreset
- Batch count

Silver

All the functionality of the bronze plus:

- 250 PSETs
- Integrated Ethernet
- Job functionality
- MultiStage functionality
- Cell functionality
- SPC
- Fieldbus options

Gold

All the functionality of the silver plus:

- Advanced line control (Cell Job)
- Synchronisation in a cell



POWER FOCUS 3000

Connectivity

Communication levels

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 3000 can be integrated with the factory Ethernet network which enables easy access and reporting anywhere in the plant.

Internet level

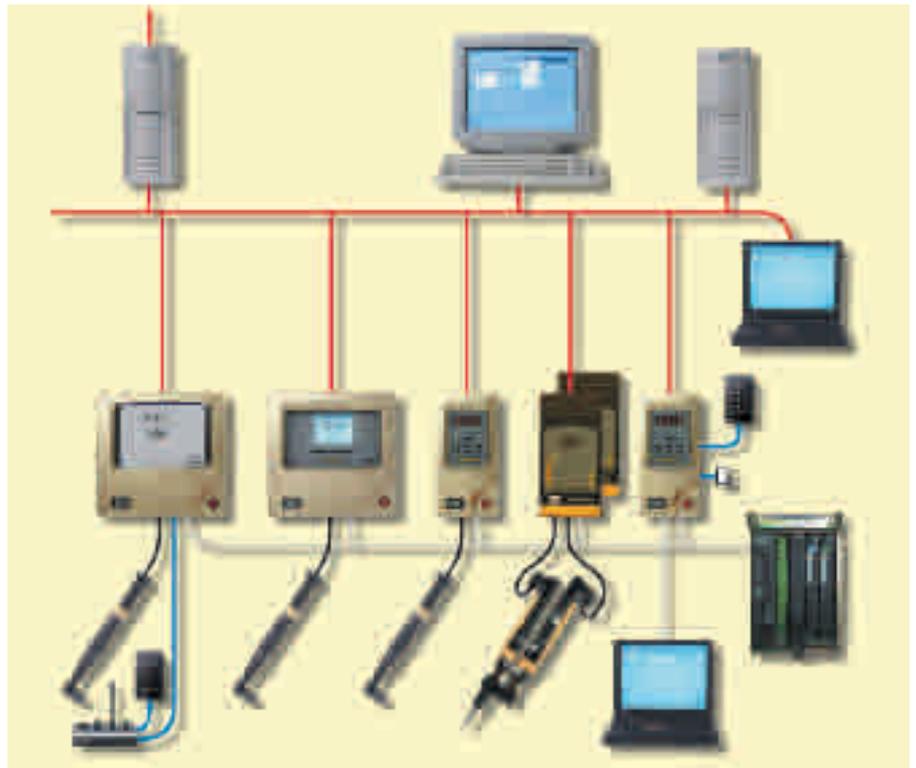
World wide communication is a matter of giving access through a factory network gateway to Power Focus 3000.

Controller level

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

Fieldbus level

The most common field buses are supported. Profibus, DeviceNet, Interbus, modbus+.



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



POWER FOCUS 3000

Configuration and analysis software



ToolsTalk DS –PC-based programming

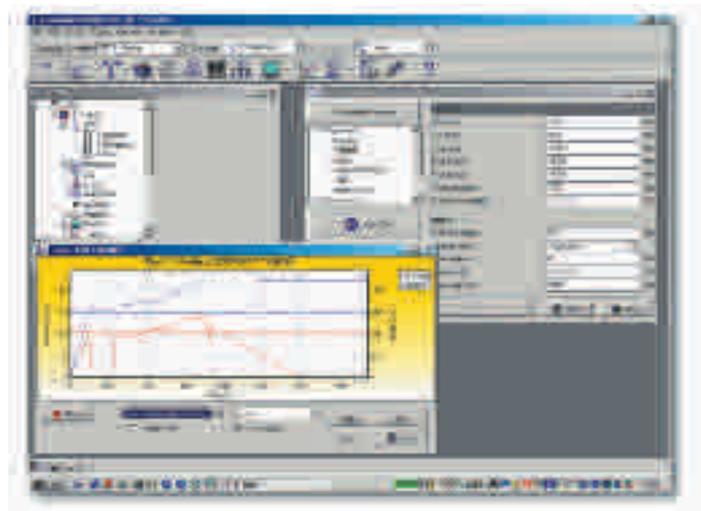
ToolsTalk DS allows complete programming of your DS Drive. There are three programming levels: AutoSet (sets target torque), QuickProg (sets target torque and joint hardness) and Full Programming. Connect your PC to the drive via the serial RS232 port, open the ToolsTalk DS software application and you are talking to the drive. As simple as that. Programming structure is intuitive, logical and easy to follow.

ToolsTalk PF –remote programming

ToolsTalk PF adds the capability to program parameters in all versions of Power Focus 3000 hardware/software configura-

tions, via a user-friendly PC interface. For customized reporting, ToolsTalk can retrieve all results from a specified controller. With a simple click, these results can then be imported directly into other commercial software such as MS Excel etc.

ToolsTalk PF communicates with the Power Focus 3000 control systems via an RS232 serial connection or an Ethernet TCP/IP, either direct or, as is more common in modern plants, via the factory network from the office.



POWER FOCUS 3000

Software

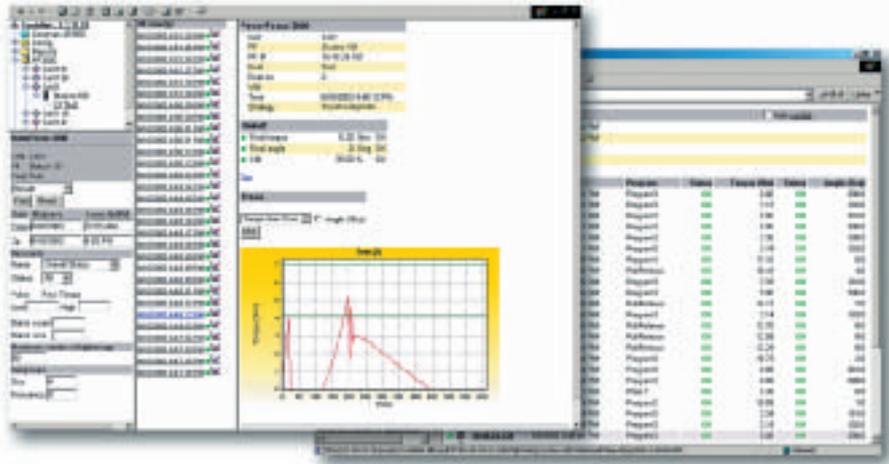
ToolsNet –Process improvement

ToolsNet 3000 is a data collection and process improvement software application for use with Power Focus 3000 and PowerMACS control systems. 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 MS Explorer. ToolsNet is the complete assembly process improvement tool.

Data can be presented historically or in real time. Vehicle and Shift reports are easy to generate.

Traceability minimizes recall costs

Data can be presented historically or in real time and Shift reports are easily generated to satisfy production managers. 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.

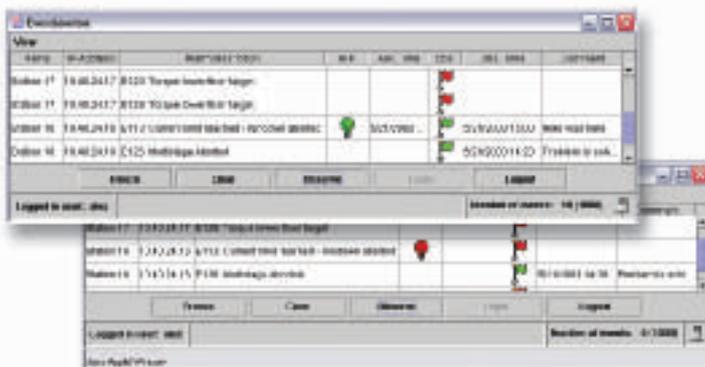


Event Monitor – events in real time

Integrate the Event Monitor software application within your plant architecture and monitor Power Focus 3000 events remotely, as they occur on the assembly line, in real time.

Event Monitor can immediately alert your office PC if the Cpk on a specific controller has dropped below a specified level, or if a tool at a specific workstation requires preventative maintenance.

Event Monitor is web based. Data can be accessed from anywhere in the plant, using a standard web browser such as MS Explorer.

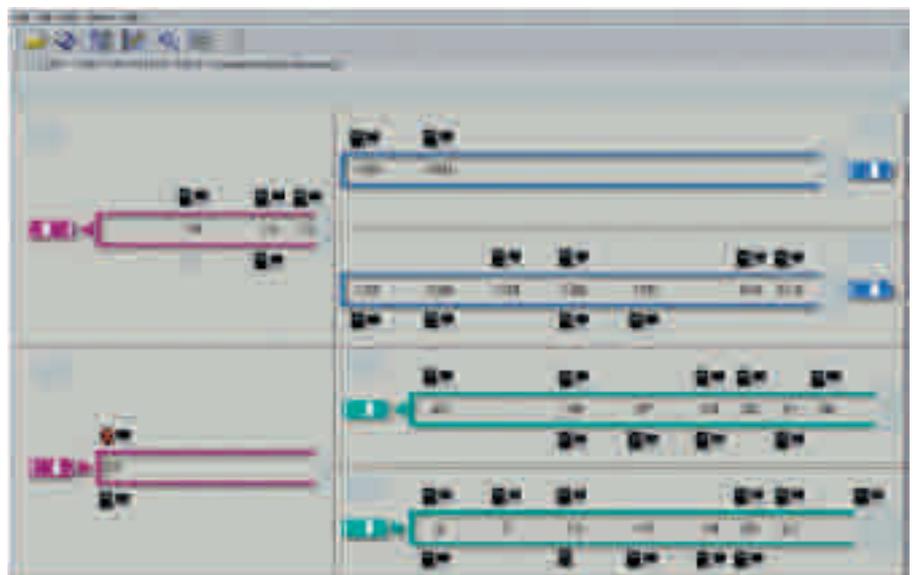


Factory Overview –visualization

When used with Power Focus 3000 control systems, Factory Overview provides real time monitoring and visualization of the production process. Factory Overview is a visual aid that presents the momentary status of the assembly process for a factory, line or workstation in an easy-to-comprehend form, from anywhere in the factory.

This object-orientated concept enables tooling, quality and maintenance engineers to access all plant data in real time. Factory Overview ensures significant performance gains throughout the entire assembly process.

Factory Overview also provides a single portal through which all other Atlas Copco Assembly Management software applications, such as ToolsTalk PF, ToolsNet and Event Monitor, can be accessed.



TENSOR

Functionality overview

General Functionality Level / RBU Runs Tool Types	DS 300		Power Focus 3000			
	Basic DS	Advanced DS	DS DS	Bronze DS / S	Silver DS / S	Gold DS / S
Tensor controllers						
Compact hardware	x	x	x	x	x	x
LED display	x	x	x	x	x	x
6 button keyboard	x	x	x	x	x	x
Graph hardware					x	x
LCD display					x	x
Full keyboard					x	x
Color hardware					x	x
12" TFT colour display					x	x
Touchscreen and PC keyboard					x	x
Functionality						
Number of tools	1	1	1	1	1	1
Number of Psets	1	10	64	64	250	250
Batch count	x	x	x	x	x	x
Open end spanner	x	x	x	x	x	x
Quick programming	x	x	x	x	x	x
Cross thread / Rehit detection	x	x	x	x	x	x
Tool service indicator	x	x	x	x	x	x
Autoset	x	x	x	x	x	x
Lock on reject	x	x	x	x	x	x
Line control		x	x		x	x
Transducer torque traceability				x	x	x
Tightening status storage			5 000	5 000	5 000	5 000
Tightening data storage				5 000	5 000	5 000
MultiStages			8		8	8
Trace storage				8	8	8
Real time statistics				x	x	x
SPC				x	x	x
RBU			x	x	x	x
Bar code reading			x		x	x
ID input to select Pset			x		x	x
Job function			x		x	x
Number of jobs			32		99	99
ID input to select job			x		x	x
Complex job sequencing			x		x	x
Cell programming			x		x	x
Label printer (via Open protocol)			x		x	x
Cell Job						x
Strategies and options						
Two stage/Quick step/Ergoramp	x	x	x	x	x	x
Torque control and angle monitoring	x	x	x	x	x	x
DS control	x	x	x		x	x
Auto zoom step	x	x	x	x	x	x
CW / CCW operation	x	x	x	x	x	x
Rundown angle monitoring	x	x	x	x	x	x
Self tap / PVT monitoring	x	x	x	x	x	x
Reverse angle		x	x	x	x	x
Rotate spindle		x	x	x	x	x
Click wrench input				x	x	x
Torque and angle control				x	x	x
Torque or angle control				x	x	x
Angle control and torque monitoring				x	x	x
Step sync						x
I/O						
RS232 programming port	x	x	x	x	x	x
Discrete I/O	x	x	x	x	x	x
Remote start	x	x	x	x	x	x
Socket selector (optional)		x	x	x	x	x
RE Alarm (optional)		x	x	x	x	x
Parallel printer port			x	x	x	x
I/O Expander (optional)			x	x	x	x
Expandable I/O (up to 124 in / 124 out)			x	x	x	x
Operator ID card input			x		x	x
Fieldbus card			Optional		Optional	Optional
RS232 bar code reader port			x		x	x
Easily programmed fieldbus protocol			x		x	x
Ethernet port for remote prog			x		x	x
Ethernet port for data collection			x		x	x

TENSOR

Functionality overview

General	DS 300		Power Focus 3000			
	Basic DS	Advanced DS	DS DS	Bronze DS / S	Silver DS / S	Gold DS / S
Functionality Level / RBU Runs Tool Types						
Tensor controllers						
Protocols						
Open protocol serial			X	X	X	X
Open protocol Siemens 3964R serial			X	X	X	X
Open protocol Ethernet			X		X	X
API			X		X	X
Double open protocol sessions			X		X	X
ToolsTalk World 03						
ToolsTalk Functionality						
Serial connection	X	X	X	X	X	X
Off line programming	X	X	X	X	X	X
Real time analysis	X	X	X	X	X	X
Tightening database to PC (Excel)			X	X	X	X
Tightening simulation			X	X	X	X
Operator monitor			X	X	X	X
Picture monitor			X	X	X	X
Fieldbus quick set-up			X		X	X
Job monitor			X		X	X
Bar code reader configuration			X		X	X
Ethernet connection			X		X	X
Remote programming			X		X	X
View tightening traces				X	X	X
Overlay traces				X	X	X
Factory Overview World 03						
Factory Overview Functionality						
Visualisation of controllers on line			X		X	X
Real time tightening status			X		X	X
ToolsTalk link			X		X	X
Event Monitor link			X		X	X
ToolsNet link			X		X	X
Power Focus idle indicator			X		X	X
Network connection indicator			X		X	X
Event indicator			X		X	X
Real time CPK			X		X	X
ToolsNet World 03						
ToolsNet Functionality						
Data collection			X		X	X
Data evaluation			X		X	X
Data linked to ID			X		X	X
Date range filtering			X		X	X
Web browser interface			X		X	X
Client / server solution			X		X	X
Auto uploading of missing data			X		X	X
Access / Oracle / SQL compatibility			X		X	X
Shift reports			X		X	X
Vehicle reports			X		X	X
Full data analysis capabilities			X		X	X
Customised reports			X		X	X
View tightening traces					X	X
Statistical analysis, histograms, SPC					X	X
Event Monitor World 03						
Event Monitor Functionality						
Web browser interface			X		X	X
Real time event monitoring			X		X	X
Configurable event severity			X		X	X
Event grouping functions			X		X	X
Event filtering			X		X	X
Event acknowledgement			X		X	X
Event observation (with comments)			X		X	X
Event history			X		X	X

TENSOR MODULARITY

The Tensor family uses a modular concept based on standard hardware and software. Combined, it will fulfill all assembly industry demands.

Tensor DS Tool



DS Tool / Whip Cable



2, 5, 7, 10, 15 m

DS Extension Cable



5, 10, 15 m

DS Drive

Basic DS302



Advanced DS312



Tensor S Tool



S/DS Tool / Whip cable



2, 5, 7, 10, 15 m

S/DS Extension Cable



5, 10, 15 m

PF3000 Drive

Compact



Graph



Color



RBU

DS



Bronze



Silver



Gold



TENSOR

Drives and software

Controller hardware

Model	Ordering No.
DS Drive	
D302-DS4 Basic	8433 0820 48
D312-DS4 Advanced	8433 0820 33
D302-DS7 Basic	8433 0822 48
D312-DS7 Advanced	8433 0822 33
D302-DS9 Basic	8433 0824 48
D312-DS9 Advanced	8433 0824 33
Power Focus 3000	
Tensor S/DS	
PF 3007-G-HW	8433 1700 00
PF 3007-C-HW	8433 1700 05
PF 3007-COLOUR-HW	8433 1700 07
PF 3007-G-DN-HW	8433 1740 00
PF 3007-C-DN-HW	8433 1740 05
PF 3007-G-PB-HW	8433 1742 00
PF 3007-C-PB-HW	8433 1742 05
PF 3007-G-IB-HW	8433 1745 00
PF 3007-C-IB-HW	8433 1745 05
PF 3009-G-HW	8433 1900 00
PF 3009-C-HW	8433 1900 05
PF 3009-COLOUR-HW	8433 1900 07
PF 3009-G-DN-HW	8433 1940 00
PF 3009-C-DN-HW	8433 1940 05
PF 3009-G-PB-HW	8433 1942 00
PF 3009-C-PB-HW	8433 1942 05
PF 3009-G-IB-HW	8433 1945 00
PF 3009-C-IB-HW	8433 1945 05



Colour



Graph



Compact

Controller software

Software	Ordering No.
RBU-Bronze	8433 0010 10
RBU-Silver	8433 0015 20
RBU-Gold	8433 0020 20
RBU-DS	8433 0005 10

Software modules

	Ordering No.
ToolsNet World 03	
10 Spindle license	8092 1156 10
25 Spindle license	8092 1156 25
50 Spindle license	8092 1156 50
75 Spindle license	8092 1156 75
125 Spindle license	8092 1156 80
200 Spindle license	8092 1156 85
350 Spindle license	8092 1156 90
500 Spindle license	8092 1156 95
Factory Overview World 03	
10 Spindle license	8092 1158 10
25 Spindle license	8092 1158 25
50 Spindle license	8092 1158 50
75 Spindle license	8092 1158 75
125 Spindle license	8092 1158 80
200 Spindle license	8092 1158 85
350 Spindle license	8092 1158 90
500 Spindle license	8092 1158 95
Event Monitor World 03	
10 Spindle license	8092 1157 10
25 Spindle license	8092 1157 25
50 Spindle license	8092 1157 50
75 Spindle license	8092 1157 75
125 Spindle license	8092 1157 80
200 Spindle license	8092 1157 85
350 Spindle license	8092 1157 90
500 Spindle license	8092 1157 95
ToolsTalk PF3000 World 02	
1-user license	8092 1140 01
5-user license	8092 1140 05
10-user license	8092 1140 10
Plant license	8092 1140 99
www.pf3000.com – Interactive training	
2-user license	8092 1200 10
10-user license	8092 1200 02



Software



Interactive training

TENSOR

Cables and drive accessories

Tensor S

	Ordering No.
Tool cable	
2 m	4220 0982 02
3 m	4220 0982 03
5 m	4220 0982 05
7 m	4220 0982 07
10 m	4220 0982 10
15 m	4220 0982 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
Cables with 90 degrees connector	
5 m	4220 1560 05
10 m	4220 1560 10
15 m	4220 1560 15
Cable with loop for high flexibility	
5 m	4220 1845 05
10 m	4220 1845 10
15 m	4220 1845 15

Tensor DS

	Ordering No.
Tool cable	
2 m	4220 1616 02
5 m	4220 1616 05
7 m	4220 1616 07
10 m	4220 1616 10
15 m	4220 1616 15
Extension cable	
5 m	4220 2047 05
10 m	4220 2047 10
15 m	4220 2047 15
Extension cables for fixtured applications	
5 m	4220 2046 05
10 m	4220 2046 10
15 m	4220 2046 15



DS Tool cable



DS Extension cable for fixtured applications



S Cable with 90 degrees connector



S Cable with loop

Controller accessories

	Ordering No.
Selector 4	8433 0610 04
Selector 8	8433 0610 08
Rotary selector	8433 0606 15
RE-Alarm	8433 0560 03
I/O Expander	8433 0564 38
Starhandle	4220 1391 91
Accessory cables	
I/O bus cable 0.5 m	4222 0470 00
I/O bus cable 1 m	4222 0470 01
I/O bus cable 3 m	4222 0470 03
I/O bus cable 5 m	4222 0470 05
I/O bus cable 10 m	4222 0470 10
I/O bus cable 15 m	4222 0470 15
I/O Termination plug	4222 0443 00
Ethernet cables	
Crossed 0.5 m	4222 0682 00
Crossed 1 m	4222 0682 01
Crossed 3 m	4222 0682 03
Crossed 5 m	4222 0682 05
Crossed 10 m	4222 0682 10
Crossed 15 m	4222 0682 15
Crossed 25 m	4222 0682 25
Crossed 50 m	4222 0682 50
Straight 0.5 m	4222 0754 00
Straight 1 m	4222 0754 01
Straight 3 m	4222 0754 03
Straight 5 m	4222 0754 05
Straight 10 m	4222 0754 10
Straight 15 m	4222 0754 15
Straight 25 m	4222 0754 25
Straight 50 m	4222 0754 50

Manuals

	Ordering No.
Power Focus 3000	
English	9836 1648 01
Swedish	9836 1648 02
French	9836 1648 03
German	9836 1648 04
Spanish	9836 1648 05
Portugese	9836 1648 06
Italian	9836 1648 07
DS Drive 300	
English	9836 1716 01
Swedish	9836 1716 02
French	9836 1716 03
German	9836 1716 04
Spanish	9836 1716 05
Portugese	9836 1716 06
Italian	9836 1716 07

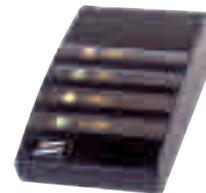
These must be ordered separately.



Start handle



I/O Expansion box



RE-Alarm



Selector 4



Selector 8

TENSOR

Tool accessories

Supported extensions

Model	Extension	Ordering No.
ETV DS7/S7/ST6/ST8 40-50	142	4220 2209 80
	180	4220 2202 80
ETV DS7/S7/ST6/ST8 40-50	88	4220 2247 80
	226	4220 2203 80

Supported extensions



Suspension yokes

Tool Model	Type	Assembly	Ordering No.
ETD/ETV/ETF S4	Fixed	Motor front nut	4220 1675 86
ETD/ETV/ETF S4/S7	Horizontal	Motor	4220 0987 80
ETD/ETV S4/S7/S9	Vertical	Handles	4220 1417 80
ETD/ETV/ETF S9	Horizontal	Motor	4220 1418 93
ETP S4/S7	Horizontal	Motor	4220 1154 90

Suspension yokes



Reaction bars and mounting brackets

Number	Spline type	Type	L / W / H	Ordering No.
1	Spline type 0	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	4220 2219 03
6		Triangular	82/80/12	4220 2137 03
7		Bar	400/29/12	4220 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



Reaction bar



Mounting bracket



Triangular

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

Extensions

Model	Length	Ordering No.
ETD/ETV/ETF DS4/S4	150	4220 1131 80
ETD DS7/S7 20-30		
ETV DS7/S7 30-50		
ETF DS7/S7 15-40		
ETD/ETV/ETF DS4/S4	100	4220 1131 80
ETD S7 50-120	150	4220 1132 80
ETV S7 70-200		
ETF S7 50-100		
ETD S9 100		
ETV S9 50		
ETF S9 80		
ETD/ETV DS7 70-200	150	4220 1714 80
ETD S9 200	150	4220 1132 81
ETD S9 200	100	4220 1132 82
ETD/ETV DS9/S9 270-370	150	4220 1585 80
ETD DS9/S9 450-600	150	4220 1585 85



Fixtured extension



Extension

Fixtured extensions

Model	Length	Ordering No.	For nut Ordering No.
ETV S4/S7 10-50	74	4220 2579 80	4220 0841 01
ETV DS4/DS7 10-50			4220 1640 01
ETV S7/S9 70-200	73	4220 2469 80	4220 0848 01
ETV DS7/DS9 70-200			4220 1663 01
ETV S9/DS9 270-600	91	4220 2614 80	Included



Extended lever

Lever

Model	Ordering No.
Lever	4220 1642 80
Extended lever	4220 1642 85
Safety lever	4220 2356 80



Safety lever



Lever

TENSOR

Tool accessories

Protective cover

Model	Ordering No
ETV DS4/S4, DS7/S7 28-30	9040 0900 08
ETV S7 40-50	9040 0900 09
ETV S7 70-100	9040 0900 10
ETV S9 50	9040 0900 11
ETV DS7 40-50	9040 0900 33
ETV DS7 70-100	9040 0900 34
ETP S4/DS4 10	9040 0900 12



Protective cover

Telescopic front parts for ETV

Model	Holder	Front part	Nut
DS7/S7 40/50	4220 1673 80	4220 1145 90	4220 0841 01
DS7/S7 70/100	4220 1811 81	4220 1135 95	4220 0841 01
DS7/S7 150/200	4220 1592 81	4220 1135 93	4220 0848 01
DS9/S9	4220 1960 80	4220 1179 91	Included



Telescopic front part

Torque multiplier

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

Torque multiplier

Mounting bracket and nut (included with T-mult)

Model	Mounting bracket	Nut
T-Mult 120	4210 2134 00	4210 2135 00
T-Mult 200	4210 2219 03	4210 2218 00
T-Mult 400	4210 2183 00	4210 2182 00
T-Mult 500	4210 2183 00	4210 2182 00
T-Mult 800	4210 2726 00	4210 2725 00
T-Mult 1000	4210 2726 00	4210 2725 00
T-Mult 1500	4210 3899 80	4210 3936 00



PowerMACS



PowerMACS/QMX

Where requirements for functionality, durability and flexibility are the highest, PowerMACS and the QMX nutrunners provide the solution for you.

PowerMACS is the controller/servo controlling the QMX nutrunners. These products are typically used for fixtured installations –automated, semi-automated or manually operated.

The PowerMACS controller can be built into a cabinet or used as a Stand Alone. The Stand Alone concept is a unique way of installing these advanced systems in a very simple manner, true plug & play. Advanced products do not have to mean complex handling any more.

The QMX nutrunners are extremely robust and durable, standing up to the toughest environments. At the same time they are small and fast, allowing ergonomically built multiples. Don't let your ergonomics requirements slip just because you are using a multiple.

- ❑ **Nutrunner sequencing** –This allows nutrunners to be sequenced at each phase of the tightening process allowing even distribution of torque to each fastener.
- ❑ **Even torque distribution** – Where there is uneven torque distribution, part damage or distortion could occur with possible fastener failure or loss of residual torque.
- ❑ **Snug, threshold, final torque in one pass** –No need for multiple torque stage sequencing as with a single nutrunner tool. Fixtured nutrunners save time and effort from start to finish.
- ❑ **No missed fasteners** –With multiple nutrunners there is a spindle dedicated to each location, ensuring quality on every rundown on every bolt.
- ❑ **Better residual torques** –Synchronized controlled fastening allows residual torque levels to be more consistent with the dynamic torque specification.
- ❑ **Saving in cycle time** – Compared with using a single nutrunner tool with many rundowns, running all fasteners simultaneously reduces in-station cycle time.
- ❑ **Cost saving benefits** – Saving in-station cycle time frees up operators to handle additional tasks and potentially reduce labor requirements, at the same time eliminating bottle necks.

PowerMACS

PowerMACS

Already ex-stock as a standard component, PowerMACS is ready to take on the most demanding jobs. You do not have to add external devices to get going. Power it up, program it and you are ready to go.

It is also built to communicate. Connect the PowerMACS system to your network via the built-in Ethernet port or connect it to your fieldbus network (option) to communicate production data.

There is even a PLC on board, allowing you to program any logic sequence you like. The PLC is standard, included when you order a PowerMACS.

Production up-time is ensured by flash PROM memory and RAM back-up memory. We know the value for you of keeping production going and did not compromise on reliability when we designed this system.



- Plenty of memory** for handling cycle data, statistics, SPC, cycle traces, station events, etc.
- Peripheral support** for barcode readers, printers and special communication protocols.
- API- Server** (Application Program Interface) software component using TCP/IP.
- Fieldbus flexibility** to handle data and I/O communications.
- On board operating system** with real time configurable PLC to handle all in-station functions.
- True nutrunner synchronization** achieved using high speed internal Ethernet communications.
- Installation flexibility** with external and panel mounted controllers.
- Inertia braking capabilities** to absorb the inertia during a high speed run-down on a hard joint, allowing for productivity and accuracy at the same time.

PowerMACS –Tightening controllers

Model	Type	Ordering No.
Stand Alone TCs 570V/20A (IP54) for QMX42 –QMX62		
TC52 S-N	Stand Alone –No FieldBus	4240 0440 81
TC52 S-P	Stand Alone –ProfiBus	4240 0441 81
TC52 S-I	Stand Alone –InterBus	4240 0442 81
TC52 S-D	Stand Alone –DeviceNet	4240 0443 81
TC52 S-M	Stand Alone –ModBus Plus	4240 0444 81
Stand Alone TCs 570V/40A (IP54) for QMX80 –QMX90		
TC54 S-N	Stand Alone –No FieldBus	4240 0450 81
TC54 S-P	Stand Alone –ProfiBus	4240 0451 81
TC54 S-I	Stand Alone –InterBus	4240 0452 81
TC54 S-D	Stand Alone –DeviceNet	4240 0453 81
TC54 S-M	Stand Alone –ModBus Plus	4240 0454 81
Panel TCs (IP20) 570V/20A for QMX42 –QMX62		
TC52 P-N	Panel –No FieldBus	4240 0410 81
TC52 P-P	Panel –ProfiBus	4240 0411 81
TC52 P-I	Panel –InterBus	4240 0412 81
TC52 P-D	Panel –DeviceNet	4240 0413 81
TC52 P-M	Panel –ModBus Plus	4240 0414 81
Panel TCs (IP20) 570V/40A for QMX80 –QMX90		
TC54 P-N	Panel –No FieldBus	4240 0430 81
TC54 P-P	Panel –ProfiBus	4240 0431 81
TC54 P-I	Panel –InterBus	4240 0432 81
TC54 P-D	Panel –DeviceNet	4240 0433 81
TC54 P-M	Panel –ModBus Plus	4240 0434 81

PowerMACS

QMX nutrunners and cables

QMX nutrunners

QMX is designed to last in the toughest environments. With its high speed and outstanding durability it will meet your most stringent demands.

The electric motor in the QMX nutrunners is a proprietary Atlas Copco brushless DC motor. It is highly efficient, allowing for it to put out high power at a high cycle rate without overheating. The design uses resolver technology. All of this together allows QMX to be certified to the highest levels of both accuracy and durability.

Our range includes standard tools in several different configurations of which a sample appears in the catalogue. Should you require more information, please contact your local Atlas Copco representative.

- ❑ Resolver technology enables us to run unique tightening strategies and gauging applications.
- ❑ Increased productivity due to faster nutrunner speeds resulting from a higher bus voltage.
- ❑ Torque range from 6-4000 Nm.
- ❑ MTBF better than 5 million cycles, under normal conditions.
- ❑ Adjustable single cable connector design for cable management flexibility.
- ❑ ISO certified to +/- 2.5% accuracy and 1 million duty cycles on hard and soft joints.
- ❑ Excellent nutrunner C-C distances when comparing power-to-weight ratio.
- ❑ Low moment of rotor inertia, designed for high dynamic applications.
- ❑ Co-axial nutrunner design to handle dual nutrunner functionality on special applications.

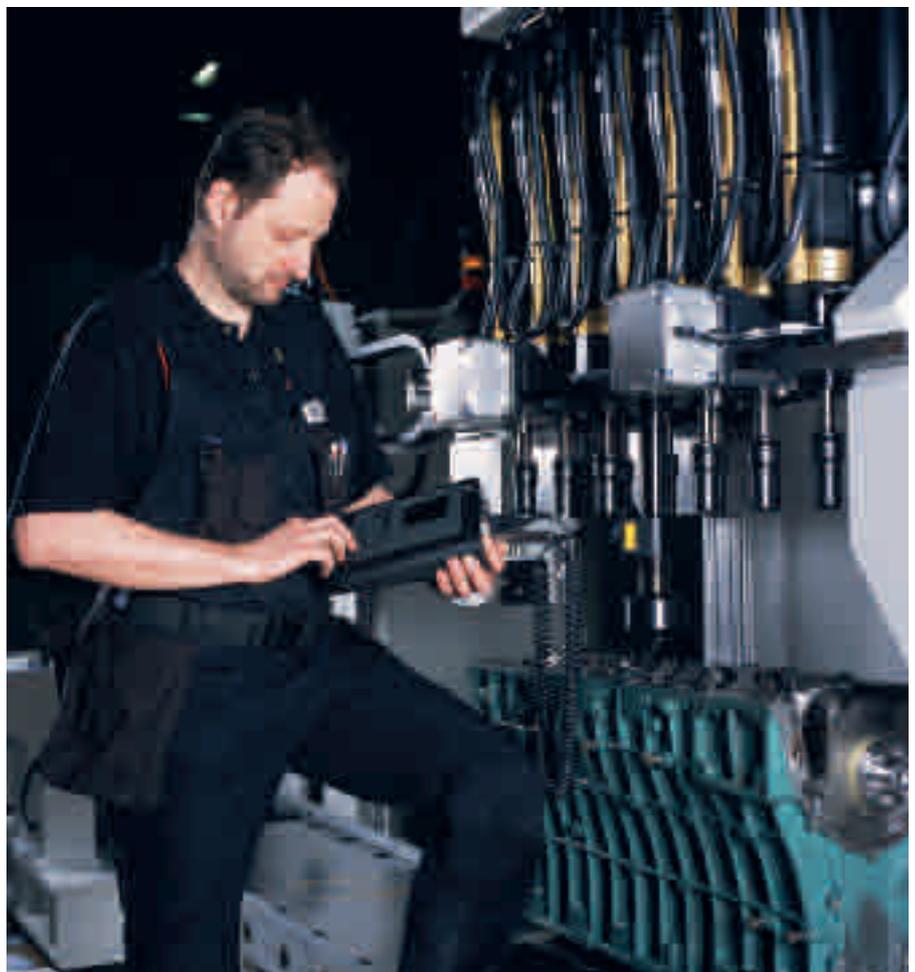
QMX cables

Cable integrity is the most crucial component of any system. QMX cables are designed with a robust extruded connector and a super-flex jacket for increased durability.

- ❑ Reduced spare parts due to a single cable design.
- ❑ 3-in-1 Power, Resolver, and Transducer connections built into one cable design.
- ❑ Super-flex cables provide increased life.
- ❑ Cable lengths in combinations up to 35 meters.

QRTT

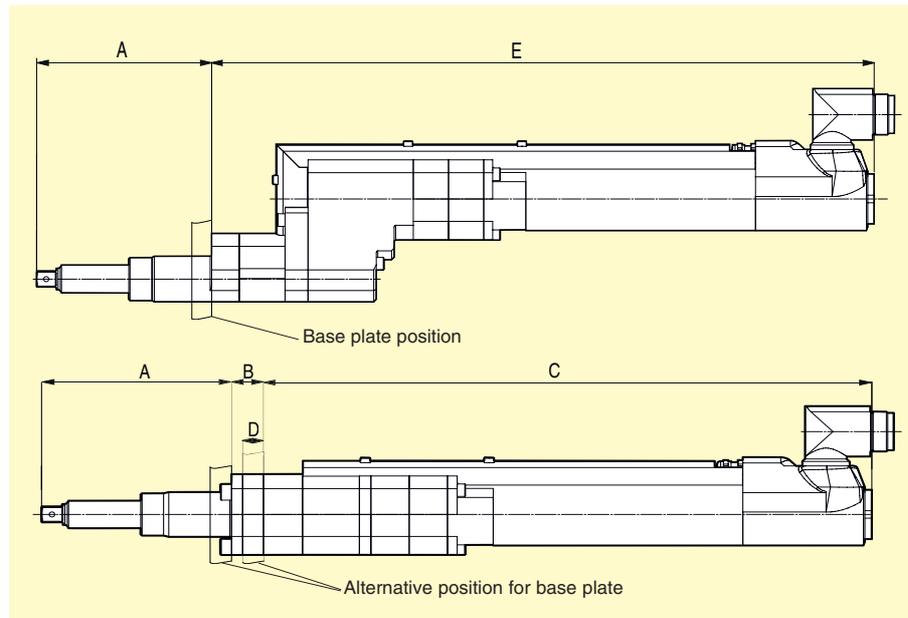
Transducers used for both QMX nutrunners and fixtured Tensor tool calibration. This transducer enables fast and easy set-up with highest system accuracy. By using the QRTT, no special test adapter between the nutrunner and the product itself is now needed (for further information see page 131).



PowerMACS

Standard nutrunner

Atlas Copco standard DC electric brushless resolver nutrunners. These state-of-the-art nutrunners are used in a wide variety of fastening applications ranging from automotive to general industrial.



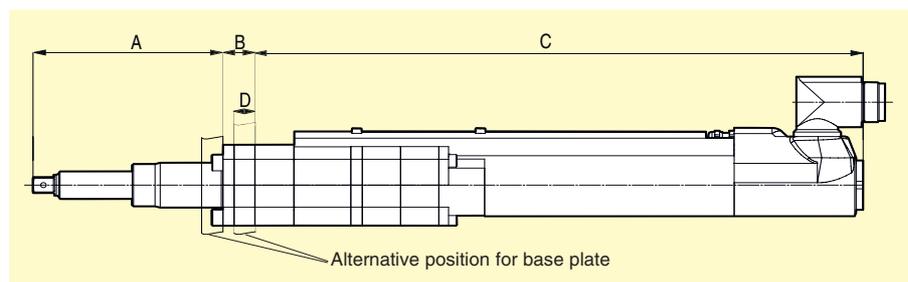
Type	Travel in	Torque range		Max speed	Min C-C	Weight		Gear ratio	Socket holder size		Socket holder ^a		A mm	B mm	C mm	D mm	E mm
		Nm	ft lb			kg	lb		in	Ordering No.	Ordering No.						
QMX42-2RT	2	6 - 20	4 - 14	1200	42	3.2	1.5	7.5	3/8	8432 5120 10	4230 1818 00	134	23	386	15	-	
QMX42-2ROT	2	6 - 18	4 - 13	1200	31	4.3	2.0	7.5	3/8	8432 5120 20	4230 1818 00	134,5	-	-	-	436	
QMX42-5RT	2	10 - 50	7 - 35	560	42	3.5	1.6	21.3	1/2	8432 5130 10	4230 1819 00	134	23	412	15	-	
QMX42-5ROT	2	10 - 50	7 - 35	560	31	4.6	2.1	21.3	1/2	8432 5130 20	4230 1819 00	134,5	-	-	-	463	
QMX50-9RT	2	20 - 90	15 - 65	560	50	5.9	2.7	18.2	1/2	8432 5140 10	4230 1820 00	137	23	462	15	-	
QMX50-9ROT	2	20 - 85	15 - 60	560	37	8.1	3.7	18.2	1/2	8432 5140 20	4230 1820 00	137	-	-	-	519	
QMX50-15RT	2	30 - 150	22 - 110	330	50	5.8	2.6	31.3	1/2	8432 5150 10	4230 1820 00	137	23	462	15	-	
QMX50-15ROT	2	30 - 145	22 - 105	330	37	8.0	3.6	31.3	1/2	8432 5150 20	4230 1820 00	137	-	-	-	519	
QMX62-19RT	2	40 - 190	30 - 140	330	62	9.5	4.3	19.4	5/8	8432 5160 10	4230 1821 00	152	25	525,5	15	-	
QMX62-19ROT	2	40 - 180	30 - 130	330	45	12.9	5.9	19.4	5/8	8432 5160 20	4230 1821 00	152,5	-	-	-	569,5	
QMX62-32RT	2	70 - 320	50 - 235	200	62	10.2	4.6	32.1	3/4	8432 5170 10	4230 1822 00	152,5	-	-	-	571	
QMX62-32ROT	2	70 - 290	50 - 210	200	45	13.5	6.1	32.1	3/4	8432 5170 20	4230 1822 00	152,5	-	-	-	571	
QMX80-58RT	2	120 - 580	90 - 425	200	80	20.0	9.1	29.6	3/4	8432 5180 10	4230 1971 00	146	30	610	20	-	
QMX80-58ROT	2	120 - 550	90 - 405	200	55	21.0	9.5	29.6	3/4	8432 5180 20	4230 1971 00	146	-	-	-	671,5	
QMX90-95RT	2	200 - 950	150 - 700	130	91	22.0	10.0	46.8	1	8432 5190 10	4230 1824 00	152	32	621	20	-	
QMX90-95ROT	2	200 - 900	150 - 660	130	63	30.0	13.6	46.8	1	8432 5190 20	4230 1824 00	152,5	-	-	-	698,5	

^a The socket holder is included in the product.

Special nutrunners

Extended spring travel 3" and 4".

Atlas Copco special DC electric brushless resolver nutrunner with extended spring travel for longer bolt lengths.



Type	Travel in	Torque range		Max speed	Min C-C	Weight		Gear ratio	Socket holder size		Socket holder ^a		A mm	B mm	C mm	D mm	E mm
		Nm	ft lb			kg	lb		in	Ordering No.	Ordering No.						
QMX42-2RT	3	6 - 20	4 - 14	1200	42	3.2	1.5	7.5	3/8	9831 4045 08	4231 0544 00	190	23	386	15	-	
QMX42-5RT	3	10 - 50	7 - 35	560	42	3.7	1.7	21.3	1/2	9831 4045 10	4231 0544 01	190	23	412	15	-	
QMX50-9RT	3	20 - 90	15 - 65	560	50	6.5	2.9	18.2	1/2	9831 4046 04	4231 0491 00	200	23	464	15	-	
QMX50-15RT	3	30 - 150	22 - 110	330	50	7.0	3.2	31.3	1/2	9831 4046 06	4231 0491 00	201	25	462	15	-	
QMX62-19RT	3	40 - 190	30 - 140	330	62	9.8	4.4	19.4	1/2	9831 4047 12	4231 0513 00	200	25	526	15	-	
QMX62-32RT	3	70 - 320	50 - 235	200	62	10.5	4.8	32.1	3/4	9831 4047 14	4231 0484 00	200	25	527	15	-	
QMX80-58RT	3	120 - 580	90 - 425	200	80	21.0	9.5	29.6	3/4	9831 4048 04	4231 2664 00	214	43	623	20	-	
QMX90-95RT	3	200 - 950	150 - 700	130	91	23.0	10.4	46.8	1	9831 4058 18	4231 1106 00	176	32	670	20	-	
QMX42-5RT	4	10 - 50	7 - 35	560	42	8	3.6	21.3	3/8	9831 4045 53	4231 2055 00	191	23	510	15	-	
QMX50-15RT	4	30 - 150	22 - 110	560	50	11	5.0	31.3	1/2	9831 4067 15	4231 3189 00	186	23	565	15	-	

^a The socket holder is included in the product.

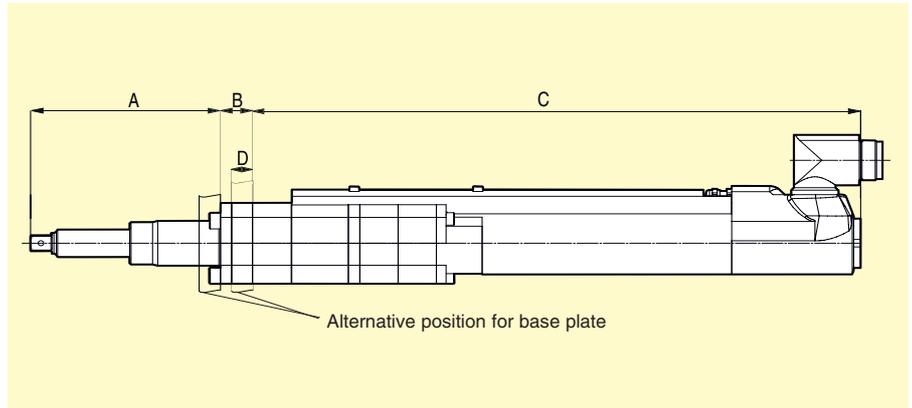
PowerMACS

Dual transducers, RTT.

Atlas Copco special DC electric brushless resolver nutrunners with dual torque transducer feedback. This allows for transducer redundancy, with the ability to verify that readings are within a certain tolerance of one another.

Dual transducers and angle feedback, RATT.

Atlas Copco special DC electric brushless resolver nutrunners with dual angle and torque transducer feedback. This allows for angle and torque verification, with the ability to double check whether the system is reading accurately.

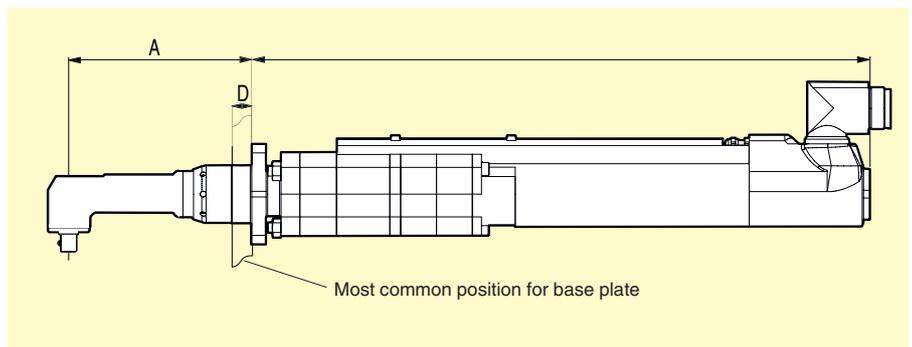


Type	Travel in	Torque range		Max speed	Min C-C	Weight		Gear ratio	Socket holder size		Socket holder ^a		A mm	B mm	C mm	D mm	E mm
		Nm	ft lb			kg	lb		in	Ordering No.	Ordering No.						
RTT																	
QMX42-2RTT	2	6 - 20	4 - 14	1200	42	3.2	1.45	7.5	3/8	9831 4045 99	4230 1818 00	134	23	386	15	-	
QMX42-5RTT	2	10 - 50	7 - 35	560	42	3.5	1.5	21.3	1/2	9831 4068 00	4230 1819 00	134	23	412	15	-	
QMX50-9RTT	2	20 - 90	15 - 65	560	50	5.9	2.7	18.2	1/2	9831 4067 09	4230 1820 00	137	23	462	15	-	
QMX50-15RTT	2	30 - 150	22 - 110	330	50	5.9	2.7	31.3	1/2	9831 4067 05	4230 1820 00	137	23	462	15	-	
QMX62-19RTT	2	40 - 190	30 - 140	330	62	9.5	4.3	19.4	5/8	9831 4047 84	4230 1821 00	152	25	526	15	-	
QMX62-32RTT	2	70 - 320	50 - 235	200	62	10.2	4.6	32.1	3/4	9831 4047 61	4230 1822 00	152	25	527	15	-	
QMX80-58RTT	2	120 - 580	90 - 425	200	80	20	9.1	29.6	3/4	9831 4048 17	4230 1971 00	146	30	610	20	-	
QMX90-95RTT	2	200 - 950	150 - 700	130	91	22	10.0	46.8	1	9831 4058 34	4230 1824 00	152	32	621	20	-	
RATT																	
QMX42-2RATT	2	6 - 20	4 - 14	1200	42	3.7	1.7	7.5	3/8	8432 5120 70	4230 1818 00	134	23	386	15	-	
QMX42-5RATT	2	10 - 50	7 - 35	560	42	3.9	1.8	21.3	1/2	8432 5130 70	4230 1819 00	134	23	412	15	-	
QMX50-9RATT	2	20 - 90	15 - 65	560	50	6.0	2.7	18.2	1/2	8432 5140 70	4230 1820 00	137	23	462	15	-	
QMX50-15RATT	2	30 - 150	22 - 110	330	50	6.0	2.7	31.3	1/2	8432 5150 70	4230 1820 00	137	23	462	15	-	
QMX62-19RATT	2	40 - 190	30 - 140	330	62	10.0	4.5	19.4	5/8	8432 5160 70	4230 1821 00	152	25	526	15	-	
QMX62-32RATT	2	70 - 320	50 - 235	200	62	10.8	4.9	32.1	3/4	8432 5170 70	4230 1822 00	152	25	527	15	-	
QMX80-58RATT	2	120 - 580	90 - 425	200	80	21.0	9.5	29.6	3/4	9831 4048 18	4230 1971 00	146	30	610	20	-	
QMX90-95RATT	2	200 - 950	150 - 700	130	91	22.5	10.2	46.8	1	9831 4058 35	4230 1824 00	152	32	621	20	-	

^a The socket holder is included in the product.

Angle head tools

Atlas Copco special DC electric brushless resolver nutrunners with a right angle head. This simplifies hard-to-reach applications with the ability to position the nutrunners in any orientation.



Type	Travel in	Torque range		Max speed	Min C-C	Weight		Gear ratio	Socket holder size		Socket holder ^a		A mm	B mm	C mm	D mm	E mm
		Nm	ft lb			kg	lb		in	Ordering No.	Ordering No.						
QMX42-7RTV	-	15 - 70	11 - 50	360	(40)	3.7	1.7	36.1	1/2	9831 4045 46	-	-	-	-	-	-	
QMX42-7RTV	2	15 - 70	11 - 50	360	(38)	5.3	2.4	36.1	1/2	9831 4045 32	4231 2797 00	-	-	-	-	-	
QMX42-7RTV	1	15 - 70	11 - 50	360	(38)	5.1	2.3	36.1	1/2	9831 4045 64	4231 3207 00	-	-	-	-	-	
QMX42-2RTV	-	6 - 30	4 - 22	1000	(36)	3.5	1.6	11.7	3/8	9831 4045 95	-	-	-	-	-	-	
QMX50-14RTV	-	30 - 140	22 - 100	320	(51)	6.2	2.8	33.9	1/2	9831 4046 84	-	141	-	-	15	476	
QMX50-20RTV	-	40 - 160	30 - 115	190	(51)	6.1	2.8	58	1/2	9831 4046 78	-	141	-	-	15	476	
QMX62-34RTV	-	70 - 340	50 - 250	190	67	13.5	6.1	36.0	3/4	9831 4047 46	-	153	-	-	14	548,5	
QMX62-34RTV	1	70 - 340	50 - 250	190	62	14.5	6.6	36.0	3/4	9831 4047 31	4231 2416 00	-	-	-	-	-	
QMX62-60RTV	-	120 - 600	90 - 440	60	106	21	9.5	105	3/4	9831 4047 21	-	-	-	-	-	-	
QMX62-60RATTV	2	120 - 600	90 - 440	60	106	23	10.4	105	3/4	9831 4047 50	4231 3018 00	-	-	-	-	-	

^a The socket holder is included in the product.

PowerMACS

Angle nutrunner

Atlas Copco special DC electric brushless resolver nutrunners with a right angle head and spring travel. The right angle allows these tools to be positioned in hard-to-reach locations without putting strain on it.

Type	Travel in	Torque range		Max speed	Min C-C	Weight		Gear ratio	Socket holder size in	Socket holder ^a	
		Nm	ft lb			kg	lb			Ordering No.	Ordering No.
QMX42-5RVT	3	10 - 50	7 - 35	560	42	5	2.3	21.3	3/4	9831 4045 56	4231 2473 00
QMX50-15RVT	2	30 - 145	22 - 105	300	55	9.4	4.3	31.3	1/2	9831 4046 85	4230 1819 00
QMX62-28RVT	2	50 - 280	35 - 205	190	82	16.4	7.4	32.1	3/4	9831 4047 36	4230 1822 00
QMX90-95RVT	2	200 - 950	150 - 700	130	108	30	13.6	46.8	3/4	9831 4058 17	4230 1824 00

^a The socket holder is included in the product.

U-nutrunner

Atlas Copco special DC electric brushless resolver nutrunners with "U" design. This design allows our tools to be positioned in locations with minimal nutrunner length clearances - for instance exhaust manifold or indexing applications.

Type	Travel in	Torque range		Max speed	Min C-C	Weight		Gear ratio	Socket holder size in	Socket holder ^a	
		Nm	ft lb			kg	lb			Ordering No.	Ordering No.
QMX42-5RUT	2	20 - 50	15 - 35	560	42	5.5	2.5	21.3	1/2	9831 4045 45	4230 1819 00
QMX50-9RUT	3	15 - 80	110 - 55	560	50	8	3.6	18.2	1/2	9831 4046 31	4230 1820 00
QMX50-15RUT	3	30 - 140	22 - 100	330	50	8	3.6	31.3	1/2	9831 4046 26	4230 1820 00
QMX62-19RUT	2	30 - 170	22 - 125	330	88	15	3.3	19.4	3/4	9831 4047 37	4230 1822 00
QMX62-32RUT	2	55 - 280	40 - 205	200	88	18	8.2	32.1	3/4	9831 4047 35	4230 1822 00
QMX95-200RUT	1/2	350 - 1750	260 - 1250	60	95	34	15.4	98	HEX	9831 4058 32	not available

^a The socket holder is included in the product.

Co-axial nutrunner

Atlas Copco special DC electric brushless resolver nutrunners with co-axial design. This design allows our tools to perform special gauging or fastening applications. Essentially it is a nutrunner inside a nutrunner. This gives us the ability to use the centre nutrunner to set a position or torque while the outside nutrunner synchronizes and locks the position with a lock nut or monitors for excessive friction.

Type	Travel in	Torque range		Max speed	Min C-C	Weight		Gear ratio	Socket holder ^a size in	Ordering No.
		Nm	ft lb			kg	lb			
QMX42-2RT/QMX42-5ROT	1 / 1	15 / 63	110 / 45	270 / 170	44	10	22	16.00 / 41.23	1/4 / 3/4	9831 4045 62
QMX42-2RT/QMX42-5ROT	1 / 1	20 / 50	15 / 35	1200 / 560	44	10	22	7.5 / 21.33	1/4 / 3/4	9831 4045 83
QMX42-5RT/QMX50-15RT	1 / 1	50 / 50	35 / 110	200 / 350	64	15	33	21.33 / 31.24	3/8 / 3/4	9831 4046 35
QMX80-55RT/QMX80-10RT	11/2 / -	550 / 100	400 / 75	200 / 100	216	48	105	29.56 / 48.44	3/4 / -	9831 4 040 65

^a The socket holder is included in the product.

Cables Stand Alone

Type	Ordering No.
Cable between spindle and TC, 5 m	4231 5062 05*
Cable between spindle and TC, 10 m	4231 5062 10*
Cable between spindle and TC, 15 m	4231 5062 15*
Cable between spindle and TC, 20 m	4231 5062 20*
Cable between spindle and TC, xx ^a m	4231 5062 xx**
Cable between PBU and TC, 1 m	4231 5063 01*
Cable between PBU and TC, 2 m	4231 5063 02*
Cable between PBU and TC, 3 m	4231 5063 03*
Cable between PBU and TC, xx ^a m	4231 5063 xx**

^a Available from 1 meter to 35 meters.
Replace the two last digits in the ordering number for length of cable.

* Available directly from stock.
** Manufactured to order.

PowerMACS

Atlas Copco special socket holder designs allow you to reach into applications or parts with tight clearances.

QMX42-2RT

Additional socket holder mm	Product No.	Socket holder size	Socket holder ^a Ordering No.
0 ^b	8432 5120 10	3/8"	4230 1818 00
50	9831 4063 08	3/8"	4231 0065 30
100	9831 4063 10	3/8"	4231 0065 31
150	9831 4063 12	3/8"	4231 0065 32
200	9831 4063 14	3/8"	4231 0065 33
250	9831 4063 16	3/8"	4231 0065 34
0	9831 4063 07	1/2"	4230 1819 00
50	9831 4063 09	1/2"	4231 0065 35
100	9831 4063 11	1/2"	4231 0065 36
150	9831 4063 12	1/2"	4231 0065 37
200	9831 4063 14	1/2"	4231 0065 40
250	9831 4063 69	1/2"	4231 0065 39

QMX42-5RT

Additional socket holder mm	Product No.	Socket holder size	Socket holder ^a Ordering No.
0	9831 4063 17	3/8"	4230 1818 00
50	9831 4063 18	3/8"	4231 0065 30
100	9831 4063 20	3/8"	4231 0065 31
150	9831 4063 22	3/8"	4231 0065 32
200	9831 4063 24	3/8"	4231 0065 33
250	9831 4063 26	3/8"	4231 0065 34
0 ^b	8432 5130 10	1/2"	4230 1819 00
50	9831 4063 19	1/2"	4231 0065 35
100	9831 4063 21	1/2"	4231 0065 36
150	9831 4063 23	1/2"	4231 0065 37
200	9831 4063 25	1/2"	4231 0065 40
250	9831 4063 27	1/2"	4231 0065 39

QMX50-9RT

Additional socket holder mm	Product No.	Socket holder size	Socket holder ^a Ordering No.
0 ^b	8432 5140 10	1/2"	4230 1820 00
50	9831 4063 28	1/2"	4231 0070 25
100	9831 4063 29	1/2"	4231 0070 21
150	9831 4063 30	1/2"	4231 0070 22
200	9831 4063 31	1/2"	4231 0070 23
250	9831 4063 32	1/2"	4231 0070 24

QMX50-15RT

Additional socket holder mm	Product No.	Socket holder size	Socket holder ^a Ordering No.
0 ^b	8432 5150 10	1/2"	4230 1820 00
50	9831 4063 68	1/2"	4231 0070 25
100	9831 4063 33	1/2"	4231 0070 21
150	9831 4063 34	1/2"	4231 0070 22
200	9831 4063 35	1/2"	4231 0070 23
250	9831 4063 36	1/2"	4231 0070 24

QMX62-19RT

Additional socket holder mm	Product No.	Socket holder size	Socket holder ^a Ordering No.
0	9831 4063 70	1/2"	4230 1829 00
50	9831 4063 37	1/2"	4231 0075 11
100	9831 4063 40	1/2"	4231 0075 12
150	9831 4063 43	1/2"	4231 0075 13
200	9831 4063 46	1/2"	4231 0075 14
250	9831 4063 49	1/2"	4231 0075 15
0 ^b	8432 5160 10	5/8"	4230 1821 00
50	9831 4063 38	5/8"	4231 0075 16
100	9831 4063 41	5/8"	4231 0075 17
150	9831 4063 44	5/8"	4231 0075 18
200	9831 4063 47	5/8"	4231 0075 19
250	9831 4063 50	5/8"	4231 0075 20
0	9831 4063 71	3/4"	4230 1822 00
50	9831 4063 39	3/4"	4231 0075 21
100	9831 4063 42	3/4"	4231 0075 22
150	9831 4063 45	3/4"	4231 0075 23
200	9831 4063 48	3/4"	4231 0075 24
250	9831 4063 51	3/4"	4231 0075 25

QMX62-32RT

Additional socket holder mm	Product No.	Socket holder size	Socket holder ^a Ordering No.
0	-	-	-
50	9831 4063 52	1/2"	4231 0075 11
100	9831 4063 55	1/2"	4231 0075 12
150	9831 4063 58	1/2"	4231 0075 13
200	9831 4063 61	1/2"	4231 0075 14
250	9831 4063 64	1/2"	4231 0075 15
0	9831 4063 72	5/8"	4230 1821 00
50	9831 4063 53	5/8"	4231 0075 16
100	9831 4063 56	5/8"	4231 0075 17
150	9831 4063 59	5/8"	4231 0075 18
200	9831 4063 62	5/8"	4231 0075 19
250	9831 4063 65	5/8"	4231 0075 20
0 ^b	8432 5170 10	3/4"	4230 1822 00
50	9831 4063 54	3/4"	4231 0075 21
100	9831 4063 57	3/4"	4231 0075 22
150	9831 4063 60	3/4"	4231 0075 23
200	9831 4063 63	3/4"	4231 0075 24
250	9831 4063 66	3/4"	4231 0075 25

^a The socket holder is included in the product.

^b This socket holder follows when you order the standard nutrunner.

PowerMACS

Power Box Unit –PBU

Power Box Units are used for power distribution. Standard hardware such as Ethernet switches, E-Stop circuitry, 24 VDC power supply, and basic hardware such as power contactors are all configured into the PBU.

- 400 VAC 3 phase and 24 VDC/5A or 24 VDC/10A power distribution to each controller.
- Central Ethernet switch for internal and external TC communication.
- From 1 to 10 nutrunners depending on PBU, and sizes from 400 mm wide.
- All our Stand Alone PBUs are IP54 rated.
- All PBUs match TC52 and TC54.



Power Box Unit

Power Box Unit –PBU

Model	Size HxDxW mm	DC supply	Ordering No.
Stand alone PBU 1 Ch	300x155x400	24V / 5A	4240 0503 00
Stand alone PBU 2 Ch	300x155x400	24V / 5A	4240 0504 00
Stand alone PBU 5 Ch	300x155x600	24V / 5A	4240 0701 00
Stand alone PBU 3+3 Ch	300x155x600	24V / 5A	4240 0700 00
Stand alone PBU 10 Ch	300x155x800	24V / 10A	4240 0702 00

Software

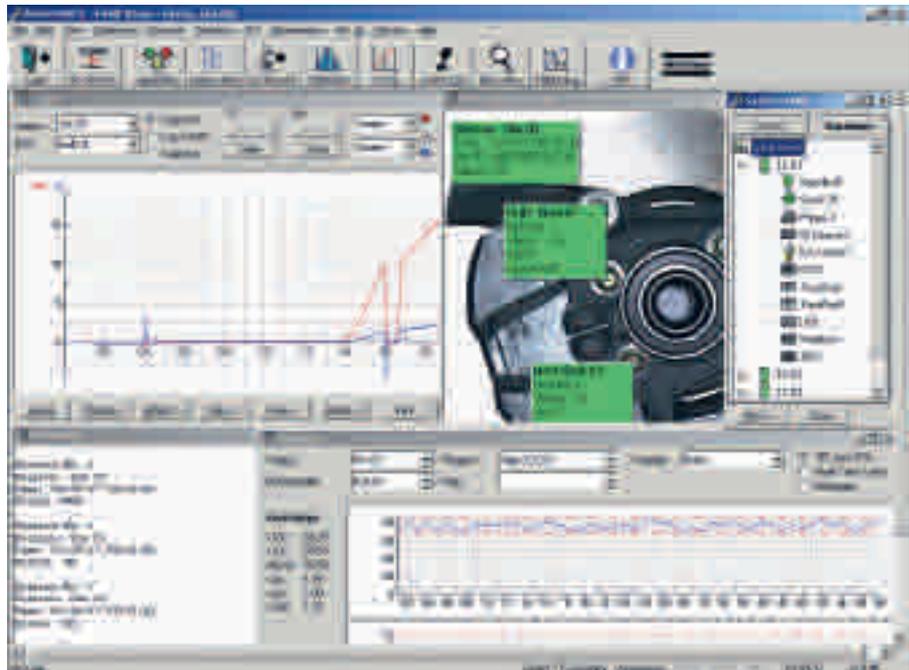
WinTC for PowerMACS

WinTC is the user friendly interface that allows users to program, view or configure station functionality. It is a Windows-based program that can be installed on the station PC, on a back office PC connected via Ethernet or on a portable laptop.

The software offers full reporting of tightening results as well as read-at-a-glance graphics of actual customer parts.

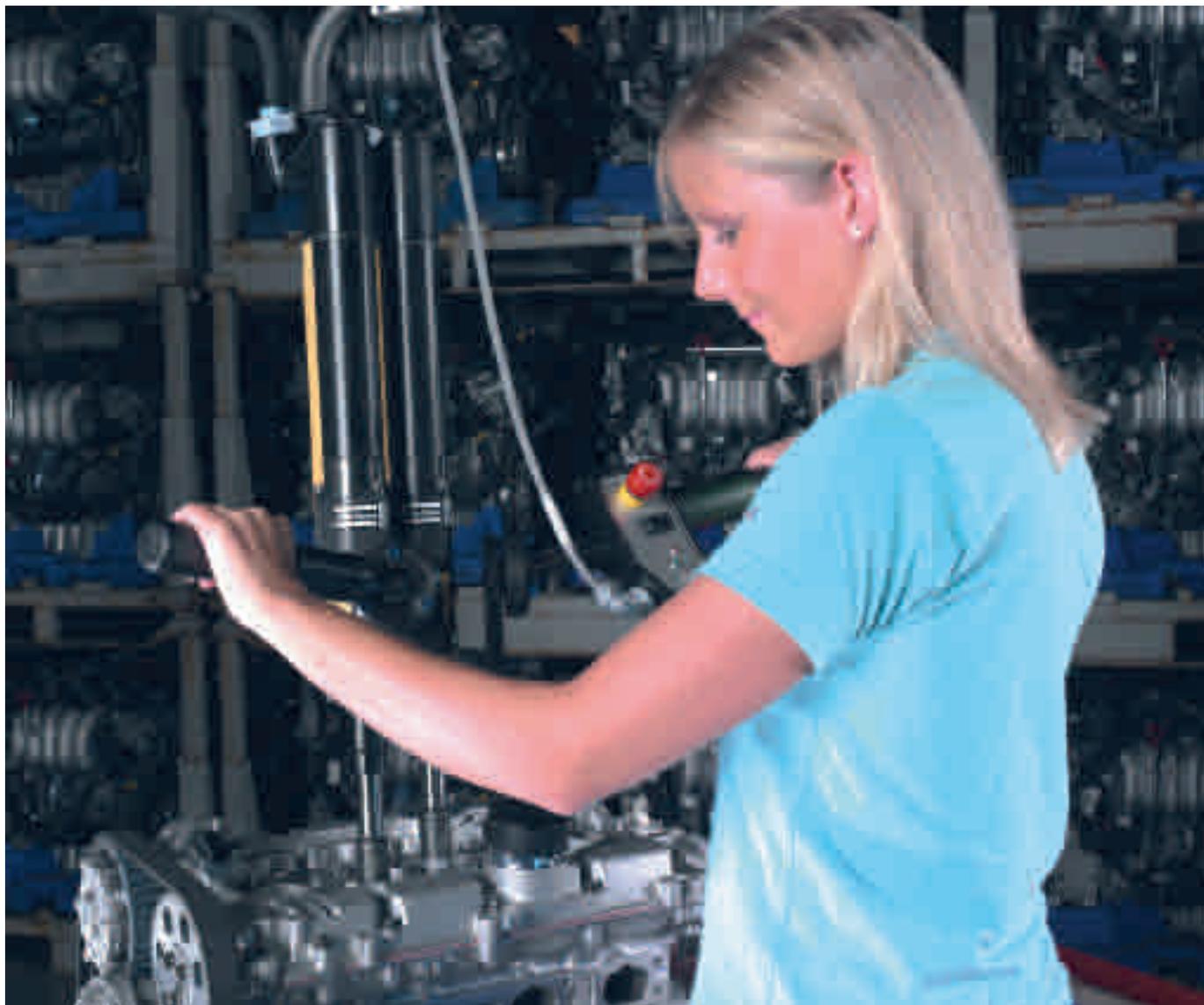
Each user can be assigned a specific user name and password with an access level associated with read and write capabilities. It also includes set-up wizards, product training tutorials and tightening templates that guide you through programming tightening sequences.

- User friendly Windows programming interface.
- 10 levels of read and write security.
- Read-at-a-glance graphics with actual picture of customer part.
- Graphical system map of hardware and software.
- Configurable cycle data menu for station reporting of torque data.
- Real time SPC and TDA reporting of any parameter.
- Trace reporting on torque vs. angle, current and time.



- Event logging of security access, parameter changes, errors, faults, alarms and warnings.
- Create tightening programs ranging from the very simple to as complex as the application requires.
- Maintenance menus to verify hardware and software changes without machine intervention.
- Built-in user manual for quick access.

Multiples by Express



Multiples by Express is a concept that makes it easier for you to specify, order and use multiple nutrunner systems. You simply choose from three different basic configurations.

Choose your nutrunner type, tell us how many nutrunners you need in your system and we have a pre-configured package available.

Because we have been able to package the range for you, we can use more standard components. This means we can quote the system within 24 hours from request and deliver 4-6 weeks from order, depending on the package you choose. That has never been possible before and is unmatched.

In these packages you can choose from our Tensor range, both the "S" and "DS" tools, as well as from our PowerMACS/QMX range.

As the Express package uses standard components we can even offer you a trial of the system in your production environment, before making the purchase decision. We call it Try&Buy and you only pay a nominal fee for the tryout period.

Please contact your local Atlas Copco representative to get more information on how to get your own Try&Buy system.



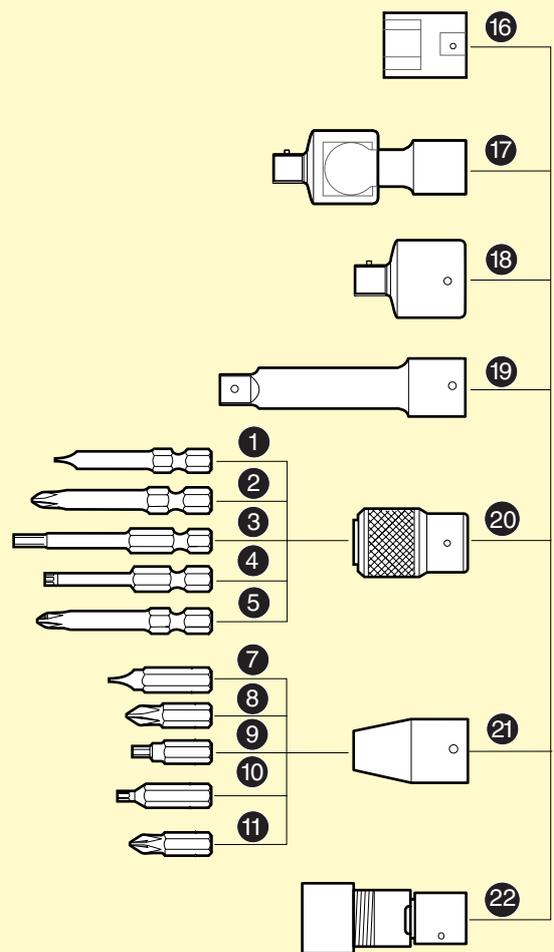
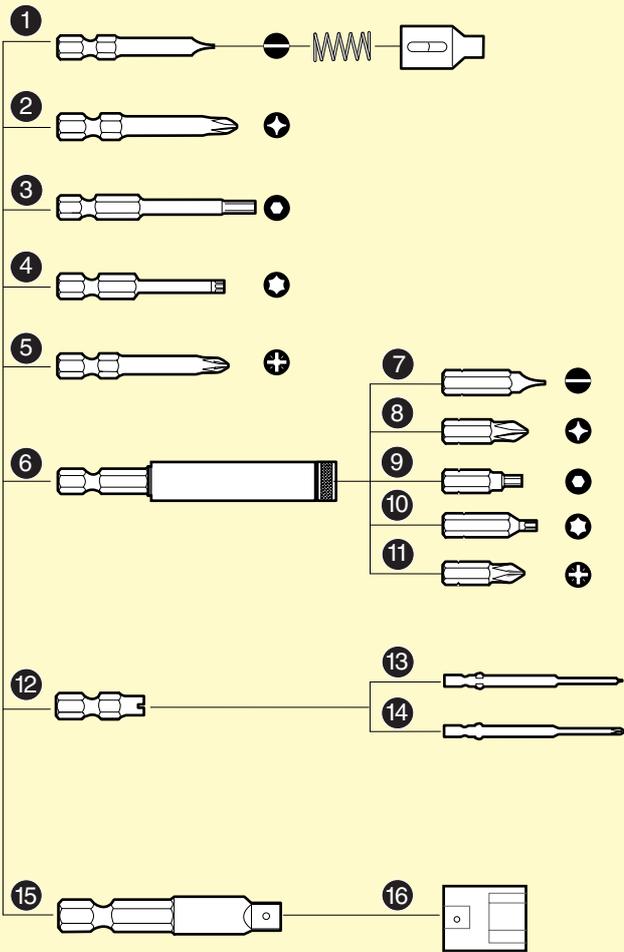
Stand Alone system – quick, easy and powerful.

BITS AND POWER SOCKETS

With options

ACCESSORIES FOR SCREWDRIVERS

ACCESSORIES FOR NUTRUNNERS



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The accessories indicated with * are available from stock, with the exception of intermediate sales.

Medium hard contra extra hard bits

Medium hard bits are recommended for driving standard (soft) screws and for impact use.
Extra hard bits are for driving heat treated or case hardened screws.

Torx® is a registered trademark of Camcar Div., Textron Inc. ACR® and Pozidriv® are registered trademarks of Phillips Screw Company.

1. BITS AND FINDERS FOR SLOTTED SCREWS



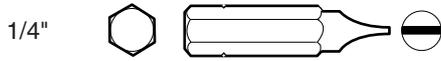
Application

Wood screw
Sheet metal screw
Machine threaded screw

Comments

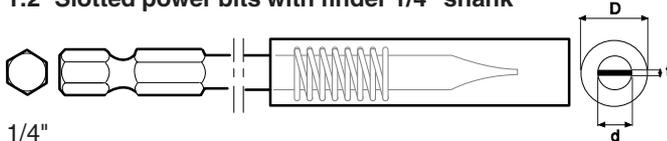
Screw inexpensive
Relatively difficult to fit (the slot is ruined)
Requires a finder for guidance

1.1 Slotted insert bits, 1/4" shank



Blade thickness mm	Blade width mm	Overall length mm	Ordering No. (Extra hard; Hardness = H _{RC} 59 - 63)
0.7	3.4	25	4023 1400 21*
0.8	3.9	25	4023 1400 22*
0.9	4.7	25	4023 1400 23*
1.0	5.5	25	4023 1400 26*
1.0	6.3	25	4023 1400 27*
1.1	7.0	25	4023 1400 28*
1.2	7.1	25	4023 1400 29*
0.9	4.7	38	4023 0699 01*
1.0	6.3	38	4023 0700 01*
1.1	7.0	38	4023 0701 01*
1.2	7.1	38	4023 1410 27*
1.4	9.1	38	4023 0847 01*

1.2 Slotted power bits with finder 1/4" shank



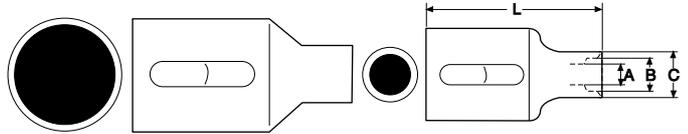
Sleeve outside dia D mm	Blade thickness t mm	Blade width d mm	Overall length mm	Ordering No. Complete bit with finder (Extra hard; Hardness = H _{RC} 59 - 63)
9.5	0.9	4.9	95	4023 0683 00*
11.1	1.0	6.1	93	4023 1313 00*
12.7	1.1	7.4	93	4023 0684 00*
14.3	1.2	8.9	96	4023 0949 00*
15.9	1.3	10.0	95	4023 0685 00*

1.3 Slotted power bits, 1/4" shank



Blade width / body dia. mm	Blade thickness mm	Overall length mm	Ordering No.	
			(Medium hard; Hardness = H _{RC} 52-56)	(Extra hard; Hardness = H _{RC} 59-63)
3.2	0.7	49		4023 2020 21*
3.9	0.8	49	4023 2020 03*	4023 2020 23*
4.7	0.9	49	4023 2020 04*	4023 2020 24*
5.4	0.9	49	4023 2020 05*	4023 2020 25*
6.3	1.0	49	4023 2020 06*	4023 2020 26*
7.0	1.1	49	4023 2020 07*	4023 2020 27*
7.9	1.2	49	4023 2020 08*	4023 2020 28*
9.1	1.3	49	4023 2020 09*	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*
5.4	0.9	76		4023 2030 25*
6.3	1.0	76		4023 2030 26*
7.0	1.1	76		4023 2030 27*
7.9	1.2	76		4023 2030 28*
9.1	1.3	76		4023 2030 29*

1.4 Bit finders for slotted power bits^a



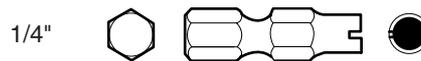
A mm	B mm	C mm	Overall length L mm	Ordering No.
3.3	5.5	7.6	30	4023 3020 01*
4.1	5.4	7.6	30	4023 3020 03*
4.9	6.2	8.4	30	4023 3020 04*
5.7	8.0	10.2	30	4023 3020 05*
6.6	9.0	11.0	30	4023 3020 06*
7.2	9.8	11.8	30	4023 3020 07*
8.1	10.3	12.3	30	4023 3020 08*
9.4	12.0	14.0	30	4023 3020 09*
3.3	5.5	7.6	57	4023 3030 01*
4.1	5.4	7.6	57	4023 3030 03*
4.9	6.2	8.4	57	4023 3030 04*
5.7	8.0	10.0	57	4023 3030 05*
6.6	9.0	11.0	57	4023 3030 06*
7.2	9.8	11.8	57	4023 3030 07*
8.1	10.3	12.3	57	4023 3030 08*
9.4	12.0	14.0	57	4023 3030 09*

^a The bit finders should only be used with screwdriver option 4210 2906 80. This option is available for LUM10, LUM21 and LUM25.

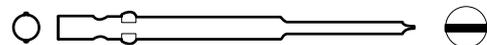
Spring for all bit finders
Ordering No. 4210 1250 00



1.5 1/4" shank adapter



1.6 Slotted power bits, reduced nose diameter



Power bit			Shank adapter		
Blade thickness mm	Blade width mm	Overall length mm	Ordering No.	Shank in	Ordering No.
0.28	1.3	60	4023 1327 01*	1/4	4220 0105 00*
0.30	1.7	60	4023 1327 02*	1/4	4220 0105 00*
0.40	2.0	60	4023 1327 03*	1/4	4220 0105 00*
0.40	2.5	60	4023 1327 04*	1/4	4220 0105 00*

* Available directly from stock.

2. BITS FOR PHILLIPS SCREWS



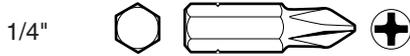
Application

Wood screw
Sheet metal screw
Board screw
Machine threaded screw

Comments

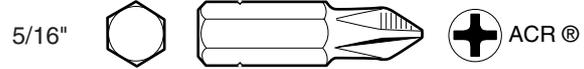
ACR®Phillips eliminates "cam-out", screws torque down correct the first time. Angle drive up to 6 degrees. Corrosion, temperature build up and painted screws are easier to remove.

2.1 Phillips insert bits, 1/4"



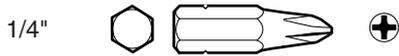
Point size	Overall length mm	Ordering No.	
		(Medium hard; Hardness = H _{RC} 52 - 56)	(Extra hard; Hardness = H _{RC} 59 - 63)
0	25	—	4023 1326 00*
1	25	4023 0696 00*	4023 0696 01*
2	25	4023 0697 00*	4023 0697 01*
2	51	—	4023 1421 03*
2	63	—	4023 1421 05*
3	25	4023 0698 00*	4023 0698 01*
4	32	—	4023 1421 20*

2.5 ACR®Phillips insert bits, 5/16" shank



Point size	Overall length mm	Ordering No.
		Installation/Removal (Extra hard; Hardness = H _{RC} 59 - 63)
2	32	4023 1422 52*

2.2 Phillips insert bits 1/4" shank, reduced nose diameter



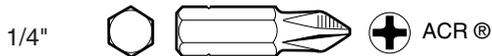
Point size	Overall length mm	Ordering No.
		(Extra hard; Hardness = H _{RC} 59 - 63)
1	25	4023 1420 01*
2	25	4023 1420 03*

2.6 Phillips power bits, 1/4" shank



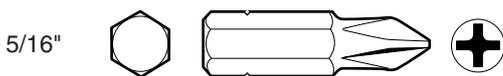
Point size	Overall length mm	Body diameter mm	Ordering No.	
			(Medium hard; Hardness = H _{RC} 52-56)	(Extra hard Hardness = H _{RC} 59-63)
0	49	3.2	4023 1305 00*	4023 1325 00*
1	49	4.7	4023 2320 01*	4023 2320 21*
1	70	4.7	4023 2327 01*	4023 2327 21*
1	89	4.7	4023 2335 01*	4023 2335 21*
1	152	4.7	4023 2360 01*	4023 2360 21*
2	49	6.3	4023 2320 02*	4023 2320 22*
2	70	6.3	4023 2327 02*	4023 2327 22*
2	89	6.3	4023 2335 02*	4023 2335 22*
2	152	6.3	4023 2360 02*	4023 2360 22*
3	49	6.3	4023 2320 03*	4023 2320 23*
3	70	6.3	4023 2327 03*	4023 2327 23*
3	89	6.3	4023 2335 03*	4023 2335 23*
3	152	6.3	4023 2360 03*	4023 2360 23*

2.3 ACR®Phillips insert bits, 1/4" shank



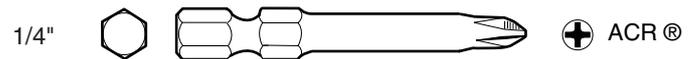
Point size	Overall length mm	Ordering No.
		Installation/Removal (Extra hard; Hardness = H _{RC} 59 - 63)
1	25	4023 1420 51*
2	25	4023 1420 52*
3	25	4023 1420 53*

2.4 Phillips insert bits, 5/16" shank



Point size	Overall length mm	Ordering No.
		(Extra hard; Hardness = H _{RC} 59 - 63)
1	32	4023 1422 11*
2	32	4023 0726 11*
3	32	4023 0727 11*
4	32	4023 0728 11*

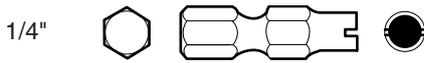
2.7 ACR®Phillips power bits, 1/4" shank



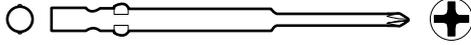
Point size	Overall length mm	Body diameter mm	Ordering No.
			Installation/Removal (Extra hard; Hardness = H _{RC} 59 - 63)
1	49	4.8	4023 2320 51*
1	89	4.7	4023 2335 51*
2	49	6.3	4023 2320 52*
2	89	6.3	4023 2335 52*
3	49	6.3	4023 2320 53*
3	89	6.3	4023 2335 53*

* Available directly from stock.

2.8 Shank adapter 1/4"



2.9 Power bit for Phillips screw, reduced nose dia.



Power bit				Shank adapter	
Point size	Nose diameter	Overall length	Ordering No.	Shank in	Ordering No.
00	1.5	60	4023 1328 01*	1/4	4220 0105 00*
0	2.0	60	4023 1328 02*	1/4	4220 0105 00*

3. BITS FOR ALLEN HEAD SCREWS



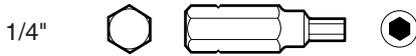
Application

Machine threaded screw

Comments

Screw requires a certain axial force
Difficult to enter

3.1 Allen head insert bits, 1/4" shank^a



Hex size mm	Overall length mm	Ordering No. (Extra hard; Hardness = H _{RC} 59 - 63)	Hex size in	Ordering No. (Extra hard; Hardness = H _{RC} 59 - 63)
2	25	4023 1318 00*	3/32	4023 1430 23*
2.5	25	4023 1319 00*	7/64	4023 1430 24*
3	25	4023 0819 00*	1/8	4023 1430 25*
4	25	4023 1320 00*	9/64	4023 1430 26*
5	25	4023 0820 00*	5/32	4023 0705 00*
6	25	4023 0821 00*	3/16	4023 0706 00*
7	25	4023 1430 00*	7/32	4023 0848 00*
8	25	4023 0905 00*	1/4	4023 0944 00*

3.3 Allen head power bits, 1/4" shank^a



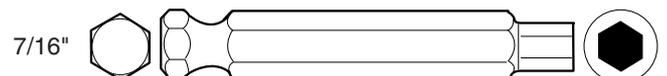
Hex size mm	Overall length mm	Ordering No. (Extra hard; Hardness = H _{RC} 59 - 63)	Hex size in	Ordering No. (Extra hard; Hardness = H _{RC} 59 - 63)
2	49	4023 1311 00*	5/32	4023 0681 00*
2.5	49	4023 1312 00*	3/16	4023 0682 00*
3	49	4023 0710 00*	7/32	4023 0846 00*
4	49	4023 0711 00*	1/4	4023 0942 00*
5	49	4023 0712 00*		
6	49	4023 0906 00*		
8	49	4023 1369 00*		
10	49	4023 1370 00*		

3.2 Allen head insert bits, 5/16" shank^a



Hex size mm	Overall length mm	Ordering No. (Extra hard; Hardness = H _{RC} 59 - 63)
5	29	4023 1215 00*
6	29	4023 1216 00*
7	29	4023 1219 00*
8	29	4023 1217 00*
10	29	4023 1218 00*

3.4 Allen head power bits, 7/16" shank^a



Hex size mm	Overall length mm	Ordering No. (Extra hard; Hardness = H _{RC} 59 - 63)
5	89	4023 0800 00*
6	89	4023 0801 00*
8	89	4023 0802 00*
10	89	4023 0760 00*

^a The hexagon shank can in some cases be longer than in the illustration.

* Available directly from stock.

4. BITS FOR TORX®SCREWS



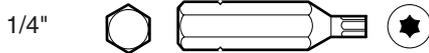
Application

Machine threaded screw
Sheet metal screw

Comments

Screw relatively expensive. Easy to fit. Saves bits. Easy to enter.
Low axial force needed. Can transmit relatively high torques.

4.1 Torx® insert bits 1/4" shank



Point size mm	Overall length mm	Ordering No. (Medium hard; Hardness = H _{RC} 52 - 56)
T8	25	4023 1329 00*
T9	25	4023 1330 00*
T10	25	4023 1321 00*
T15	25	4023 1331 00*
T20	25	4023 1322 00*
T25	25	4023 1332 00*
T27	25	4023 1333 00*
T30	25	4023 1323 00*
T40	25	4023 1334 00*

4.2 Torx® power bits 1/4" shank



Point size	Overall length mm	Body diameter mm	Ordering No. (Medium hard; Hardness = H _{RC} 52 - 56)
T8	49	3.2	4023 2220 21*
T8	89	3.2	4023 2235 21*
T9	49	3.2	4023 2220 22*
T9	89	4.0	4023 2235 22*
T10	49	3.2	4023 2220 23*
T10	89	4.0	4023 2235 23*
T15	49	4.0	4023 2220 24*
T15	89	4.7	4023 2235 24*
T20	49	4.7	4023 2220 25*
T20	89	4.7	4023 2235 25*
T25	49	4.7	4023 2220 26*
T25	89	4.7	4023 2235 26*
T27	49	6.3	4023 2220 27*
T27	89	6.3	4023 2235 27*
T30	49	6.3	4023 2220 28*
T30	89	6.3	4023 2235 28*
T40	89	6.7	4023 2235 29*

5. BITS AND FINDERS FOR POZIDRIV®SCREWS



Application

Wood screw
Sheet metal screw

Comments

(Anti Camout Ribs) eliminates "cam-out", screws torqued down correct the first time. Angle drive up to 6 degrees. Corrosion, temperature build up and painted screws are easier to remove.

5.1 Pozidriv® insert bits 1/4" shank

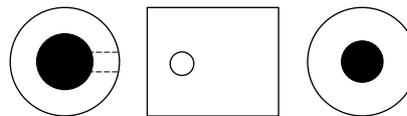


Point size	Overall length mm	Ordering No.	
		(Medium hard; Hardness = H _{RC} 52 - 56)	(Extra hard; Hardness = H _{RC} 59 - 63)
1	25	4023 1101 01*	4023 1101 11*
2	25	4023 1101 02*	4023 1101 12*
3	25	4023 1101 03*	4023 1101 13*

5.4 Pozidriv® power bits, 1/4" shank



5.5 Bit guides for Pozidriv®bits ^a

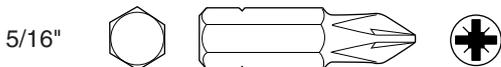


5.2 ACR®Pozidriv® insert bits, 1/4" shank



Point size mm	Overall length mm	Ordering No. (Extra hard; Hardness = H _{RC} 59-63)
1	25	4023 1101 21*
2	25	4023 1101 22*
3	25	4023 1101 23*

5.3 Pozidriv® insert bits, 5/16" shank



Point size mm	Overall length mm	Ordering No. (Extra hard; Hardness = H _{RC} 59-63)
2	32	4023 1108 02*
3	32	4023 1108 13*
4	32	4023 1108 04*

Point size	Overall length mm	Body dia mm	Power bits		Bit guides	
			(Medium hard; Hardness = H _{RC} 52 - 56)	(Extra hard; Hardness = H _{RC} 59 - 63)	Internal dia mm	Ordering No.
1	49	4.7	4023 2420 01*	4023 2420 21*	4.9	4023 3320 01*
1	70	4.7	4023 2427 01*	4023 2427 21*	4.9	4023 3320 01*
1	89	4.7	4023 2435 01*	4023 2435 21*	4.9	4023 3320 01*
2	49	6.3	4023 2420 02*	4023 2420 22*	6.5	4023 3320 02*
2	70	6.3	4023 2427 02*	4023 2427 22*	6.5	4023 3320 02*
2	89	6.3	4023 2435 02*	4023 2435 22*	6.5	4023 3320 02*
3	49	6.3	4023 2420 03*	4023 2420 23*	6.5	4023 3320 02*
3	70	6.3	4023 2427 03*	4023 2427 23*	6.5	4023 3320 02*
3	89	6.3	4023 2435 03*	4023 2435 23*	6.5	4023 3320 02*

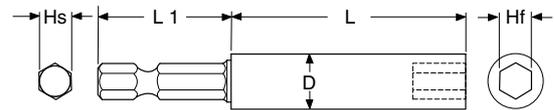
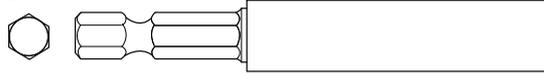
^a The bit guides should only be used with screwdriver option 4210 2906 80. This option is available for LUM10, LUM21 and LUM25.

* Available directly from stock.

6. INSERT BIT HOLDERS



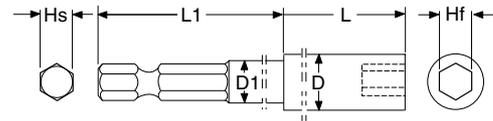
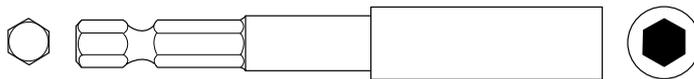
6.1 Type 1



Hex shank Hs	Hex female Hf	Diameter D mm	Length L mm	Length 1 L1 mm	Magnetic	Ordering No.
1/4	1/4	11.0	50.5	25.4	Yes	4023 1440 01*
1/4	5/16	12.7	54.0	27.0	Yes	4023 1440 02*
5/16	1/4	11.1	47.6	28.6	Yes	4023 1440 03*
5/16*	1/4	9.5	44.4	28.6	Yes	4023 1324 00*

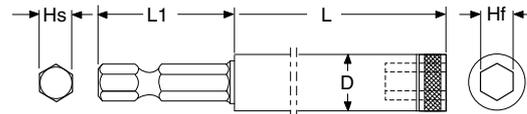
* Desoutter drive.

6.2 Type 2



Hex shank Hs	Hex female Hf	Diameter D mm	Diameter 1 D1 mm	Length L mm	Length 1 L1 mm	Magnetic	Ordering No.
1/4	1/4	9.5	7.9	47.8	53.8	Yes	4023 1208 00*
1/4	1/4	9.5	7.9	47.8	104.8	Yes	4023 1209 00*
1/4	1/4	11.1	7.9	18.0	36.0	No	4023 1100 00*
1/4	1/4	11.1	7.9	25.4	76.2	No	4023 1206 00*
1/4	1/4	11.1	7.9	25.4	127.0	No	4023 1207 00*

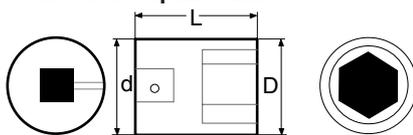
6.3 Type 3



Hex shank Hs	Hex female Hf	Diameter D mm	Length L mm	Length 1 L1 mm	Magnetic	Ordering No.
1/4	1/4	9.4	35.7	25.4	Yes	4023 1353 00*
1/4	1/4	9.4	50.0	25.4	Yes	4023 0707 00*

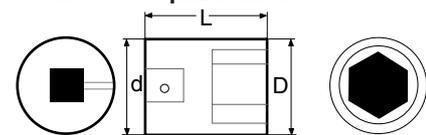
7. POWER SOCKETS

7.1 Power socket 1/4" square drive



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

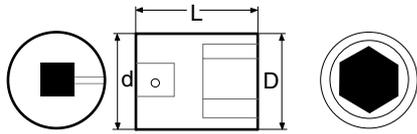
7.2 Power socket 3/8" square drive



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

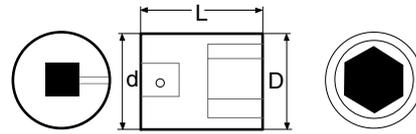
* Available directly from stock.

7.3 Power socket 1/2" square drive



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

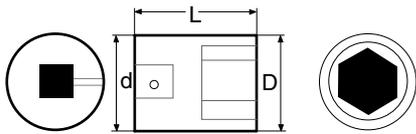
7.5 Power socket 1" square drive



1"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin ^a and O-ring ref. letter
mm	24	42	54	58	4026 2524 00*	C
mm	27	46	54	58	4026 2527 00*	C
mm	30	50	54	60	4026 2530 00*	C
mm	32	52	54	60	4026 2532 00*	C
mm	34	55	54	60	4026 2534 00*	C
mm	36	57	54	65	4026 2536 00*	C
mm	41	64	54	67	4026 2541 00*	C
mm	46	69.5	54	74	4026 2546 00*	C
mm	50	75	54	80	4026 2550 00*	C
mm	55	81	54	84	4026 2555 00*	C
mm	60	87	54	87	4026 2560 00*	C
mm	65	93	54	90	4026 2565 00*	C
in	15/16	42	54	58	4026 2524 00*	C
in	1 1/8	46	54	58	4026 2636 00	
in	1 5/16	53	51	62	4026 2642 00	
in	1 1/2	58	52	62	4026 2648 00*	
in	1 11/16	65	52	64	4026 2654 00	
in	1 7/8	70	58	66	4026 2660 00	
in	2 1/16	75	58	76	4026 2666 00	

^a Pin and o-ring see table 13.

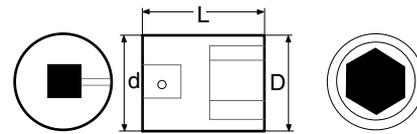
7.4 Power socket 3/4" square drive



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

^a Pin and o-ring see table 13.

7.6 Power socket 1 1/2" square drive

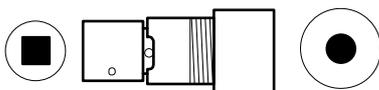


1 1/2"	Width across flats	D mm	d mm	Overall length L mm	Ordering No.	Pin ^a and O-ring ref. letter
mm	50	81.5	86	87	4026 3850 00*	F
mm	55	87.5	86	90	4026 3855 00*	F
mm	60	94	86	95	4026 3860 00*	F
mm	65	100	86	100	4026 3865 00*	F
mm	70	106	86	105	4026 3870 00*	F
mm	75	112	86	110	4026 3875 00*	F
mm	80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

^a Pin and o-ring see table 13.

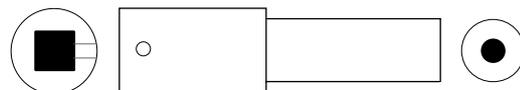
8. STUD SETTER

8.1 Stud setter



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

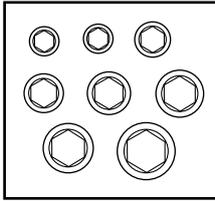
8.2 Stud setter, complete unit



Square drive in	Overall length mm	Body diameter mm	Thread	Ordering No.
3/8	55	19	M6	4023 0752 06*
3/8	55	19	M8	4023 0752 08*
1/2	65	24	M10	4023 0752 10*
1/2	65	24	M12	4023 0752 12*

* Available directly from stock.

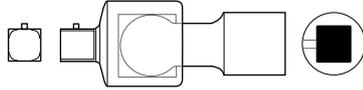
9. POWER SOCKET SETS



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

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

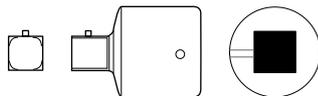
10. UNIVERSAL JOINTS



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

^a Pin and o-ring see table 13.

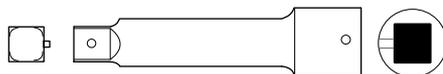
11. SOCKET ADAPTERS



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin ^a and O-ring ref. letter
1/2	3/8	23	35	4023 1153 00	
3/8	1/2	24	39	4023 1154 00	
5/8	1/2	29	43	4023 1155 00	
1/2	5/8	32	49	4023 0733 00	
3/4	5/8	38	54	4023 1156 00	
1/2	3/4	38	57	4023 0909 00	A
1	3/4	44	65	4023 1157 00	B
3/4	1	54	75	4023 0868 00	C
1	1 1/2	83	100	4023 1314 00	F

^a Pin and o-ring see table 13.

12. EXTENSIONS



Male square in	Square drive in	Diameter mm	Length mm	Ordering No.	Pin ^a and O-ring ref. letter
3/8	3/8	21	152	4023 1164 06*	
1/2	1/2	27	127	4023 0734 00*	
1/2	1/2	27	254	4023 0735 00*	
5/8	5/8	33	152	4023 0749 00*	
3/4	3/4	38.5	178	4023 0854 00*	A
3/4	3/4	38.5	330	4023 0855 00*	A
1	1	54	178	4023 0751 00*	C
1	1	54	330	4023 0867 00*	C
1 1/2	1 1/2	88	330	4023 1315 00*	G

^a Pin and o-ring see table 13.

13. LOCKING PINS AND O-RINGS FOR 7.4, 7.5, 7.6, 10, 11, 12



Ref. letter	Locking pin		O-ring		Pin and O-ring Ordering No.
	Diameter mm	Length mm	Diameter mm	Inner diameter mm	
A ^b	4	35	5	33	4026 5000 90*
B	4	45	5	33	4026 5000 91*
C	5	45	6	44	4026 5000 92*
D	5	60	6	59	4026 5000 93*
E	5	70	6	65	4026 5000 94*
F	6	75	6	65	4026 5000 95*
G	6	75	6	79	4026 5000 96*
H	6	95	6	94	4026 5000 97*

^b B type pin also included.

14. POWER SOCKET HOLDERS

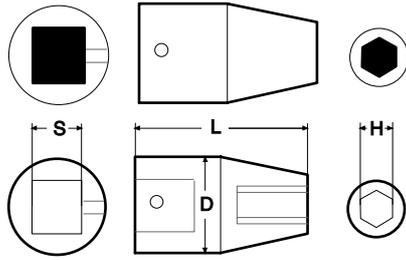


Hex in	Square in	Length mm	Ordering No.
1/4	1/4	50.8	4023 0686 00*
1/4	1/4	76.2	9721 4234 00*
1/4	1/4	101.6	4023 0687 00*
1/4	1/4	152.4	4023 1203 00*
1/4	3/8	50.8	4023 0907 00*
1/4	3/8	76.2	9721 4235 00*
1/4	3/8	101.6	4023 1204 00*
7/16	3/8	76.2	4023 1210 03*
7/16	1/2	70.0	4023 1211 03*

* Available directly from stock.

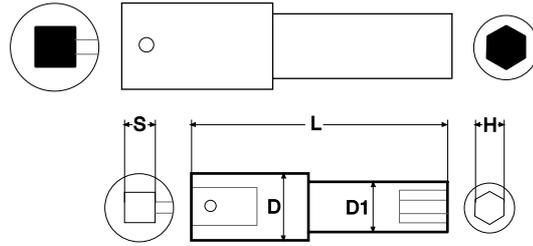
15. BITHOLDER FOR INSERT BITS

15.1 Type A



Square S in	Hex H in	Magnetic	Diameter D mm	Length L mm	Ordering No.
3/8	1/4	No	19	33	4023 0793 00*
3/8	5/16	No	19.9	33	4023 0948 00*
1/2	1/4	No	22.1	37.8	4023 1446 06*
1/2	5/16	No	23.8	38.1	4023 0725 00*

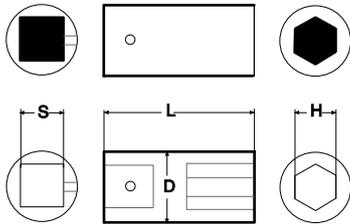
15.3 Type C



Square S in	Hex H in	Magnetic	Diameter D mm	Diameter D1 mm	Length L mm	Ordering No.
1/4	1/4 ^a	Yes	12.6	11.1	58	4023 1448 01*
3/8	1/4	Yes	16.9	11.1	52.4	4023 1448 02*
1/2	1/4	Yes	22.3	14.9	38.3	4023 1448 04

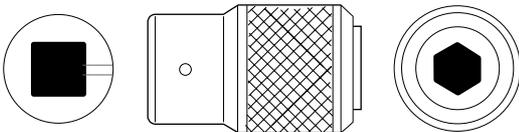
^a With front nut.

15.2 Type B



Square S in	Hex H in	Magnetic	Diameter D mm	Length L mm	Ordering No.
1/4	1/4	No	12	25.2	4023 0695 00*

16. QUICK CHANGE CHUCK FOR POWER BITS



Square drive in	Female hex in	Ordering No.
3/8	1/4	4023 1380 00*
3/8	5/16	4023 1382 00*
3/8	7/16	4023 1317 80*
1/2	7/16	4023 0737 00*

* Available directly from stock.

TORQUE ARMS

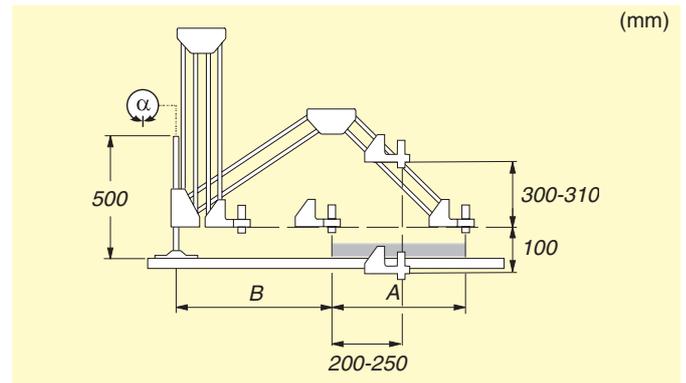
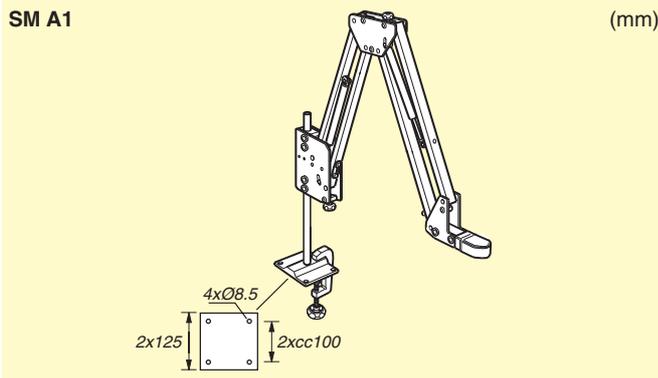
SM A1 Parallel arm for 50 Nm

Atlas Copco torque arm SM A1 is an excellent means of assistance when using hand-held straight or pistol grip tools e.g. screwdrivers, nutrunners, thread inserts etc.

The torque arms in the SM A1 series are made for heavy duty applications where the tool torque is limited to 50 Nm.

Tool weight should be in the range 1 to 4 kg. In order to balance the tool weight in a proper and durable way the arms are equipped with gas spring cylinders.

A table stand is included as standard. Tool holder and table stand clamp have to be ordered separately.



Model	Tool weight Max. kg	Tool torque Nm	Tool diameter mm	Working range		alfa	Ordering No.
				A mm	B mm		
SM A1-400-2	1-2	50	40-60	0-400	600	360°	8202 9000 15*
SM A1-400-3	2-3	50	40-60	0-400	600	360°	8202 9000 16*
SM A1-400-4	2.5-4	50	40-60	0-400	600	360°	8202 9000 19*
SM A1-500-2	1-2	50	40-60	0-500	700	360°	8202 9000 17*
SM A1-500-3	1.5-3	50	40-60	0-500	700	360°	8202 9000 18*

OPTIONAL

Tool holders and accessories for SM A1

Description	Ordering No.
Adjustable vertical tool holder Ø 40-50 mm Ø 50-60 mm	4390 1735 07* 4390 1735 08*
Horizontal turnable tool holder Ø 40-50 mm Ø 50-60 mm	4390 1735 09* 4390 1735 35

Description	Ordering No.
Heavy duty 22-82 mm table stand clamp	4390 1734 02*
Wall mounted stand with four 8.5 mm mounting holes	4390 1735 50
Table stand 800 mm	4390 1736 10
Accessories check list: • Tool holder? • Table stand clamp?	

* Available directly from stock.

TORQUE ARMS

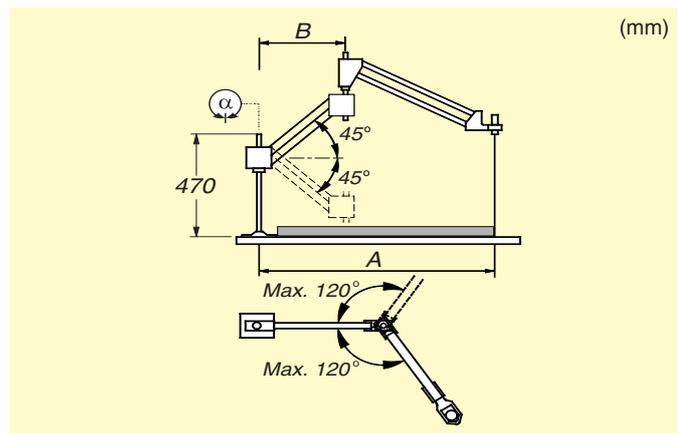
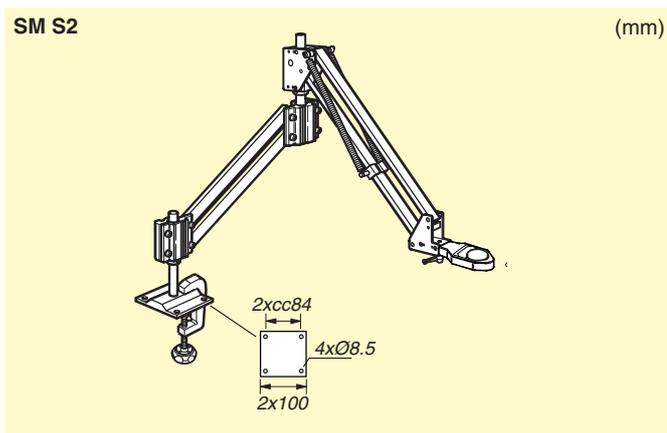
SM S2 Parallel arm for max 20 Nm

Atlas Copco torque arm SM S2 is an excellent means of assistance when using hand-held straight or pistol grip tools e.g. screwdrivers, nutrunners, thread inserts etc.

Torque arm SM S2 is recommended when there is a lot of free space and a large working area is required. The SM S2 is exceptionally easy to position and handle. The design is intended for heavy duty operations over a long period of time. The open angle between jib and arm should not exceed 120°.

Tool weights should be in the range 0 to 2.5 kg. In order to handle weights in the range 1-2.5 kg special springs are supplied as standard.

A table stand is included as standard. Tool holder and table stand clamp have to be ordered separately.



Model	Tool weight Max. kg	Tool torque Nm	Tool diameter mm	Working range		alfa	Ordering No.
				A mm	B mm		
SM S2-750	2.5	20	25-50	0-750	410	360°	8202 9000 12*
SM S2-900	2.5	20	25-50	0-900	410	360°	8202 9000 21*

OPTIONAL

Tool holders and accessories for SM S2 and SM A2 (to be continued on page 127)

Description	Ordering No.
Adjustable vertical tool holder Ø 25-40 mm	4390 1734 04*
	4390 1734 05*
Two-axis turnable tool holder with adjustable turning torque	Ø 36 mm 4390 1734 06*
	Ø 38 mm 4390 1735 34*
	Ø 46 mm 4390 1734 07*
	Ø 56 mm 4390 1735 36*
Vertical extension for SM A2/SM S2 700 mm	4390 1735 46*
Vertical telescope extension for SM A2/SM S2 400 mm-750 mm	4390 1735 47

Description	Ordering No.
Horizontal turnable tool holder	Ø 36 mm 4390 1735 10*
	Ø 38 mm 4390 1735 03*
	Ø 46 mm 4390 1735 05*
	Ø 56 mm 4390 1735 37
	Vertical tool holder
Ø 36 mm	4390 1735 04*
Ø 38 mm	4390 1735 30*
Ø 46 mm	4390 1735 00*
Ø 56 mm	4390 1735 38*

* Available directly from stock.

TORQUE ARMS

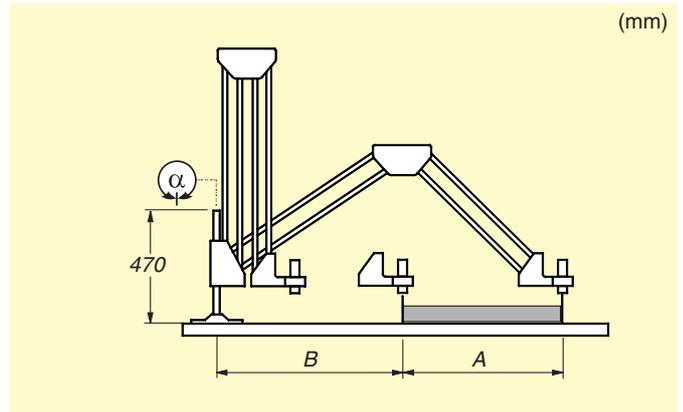
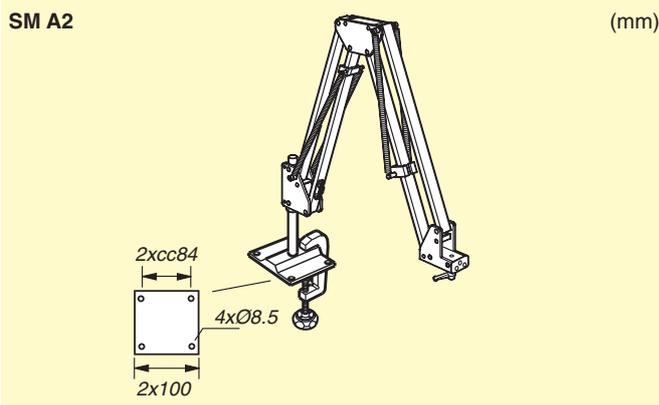
SM A2 Parallel arm for max 20 Nm

Atlas Copco torque arm SM A2 is an excellent means of assistance when using hand-held straight or pistol grip tools e.g. screwdrivers, nutrunners, thread inserts etc.

Torque arms in the SM A2 series are recommended when there is a lot of equipment on the working bench and the space is limited. The SM A2 is exceptionally easy to position and handle. The design is intended for heavy duty operations over a long period of time. Tool torque should not exceed 20 Nm.

Tool weight should be in the range 0 to 2 kg for SM A2-300 and 0 to 2.5 kg for SM A2-400.

A table stand is included as standard. Tool holder and table stand clamp have to be ordered separately.



Model	Tool weight Max. kg	Tool torque Nm	Tool diameter mm	Working range		alfa	Ordering No.
				A mm	B mm		
SM A2-Complete ^a	2	20	25-40	0-300	400	360°	8202 9000 20*
SM A2-300	2	20	25-50	0-300	400	360°	8202 9000 10*
SM A2-400	2.5	20	25-50	0-400	450	360°	8202 9000 11*

^a SM A2-Complete includes adjustable vertical tool holder Ø 25-40 mm and a heavy duty 22-82 mm table stand clamp.

OPTIONAL

Tool holders and accessories for SM A2 and SM S2 (continued from page 126)

	Description	Ordering No.
	Horizontal two-axis turnable tool holder	
	Ø 36 mm	4390 1735 11*
	Ø 38 mm	4390 1735 02*
	Ø 46 mm	4390 1735 06*
	Heavy duty 22-82 mm table stand clamp	4390 1734 02*

	Description	Ordering No.
	Wall mounted stand with two 8.5 mm mounting holes	4390 1734 01*
	Special adapters for Atlas Copco screwdrivers, see page 127.	
	Accessories check list:	
	• Tool holder?	
	• Wall mounted stand?	
	• Table stand clamp?	
	• Special adapters?	

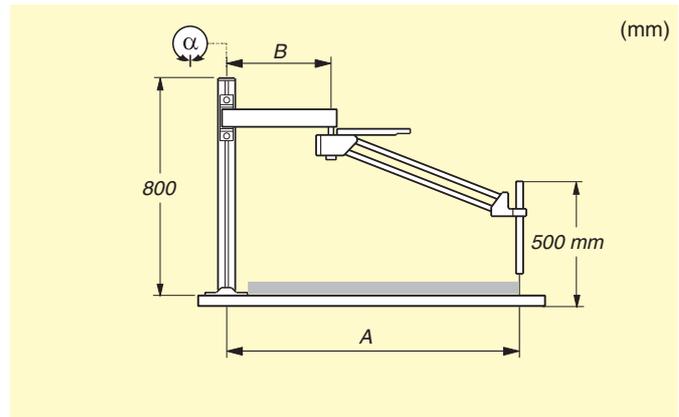
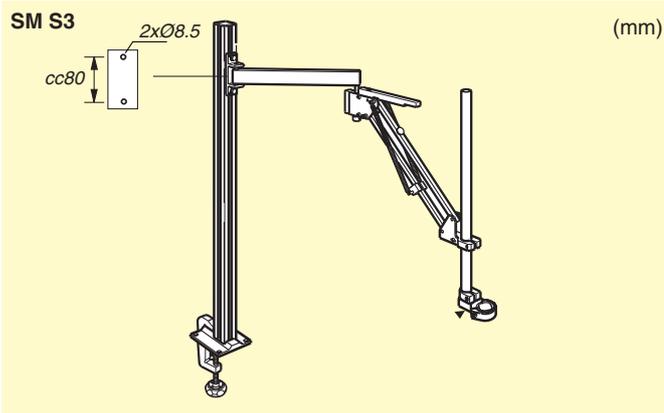
* Available directly from stock.

TORQUE ARMS

SM S3 Parallel arm for max 3.5 Nm and large working area
Atlas Copco torque arm SM S3 is an excellent means of assistance when using hand-held straight screwdrivers.

Torque arms SM S3 have a large working range and are exceptionally easy to position and handle. The design is intended for heavy duty operations over a long period of time. Tool torque should not exceed 3.5 Nm.

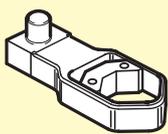
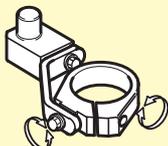
Tool weight should be in the range 0 to 1 kg. In order to handle weights in the range 0.6-1 kg special springs are supplied with the torque arm as standard. A wall mounting bracket is included as standard. Tool holder, table stand and table stand clamp have to be ordered separately.

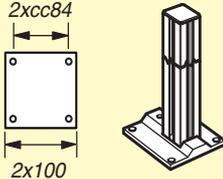


Model	Tool weight Max. kg	Tool torque Nm	Tool diameter mm	Working range		alfa	Ordering No.
				A mm	B mm		
SM S3-750	1	3.5	25-50	0-700	400	180°	8202 9000 13*
SM S3-900	1	3.5	25-50	0-850	550	180°	8202 9000 14*

OPTIONAL

Tool holders and accessories for SM S3 (to be continued on page 129)

Description	Ordering No.
 Adjustable vertical tool holder Ø 25-40 mm 4390 1735 12* Ø 40-50 mm 4390 1735 13	
 Two-axis turnable tool holder with adjustable turning torque Ø 36 mm 4390 1735 14 Ø 38 mm 4390 1735 31 Ø 46 mm 4390 1735 15* Ø 56 mm 4390 1735 40	

Description	Ordering No.
 Heavy duty 22-82 mm table stand clamp 4390 1734 02*	
 Table stand with four 8.5 mm mounting holes 4390 1734 03*	
Special adapters for Atlas Copco screwdriver LUM25 PR-P, LUM10 PR and ELI see page 127.	

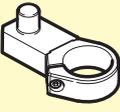
* Available directly from stock.

TORQUE ARMS

OPTIONAL

Tool holders and accessories for SM S3 (begins at page 128)

	Description	Ordering No.
	Horizontal turnable tool holder	
	Ø 36 mm	4390 1735 16
	Ø 38 mm	4390 1735 17
	Ø 46 mm	4390 1735 18
	Ø 56 mm	4390 1735 41
	Horizontal two-axis turnable tool holder	
	Ø 36 mm	4390 1735 19
	Ø 38 mm	4390 1735 20
	Ø 46 mm	4390 1735 21
	Ø 56 mm	4390 1735 43

	Description	Ordering No.
	Vertical tool holder	
	Ø 36 mm	4390 1735 22
	Ø 38 mm	4390 1735 32
	Ø 46 mm	4390 1735 23*
	Ø 56 mm	4390 1735 42
	Special adapters for Atlas Copco screwdriver LUM25 PR-P, LUM10 PR and ELI see below:	
Accessories check list:		
	• Tool holder?	• Table stand?
	• Table stand clamp?	• Special adapters?

Special adapters for Atlas Copco screwdrivers. To be used with torque arms SM S2, SM A2 and SM S3.

	Description	Ordering No.
	Adapter for Atlas Copco screwdriver LUM25 PR-P ^a	4390 1735 01*
	Adapter for Atlas Copco screwdriver LUM25 SR ^b	4390 1735 48*
	Adapter for Atlas Copco screwdriver LUM12 PR ^c	4390 1736 11
	Adapter for Atlas Copco screwdriver LUM10 PR ^a	4390 1734 09*
	Adapter for Atlas Copco screwdriver ELI ^a	4390 1734 08*

	Description	Ordering No.
	Adapter for Atlas Copco screwdriver LUM21 PR-P ^a	4390 1735 44*
	Adapter for Atlas Copco screwdriver LUM21 SR ^b	4390 1735 45*

^a To be used together with a Ø 46 mm tool holder.

^b To be used together with a Ø 56 mm tool holder.

^c To be used together with a Ø 36 mm tool holder.

* Available directly from stock.

Tool holder diameter for various Atlas Copco screwdrivers

LUM21 HR-U	38 mm
LUM24B HR	38 mm
LUM25 HRF-U	38 mm
LUF20 PR	36 mm

TORQUE ARMS

SM 27 Single arm up to 27 Nm

The SM 27 arm is designed for use with straight screwdrivers.

The use of a support to take up the torque is recommended when the torque level on straight screwdrivers exceeds 4 Nm.

SM 27 can also be used with pistol grip tools.

Fully-articulated to allow true three-dimensional positioning of the tool. Special bearing design allows ease of movement.

Springs are easily adjusted to the weight of the tool.

Height and adapter sleeves are easily adjusted, making the SM 27 suitable for many tools. Air hose is easily integrated into the torque arm.

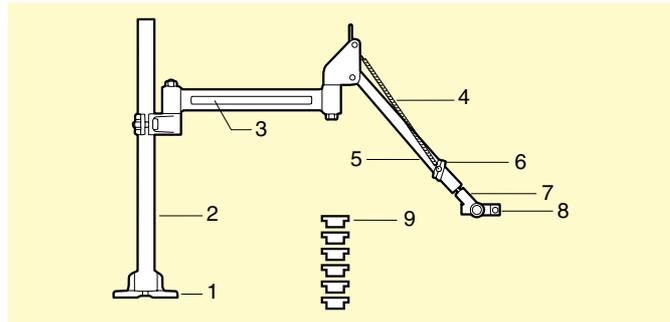
SM 27

Technical DATA

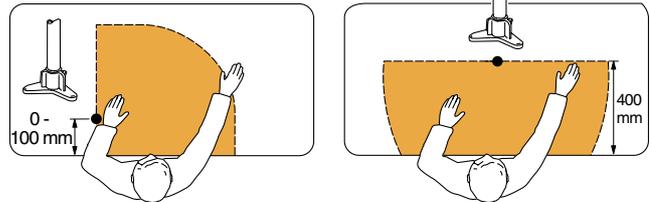
Torque, maximum	19.9 ft lb
Tool weight, maximum	5.5 lb
Tool diameter	27-41.5 mm

Materials

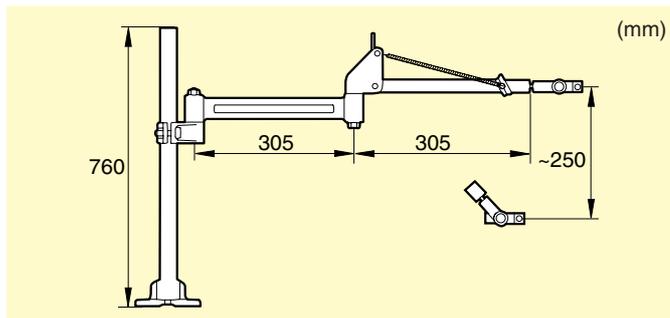
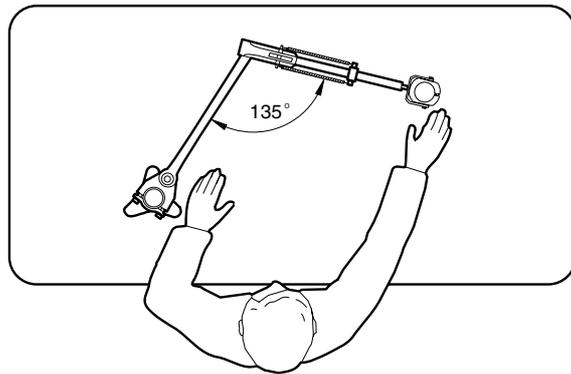
1 Mounting base	Steel
2 Column	Aluminium
3 Jib	Steel
4 Spring	Steel
5 Articulating arm	Aluminium
6 Spring retainer	Nylon
7 Clamp	Steel
8 Holder	Aluminium
9 Adapter sleeves (6 pieces)	Delrin



Recommended working area with SM 27.



Maximum open angle 135°

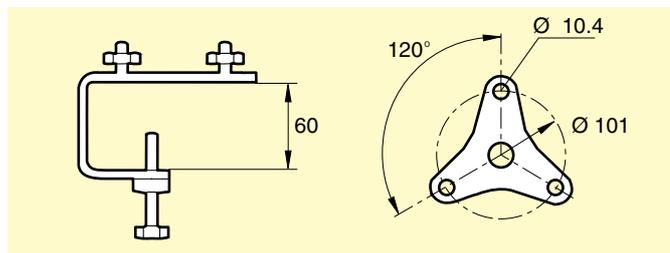


Accessories	Ordering No.
Bench clamp	8202 9000 03

ORDERING INFORMATION

SM 27 Ordering No. 8202 9000 01*

* Available directly from stock.





Quality Assurance in Tightening

Quality assurance – your competitive edge!

A loose or improperly tightened joint in any assembly operation can cause serious problems and have far-reaching consequences for end-users and manufacturers alike.

To ensure the right quality of your company's products, Atlas Copco has developed a comprehensive quality assurance system to meet torque, angle and pulse measurement requirements for all types of fastening tools.

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QUALITY ASSURANCE IN TIGHTENING

For measuring and analysing torque

ACTA 3000

The ACTA 3000 complemented by the PC program ToolsTalk ACTA provides you with a complete tool database in which you have easy access to all the information you need regarding torque measuring and analysing. The system cuts tool administration costs and systematically controls the status of your tools during their entire life cycle. It keeps track of tightening data, calibration data, service history, application analyses, purchase details, supplier information, etc. It controls and reminds when it is time for tool calibration and/or preventive maintenance (PM).

All data stored per tool in one place!

ACTA 3000 comes in three different models and can be upgraded depending on your needs:

Basic

Measures torque and angle. You can calibrate your tools and check basic statistics.

QC –Quality Control

Calculates all advanced statistics, including SPC, and has a database of up to 1000 tools/joints. This database includes information regarding tool programming, tightening and events.

AA –Advanced Analysis

Is the complete quality system. It offers all the above and shows an advanced tightening trace for joint analysis.

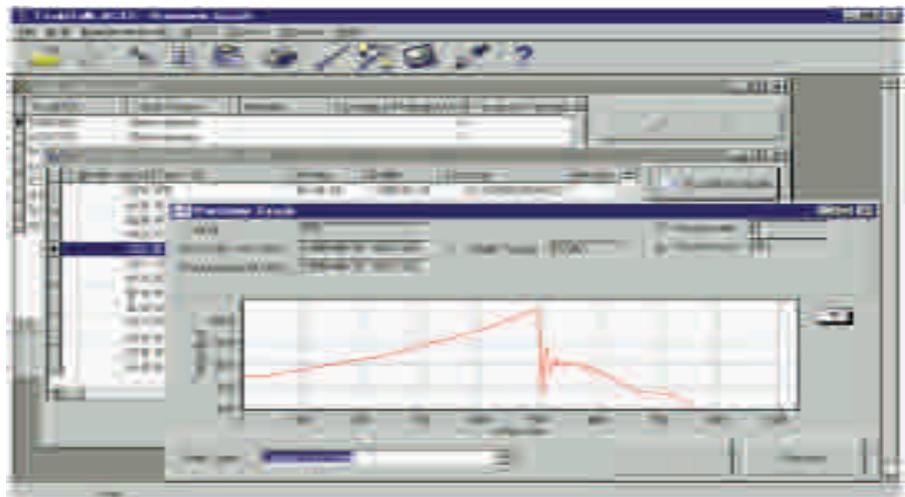


ACTA 3000

Model	Ordering No.
ACTA 3000 –Basic	8092 1133 20
ACTA 3000 –QC	8092 1133 30
ACTA 3000 –AA	8092 1133 40

ToolsTalk ACTA

The PC program ToolsTalk ACTA completes the quality assurance system to calculate and provide all the information you want regarding your tools. In ToolsTalk ACTA you manage your tools in a tool database, a tightening database and a supplier database. It enables advanced statistics/SPC and graphs.



Model	Ordering No.
ToolsTalk ACTA Single PC	8092 1136 01
ToolsTalk ACTA Network 5 users	8092 1136 05
ToolsTalk ACTA Network 10 users	8092 1136 10
ToolsTalk ACTA Network 20 users	8092 1136 20
ToolsTalk ACTA Network 50 users	8092 1136 50

Cable included.

Microsoft Windows NT4, 2000 or XP operating system.

QUALITY ASSURANCE IN TIGHTENING

For measuring and analysing torque

IRTT – in-line rotary torque and torque/angle transducers

The ACTA 3000 automatically reads the memory in Atlas Copco IRTT torque transducers. No manual calibration is needed. The IRTT has very high readout accuracy and is available in torque or torque/angle versions.



IRTT

Model	Drive		Rated capacity		Ordering No.	Model	Drive		Rated capacity		Ordering No.
	Hex in	Square in	Nm	ft lb			Hex in	Square in	Nm	ft lb	
Torque models						Torque/angle models					
IRTT 5-106	1/4		5	4	8092 1129 05	IRTT 1A-106	1/2		1	0.8	8092 1130 96
IRTT 20-106	1/4		20	15	8092 1129 10	IRTT 2A-106	1/2		2	1.5	8092 1130 01
IRTT 20-06		1/4	20	15	8092 1129 15	IRTT 5A-106	1/4		5	4	8092 1130 06
IRTT 25-10		3/8	25	18	8092 1129 20	IRTT 20A-106	1/4		20	15	8092 1130 11
IRTT 75-10		3/8	75	55	8092 1129 25	IRTT 20A-06		1/4	20	15	8092 1130 16
IRTT 180-13		1/2	180	133	8092 1129 30	IRTT 25A-10		3/8	25	18	8092 1130 21
IRTT 500-20		3/4	500	369	8092 1129 35	IRTT 75A-10		3/8	75	55	8092 1130 26
IRTT 750-25		1	750	553	8092 1129 40	IRTT 180A-13		1/2	180	133	8092 1130 31
IRTT 1400-25		1	1400	1033	8092 1129 45	IRTT 500A-20		3/4	500	369	8092 1130 36
						IRTT 750A-25		1	750	553	8092 1130 41
						IRTT 1400A-25		1	1400	1033	8092 1130 46
						IRTT 3000A-25		1	3000	2200	8092 1130 51
						IRTT 5000A-38		1 1/2	5000	3685	8092 1130 56

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

QRTT

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



QRTT

Model	Drive Square in	For QMX spindle	Rated capacity		Ordering No.
			Nm	ft lb	
QRTT 20 Nm kit	3/8	42	2 - 20	1.5 - 15	8092 1164 13
QRTT 75 Nm kit	3/8	42	7.5 - 75	5.5 - 55	8092 1164 18
QRTT 200 Nm kit	1/2	50	20 - 200	15 - 150	8092 1164 23
QRTT 500 Nm kit	3/4	62	50 - 500	37 - 369	8092 1164 28
QRTT 1000 Nm kit	1	80, 90	100 - 1000	75 - 750	8092 1164 33

QUALITY ASSURANCE IN TIGHTENING

For measuring and analysing torque

SRTT –static reaction torque transducers

The static torque transducers are designed for fixturing where a rotary action is not desired during a measurement. All static torque transducers feature a built-in memory for fast auto-calibration with ACTA 3000.



SRTT

Model	Square drive in	Capacity		Ordering No.
		Nm	ft lb	
SRTT 0.5-06	1/4	0.5	0.4	8092 1143 15
SRTT 2-06	1/4	2	1.5	8092 1143 20
SRTT 5-06	1/4	5	4	8092 1143 25
SRTT 25-10	3/8	25	18	8092 1143 30
SRTT 75-13	1/2	75	55	8092 1143 35
SRTT 180-13	1/2	180	133	8092 1143 40
SRTT 500-20	3/4	500	369	8092 1143 45
SRTT 1400-25	1	1400	1033	8092 1143 50

Test joint for SRTT

Name	Size	Stiffness	Range		Ordering No.
			Nm	ft lb	
TJ SRTT H 25-10	3/8	Hard	25	18	4220 2451 80
TJ SRTT S 25-10	3/8	Soft	25	18	4220 2451 81
TJ SRTT H 75-10	1/2	Hard	75	55	4220 2659 80
TJ SRTT S 75-10	1/2	Soft	75	55	4220 2659 81
TJ SRTT H 180-13	1/2	Hard	180	133	4220 2660 80
TJ SRTT S 180-13	1/2	Soft	180	133	4220 2660 81

MRTT –manual screwdriver torque transducer

The MRTT screwdriver is designed to measure static torque on low torque applications. All MRTTs feature a built-in memory for fast auto-calibration with ACTA 3000.



MRTT

Model	Drive hex in	Capacity		Ordering No.
		Nm	ft lb	
MRTT 2-106	1/4	2.5	1.8	8092 1144 21
MRTT 7-106	1/4	7.5	5.5	8092 1144 26

QUALITY ASSURANCE IN TIGHTENING

For measuring and analysing torque

MRTT –manual wrench torque transducer

Designed to measure static torque on higher torque applications. The torque wrench features an LED indicator for low/OK/high torque. It has a unique square drive, which rotates free and is locked when pushed in.



Model	Square drive in	Capacity		Ordering No.
		Nm	ft lb	
MRTT 25-06S	3/8	25	18	8092 1145 32
MRTT 75-13S	1/2	75	55	8092 1145 37
MRTT 180-13S	1/2	180	133	8092 1145 42
MRTT-I 680-20S	3/4	680	510	8092 1164 52*

* Works only with cable type 4145 0965 03

Transducer cable

The cable needed for all transducers (except MRTT screwdriver where cable is included).

Length	Ordering No.
1 m	4145 0963 01
3 m	4145 0963 03
5 m	4145 0963 05

For usage of non Atlas Copco transducers 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
* Transducer cable 3 m 19 - 6	4145 0966 03
Industrial style Transducer cable 3 m 19 - 10	4145 0967 03

* Please contact Atlas Copco for specific details.

QUALITY ASSURANCE IN TIGHTENING

For measuring and analysing torque

Torque testers TT and HT

TT – torque testers

The torque testers TT consist of an integrated torque transducer combined with a tightening analysis tool. The units are suitable for clutch and impulse tools. The torque values are displayed in either Nm/in. lb. and are protected from overload by a mechanical stop. The testers of TT1 and TT10 type are ideal for calibrating screwdrivers. Test joints are included.

HT – torque testers

The HT units consist of a torque screwdriver combined with a tightening analysis tool. The analogue output can be used together with a pen recorder, oscilloscope or voltmeter for various joint analyses. Rechargeable NiCd cells power the testers.



Model	Measure range Nm	Accuracy % of full scale	Size mm	Weight		Ordering No.
				kg	lb	
TT						
TT1	0 - 1.0	±0.5	230x125x55	2.2	4.9	8092 1113 04
TT10	0 - 10.0	±0.5	230x125x55	2.2	4.9	8092 1113 12
TT12 ^a	2 - 12.0	±0.5	162x240x112	3.5	7.7	8092 1101 73
TT30 ^a	6 - 30.0	±0.5	162x240x112	3.5	7.7	8092 1101 81
HT						
HT0.5	0 - 0.5	±0.5	160x95x60	1.2	2.6	8092 1113 20
HT5	0 - 5.0	±0.5	160x95x60	1.2	2.6	8092 1113 38

^a Optional accessories not valid for TT12 and TT30.

NOTE: Not suitable for impact tools.

OPTIONAL ACCESSORIES

Designation	Ordering No.
Battery charger 220-240 VAC	4222 0162 00
Battery charger 110-120 VAC	4222 0162 01
Printer DP-1 HS	8092 1117 00
Printer cable 1 m	4222 0171 00

Connected to the DP-1 HS printer (optional) individual torque data and a number of statistical calculations and charts can be made.

For more information see leaflet, Ordering No. 9833 1175 01.



Grinders

For a new experience, try Atlas Copco Turbo Grinders

GTG21 and GTG40 Turbo Grinders give you twice the power, with half the weight and they are impossible to stall with the right installation! These are just two of the grinders in Atlas Copco's wide range covering virtually all applications. With all our grinders, you can rely on maximum material removal with minimum effort and, of course, higher productivity.

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SELECTION GUIDE

DIE GRINDING AND DEBURRING



WITH

EXAMPLE: In a die grinding or engraving application, mounted points or rotary burrs are used. A suitable tool is the LSF straight die grinder, or the angle head type LSV die grinder.



- ① Carbide burrs
- ② Mounted points

ROUGH GRINDING AND CUTTING OFF



WITH



- ③ Depressed centre wheels
- ④ Cut off wheels
- ⑤ Cup wheels
- ⑥ Flap wheels
- ⑦ Straight wheels
- ⑧ Cone wheels

SANDING AND POLISHING



WITH

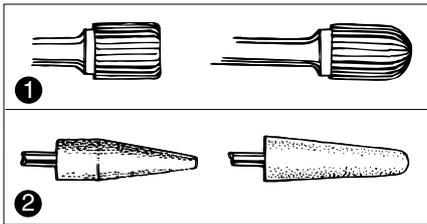


- ⑨ Fibre discs
- ⑩ Wire brushes
- ⑪ Coated abrasives
- ⑫ Polishing bonnets
- ⑬ Radial flap wheels
- ⑭ Scotch-brite

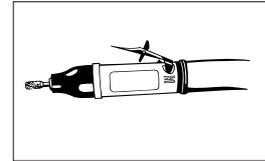
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DIE GRINDERS

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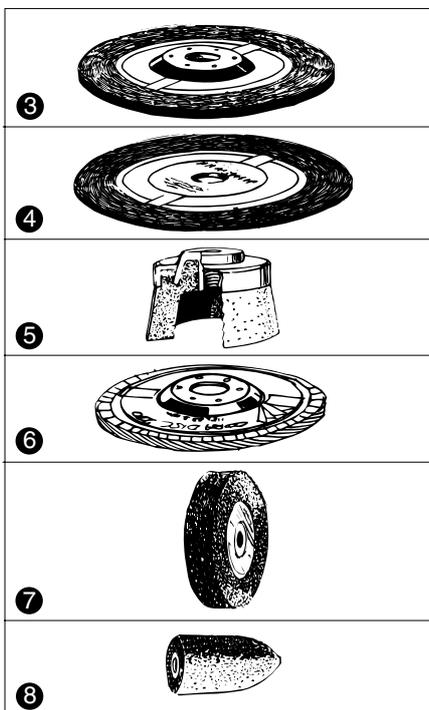
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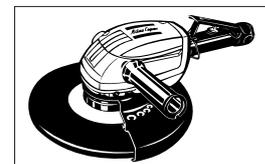
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ROUGH GRINDERS

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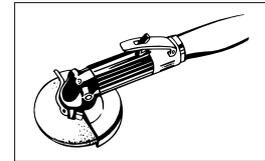
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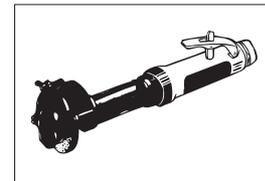
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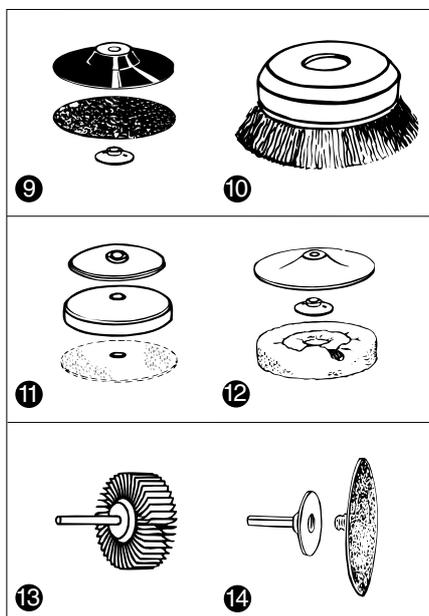
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SANDERS AND POLISHERS

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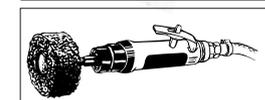
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GRINDING AT THE RIGHT SPEED

The key to productivity

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 r/min 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 unhardened and medium hard materials. Example, see table below:

Burr head Ø		Hardened steel	Unhardened steel	Soft material
		Though materials	Softer materials Cast iron	Wood, brass Plastics, Al.
Up to 6 mm	-TC	38000	38000	38000
	-HSS	-	20000	20000
Up to 12 mm	-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, regardless of whether it is removed from a cramped or an open space, 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 with the peripheral speed of the wheel represents the power removing material, (Power = Peripheral speed x Cutting force).

A powerful grinder will provide enough power with almost maintained rotational speed, when applying feed-force. Higher feed-force requires higher effort from the operator which leads to fatigue. A suitable combination of operative rotational speed, a suitable feed-force applied by the operator and the necessary 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 80 m/s for fibre reinforced depressed centre, straight and cutting off wheels. Resin bonded cup and straight wheels are limited to a peripheral speed of 50 m/s.

Sanding and polishing

Unlike die and rough grinding, sanding and polishing applies to 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 and thus a coarser grit paper.

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

Normal sanding speeds for fibre discs of diameter 125 mm, 180 mm and 230 mm are 4000 to 6000 r/min.

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

Sanding with wet coated abrasives is best performed at low speeds, partly 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.

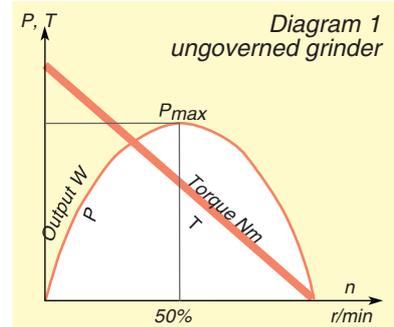
In order to remove material, the operator has to apply a feedforce on the work-piece. Consequently the rotational speed decreases and having passed approximately 50% of the free speed, the operative power outtake starts to decrease. Theoretically, the most material would be removed at approximately 50% 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 negligibly.

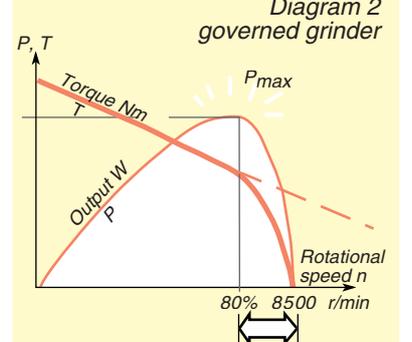
Air is used economically, as the flow through the motor is adjusted after applied load. Air consumption at free speed is minimized. The governor opens and lets in more air during load thus keeping the optimal r/min.



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 negligibly.



SAFETY FIRST

Built-in safety

The Atlas Copco grinders feature a high degree of built-in safety. Overspeed shut-off, safety throttles and wheel guards are good examples of product safety features carried by our grinders.

Performance checked

Every grinder leaving our factory is checked on maximum free speed and general functions.

This is your responsibility

There are, however, measures the operator has to take in order to avoid any risk of misuse or accident. The safety manual, supplied with every grinder contains a number of safety rules for the operator. The 8 steps below are a basic summary of the safety manual. But read the safety manual as well.

HOW TO MAKE IT SAFER

1 Check the free speed

The measured speed at a pressure of 6.3 bars should not exceed the rated speed of the grinder. A tolerance of +10% is acceptable if stated in the documentation of the tool. The wheel must be removed before the grinder is checked. The checks should be carried out regularly, especially after longer standstill. Make sure that the speed marking on the tool is readable.



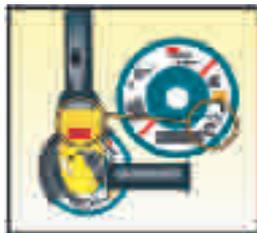
2 Check the wheelguard

Always use the recommended wheel-guard and check that it is not damaged. Never use a grinder without the wheelguard when the grinding wheel requires one.



3 Match the maximum speed of the wheel to the right grinder

Make sure that the stated maximum speed of the grinder never exceeds the maximum speed of the grinding wheel.



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 should be fitted properly on the spindle to avoid unbalanced vibrations.



5 Check that flange and wheel

combinations correspond to national regulations. Check that the flanges are undamaged and that they are clean.



6 Wear

- personal protection goggles
- ear protection
- gloves (helmet in heavier applications)



7 Test run your grinder in a protected area after having assembled the wheel

Keep the space around the grinding operation free from other people.



8 Maintenance

Make sure to follow prescribed service instructions and intervals. Do not disassemble security parts, e.g. speed governor or overspeed shut-off. These parts have to be completely replaced when damaged.



Diameter –Peripheral speed –r/min

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

Grinding wheel diameter mm	Peripheral speed in metres per second													
	10	15	20	25	28	30	33	35	40	45	48	50	60	80
25	7640	11460	15280	19100	21390	22920	25210	26740	30560	34380	36670	38200	45840	61120
40	4770	7160	9550	11930	13370	14320	15750	16710	19100	21480	22920	23870	28650	38200
50	3820	5730	7640	9550	10690	11460	12600	13370	15280	17190	18330	19100	22920	30560
63	3303	4540	6060	7560	8480	9090	10000	10610	12120	13640	14550	15150	18190	24250
80	2380	3580	4770	5960	6680	7160	7870	8350	9550	10740	11460	11930	14320	19100
100	1910	2860	3820	4770	5340	5730	6300	6680	7640	8590	9160	9550	11460	15280
115	1160	2490	3320	4150	4650	4980	5480	5810	6640	7470	7970	8300	9960	13400
125	1520	2290	3050	3820	4270	4580	5040	5340	6110	6870	7330	7640	9160	12280
150	1270	1910	2540	3180	3560	3820	4200	4450	5090	5730	6110	6360	7640	10180
180	1060	1590	2120	2650	2970	3180	3500	3710	4240	4770	5090	5300	6360	8480
200	950	1430	1910	2380	2670	2860	3150	3340	3820	4290	4580	4770	5730	7640
230	830	1240	1660	2070	2320	2490	2740	2900	3320	3730	3980	4150	4980	6640
250	760	1140	1520	1910	2130	2290	2520	2670	3050	3430	3660	3820	4580	6110
300	630	950	1270	1590	1780	1910	2100	2220	2540	2860	3050	3180	3820	5090

TURBO GRINDERS AND SANDERS

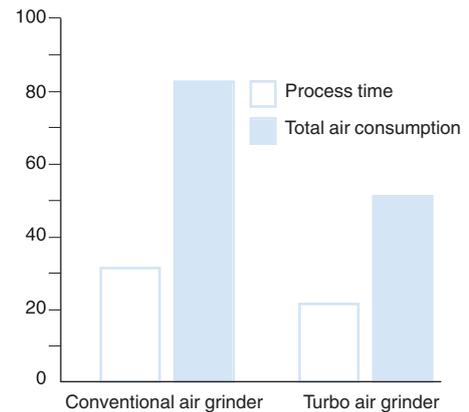
Twice the power. Half the weight. The Turbo grinder gives you twice the power of today's 5", 7" and 9" angle grinders. It is about half the size and weight of high frequency tools with comparable power.

- ❑ **High material removal** –The Turbo is powerful and keeps on working at high rotational speed. It gives a higher rate of cutting-off or material removal, with low wheel consumption.
- ❑ **Power for efficiency** –The Turbo is driven by a turbine motor, providing power-to-weight ratios never before achieved in grinders. This means you can choose a lighter, more compact tool for ease of use and good accessibility without sacrificing any of the power.
- ❑ **Long service life** –The turbine means there are no vanes to slide against the cylinder. The gear runs in oil in a housing with patented seals. The result is consistent performance and interruption free operation.
- ❑ **Minimized vibrations** –on the Turbo, vibration has been cut to below 2.5 m/s². This has been achieved by an entirely new vibration-damping technique, Auto Balancing, in which a set of bearing balls is used to counter-balance the imbalance in the wheel.
- ❑ **Lubrication-free** –The unique turbine drive in the Turbo means that the motor doesn't need oil in the air for lubrication. This provides several benefits from the points of views of working environment, quality and productivity.
- ❑ **Dust extraction** –Efficient accessory and standard model for extraction of air-borne dust in sanding applications with fibre discs.



GTG21 is the newest of the Turbo grinders. It is the best choice for rough grinding and sanding applications.

MORE EFFECTIVE



The turbine motor is more efficient than a conventional grinder motor. It therefore 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 mm	Max output		Weight		Height over spindle end		Air consumption at				Hose size		Air inlet thread BSP	Sound level at free speed dB(A)	Ordering No.
			kW	hp	kg	lb	mm	in	l/s	cfm	l/s	cfm	mm	in			
For grinding and cutting																	
GTG21 F120-13	12000	125	2.1	2.8	1.8	3.9	68	2.7	30	64	10	21	13	1/2	3/8	74	8423 2963 00*
GTG21 F085-18	8500	180	2.1	2.8	2.0	4.2	72	2.8	30	64	10	21	13	1/2	3/8	74	8423 2963 02*
For sanding																	
GTG21 S085 ^a	8500	180	2.1	2.8	2.0	4.4	80	3.1	30	64	10	21	13	1/2	3/8	74	8423 2963 05*
GTG21 S085-D ^b	8500	180	2.1	2.8	2.4	5.3	94	3.7	30	64	10	21	13	1/2	3/8	74	8424 2963 09*
GTG21 S085 M14	8500	180	2.1	2.8	1.6	3.5	80	3.1	30	64	10	21	13	1/2	3/8	74	8423 2963 07

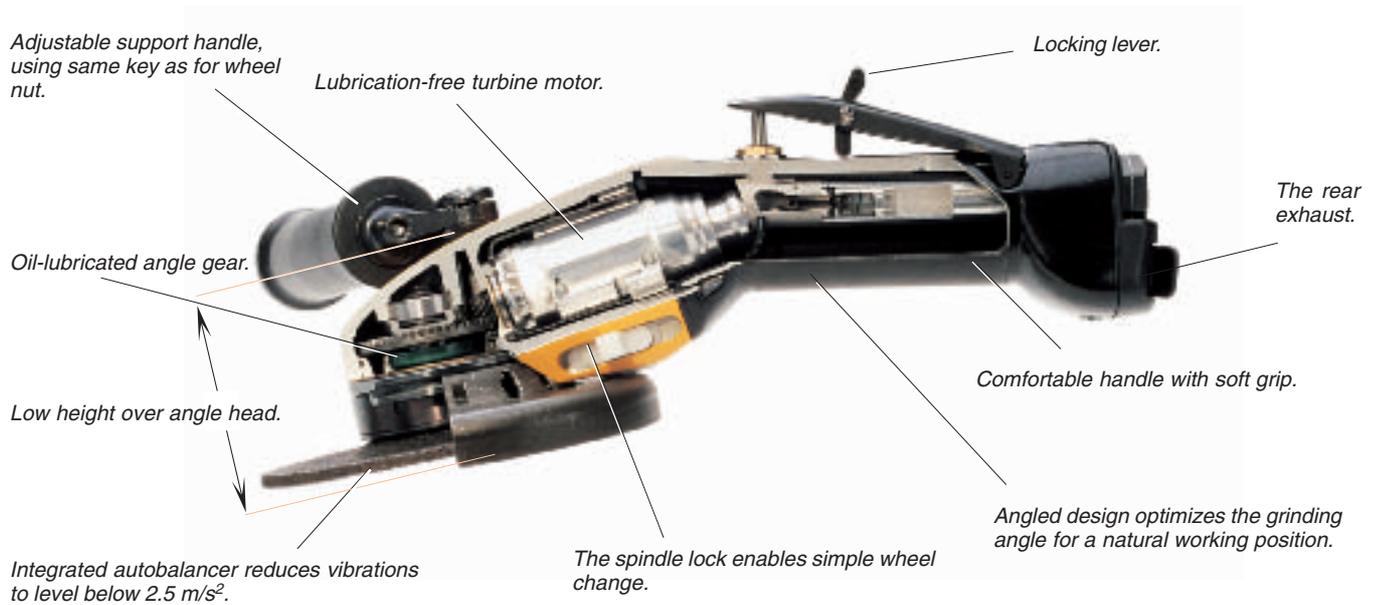
^a UNC 5/8"-11 spindle.

^b With dust extraction –for sanding applications with fibre discs. Flow requirement 250 m³/h.

* Available directly from stock.

TURBO GRINDERS AND SANDERS

Compact, powerful and efficient



1 ACCESSORIES INCLUDED –GTG21

All models

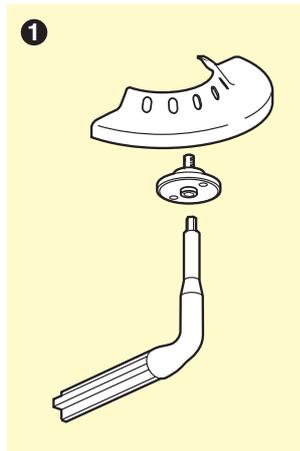
Adjustable support handle
Whip hose 0.7 m long, 13 mm dia complete with nipple and ErgoNip 10
Gear box oil, one tube

GTG21 F120/F085

Adjustable wheel guard
Attachment flanges for 1-10 mm thick grinding wheels
Hex key for wheel change

GTG21 S085D

Flow chamber
Suction cap
Support pad dia 180 mm

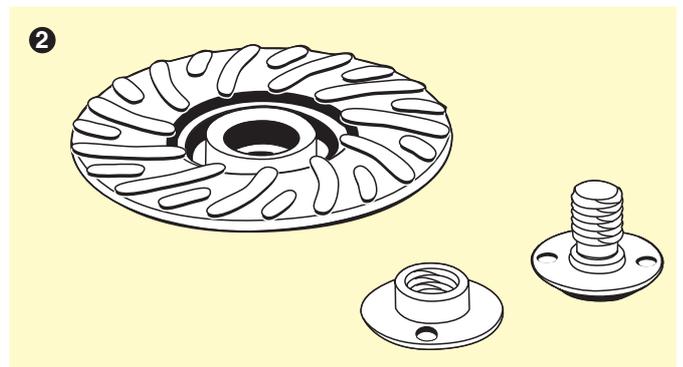
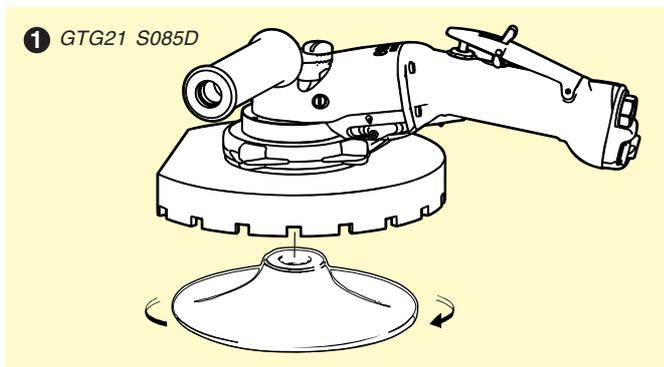


2 OPTIONAL ACCESSORIES –GTG21

Air hose set for maximum performance	Ordering No.
RUBAIR 13, L=5 m, incl ErgoNIP 10, ErgoQIC 10	8202 1180 22
Air preparation unit, incl MIDI F/R, ball valve ErgoQIC 10	8202 0845 48
TURBO 16, L=10 m, incl ErgoNIP 10, ErgoQIC 10	8202 1180 46

Spindle adapter kit for sanding with GTG21 grinder

Sanding kit for	Support pad dia mm	Ordering No.	
		5/8	M14
GTG21 F120-13	120	4175 0883 92	4175 0883 93
GTG21 F085-18	162	4175 0883 90	4175 0883 91



SERVICE KIT
4081 0220 90

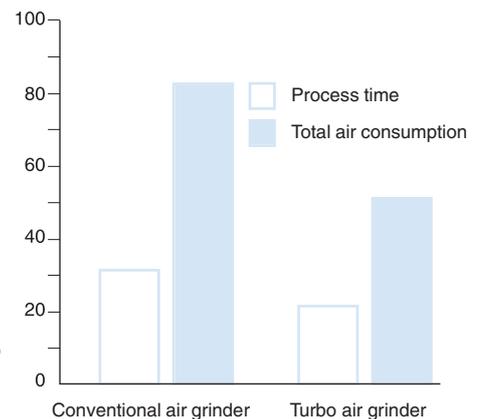
TURBO GRINDERS

The GTG/GTR40 are the most powerful grinders in the Turbo 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.

- ❑ **GTG40 F** – for rough grinding and cutting off with depressed centre wheels.
- ❑ **GTG40 S** – for surface finishing with coated abrasives and wire brushes.
- ❑ **GTG40 C** – 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 fibre discs.



MORE EFFECTIVE



The turbine motor is more efficient than a conventional grinder motor. It therefore 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 mm	Max output		Weight		Height over spindle end		Air consumption at				Hose size		Air inlet thread BSP	Sound level at free speed dB(A)	Ordering No.	
			kW	hp	kg	lb	mm	in	l/s	cfm	l/s	cfm	mm	in				
For grinding and cutting																		
GTG40 F085-18	8500	180	4.5	6.1	3.8	8.4	128	5.0	60	126	20	42	16	5/8	1/2	85	8423 2900 10*	
GTG40 F066-23	6600	230	4.5	6.1	4.0	8.8	128	5.0	60	126	20	42	16	5/8	1/2	85	8423 2910 10*	
For wire brush and sanding																		
GTG40 S060	6000	140 ^a	4.5	6.1	3.6	7.9	132	5.2	60	126	20	42	16	5/8	1/2	85	8423 2930 00*	
For cup wheel																		
GTG40 S060-C15 ^b	6000	150	4.5	6.1	4.3	10.5	126	5.0	60	126	20	42	16	5/8	1/2	85	8423 2930 10*	

^a For wire brush, Ø 230 mm for fibre disc. ^b Spindle thread: UNC 5/8". Length 23.5 mm.

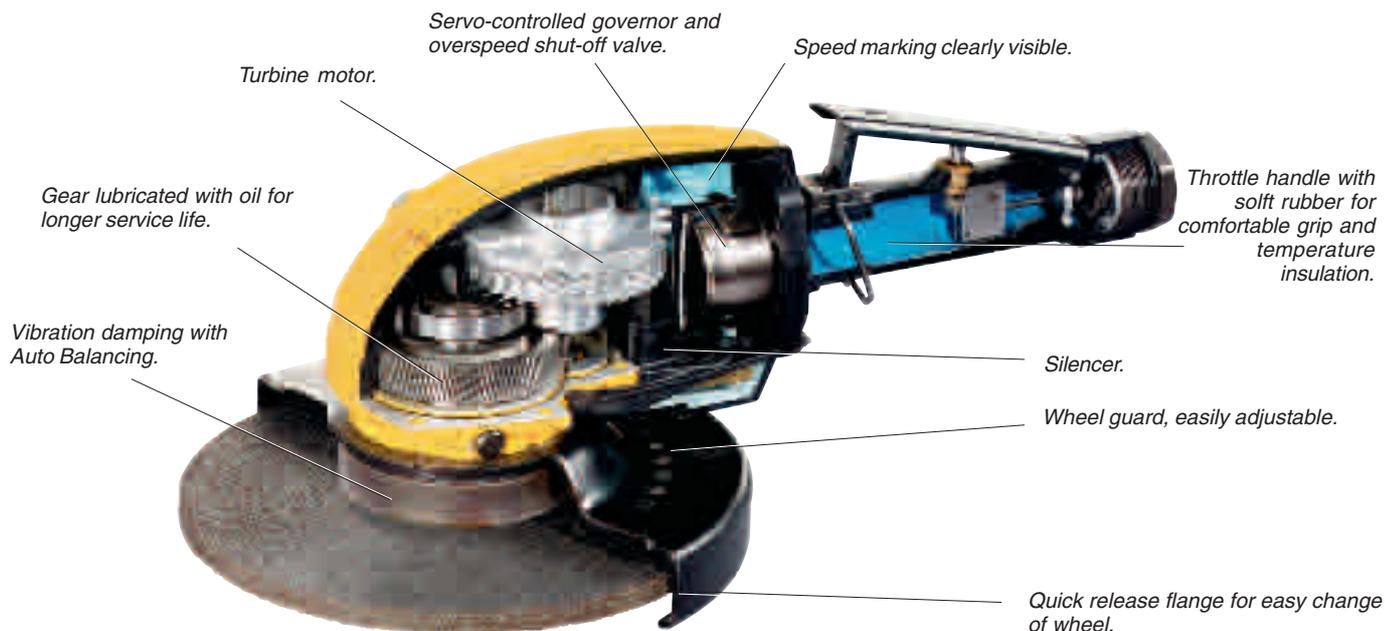
Model	Max free speed r/min	Recom- mended wheel diam. DxTxH ^a mm	Spindle thread and length	Max output		Weight incl guard flanges			Air consumption				Air inlet thread BSP	Sound level at free speed dB(A)	Recom- mended air hose		Ordering No.
				kW	hp	kg	lb	Length mm	l/s	cfm	l/s	cfm			mm	in	
GTR40 S085-15	8500	150x25x25	UNC 5/8x11	4.5	6.1	5.6	12.3	563	60	126	20	42	1/2	85	16	5/8	8423 2950 00*
GTR40 S072-13	7200	125x25x25	UNC 5/8x11	4.5	6.1	5.6	12.3	563	60	126	20	42	1/2	85	16	5/8	8423 2951 00
GTR40 S060-15	6000	150x25x25	UNC 5/8x11	4.5	6.1	5.8	12.8	563	60	126	20	42	1/2	85	16	5/8	8423 2952 00*
GTR40 S060-20	6000	200x25x25	UNC 5/8x11	4.5	6.1	5.8	12.8	563	60	126	20	42	1/2	85	16	5/8	8423 2954 00

^a For straight wheels.

* Available directly from stock.

TURBO GRINDERS

Twice the power. Half the weight



ACCESSORIES INCLUDED –GTG40

Adjustable wheel guard
Support handle
Attachments flanges for 1.5-7 mm thick cut-off wheels and 2.5-8 mm thick depressed centre wheels
Whip hose 0.7 m long, 16 mm dia complete with nipple and ErgoNIP 10
Gear box oil, one tube
Hex key for wheel change

1 OPTIONAL ACCESSORIES –GTG40

	Ordering No.
Wire brush Ø 140 mm	4170 0685 00
Wire brush attachment set	4170 0550 82
Adjustable support handle	4170 0619 81
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
Adaptor for positioning support handle 120/135° between handles	4175 0164 90*
Dust extraction kit ^a for 180 mm fiber disc GTG40 S060	3780 4090 10
Hose kit including 1.8 m vacuum hose, Ø 38 mm and air hose Ø 13 mm	3780 2724 41
Friction plate complete	4175 0186 90

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

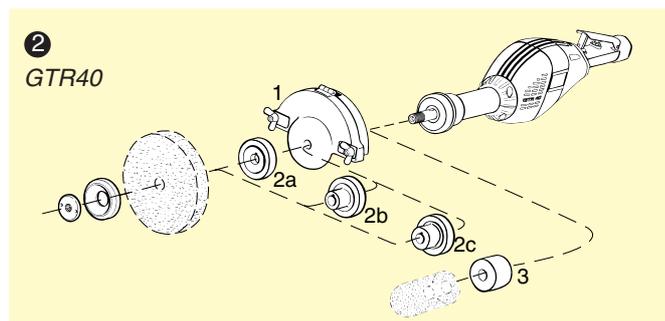
* Included as standard in GTG40 S060-C15.

ACCESSORIES INCLUDED –GTR40

Wheel guard
Attachments flanges for grinding wheels 20-32 mm thick and with hole Ø 25 mm
Whip hose 0.7 m long, 16 mm dia complete with nipple and ErgoNIP 10
Gear box oil, one tube
Key and spanner for wheel change

2 OPTIONAL ACCESSORIES –GTR40

	Thickness x Hole dia mm	Ordering No.
2 Rear flange	TxH 20-32x 16	2a 4150 0619 00
	x 20	2b 4150 1650 00
	x 32	2c 4150 0620 00
3 Spacer for cone wheel	3	4150 0787 00



OPTIONAL ACCESSORIES GTG40 and GTR40

Air hose sets for maximum performance

Air hose set	Length	Air pressure	Ordering No.
Fixed installation 5 m, Ø 16 mm			
TURBO 16/5 M/CLAW	5 m	<6 bar	8202 1181 95
Flexible installation 5 m, Ø 16 mm^b			
TURBO 16/5 M/EQ 10	5 m	>6 bar	8202 1181 80
Flexible installation 20 m, Ø 19 mm^b			
TURBO 20/20 M/EQ 10	20 m	>6 bar	8202 1181 75
Air preparation unit, including MAXI F/R 25 with ball valve and claw coupling			8202 0845 74

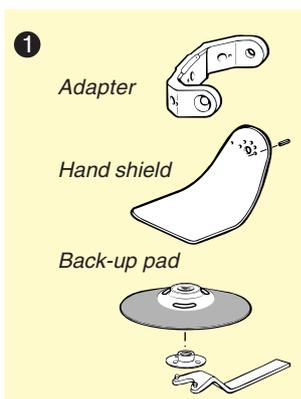
^b Whip hose 0.5 m included as standard in GTG/GTR40.

For technical details and other dimensions, see page 241.



SERVICE KITS

GTG40 4081 0153 90
GTR40 4081 0153 91



DIE GRINDERS

The Atlas Copco governed die grinders offer the very best of productivity, reliability and ergonomics.

- **Best performance, low weight** –The speed governor keeps the rotational speed close to the maximum free speed when feed-force is applied. The use of a speed governor enables a smaller and smoother design while maintaining access to power.
- **Built-in ergonomics for the best working environment** –The unique suspension of motor and spindle of the LSF series prevent unpleasant vibrations from being transferred to the operator's hand. Well tuned motors and air outlet keep sound levels very low.
- **Minimized burr consumption** – A suspension of the spindle prevents the burr from chattering. Apart from a smoother die grinding operation, the burr consumption is minimized, in many applications by 20%.
- **Wide range** –You can choose the suitable model for your application – from heavy duty versions to small, angle die grinders. Short and extended models (E).



- **LSF27 ST030 is lubrication-free** –for clean environment.
- **LSF37** – 1000 Watt powerful motor for the toughest applications. Two models are lubrication-free.
- **LSF-R**, these models have a rigid shaft suspension. Recommended for mounted points.

Model	Max free speed r/min	Rec max dia of		Max output kW	hp	Weight		Length mm	Air consumption				Recommended air hose mm in	Air inlet thread BSP	Sound level at free speed dB(A)	Ordering No. with collet		
		Tungsten carbide burrs mm	Mounted point mm			kg	lb		at max output l/s	at free speed cfm	l/s	cfm				6 mm	1/4"	
Die grinders – Straight models																		
LSF17 S430	43000	9	16	0.30	0.40	0.4	0.9	170	9	19	10	21	8	5/16	1/4	75	8423 1224 27*	8423 1224 50
LSF17 S430E	43000	9	16	0.30	0.40	0.6	1.3	270	9	19	10	21	8	5/16	1/4	75	8423 1225 26*	
LSF17 S430E/R	43000	9	16	0.30	0.40	0.6	1.3	270	9	19	10	21	8	5/16	1/4	75	8423 3111 03*	
LSF17 S300	30000	12	20	0.28	0.38	0.4	0.9	170	9	19	6	13	8	5/16	1/4	73	8423 1224 19*	8423 1224 43*
LSF17 S300-1/R	30000	12	20	0.28	0.38	0.4	0.9	170	9	19	6	13	8	5/16	1/4	73	8423 1231 69*	
LSF17 S300E	30000	12	20	0.28	0.38	0.6	1.3	270	9	19	6	13	8	5/16	1/4	73	8423 1225 18*	
LSF17 S300E/R	30000	12	20	0.28	0.38	0.6	1.3	270	9	19	6	13	8	5/16	1/4	73	8423 3111 01*	
LSF17 S200	20000	12	20	0.25	0.34	0.4	0.9	170	8	17	4	8	8	5/16	1/4	64	8423 1224 01*	8423 1224 35*
LSF17 S200E	20000	12	20	0.25	0.34	0.6	1.3	270	8	17	4	8	8	5/16	1/4	64	8423 1225 00*	
LSF27 S250	25000	12	32	0.65	0.87	0.7	1.5	205	18	38	13	27	10	3/8	3/8	75	8423 1235 10*	8423 1235 36
LSF27 S250/R	25000	12	32	0.65	0.87	0.7	1.5	205	18	38	13	27	10	3/8	3/8	75	8423 1235 51*	
LSF27 S250E	25000	12	32	0.65	0.87	1.2	2.6	330	18	38	13	27	13	1/2	3/8	75	8423 1236 19*	
LSF27 S250E/R	25000	12	32	0.65	0.87	1.2	2.6	330	18	38	13	27	13	1/2	3/8	75	8423 1235 50*	
LSF27 S180	18000	16	40	0.65	0.87	0.7	1.5	205	16	34	7	15	10	3/8	3/8	69	8423 1235 02*	8423 1235 28
LSF27 S180/R	18000	16	40	0.65	0.87	0.7	1.5	205	16	34	7	15	10	3/8	3/8	69	8423 1235 44*	
LSF27 S180E	18000	16	40	0.65	0.87	1.2	2.6	330	16	34	7	15	13	1/2	3/8	69	8423 1235 03*	8423 1235 27
LSF27 S180E/R	18000	16	40	0.65	0.87	1.2	2.6	330	16	34	7	15	13	1/2	3/8	69	8423 1235 43*	
LSF27 S150	15000	16	40	0.60	0.80	0.7	1.5	205	15	32	6	13	10	3/8	3/8	66	8423 1235 76*	
LSF27 S150E	15000	16	40	0.60	0.80	1.2	2.6	330	15	32	6	13	13	1/2	3/8	66	8423 1235 84*	
LSF27 S120	12000	16	40	0.60	0.80	0.7	1.5	205	14	30	4	8	10	3/8	3/8	65	8423 1235 68*	
LSF37 S250E	25000	12	32	1.0	1.3	1.9	4.2	346	23	49	21	45	13	1/2	3/8	84	8423 1232 25*	
LSF37 S180E-LF	18000	16	40	1.0	1.3	1.9	4.2	346	22	49	13	27	13	1/2	3/8	78	8423 1232 17*	
LSF37 S180E-LF/R	18000	16	40	1.0	1.3	1.9	4.2	346	22	47	13	28	13	1/2	3/8	78	8423 1232 16*	
LSF37 S150E-LF	15000	16	40	1.0	1.3	1.9	4.2	346	20	42	9	19	13	1/2	3/8	78	8423 1232 15*	
Angle grinders																		
LSV17 S200-1HD	20000	12	20	0.25	0.34	0.7	1.5	197	9	19	7	15	8	5/16	1/4	75	8423 0111 17*	
LSV27 S150	15000	16	40	0.57	0.76	1.1	2.4	245	15	32	8	17	10	3/8	3/8	78	8423 0125 56*	
Die grinders for polishing																		
LSF27 ST070	7000	–	–	0.65	0.87	1.0	2.2	270	17	36	10	42	10	3/8	3/8	75	8423 1235 69*	
LSF27 ST070-E	7000	–	–	0.65	0.87	1.7	2.2	395	17	36	10	42	10	3/8	3/8	75	8423 1235 70*	
LSF27 ST030-LF	3000	–	–	0.60	0.80	1.0	2.2	270	16	34	10	42	10	3/8	3/8	73	8423 1235 79*	
LSF27 ST030LF-E	3000	–	–	0.60	0.80	1.7	2.2	395	16	34	10	42	10	3/8	3/8	73	8423 1235 80*	

E = Extended version, flexible spindle
R = Rigid model

HD = Heavy duty
LF = Lubrication-free

* Available directly from stock.

DIE GRINDERS

□ **High speed model** – LSF07 is a new high speed model for precise grinding and polishing at die making and e.g. renovation of air craft engines.



Model	Max free speed r/min	Rec max dia of Tungsten		Max output		Weight		Length mm	Air consumption at max output		Air consumption at free speed		Recom- mended air hose ^b mm	Air inlet thread BSP	Sound level at free speed dB(A)	Ordering No. with collet ^a
		car- bide burrs mm	Mount- ed point mm	kW	hp	kg	lb		l/s	cfm	l/s	cfm				
High speed model																
LSF07 S850	88000	4	6	0.10	0.13	0.4	0.9	170	2.2	4.9	2.3	4.6	4.5	–	79	8423 1222 03*

^a Ø 3 mm collet standard.

^b Air hose and ErgoNIP included.

* Available directly from stock.

ACCESSORIES INCLUDED

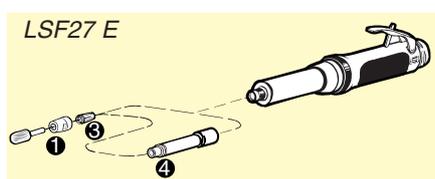
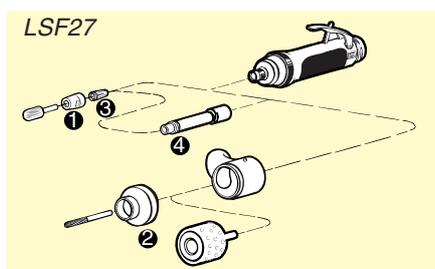
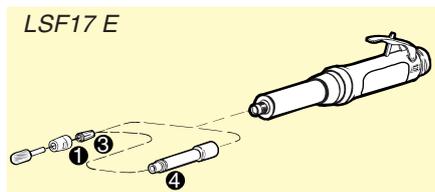
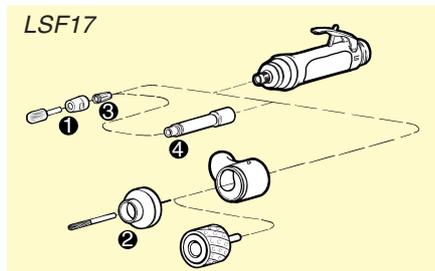
Air hose and ErgoNIP 08 included Ø 3 mm collet and collet wrench. Exhaust with silencer (LSF07).

OPTIONAL ACCESSORIES

Ø 1/8" collet

4150 1822 00

ACCESSORIES



1 ACCESSORIES INCLUDED

- Spanner
- Collet 6 mm (LSF37 6- and 8 mm)
- Air hose, air hose nipple and clamp
- Exhaust hose

2 OPTIONAL For machining reinforced plastics

For die grinders	LSF17	Dia mm	LSF27	Dia mm
Diamond burr	3780 5013 70	6	3780 5014 20	8
Diamond drum	3780 5033 00	27	3780 5035 00	50
Spot suction kit for burr	3780 3015 20		3780 4007 41	
Spot suction kit for drum	3780 4011 60	6 (shaft)	3780 4011 71	8 (shaft)

3 OPTIONAL collets

Dia	Ordering No.
LSF17/27/36	
3 mm	4150 0081 00
6 mm	4150 0075 00
8 mm	4150 0074 00
1/8"	4150 0082 00
5/32"	4150 0648 00
3/16"	4150 0649 00
1/4"	4150 0076 00
5/16"	4150 0074 00
Collet nut	4150 0760 00
LSF37	
6 mm	4150 1453 00
8 mm	4150 0706 00
10 mm	4150 0681 00
1/4"	4150 1754 00
Collet nut	4150 0849 00

4 Spindle extension for R-models

Spindle extension is optional	Ordering No.
Length 75 mm / 3 inches	4150 0674 00

Front exhaust –Modification kit

Model	Ordering No.
LSF17 short model	4150 1031 91

SERVICE KITS



07 series	4081 0243 90
17 series	4081 0026 90
27 series	4081 0130 90
37 series	4081 0249 90

STRAIGHT GRINDERS

For cone wheels, plugs and collet

Internal grinding of holes and cavities in castings, etc. require rough abrasives, which must be attached to the tool with a rigid shank or be mounted directly on the spindle.

- ❑ **Rigid and powerful for best productivity** –The rigid LSR43 series gives you the outmost power for the roughest tasks of internal grinding.
- ❑ **Built-in ergonomics for working comfort** –Lighter jobs are successfully done with LSR27/37. These light and handy tools offer low sound and vibration levels and will spare your operator.
- ❑ **Lubrication-free** –The LSR37-models are lubrication-free.



Model	Max free speed r/min	Max output		Weight		Length mm	Air consumption				Air inlet thread BSP	Recom- mended air hose		Sound level ^a at free speed dB(A)	Ordering No.	
		kW	hp	kg	lb		at max l/s	at free speed cfm	at max l/s	at free speed cfm		mm	in			
Straight grinders																
LSR27 S150-CW	15000	0.60	0.80	1.1	2.4	300	15	32	6	13	3/8	13	1/2	72	8423 1325 45*	
LSR27 S120-CW	12000	0.60	0.80	1.1	2.4	300	14	30	4	8	3/8	13	1/2	65	8423 1325 37*	
LSR37 S180-CW LF	18000	1.0	1.3	1.9	4.2	346	22	47	13	28	3/8	13	1/2	78	8423 1232 22*	
LSR37 S150-CW LF	15000	1.0	1.3	1.9	4.2	346	22	47	13	28	3/8	13	1/2	78	8423 1232 23*	
LSR37 S120-CW LF	12000	1.0	1.3	1.9	4.2	346	22	47	13	28	3/8	13	1/2	78	8423 1232 24*	
LSR43 S150-30	15000	1.0	1.3	2.0	4.4	438	23	49	10	21	1/2	13	1/2	87	8423 1432 32*	
LSR43 S150-30C	15000	1.0	1.3	2.1	4.6	503	23	49	10	21	1/2	13	1/2	87	8423 1432 33*	
LSR43 S120-30	12000	0.9	1.2	2.0	4.4	438	20	42	7	15	1/2	13	1/2	84	8423 1432 24*	
LSR43 S090-30	9000	0.8	1.1	2.0	4.4	438	18	38	5	11	1/2	13	1/2	81	8423 1432 57	
LSR43 S072-30	7200	0.8	1.1	2.0	4.4	438	17	36	4	8	1/2	13	1/2	80	8423 1432 40	

^a LSR27/37 measured with exhaust hose (incl. accessories). For LSR43, the sound level can be reduced 8-12 dB(A) by using a silencer (optional accessories).

* Available directly from stock.

-CW indicates use for cone wheel or collet, thread M12x1 to be combined with adaptor for wheel thread.

-LF = Lubrication-free motor.

-30C, 6 mm collet is included.

-30 indicates use for cone wheel or collet, thread M12x1 to be combined with adaptor for wheel thread.

ACCESSORIES

ACCESSORIES INCLUDED -30C versions

	Ordering No.
1a Nut	4150 0849 00
1b Collet (6 mm)	4150 1453 00
1c Holder	4150 0680 00
Air hose nipple and clamp	
Wrenches	

CW versions

Air hose nipple and clamp
Exhaust hose and whip hose (27/37)
Wrenches

30 versions

Air hose nipple and clamp
Wrenches

OPTIONAL ACCESSORIES -30C and CW, -30 versions

1b Collet dia mm	Ordering No.
6	4150 1453 00
8	4150 0706 00
9	4150 0765 00
10	4150 0681 00
1/4"	4150 1754 00

1 For versions CW

	Ordering No.
1a Nut	4150 0849 00
1b Collet (6 mm)	4150 1453 00
1c Holder	4150 0680 00

2 For versions CW and -30C, -30

	Ordering No.
2a Nut	4150 0221 00
2b Collet	6 mm 4150 0222 00
	8 mm 4150 0325 00
	1/4" 4150 0223 00
2c Extended holder	4150 0441 00
Short holder	4150 0211 00

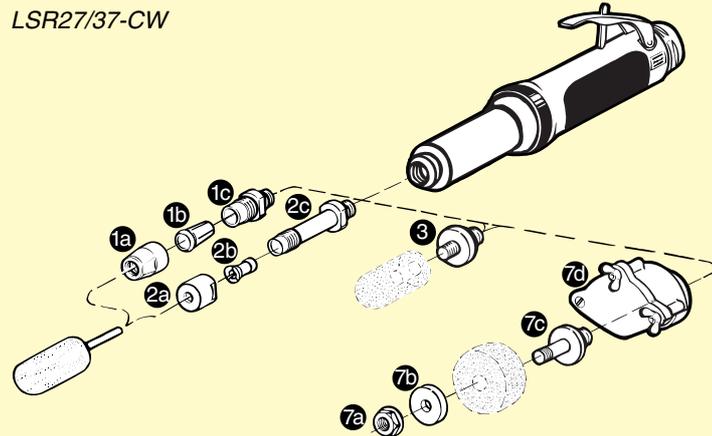
3 4 Adapter for cone wheel

Thread	3 LSR27/37 CW Ordering No.	4 LSR43 -30 Ordering No.
UNC/W 3/8"	4150 0318 00	4150 0943 00
UNF 3/8"	4150 0318 01	4150 0943 01
UNC 1/2"	4150 1357 00	4150 0944 00
W 1/2"	—	4150 0942 00
UNC/W 5/8"	4150 0767 00	4150 0945 00

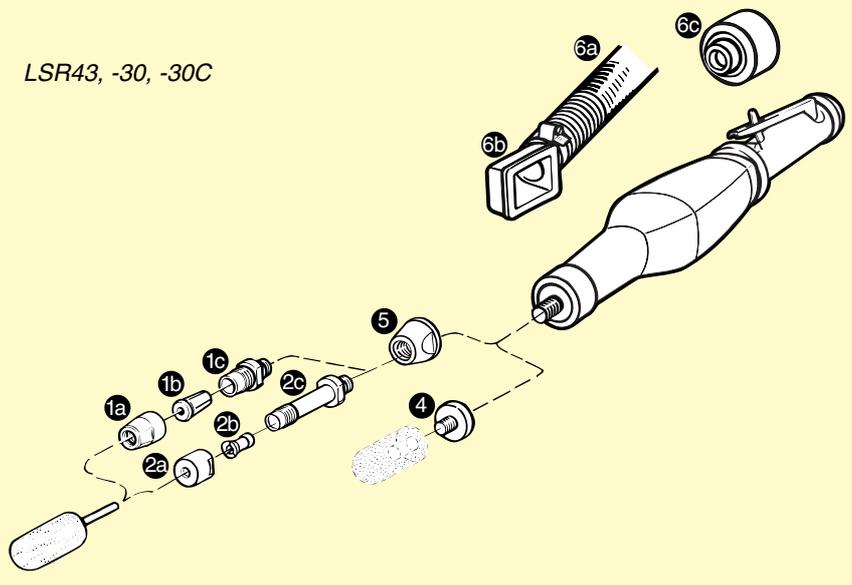
7 Assembly parts for alternative straight wheel dimensions

Wheel dimension DxTxH	Ordering No.			
	7a Nut	7b Flange	7c Holder	7d Wheel guard
50x19x10	0266 2111 00	4106 5938 00	4150 0212 00	4150 1299 81
50x13x10	0266 2111 00	4106 5938 00	4150 1145 00	4150 1299 81

LSR27/37-CW



LSR43, -30, -30C



5 Adapter for LSR43 S072-30, -S090-30, -S120-30, -S150-30

	Ordering No.
Adapter	4150 0861 00

6 Silencer/lubricator for LSR43

6a Silencer	6b Adapter for silencer	6c Lubricator
4150 1005 80	4150 0938 80	4150 1405 80



SERVICE KITS

27 series	4081 0130 90
37 series	4081 0210 90
43 series	4081 0020 90

STRAIGHT GRINDERS

For straight wheels

High rate of material removal in open spaces is achieved with a straight grinder equipped with a straight sided wheel.

- **Rigid and powerful for best productivity** – The LSR43/53/64 series are sturdy and powerful enough for the roughest conditions. The length of these grinders can preferably be used as a lever for higher feed force.
- **Built-in ergonomics for working comfort** – Smaller jobs for straight sided wheels suit the LSR27 series well. Low sound and vibration levels, thermally insulated throttle handle and piped-away exhaust air are product features to spare the operator.
- **GTR straight turbo grinder**, see page 144.



Model	Max free speed r/min	Recom- mended wheel diam. DxTxH ^a mm	Spindle thread and length	Max output		Weight incl guard flanges		Length mm	Air consumption				Air inlet thread BSP	Sound level at free speed dB(A) ^b	Recom- mended air hose		Ordering No.
				kW	hp	kg	lb		l/s	cfm	l/s	cfm			mm	in	
Straight grinders																	
LSR27 S180-05	18000	50x13x9.5/10	UNF 3/8x42	0.65	0.87	1.8	3.9	335	16	32	7	15	3/8	76	13	1/2	8423 1325 29*
LSR27 S150-10	15000	100x13x20	UNC 1/2x42	0.60	0.8	2.1	4.6	335	15	38	6	15	3/8	67	13	1/2	8423 1325 01*
LSR27 S110-08	11000	80x13x9.5/10	UNF 3/8x42	0.53	0.71	1.9	4.2	335	13	30	3	8	3/8	68	13	1/2	8423 1325 11*
LSR43 S150-10	15000	100x25x25	UNC 1/2x49	1.0	1.4	2.8	6.2	438	23	49	10	21	1/2	87	13	1/2	8423 1430 34
LSR43 S120-08	12000	80x25x13	UNC 1/2x49	0.9	1.2	2.5	5.5	438	20	42	7	15	1/2	84	13	1/2	8423 1430 26*
LSR43 S090-10	9000	100x25x13	UNC 1/2x49	0.8	1.1	2.4	5.3	438	18	38	5	11	1/2	81	13	1/2	8423 1430 18*
LSR53 S120-13	12000	125x25x25	UNC 5/8x53	1.6	2.1	3.9	8.6	485	33	70	17	36	1/2	84	13	1/2	8423 1520 36*
LSR53 S090-10	9000	100x25x16	UNC 5/8x53	1.4	1.8	3.6	7.9	485	29	61	11	23	1/2	82	13	1/2	8423 1520 28*
LSR53 S072-13	7200	125x25x16	UNC 5/8x53	1.3	1.7	3.7	8.2	485	27	57	8	17	1/2	80	13	1/2	8423 1520 20*
LSR64 S100-15	10000	150x25x25	UNC 5/8x55	2.9	4.0	5.8	2.8	535	53	112	26	55	1/2	88	16	5/8	8423 1640 55
LSR64 S072-13	7200	125x25x16	UNC 5/8x55	2.5	3.4	5.4	11.9	535	45	95	14	30	1/2	84	16	5/8	8423 1640 30
LSR64 S060-15	6000	150x25x16	UNC 5/8x55	2.3	3.1	5.4	11.9	535	41	87	11	23	1/2	82	16	5/8	8423 1640 22*

^a DxTxH = Diameter x Thickness x Hole.

^b LSR27 measured with exhaust hose (incl accessories). For LSR43, -53 and -64 the sound level can be reduced 8-12 dB(A) by using a silencer (optional accessories).

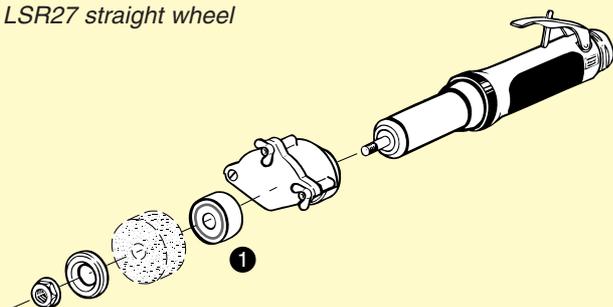
Model	Max free speed r/min	Spindle thread and length UNC mm	Max output		Weight		Length mm	Air consumption				Recom- mended air hose		Air inlet thread BSP	Sound level at free speed dB(A) ^a	Ordering No.
			kW	hp	kg	lb		l/s	cfm	l/s	cfm	mm	in			
Straight grinders for wire brushes																
LSR43 S072	7200	1/2x49	0.8	1.1	2.0	4.4	438	17	36	4	8	13	1/2	1/2	80	8423 1430 00*
LSR53 S060	6000	5/8x53	1.2	1.6	3.8	8.4	485	28	59	7	15	13	1/2	1/2	80	8423 1520 02*
LSR64 S041	4100	5/8x55	1.6	2.5	5.4	11.9	535	29	61	7	15	16	5/8	1/2	81	8423 1640 14*

^a The sound level can be reduced 8-12 dB(A) by using a silencer (optional accessories).

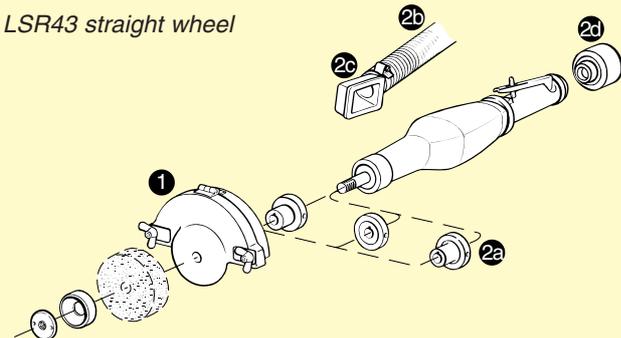
* Available directly from stock.

ACCESSORIES

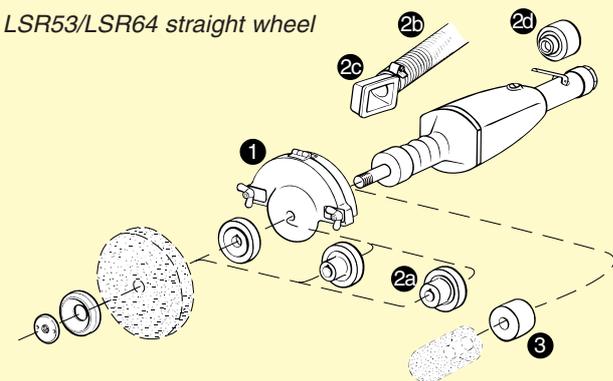
LSR27 straight wheel



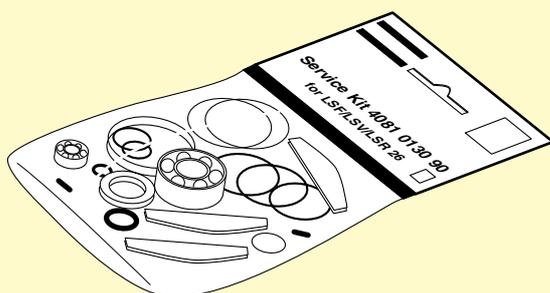
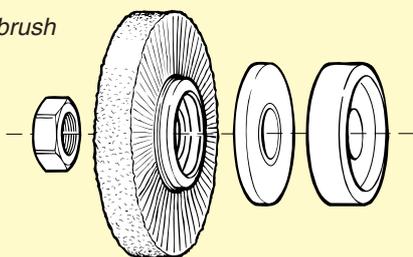
LSR43 straight wheel



LSR53/LSR64 straight wheel



Radial wire brush



1 ACCESSORIES INCLUDED

LSR27

- Wheel guard, size according to type
- Nut, flanges
- Air hose, air hose nipple and clamp
- Exhaust hose
- Wrenches

LSR43/53/64

- Wheel guard, size according to type
- Nut, flanges
- Air hose nipple and clamp
- Wrenches

2 OPTIONAL ACCESSORIES

LSR43

Model	LSR43		
2a Flange TxH 25x20			4150 0881 00
2b Silencer			4150 1005 80
2c Exhaust guard			4150 0938 80
2d Lubricator			4150 1405 80

LSR53/64

Model	LSR53	LSR64
2a Flange TxH 25x32	4150 0620 00	4150 0620 00
2b Silencer	4150 1005 80	4150 1006 80
2c Exhaust guard	4150 0938 80	4150 0968 80
2d Lubricator	4150 1405 80	4150 1405 80

3 Spacers for threaded cone wheels and plugs 5/8" thread

Model	LSR53 S120-13	LSR64 S100-15
3 Spacer	4150 1723 00	4150 0787 00

OPTIONAL ACCESSORIES

For wire brushes –Radial type for straight grinders

Model	Diameter	LSR43 S072	LSR53	LSR64
	mm			
Brush	100	4000 8771 00	4000 8771 01	–
Brush	150	–	–	4000 8764 01
Attachment set	–	included	4150 0619 84	4150 0619 80



SERVICE KITS

27 series	4081 0130 90	53 series	4081 0021 90
64 series	4081 0138 90	43 series	4081 0020 90

VERTICAL GRINDERS

For depressed centre, cut-off and cup wheels

Rough material removal and cutting-off requires lots of power. 180 mm and 230 mm depressed centre and cut-off wheels need the power of the Atlas Copco LSS series.

- **A grinder for every application** – The wide power and model range, from 1.4 to 3.8 kW provides a selection for any amount of material removal with depressed centre, cut-off or cup wheel.
- **Rigid and powerful for best productivity** – The LSS53/64/84 range is powerful and sturdy enough for the roughest grinding jobs. All LSS grinders have a nodular cast iron cylinder for longest service life.



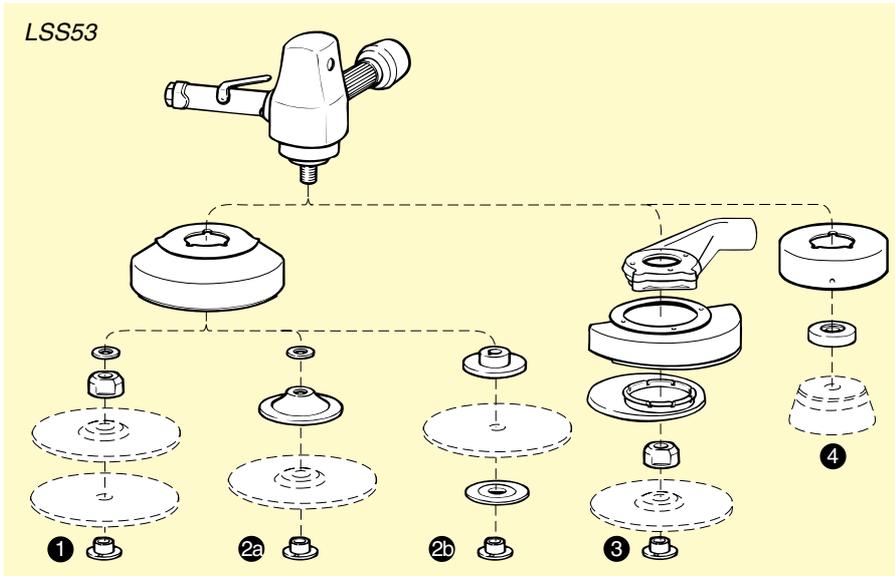
Model	Max free speed r/min	Max wheel dia mm	Max output		Weight		Height over spindle end mm	Air consumption				Spindle thread UNC	Air inlet thread		Hose size		Sound level at free speed dB(A)	Ordering No.
			kW	hp	kg	lb		l/s	cfm	l/s	cfm		BSP	mm	in			
Vertical grinders																		
LSS53 S120-13	12000	125	1.6	2.2	2.7	6.0	180	31	66	16	34	5/8	1/2	13	1/2	80	8423 2530 88*	
LSS53 S085-18	8500	180	1.4	1.9	2.9	6.4	180	27	57	10	21	5/8	1/2	13	1/2	79	8423 2530 72*	
LSS64 S085-18	8500	180	2.6	3.5	4.7	10.4	201	50	106	13	28	5/8	1/2	16	5/8	86	8423 2641 38*	
LSS53 S072-C13 ^a	7200	125	1.3	1.8	3.1	6.8	180	26	55	8	17	5/8	1/2	13	1/2	77	8423 2534 12	
LSS64 S060-C15 ^a	6000	150	2.2	3.0	5.0	11.0	201	40	85	9	19	5/8	1/2	16	5/8	82	8423 2641 04	
LSS64 S060-23	6000	230	2.2	3.0	5.7	12.6	201	40	85	9	19	5/8	1/2	16	5/8	82	8423 2641 46*	
LSS84 S060-23	6000	230	3.8	5.1	6.0	13.2	217	65	138	17	36	5/8	1/2	19	3/4	88	8423 2840 26*	

^a For cup wheel.

* Available directly from stock.

ACCESSORIES

LSS53



ACCESSORIES INCLUDED

1 Attachment according to EN 68

Wheel guard	
Flange	4170 0758 01
Nut	4170 0220 01
Wrenches	

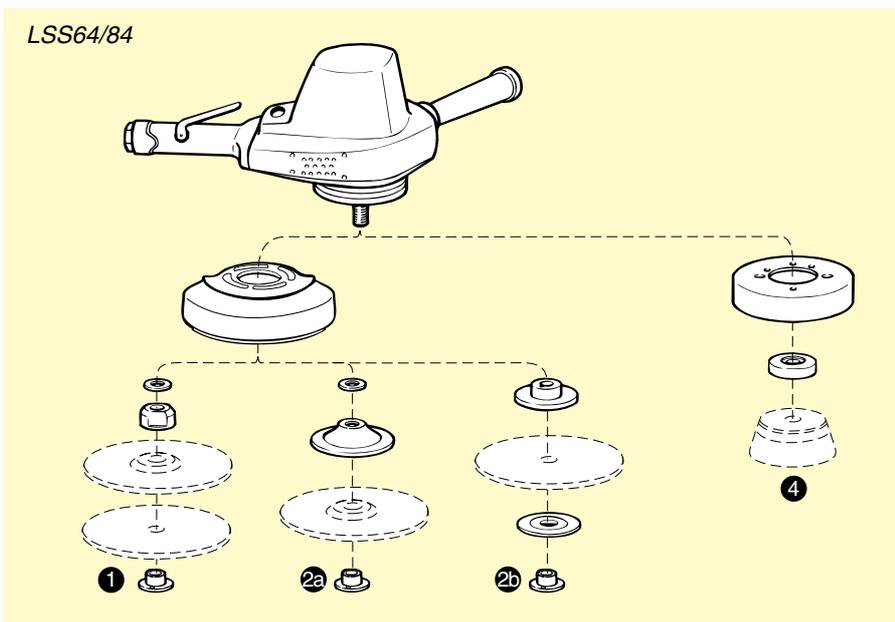
OPTIONAL ACCESSORIES

2 Traditional flange assembly for all models

Rear flange
Outer flange
Nut
Pin wrench

Depressed centre wheel (2a) Ordering No.	Cut off wheel (2b) Ordering No.
4170 0219 87	4170 1133 87

LSS64/84



3 Spot suction kit, see page 155

Flow chamber
Wheel guard 180 mm
Cap
Washer
EN 68 flange
Nut

Model	Wheel dia mm	Ordering No.
LSS53 S085	180	3780 4011 10

4 For cup wheel

(incl in C13 and C15 models)

Wheel guard Ø 125 mm	4170 0664 80
Wheel guard Ø 150 mm	4170 0652 80
Flange	4170 1128 01

SERVICE KITS



LSS53	4081 0132 90
LSS64	4081 0133 90
LSS84	4081 0136 90

VERTICAL GRINDERS

For sanding

Surface grinding jobs with coarse grit fibre disc on stiff pads or with wire brush requires high power and torque. A vertical grinder is a good choice of tool where accessibility is of minor importance.

- ❑ **High productivity** –The speed governor keeps rotational speed constant when applying feed-force, which speeds up the material removal rate and increases productivity.
- ❑ **Ergonomic** – Sound and vibration levels are low for the best comfort of the operator.
- ❑ **Wide range** –The range covers any requirement on power for surface grinding abrasives.
- ❑ **Turbo sander** –Ideal for rough sanding, see page 126.



LSS53

LSS64

Model	Max free speed r/min	Recommended pad size dia mm	Max output		Weight		Height mm	Air consumption				Spindle thread UNC	Air inlet thread BSP	Recommended air hose		Sound level dB(A)	Ordering No.
			kW	hp	kg	lb		l/s	cfm	l/s	cfm			mm	in		
Rotary sanders. Vertical type																	
LSS53 S060	6000	180	1.2	1.6	2.3	5.1	180	24	51	7	15	5/8	1/2	13	1/2	76	8423 2530 23*
LSS53 S060-M14	6000	180	1.2	1.6	2.3	5.1	180	24	51	7	15	M14	1/2	13	1/2	76	8423 2530 27*
LSS64 S060	6000	180	2.2	3.0	4.1	9.0	201	40	85	9	19	5/8	1/2	16	5/8	82	8423 2640 12*
LSS64 S045	4500	230	1.8	2.4	4.1	9.0	201	35	74	7	15	5/8	1/2	16	5/8	79	8423 2640 04

* Available directly from stock.

ACCESSORIES

OPTIONAL ACCESSORIES

1 Backing set standard type

washers –backing pad –nut –wrench

All models dia mm	Ordering No.		
	Soft	Stiff	
125	4170 0768 80	–	
180	4170 0756 80	4170 0757 80	

2 Backing set combination type

washer –hub –pad 125, 180 and 230 mm –nut –wrench

All models dia mm	Ordering No.
125-180	4170 0258 80
125-230	4170 0259 80

3 Backing set heavy duty type

washer –rubber hub –back-up pad –nut

All models dia mm	Ordering No.		
	Soft	Medium	Stiff
125	–	4170 0659 82	–
180	4170 0660 81	4170 0660 82	4170 0660 83
230	–	4170 0661 82	4170 0661 83

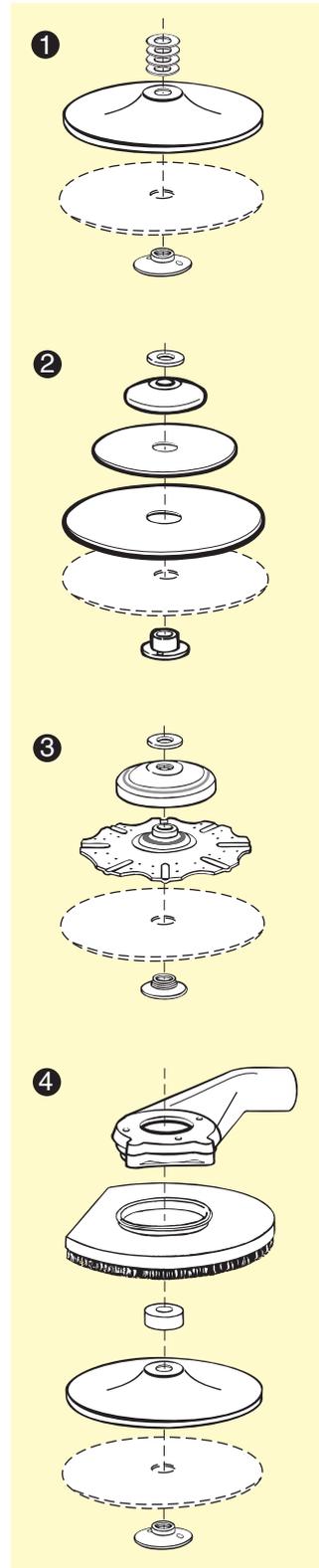
4 Spot suction kit for fibre disc, dia 180 mm

flow chamber –cap –washers –backing pad –nut

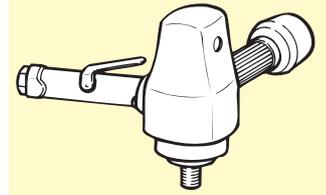
Model	Dia mm	Ordering No.
LSS53	180	3780 4011 00

5 Wire brushes –Cup type

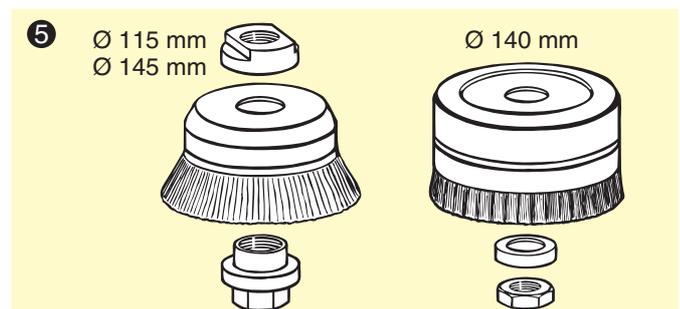
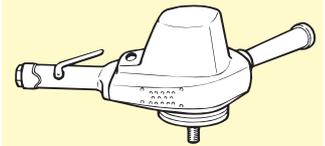
For vertical	Brush Ø 115 mm	Brush Ø 140 mm	Brush Ø 145 mm
	Ordering No.	Ordering No.	Ordering No.
Attachment set	4170 0459 81	4170 0550 80	4170 0337 80
Brush	4170 0491 00	4170 0685 00	4006 8938 03
Suitable for	LSS53 S060	LSS64 S060 GTG40 S060	LSS64 S060



LSS53



LSS64



SERVICE KITS

LSS53	4081 0132 90
LSS64	4081 0133 90

ANGLE GRINDERS

For depressed centre and cut-off wheels

Smooth, precise grinding with demands on accessibility will guide your choice to an angle grinder with depressed centre or cut-off wheel.

The span between LSV17 to LSV37 offers you the right size of tool between 80 to 125 mm diameter wheel respectively and power of 0.25 to 1.1 kW. All the grinders have sealed angle heads which avoids greasy nipples or oil leakage.

□ **High productivity, good accessibility** – The speed governor keeps rotational speed close to free speed for a high material removal rate. The low angle head gives access to cramped spaces with increased productivity as the result.

□ **Ergonomics** – Thermal isolation of handles, low sound and vibration levels and sealed angle heads make these tools the best for the comfort of the operator.

□ **LSV37** – Excellent power in relation to weight for best productivity, even with long hoses. Lubrication-free motor for best result when grinding in stainless steel, aluminium and grinding in high quality welds. Adjustable wheel guard and small size, a true one-hand grinder for best accessibility in close areas. SA-model has auto-balancer incorporated as standard.



□ **LSV37 ALU-Cut** – This is a new attachment in our accessory range for material removal and cutting off operations in aluminium.

Model	Max free speed r/min	Recommended wheel mm DxTxH ^a	Max output		Weight		Height over spindle end mm	Air consumption				Spindle thread UNC	Air inlet thread BSP	Hose size		Sound level ^b at free speed dB(A)	Ordering No.	
			kW	hp	kg	lb		l/s	cfm	l/s	cfm			mm	in			
Angle grinders																		
LSV17 S170-08 HD	17000	80x7x9.5/10	0.25	0.3	0.8	1.7	71	8	17	6	13	3/8 ^f	1/4	8	5/16	74	8423 0111 09*	
LSV27 ST12-10	12000	100x7x16	0.62	0.83	1.6	3.5	80	17	36	13	27	3/8 ^f	3/8	10	3/8	75	8423 0125 23*	
LSV27 ST12-12	12000	115x7x22	0.62	0.83	1.6	3.5	80	17	36	13	27	3/8 ^f	3/8	10	3/8	75	8423 0125 24*	
LSV27 ST12-13	12000	125x7x22	0.62	0.83	1.6	3.5	80	17	36	13	27	3/8 ^f	3/8	10	3/8	75	8423 0125 25*	
LSV37 SA12-125/B ^e	12000	125x7x22	1.0 ^g	1.3	1.6	3.5	77	22	46	12	25	M14	3/8	13	1/2	78	8423 0131 03*	
LSV37 SA13-115/B ^e	13300	115x7x22	1.0 ^g	1.3	1.6	3.5	77	22	46	12	25	M14	3/8	13	1/2	78	8423 0131 05*	
LSV27 S060-18	6000	180 ^d	0.60	0.80	2.4	5.3	87	18	38	8	17	5/8	3/8	10	3/8	75	8423 0135 54*	
LSV37 ST12-125/B	12000	125x7x22	1.1	1.3	1.6	3.5	77	22	46	12	25	M14	3/8	13	1/2	78	8423 0131 00*	
LSV37 ST13-115/B	13300	115x7x22	1.1	1.3	1.6	3.5	77	22	46	12	25	M14	3/8	13	1/2	78	8423 0131 01*	
LSV37 ST15-100/B	15000	100x7x16	1.1	1.3	1.6	3.5	77	22	46	12	25	3/8 ^f	3/8	13	1/2	78	8423 0131 02*	
LSV50 S085-18	7700	180x7x22	1.2	1.6	3.3	7.2	105	31	66	14	30	5/8	1/2	13	1/2	86	8423 0326 09*	
LSV50 S085-18S ^e	7700	180x7x22	1.1	1.5	3.4	7.5	105	31	66	14	30	5/8	1/2	13	1/2	80	8423 0326 26*	

^a DxTxH = Diameter x Thickness x Hole.

^b For LSV17/27/37 with exhaust hose.

^c With built-in silencer.

^d Specially for flexible depressed centre wheel, see page 157.

^e SA = Autobalancer.

^f UNF.

^g 1.1 kW with oil.

With wheel guard for disc
 -08 = Ø 75 mm
 -12 = Ø 115 mm
 -13 = Ø 125 mm
 -18 = Ø 180 mm

* Available directly from stock.

ACCESSORIES

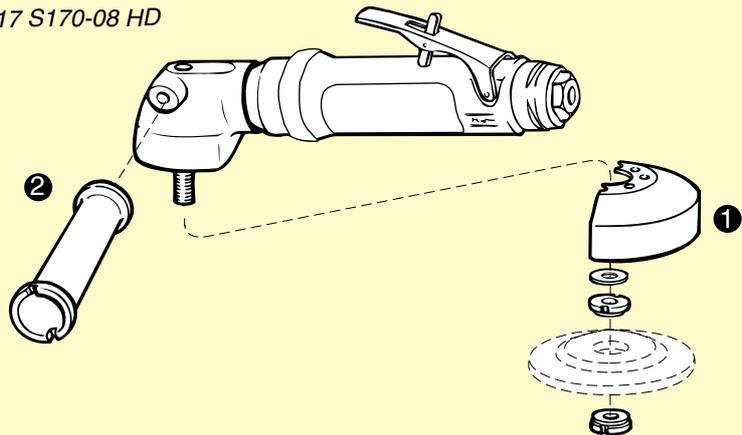
1 ACCESSORIES INCLUDED

- Wheel guard 80 mm
- Flanges 4150 1158 80
- Air Hose nipple, clamp
- Wrenches
- Exhaust hose set

2 OPTIONAL ACCESSORIES

Support handle	Ordering No.
LSV17 S170-08 HD	4110 1355 85

LSV17 S170-08 HD



1 ACCESSORIES INCLUDED

- Wheel guard
- Flanges 4150 1160 80
- Support handle 4150 1521 80
- Air hose, air hose nipple, clamp
- Wrenches
- Exhaust hose set

2 OPTIONAL ACCESSORIES

- Spot suction kit for depressed centre wheel 125 mm, see page 163
- Flow chamber
- Wheel guard
- Cap
- Washer
- EN 68 flange
- Nut

Model	Ordering No.
LSV27 ST12-12	3780 4008 70
LSV27 ST12-13	3780 4008 70
LSV37 ST/SA12-125	3780 4008 72 ^a

^a Use with adapter 4150 1662 91.

- 3 Parts for fitting flexible depressed centre wheel especially for LSV27 S060-18. Backing pads and disc are available from abrasive suppliers. Wheel guard must be used (incl in LSV27 S060-18).

Adapter	Nut	Washer
For 5/8" spindle		
-	4170 0759 00	4170 0311 00
For 3/8" spindle		
4150 1159 00	4150 1410 00	-

4

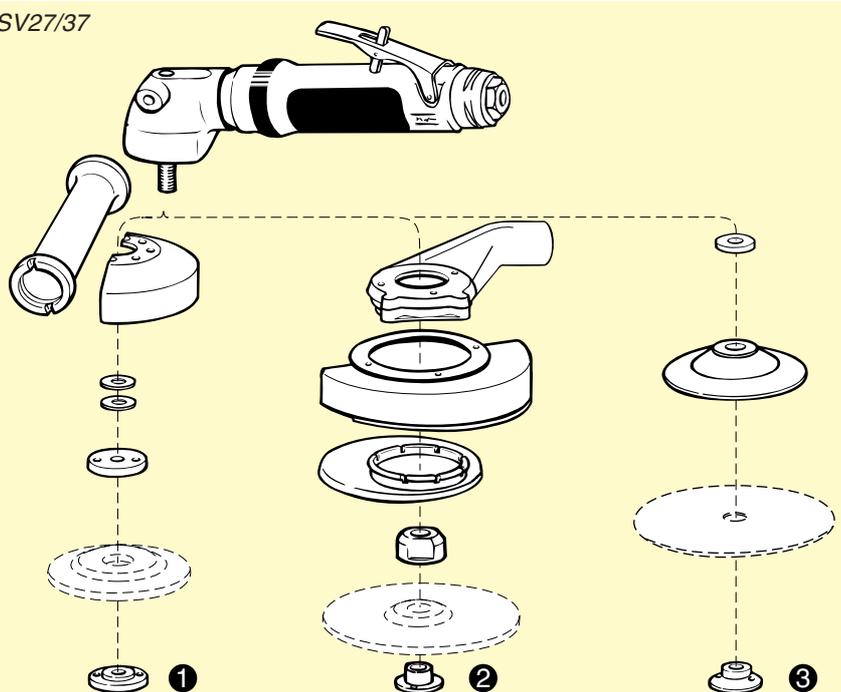
Alu-Cut	Ordering No.
Guard kit	4112 1161 90
Carbide tipped cutter, dia 125 mm, t = 4 mm	4112 1162 00
t = 2 mm	4112 1164 00



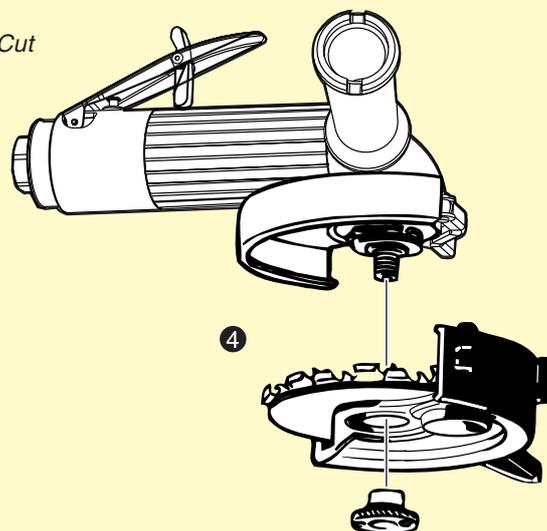
SERVICE KITS

- LSV17 4081 0026 90
- LSV27 4081 0130 90
- LSV37 4081 0210 90

LSV27/37



LSV37 ALU-Cut



ANGLE SANDERS

For sanding and polishing

Surface grinding and polishing operations of various grit require a virtually unlimited number of combinations of rotational speeds and fittings for accessories.

- **Wide range** –The Atlas Copco LSV27 series represents a competitive range of angle sanders with rotational speeds, from the finest polishing operation to coarse grit sanding.
- **Special features for special applications** – Different speed versions with water supply are well suited for finishing at car body workshops or in the stone industry. Versions of both central and peripheral water supply can be found in the range.
- **Torque ranges for any kind of sanding/polishing** – Planetary gears in combination with the angle gear enables a bigger reduction of speed which in turn gives the extra torque needed. The angle grinders marked ST are equipped with a planetary gear.
- **Lubrication-free models, LF** –Avoids contamination of workpiece. No oil in the exhaust air.



- **LSV37** –Excellent power in relation to weight for best productivity. The best choice for rough sanding of sensitive materials like stainless steel and alu-

minium due to powerful and lubrication-free motor. The rear exhaust is piped away.

Model ^a	Max free speed r/min	Recommended pad size max dia		Max output		Weight		Length mm	Height mm	Air consumption				Spindle thread UNC	Recommended air hose		Air inlet thread BSP	Sound level at free speed dB(A) ^b	Ordering No.
		mm	mm	kW	hp	kg	lb			at max output	at free speed	l/s	cfm		l/s	cfm			
With collet																			
LSV17 S200-1/B	20000	50	0.25	0.30	0.5	1.1	158	75	8	17	6	13	–°	8	5/16	1/4	73	8423 0111 20*	
LSV17 S120-1/B	12000	75	0.25	0.30	0.5	1.1	158	75	8	17	6	13	–°	8	5/16	1/4	73	8423 0111 28*	
LSV17 S080-1/B	8000	75	0.20	0.27	0.5	1.1	158	75	8	17	6	13	–°	8	5/16	1/4	73	8423 0111 32*	
With threaded spindle																			
LSV17 S080-M/B	8000	75	0.20	0.27	0.5	1.1	158	75	8	17	6	13	1/4"-20	8	5/16	1/4	73	8423 0111 31*	
LSV17 S200-M/B	20000	50	0.25	0.30	0.5	1.1	158	53	8	17	6	13	1/4"-20	8	5/16	1/4	73	8423 0111 22*	
LSV17 S120-M/B	12000	75	0.25	0.30	0.5	1.1	158	53	8	17	6	13	1/4"-20	8	5/16	1/4	73	8423 0111 30*	
Rotary sanders. Angle type. Dry sanding																			
LSV27 S060	6000	180	0.62	0.83	1.4	3.1	260	87	16	34	7	15	5/8	10	3/8	3/8	73	8423 0125 31*	
LSV27 S060-M14	6000	180	0.62	0.83	1.4	3.1	260	87	16	34	7	15	M14	10	3/8	3/8	73	8423 0125 63*	
LSV27 S040	4000	180	0.55	0.73	1.4	3.1	260	87	13	27	3	16	5/8	10	3/8	3/8	73	8423 0126 23*	
LSV27 ST034	3400	180	0.61	0.81	1.6	3.5	300	87	18	38	14	30	5/8	10	3/8	3/8	77	8423 0135 79*	
LSV27 S021	2100	180	0.55	0.73	1.8	3.9	280	87	16	34	6	13	5/8	10	3/8	3/8	74	8423 0125 15*	
LSV27 S021-M14	2100	180	0.55	0.73	1.8	3.9	280	87	16	34	6	13	M14	10	3/8	3/8	74	8423 0125 71	
LSV27 ST018	1800	180	0.60	0.80	1.6	3.5	300	87	18	38	7	15	5/8	10	3/8	1/2	78	8423 0135 71	
Wet sanding																			
LSV27 ST018-01	1800	180	0.60	0.80	1.9	4.2	280	87	18	38	7	15	5/8	10	3/8	3/8	78	8423 0125 89*	
LSV27 ST018-01-M14	1800	180	0.60	0.80	1.9	4.2	280	87	18	38	7	15	M14	10	3/8	3/8	78	8423 0125 97*	
LSV27 S010-00	1000	180	0.30	0.40	1.8	3.9	280	87	13	28	3	6	5/8	10	3/8	3/8	67	8423 0125 07*	
LSV27 S060-01	6000	180	0.62	0.83	1.8	3.9	260	87	16	34	7	15	5/8	10	3/8	3/8	73	8423 0135 87	
LSV27 S060-01-M14	6000	180	0.62	0.83	1.8	3.9	260	87	16	34	7	15	M14	10	3/8	3/8	73	8423 0135 89	
LSV27 S040-01-M14	4000	180	0.55	0.73	1.4	3.1	260	87	13	27	3	6	M14	10	3/8	3/8	73	8423 0125 13	
Lubrication-free, dry and wet sanding																			
LSV27 ST013-LF	1300	180	0.60	0.80	1.6	3.5	280	87	16	34	7	15	5/8	10	3/8	3/8	74	8423 0126 25*	
LSV27 ST013-M14-LF	1300	180	0.60	0.80	1.6	3.5	280	87	16	34	7	15	M14	10	3/8	3/8	74	8423 0125 27	
LSV27 ST008-01-LF	800	200	0.55	0.74	1.9	4.2	280	87	16	34	6	13	5/8	10	3/8	3/8	74	8423 0125 50*	
LSV37 S085	8500	180	1.0	1.3	1.4	3.1	211	85	22	46	12	25	5/8	13	1/2	3/8	78	8423 0130 94*	
LSV37 S066	6600	180	1.0	1.3	1.4	3.1	211	85	22	46	12	25	5/8	13	1/2	3/8	78	8423 0130 95*	
LSV37 S085-M14	8500	180	1.0	1.3	1.4	3.1	211	85	22	46	12	25	M14	13	1/2	3/8	78	8423 0130 98*	
LSV37 S066-M14	6600	180	1.0	1.3	1.4	3.1	211	85	22	46	12	25	M14	13	1/2	3/8	78	8423 0130 99*	

^a -00 = wet sander, peripheral water supply.

-01 = wet sander, centre water supply.

^b LSV17/27 measured with exhaust hose.

^c Ø 6 mm collet.

-1 = 6 mm Collet

-M = Male 1/4" thread

ACCESSORIES INCLUDED

- Air hose nipple
- Clamp
- Exhaust hose (LSV17/27)
- Support handle (LSV27/41)
- Wrenches

* Available directly from stock.

ACCESSORIES

OPTIONAL ACCESSORIES

1 Backing set standard type

washers –backing pad –nut –wrench

For all models dia mm	Ordering No.	
	Soft	Stiff
125	4170 0768 80	–
180	4170 0756 80	4170 0757 80
180 (M14 Models)	4932 3457 58	–
125 (M14 Models)	4932 3457 61	–

2 Backing pad with ribbed surface for cooler process, fits both UNC5/8"-11 and M14 spindle thread

backing pad –rear washer –front nut

For all models dia mm	Pad Ordering No.	Pin key for front nut ^a Ordering No.
125	4150 1962 80	4080 1169 00
180	4150 1962 81	4080 1169 00

^a Optional, order separately.

3 Backing set combination type

washer –hub –pad 125, 180 and 230 mm –nut –wrench

For all models dia mm	Ordering No.
125-180	4170 0258 80
125-230	4170 0259 80

4 Backing set heavy duty type

washer –rubber pad –back-up pad –nut

For all models dia mm	Ordering No.		
	Soft	Medium	Stiff
125	–	4170 0659 82	–
180	4170 0660 81	4170 0660 82	4170 0660 83
230	–	4170 0661 82	4170 0661 83

5 Spot suction kit for fibre disc, sanders with UNC 5/8" spindle (see page 163)

flow chamber –cap –washers –backing pad –nut

Model	Dia mm	Ordering No.
LSV27 S060	125	3780 4007 80
LSV27 S040/S060	180	3780 4007 90
LSV37 S060/S085	180	3780 4008 81
LSV37 S060/S085	125	3780 4008 80
Adapter for LSV37		4150 1662 90

6 Backing set for polishing

washer –backing pad –nut

For all models dia mm	Lamb's wool bonnet Ordering No.	Backing set Ordering No.
180	4106 6935 00	4170 0756 80

7 Backing set for abrasive paper and wet grinding

washers –backing pad –foam rubber pad

Dia mm	Medium Ordering No.	Max r/min
180	4170 0428 83	2500

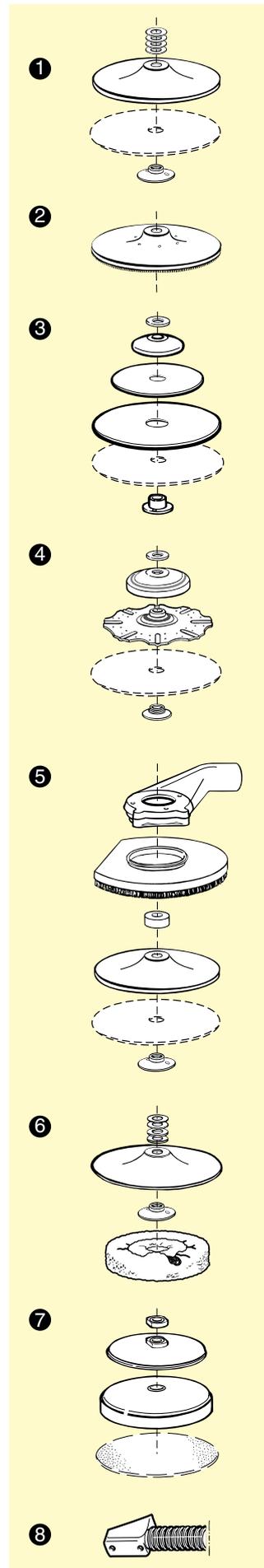
8 Silencer

Model	Silencer Ordering No.	Adapter for silencer Ordering No.
LSV41	4150 1005 80	4150 0938 80

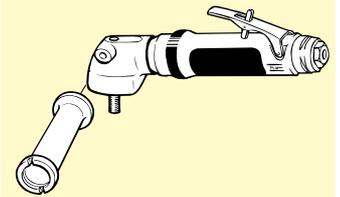


SERVICE KITS

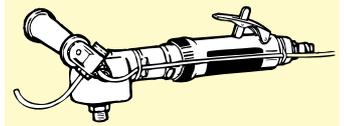
LSV17	4081 0026 90
LSV27	4081 0130 90
LSV37	4081 0210 90
LSV41	4081 0029 90



LSV27



LSV27-00/01



ORBITAL AND RANDOM ORBITAL SANDERS

□ The new series of random orbital sanders combine 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 LST 20-range of sanders. Vibration level is below 2.5 m/s² on all models.

All models are lubrication free and have silicone free components. They have two grip options in the same handle and one extra grip mold for small grip option is standard. 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		Orbit diam mm	Max output		Weight		Height mm	Length mm	Air consumption		Recom- mended air hose mm	Air inlet thread BSP	Sound level at free speed dB(A)		Ordering No.
	r/min	Pad size mm		kW	hp	kg	lb			l/s	cfm					
Random orbital – Standard																
LST30 H090-11	9000	110	5	0.3	0.4	1.2	2.6	120	255	7.5	16	8	1/4	81	8423 0361	64*
LST30 H090-15	9000	150	5	0.3	0.4	1.2	2.6	120	275	7.5	16	8	1/4	81	8423 0361	72*
LST30 S090-15	9000	150	5	0.3	0.4	1.1	2.4	120	175	7.5	16	8	1/4	80	8423 0361	98*
Self suction^a																
LST31 H090-15	9000	150	5	0.3	0.4	1.4	3.0	120	300	7.5	16	8	1/4	84	8423 0363	19*
LST31 S090-15	9000	150	5	0.3	0.4	1.3	2.9	120	200	7.5	16	8	1/4	82	8423 0363	35*
Central suction^b																
LST32 H090-15	9000	150	5	0.3	0.4	1.4	3.0	120	300	7.5	16	8	1/4	82	8423 0362	55*
LST32 S090-15	9000	150	5	0.3	0.4	1.3	2.9	120	200	7.5	16	8	1/4	83	8423 0362	71*
Orbital – Standard																
LSO30 S070-3	7000	93x170	5	0.3	0.4	1.6	3.5	125	185	7.5	16	8	1/4	80	8423 0360	16*
LSO30 H070-3	7000	93x170	5	0.3	0.4	1.7	3.7	125	285	7.5	16	8	1/4	81	8423 0360	24*
Self suction^a																
LSO31 S070-3	7000	93x170	5	0.3	0.4	1.6	3.5	125	210	7.5	16	8	1/4	82	8423 0362	79*
LSO31 H070-3	7000	93x170	5	0.3	0.4	1.7	3.7	125	310	7.5	16	8	1/4	81	8423 0363	03*
Central suction^b																
LSO32 S070-3	7000	93x170	5	0.3	0.4	1.6	3.5	125	210	7.5	16	8	1/4	78	8423 0360	99*
LSO32 H070-3	7000	93x170	5	0.3	0.4	1.8	4.0	125	310	7.5	16	8	1/4	79	8423 0361	07*
Standard model																
LST20 R350	12 000	90	5	0.2	0.27	0.85	1.85	95	127	8	17	8	1/4	76	8423 0361	65*
LST20 R550	12 000	125	5	0.2	0.27	0.85	1.85	83	127	8	17	8	1/4	76	8423 0361	69*
LST20 R650	12 000	150	5	0.2	0.27	0.85	1.85	83	127	8	17	8	1/4	76	8423 0361	73*
LST20 R325	12 000	90	2.4	0.2	0.27	0.85	1.85	95	127	8	17	8	1/4	76	8423 0361	76*
LST20 R525	12 000	125	2.4	0.2	0.27	0.85	1.85	83	127	8	17	8	1/4	76	8423 0361	81
LST20 R625	12 000	150	2.4	0.2	0.27	0.85	1.85	83	127	8	17	8	1/4	76	8423 0361	84*
Extraction model – self suction																
LST21 R350	12 000	90	5	0.2	0.27	0.85	1.85	95	133 ^c	8	17	8	1/4	85	8423 0361	66
LST21 R550	12 000	125	5	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	85	8423 0361	70*
LST21 R650	12 000	150	5	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	85	8423 0361	74*
LST21 R325	12 000	90	2.4	0.2	0.27	0.85	1.85	95	133 ^c	8	17	8	1/4	85	8423 0361	77
LST21 R525	12 000	125	2.4	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	85	8423 0361	82
LST21 R625	12 000	150	2.4	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	85	8423 0361	85*
Extraction model – central suction																
LST22 R350	12 000	90	5	0.2	0.27	0.85	1.85	95	133 ^c	8	17	8	1/4	78	8423 0361	67
LST22 R550	12 000	125	5	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	78	8423 0361	71*
LST22 R650	12 000	150	5	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	78	8423 0361	75*
LST22 R325	12 000	92	2.4	0.2	0.27	0.85	1.85	95	133 ^c	8	17	8	1/4	78	8423 0361	78
LST22 R525	12 000	125	2.4	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	78	8423 0361	83
LST22 R625	12 000	150	2.4	0.2	0.27	0.85	1.85	83	133 ^c	8	17	8	1/4	78	8423 0361	86*

H = With handle

S = Without handle

All data at 6.3 bar.

^a Includes dust collecting bag.

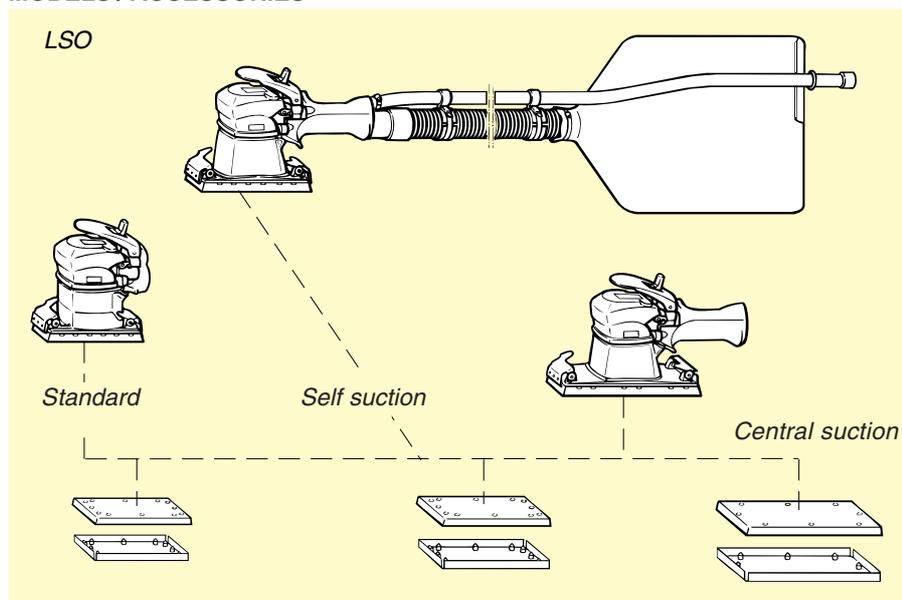
^b Required air flow 60 m³/h or 35 cfm.

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

* Available directly from stock.

ACCESSORIES

MODELS / ACCESSORIES



LSO

ACCESSORIES INCLUDED

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

OPTIONAL ACCESSORIES

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

^a LSO32

LST 20/21/22

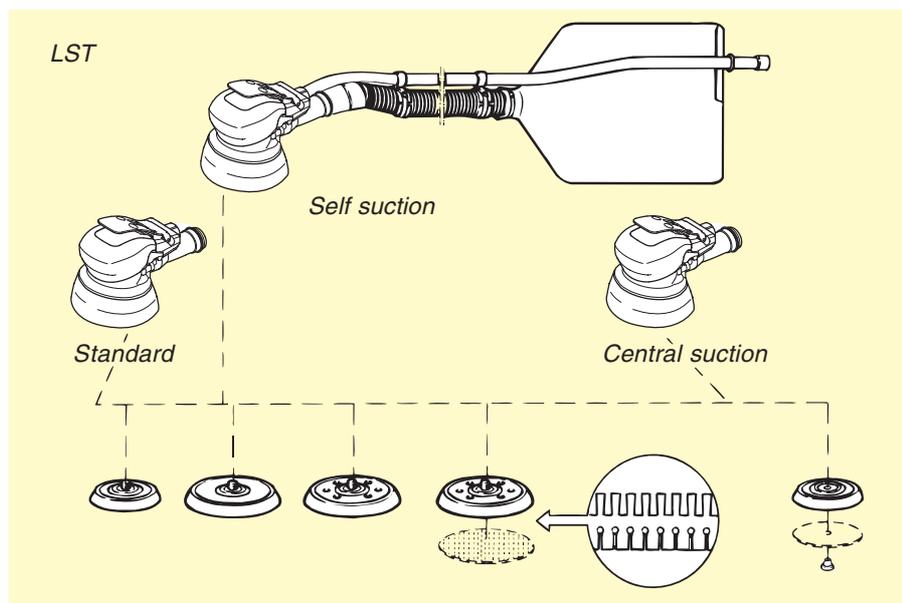
ACCESSORIES INCLUDED

Pad for velcro back paper
 U-wrench for pad change
 Air hose nipple
 Dust hose and bag (LST21)
 Large and small grip cover

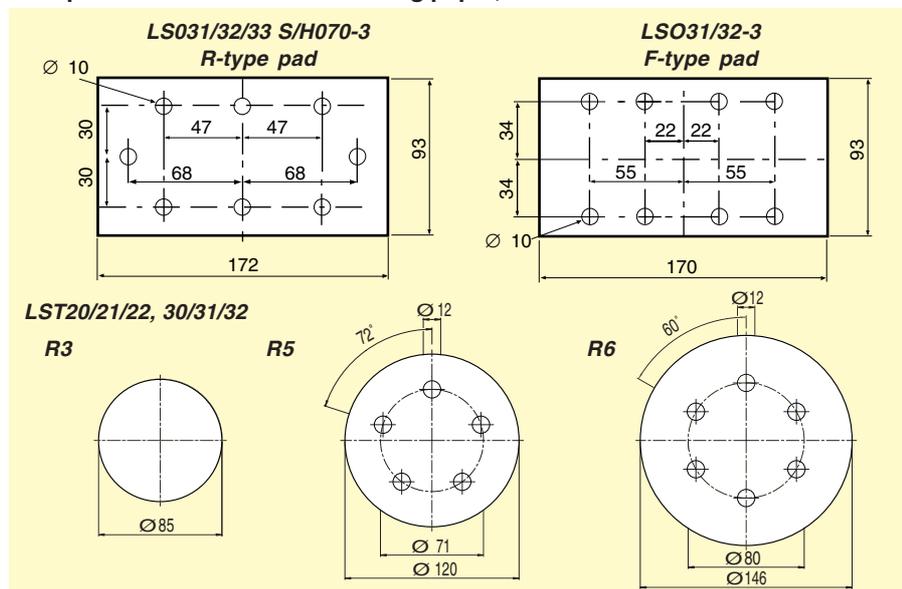
OPTIONAL ACCESSORIES

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



Hole pattern dimensions for sanding paper, dust extraction models



LST 30/31/32

ACCESSORIES INCLUDED

Pad for self stick papers
 Bar for changing pad
 Hose nipple for 8 mm hose
 LST31 incl dust collection kit

OPTIONAL ACCESSORIES

For LST	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
Hose set	
Dust hose Ø 32 mm, L=1.8 m including air hose	3780 2724 34 ^d
Suspension yoke	4112 0975 00

^a LST30-15 ^b LST30/32-11 ^c LST31/32-15
^d LST32



SERVICE KIT

LST20/21/22 4112 1300 90

DUST EXTRACTION

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:

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

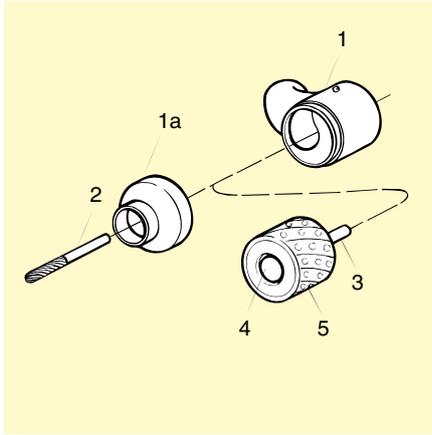
The most efficient method of dust collection is dust extraction at the point of dust creation, i.e. on the tool itself. This not only ensures very efficient extraction but also allows a relatively low power vacuum source to be used.

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.



ACCESSORIES

DIE GRINDERS

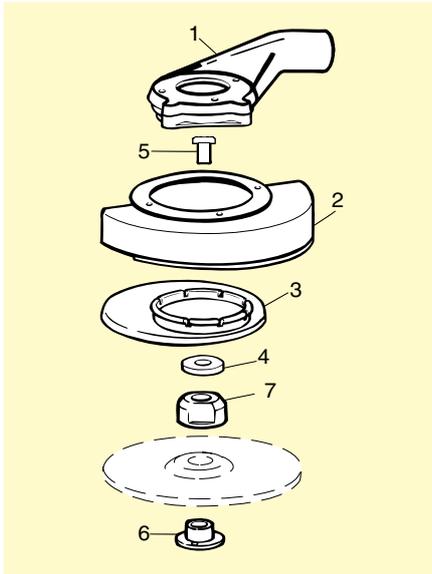


Spot suction accessories for die grinders

Suction requirement: 125 m³/h (LSF17), 200 m³/h (LSF27)

			Ordering No.
LSF17 S	Optional	1 Chamber for burr	3780 3015 20
		2 Diamond burr 6 mm	3780 5013 70
LSF17 S	Includes	KIT FOR DRUM	3780 4011 60
		1 Chamber	3780 3015 20
		3 Shaft dia 6 mm	3780 5090 30
		4 Locking screw	3780 5090 60
	Optional	5 Diamond drum 27 mm	3780 5033 00
LSF17 S E		1 Chamber for burr	3780 4007 30
Hose kits including 1.8 m vacuum hose and air hose			
		LSF17, hose Ø 25 mm	3780 2724 20
		LSF27, hose Ø 32 mm	3780 2724 30
Collets			
		6 mm	4150 0075 00
		8 mm	4150 0074 00
LSF27 S		KIT FOR BURR	3780 4007 41
	Includes	1 Chamber	3780 3300 51
		1a Nozzle	3780 2730 10
	Optional	2 Diamond burr 8 mm	3780 5014 20
LSF27 S	Includes	KIT FOR DRUM	3780 4011 71
		1 Chamber	3780 3300 51
		3 Shaft 8 mm	3780 5091 00
		Distance nut	3780 5091 50
		4 Locking nut	3780 5092 00
		Hook wrench	3780 5092 50
	Optional	5 Diamond drum, Ø 50 mm	3780 5035 00

ROUGH GRINDERS FOR DEPRESSED CENTRE AND CUT OFF WHEEL



Spot suction accessories for depressed centre and cut off wheels

Suction requirement: 250 m³/h

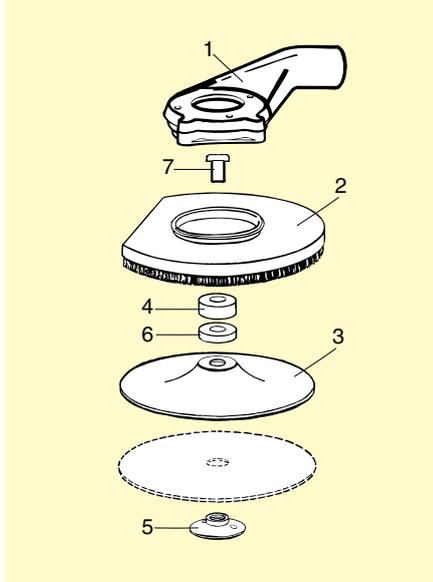
			Ordering No.
LSV27 ST12 125 mm wheel	Includes	KIT	3780 4008 70
		1 Chamber	3780 3101 10
		2 Wheel guard 125 mm	3780 2726 43
		3 Suction cap 125 mm	3780 2500 20
		4 Distance washer	4150 1364 00
		5 Adaptor UNF 3/8" UNC 5/8"	4021 0457 00
		6 Nut UNC 5/8"	3780 2722 00
LSV37 ST/SA12-125 125 mm wheel	Includes	KIT	3780 4008 72
		1 Chamber	3780 3101 11
		2 Wheel guard 125 mm	3780 2726 43
		3 Suction cap 125 mm	3780 2500 20
		4 Distance washer (t =12.5 mm)	3780 2727 20
		6 Nut M14	3780 2726 90
	Optional	Adapter	4150 1662 91
LSV50 S085 18 180 mm wheel	Includes	KIT	3780 4021 50
		1 Chamber	3780 3133 10
		2 Wheel guard 180 mm	3780 2726 50
		3 Suction cap 180 mm	3780 2500 10
LSS53 S085 18 180 mm wheel	Includes	KIT	3780 4011 10
		1 Chamber	3780 3101 00
		2 Wheel guard 180 mm	3780 2726 50
		3 Suction cap 180 mm	3780 2500 10
		7 Flange EN 68	4170 0758 00
		6 Nut 5/8"	3780 2722 00

Hose kits including 1.8 m vacuum hose Ø 38 mm and air hose Ø 13 mm (Ø 10 mm for LSV27)

LSV27	3780 2724 40
LSV37	3780 2724 41
LSV50	3780 2724 41
LSS53	3780 2724 41

ACCESSORIES

SANDERS FOR FIBRE DISC



Spot suction accessories for sanding with fibre disc. Sanders with UNC 5/8" spindle.

Suction requirement: 250 m³/h

		Ordering No.
LSV27 S040/S060/S085 125 mm fibre disc	KIT	3780 4007 80
	Includes	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
	5 Nut 5/8" 3780 2722 00	
LSV27 ST12-13 125 mm fibre disc	KIT	3780 4008 60
	Includes	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
		7 Adaptor UNF 3/8" UNC 5/8" 4021 0457 00
		5 Nut 5/8" 3780 2722 00
LSV27 S040/S060 180 mm fibre disc	KIT	3780 4007 90
	Includes	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	
LSV27 S021 180 mm fibre disc	KIT	3780 4031 60
	Includes	1 Chamber 3780 6101 50
		2 Suction cap 180 mm with brush 3780 2675 00
		3 Backing pad 3780 2710 60
		6 Distance washer 9 mm 3780 2721 60
	5 Nut 5/8" 3780 2726 70	
LSV37 S085/S066 125 mm fibre disc	KIT	3780 4008 80
	Includes	1 Chamber 3780 3101 10
		2 Suction cap 125 mm with brush 3780 2650 20
		3 Backing pad 3780 2710 30
		4 Distance washer 12 mm 3780 2721 60
		5 Nut 5/8" 3780 2722 00
Optional	Adapter 4150 1662 90	
LSV37 S085/S066 180 mm fibre disc	KIT	3780 4008 81
	Includes	1 Chamber 3780 3101 10
		2 Suction cap 180 mm with brush 3780 2675 00
		3 Backing pad 3780 2710 60
		4 Distance washer 12 mm 3780 2721 60
		5 Nut 5/8" 3780 2722 00
Optional	6 Distance washer 3 mm 3780 2721 30	
	Adapter 4150 1662 90	
LSV41 S025/S042 180 mm fibre disc	KIT	3780 4018 20
	Includes	1 Chamber 3780 3132 80
		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
		Exhaust guard 4150 0938 80
	Silencer 4150 1005 80	
LSS53 S060 180 mm fibre disc	KIT	3780 4011 00
	Includes	1 Chamber 3780 3101 00
		2 Suction cap 180 mm with brush 3780 2675 00
		3 Backing pad 180 mm 3780 2710 60
		4 Distance washer 12 mm 3780 2721 60
	5 Nut 5/8" 3780 2726 70	
GTG40 S060 180 mm fibre disc	KIT	3780 4090 10
	Includes	1 Chamber 3780 3180 10
		2 Suction cap 180 mm with brush 3780 2675 30
		3 Backing pad 180 mm 3780 2710 30
		4 Distance washer 3 mm 3780 2721 30
	5 Flange nut 5/8" 3780 2722 00	
Hose kits including 1.8 m vacuum hose, Ø 38 mm and air hose Ø 13 mm (Ø 10 mm for LSV27)		
	LSV27	3780 2724 40
	LSV37/41, LSS53, GTG21/40	3780 2724 41
Brush for suction cap		
	Separate brush for cap Ø 125 mm	3780 2678 00
	Separate brush for cap Ø 180 mm	3780 2677 50
	Separate brush (30 mm high) for cap Ø 180 mm	3780 2677 30

ROUTERS

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 isolated throttle handle, sound dampening exhaust valve and piped-away exhaust air provides the operator with the best working environment.



Model	Free speed r/min	Collet size	Weight		Power		Air consumption		Recommended hose size		Hose fitting thread BSP	Ordering No.
			kg	lb	kW	hp	l/s	cfm	mm	in		
LSK37 S250-DS1	25000	6 mm	2.8	6.1	0.7	0.95	18	32	13	1/2	3/8	8423 1234 41
LSK37 S250-DS2	25000	1/4"	2.8	6.1	0.7	0.95	18	32	13	1/2	3/8	8423 1234 42

Suction requirement: 200 m³/h.

NIBBLER

The Atlas Copco LPN33 nibbler can cut iron sheet up to 2 mm in thickness and aluminium sheet in thicknesses up to 2.5 mm.

- **Sturdy design** – To ensure optimal tool life, the cutter and die insert are made of tungsten carbide and the other parts of the nibbler head of high-grade steel.
- **Good accessibility** – The cutter works in the upward direction reducing the risk of die failure. The die insert has cutting edges all round and can be rotated through 360° before being worn out.
- **Piped-away exhaust air** – Some of the exhaust air is conducted through the nibbler head so as to blow out the chips and cool the cutter.



Model	Nibbler cutting speed 2 mm sheet m/min	Max sheet thickness mm			Length mm	Weight		Hose size dimension		Hose fitting thread BSP	Ordering No.
		Steel	Stain- less	Alumin- ium		kg	lb	mm	in		
LPN33	1.6	2.0	1.0	2.5	270	2.1	4.6	10	3/8	1/4	8424 0301 07*

* Available directly from stock.

ACCESSORIES INCLUDED

- 3 mm hexagon wrench
- Hose fitting for 10 mm air hose

CIRCULAR CUTTERS

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

- ❑ **Effective** – LCS10 and -37 cut to a depth of 10 and 26 mm respectively.
- ❑ LCS37 is suitable for diamond coated blades only.
- ❑ **Dust extraction** – Cutting of composite materials generates dust containing particles hazardous to health. The dust must be deported in order to prevent the operator from inhaling them.

LCS37 is equipped with a cutter blade guard with integrated dust extraction hood for external vacuum source.



Model	Free speed r/min	Max output kW	Max cutting depth mm	Max cutter blade dia mm	Weight		Hose size mm	Air consumption		Hose fitting thread BSP	Ordering No.
					kg	lb		l/s	cfm		
Circular cutters											
LCS10	3000	0.3	10	50	1.4	3.1	6.3	7.6	16	1/4	8424 1161 38*
LCS37 S150D ^a	15000	1.0	26	100	1.6	3.5	13.0	23.0	48.7	3/8	8424 1125 05*

^a Suction requirement: 200 m³/h.

* Available directly from stock.

^b 1.1 kW with oil.

ACCESSORIES INCLUDED

LCS10

- Cutter blade, 62 teeth
- Hexagon wrench
- Hose nipple for 6.3 mm air hose

LCS37

- Flanges for diamond blade
- Hose nipple for 13 mm air hose

OPTIONAL ACCESSORIES

Suction hose set, L=1.8 m, Dia 32 mm (1 1/4")

Designation	Ordering No.
LCS37	3780 2724 31

OPTIONAL ACCESSORIES. Cutter blades

Model	Application	Max thickness of material mm	No. of teeth mm	Dia mm	Hole mm	Ordering No.
LCS10	Steel sheet	1.0	92	50	10	4190 0394 00
	Steel sheet	1.0	62	50	10	4190 0395 00 (std)
	Aluminium	2.5	34	50	10	4190 0396 00
	Wood	10.0	34	50	10	4190 0396 00
LCS37	Glassfibre	25.0	44/60 (Grain)	75	12	3780 5073 00
	Glassfibre	25.0	44/60 (Grain)	100	12	3780 5074 00

Percussive tools

Choose Atlas Copco and you've cracked it!

Chipping hammers, riveting hammers, rammers, scalers and bucking bars –our percussive tools make light of the toughest jobs. The vibration-damped Ergo-line range includes sophisticated ergonomic features designed to minimize operator fatigue.

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Chipping hammers –vibration-damped and silenced	169

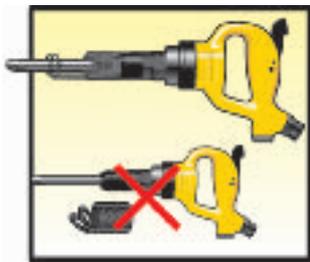
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RULES FOR SAFER OPERATION

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.



AND

- 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 shall 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.

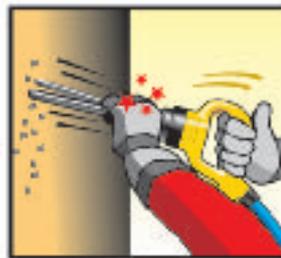
LONG TERM RISKS

- 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.**



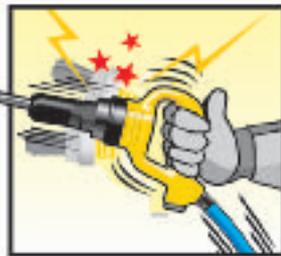
- Use vibration dampened tools if available.
- Reduce the total time of exposure to vibrations, particularly if the operator has to guide the chisel by hand.

- 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 shall be separated from the tool by a whip hose (length 0.5 m).

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

- 12 Make overhaul at regular intervals.**

CHIPPING HAMMERS

Vibration-damped and silenced

Tough on the job –easy on you

Choose the tools that give the best results in the toughest working conditions, yet are easy on the operator. These are effective, reliable tools for fettling of castings, chipping operations in the mechanical industry, hole making and light demolition of concrete.

- **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 (2.5 m/s²) 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 (below 2.5 m/s²) and noise levels, vibration damping in both hand grips, and piped away exhaust.



Model	Blows Hz	Piston dia		Stroke		Energy per blow		Length mm	Weight		Bushing		Air consumption		Hose size		Air inlet BSP	Ordering No.	
		mm	in	mm	in	J	ft lb		kg	lb	mm	in	l/s	cfm	mm	in			
Chipping hammers vibration damped																			
RRF21-01	57	18	0.7	33	1.3	2.0	1.5	245	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	265	2.5	5.3	12.7 ^c	0.50	7.5	15.9	10.0	3/8	3/8	8425 1104 15*	
RRD37-11	35	27/19 ^a	1.1/0.8	70	2.8	6.8	5.0	418	3.0	6.6	17.3 ^d	0.68	7.2	15.3	12.5	1/2	special ^e	8425 1101 22*	
RRD37-12	35	27/19 ^a	1.1/0.8	70	2.8	6.8	5.0	418	3.0	6.6	17.3 ^d	0.68	7.2	15.3	12.5	1/2	special ^e	8425 1101 30*	
RRD57-11	31	28/18 ^b	1.1/0.8	92	3.6	9.3	6.9	458	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	458	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.

* Available directly from stock.

DIMENSIONS (mm)

Model	L	H	D
RRF21	245	160	33
RRF31	265	170	36
RRD37	418	175	–
RRD57	458	190	–

Power regulator

Model	Ordering No.
RRF21 and -31	3512 0273 80

Retainer, open type

Model	Ordering No.
RRF21	3512 0290 90
RRF31	3512 0305 90

RRD37, RRD57

The RRD37 and RRD57 can be equipped with spot suction.

Equipment for spot suction	Ordering No.
Suction cap	3510 0477 80
Hose cap	3510 0536 00
Suction hose Ø 40 mm, length 15 m	3780 1602 02

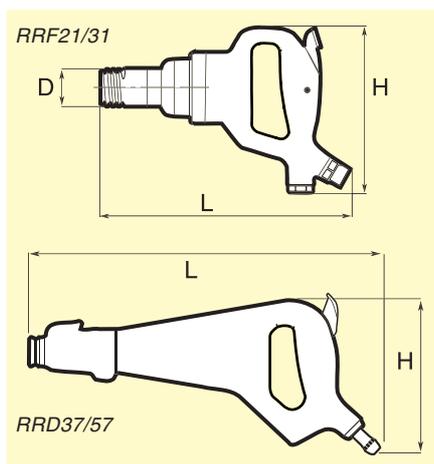
ACCESSORIES INCLUDED

RRF models Chisel retainer and a hose fitting
RRD models Flat chisel
Silencer complete
Hand grip
Key

OPTIONAL ACCESSORIES

A selection of chisels
RRF21/31 ISO 12.7 mm
RRD37/57 ISO with splines

For a wide choice of chisels, see page 181.



CHIPPING HAMMERS

Atlas Copco chipping hammers of type RRC are used mainly in foundries, in heavy industry and for hole-making and light demolition in the building industry.

- **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 you can guide via the machine itself and not by holding the chisel.

As standard, 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		Length mm	Weight		Bushing		Air consumption		Hose size		Air inlet BSP	Ordering No.	
		mm	in	mm	in	J	ft lb		kg	lb	mm	in	l/s	cfm	mm	in			
Chipping hammers including chisel retainer																			
RRC22F-01	62	15	0.6	52	2.0	2.7	2.0	260	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	260	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	330	4.5	9.9	17.3 ^a	0.68	8.0	14.0	12.5	1/2	special ^b	8425 0212 53*	
RRC34B-02	45	24	0.9	67	2.6	5.5	4.1	330	4.5	9.9	17.3 ^a	0.68	8.0	17.0	12.5	1/2	special ^b	8425 0212 61	
RRC65B-01	40	29	1.1	50	2.0	10.0	7.3	335	5.9	13.0	17.3 ^a	0.68	10.8	22.9	12.5	1/2	special ^b	8425 0225 33*	
RRC65B-02	40	29	1.1	50	2.0	10.0	7.3	335	5.9	13.0	17.3 ^a	0.68	10.8	22.9	12.5	1/2	special ^b	8425 0225 41*	
RRC75B-01	30	29	1.1	75	3.0	16.0	11.8	390	6.5	14.3	17.3 ^a	0.68	14.0	29.6	12.5	1/2	special ^b	8425 0225 58*	
RRC75B-02	30	29	1.1	75	3.0	16.0	11.8	390	6.5	14.3	17.3 ^a	0.68	14.0	29.6	12.5	1/2	special ^b	8425 0225 66*	

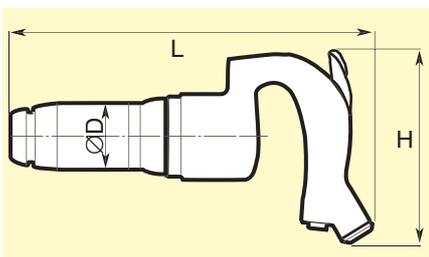
^a ISO.

* Available directly from stock.

^b Integrated hose barb.

DIMENSIONS (mm)

Model	L	H	D
RRC22	260	155	34
RRC34	330	160	43
RRC65	335	170	54
RRC75	390	170	54



ACCESSORIES INCLUDED

RRC22F
RRC34B
RRC65B
RRC75B

} Chisel retainer and hose fitting

OPTIONAL ACCESSORIES

A selection of chisels fitting -01, -02 type, see page 181.

SCALER

Vibration-controlled

Scaler RVM07B is ideal for tasks such as weld dressing, etc.

- **Vibration-damped with low-noise level.**
- **Vibration is very low** (below 2.5 m/s²).
- **Two-job capacity** –RVM07B features a clean-blowing device (B) which is very useful for clean-blowing work on steel structures etc.
- **RVM07B** is also the obvious choice for light concrete trimming and for removal of paint and rust.

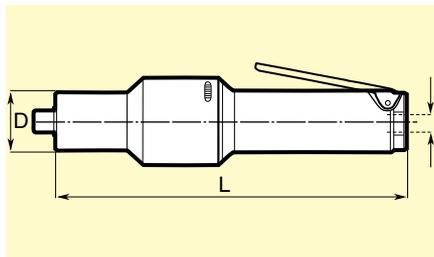


Model	Blows Hz	Length mm	Weight		Air consumption		Hose size		Air inlet BSP	Ordering No.
			kg	lb	l/s	cfm	mm	in		
Scalers										
RVM07B	100	273	1.9	3.8	3.8	8.1	6.3	1/4	1/4	8425 0105 25*

* Available directly from stock.

DIMENSIONS (mm)

Model	L	D
RVM07B	273	38

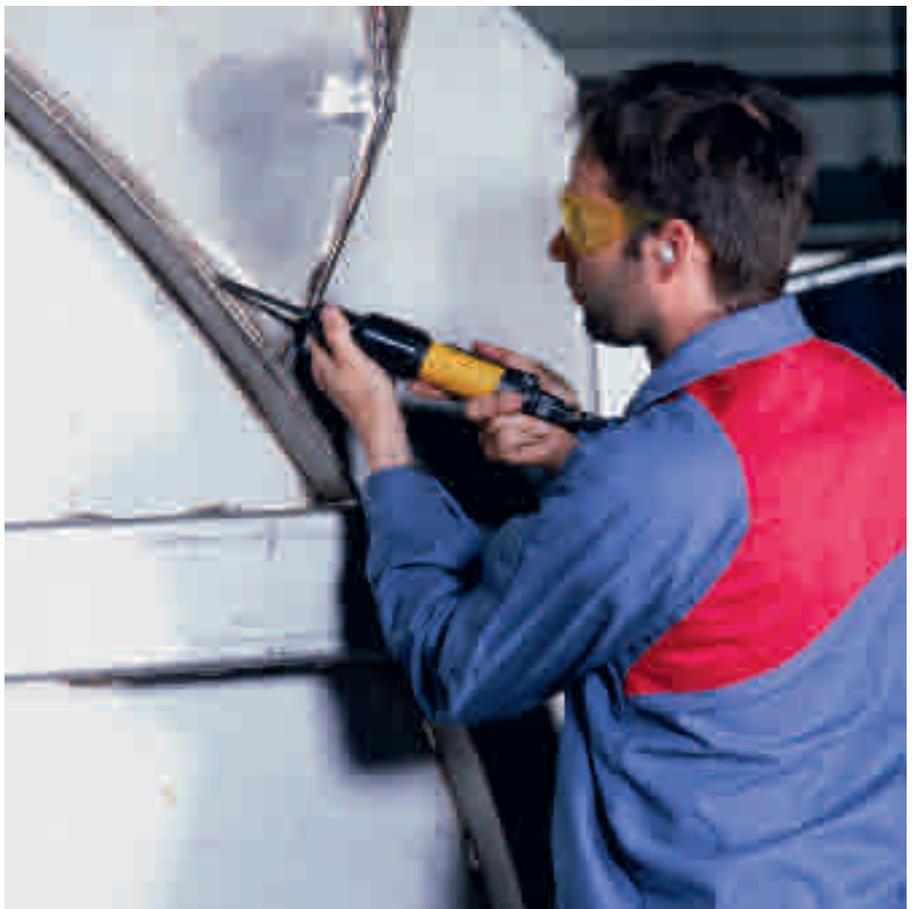


ACCESSORIES INCLUDED

Hose fitting
Flat carbide tipped chisel 10x120 mm

OPTIONAL ACCESSORIES

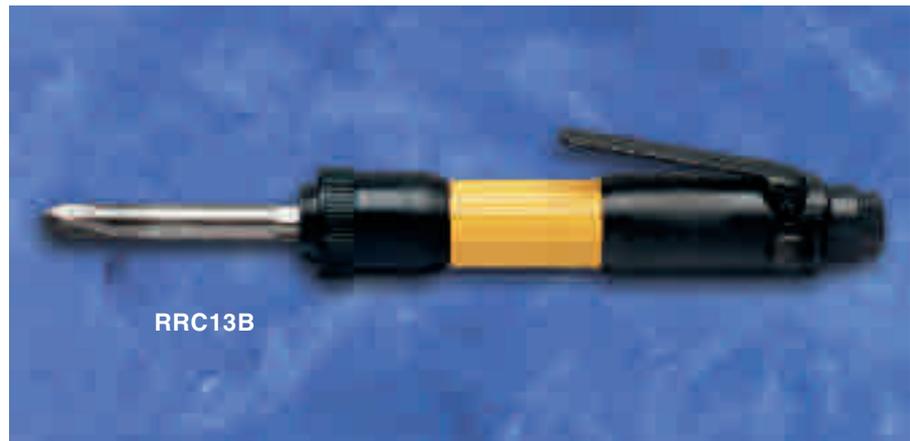
Carbide tipped chisels and through hardened chisels with other length and width.
See page 181.



CHIPPING HAMMERS / SCALERS

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

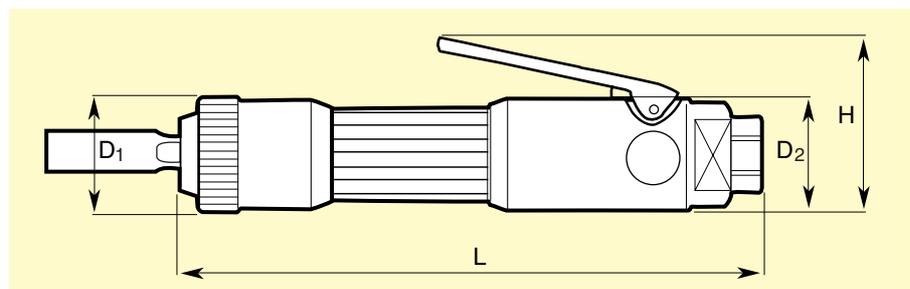


Model	Blows Hz	Piston dia		Stroke		Energy per blow		Length mm	Weight		Air consumption		Hose size		Air inlet BSP	Ordering No.
		mm	in	mm	in	J	ft lb		kg	lb	l/s	cfm	mm	in		
Scalers																
RRC13	73	15	0.6	35	1.4	1.4	1.0	221	1.4	3.1	4.0	8.0	10	3/8	3/8	8425 0101 30*
RRC13B	73	15	0.6	35	1.4	1.4	1.0	231	1.6	3.5	4.0	8.0	10	3/8	3/8	8425 0101 33*

* Available directly from stock.

DIMENSIONS (mm)

Model	L	H	D ₁	D ₂
RRC13	221	65	45	41.5
RRC13B	231	65	45	41.5



ACCESSORIES INCLUDED

Hose fitting
Scaling chisel

OPTIONAL ACCESSORIES

RRC13/RRC13B	Ordering No.
Hand guard	3510 0246 90
All steel retainer	3510 0245 80
Silencer	3510 0366 80

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

For a wide choice of chisels,
see page 181.

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.

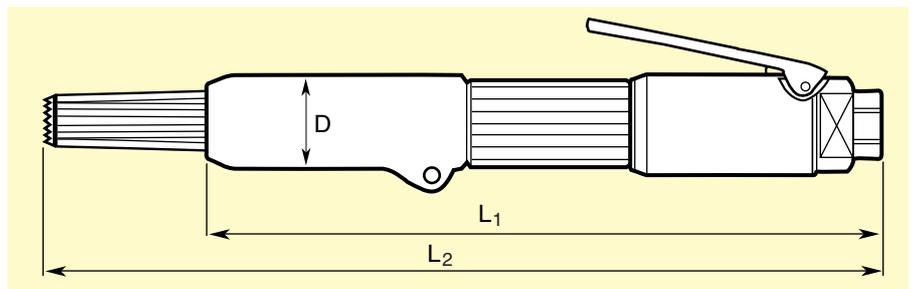


Model	Blows Hz	Piston dia		Stroke		Energy per blow		Length mm	Weight		Air consumption		Hose size		Air inlet BSP	Ordering No.
		mm	in	mm	in	J	ft lb		kg	lb	l/s	cfm	mm	in		
Scaler																
RRC13N	73	15	0.6	35	1.4	1.4	1.0	352	1.9	4.2	4.0	8.0	10	3/8	3/8	8425 0101 36*

* Available directly from stock.

DIMENSIONS (mm)

Model	L ₁	L ₂	D
RRC13N	282	352	38



ACCESSORIES INCLUDED

- Hose fitting
- Needle set (steel)

OPTIONAL ACCESSORIES

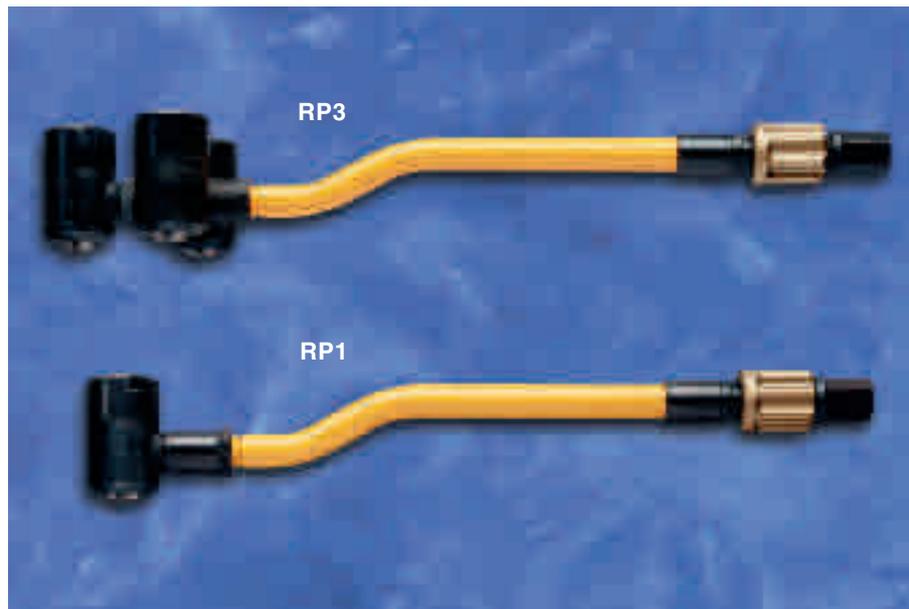
Needles-set of 19 needles, length 100 mm

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

RUST AND WELD SCALERS

The RP rust and weld scaler is designed for removal of rust, paint and other coating from steel structures, steam boilers etc.

- **Easy to maintain** –The 4-point bit, with cemented carbide insert, is replaceable.
- **Two models for flexible work** –The rust and weld scaler is available in versions with 1 impact head (RP1) and with 3 impact pistons (RP3).

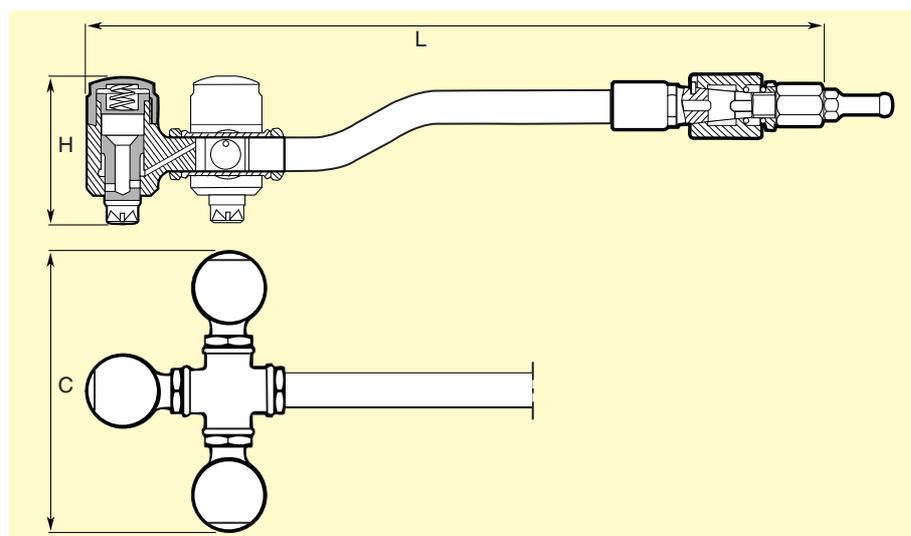


Model	Blows Hz	Length mm	Weight		Air consumption		Hose size		Air inlet BSP	Ordering No.
			kg	lb	l/s	cfm	mm	in		
Scalers										
RP1	69	485	2.0	4.4	3.2	6.8	10	3/8	3/8	8425 0301 06*
RP3	69	515	3.9	8.6	9.6	20.3	10	3/8	3/8	8425 0301 14*

* Available directly from stock.

DIMENSIONS (mm)

Model	L	H	C
RP1	485	80	–
RP3	515	80	180



ACCESSORIES INCLUDED

Hose fitting
Four-point carbide bit, length 55 mm

OPTIONAL ACCESSORIES

RP1 and RP3	Ordering No.
Vibration-damped support handle	3550 0079 80

RIVETING SYSTEMS



How to find a suitable hammer and bucking bar

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

The vibration-damped riveting hammers – RRH – are available in different sizes, RRH04P, RRH06P, RRH08P, RRH10P and RRH12P.

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

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

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 aluminium alloys, as too many blows can embrittle the metal.

In terms of capacity, the tools overlap. The table on page 177 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. There are three sizes RBB04, RBB10 and RBB16.

RIVETING HAMMERS

Vibration-damped

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

- ❑ **Versatile** –RRH can easily cope with rivets in diameters up to 12 mm.
- ❑ **Vibration-damped system** – An RRH vibration-damped riveting hammer, combined with an RBB vibration-damped bucking bar, offer an unbeatable system for riveting.
- ❑ **The power is adjustable.**
- ❑ **Adjustable hand guard** – Support hand grip is vibration-damped.
- ❑ **Now new 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 BSP	Ordering No.
		mm	in	mm	in	mm	in	J	ft lb	kg	lb	l/s	cfm	mm	in		
Riveting hammers 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 1109 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 1109 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 1109 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 1110 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 1110 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*
Riveting hammers 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 1109 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 1110 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 1110 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*

-01 means 10 mm short shank rivet set.

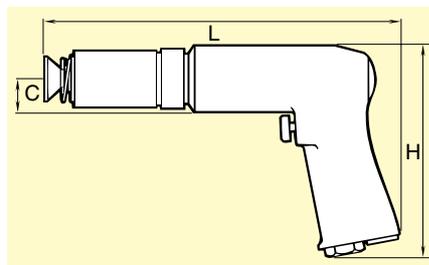
-02 means 10.2 mm short shank rivet set.

-12 means 10.2 mm stand shank rivet set.

* Available directly from stock.

DIMENSIONS (mm)

Model	L	H	C
RRH04-01	160	147	23
RRH04-02	160	147	23
RRH04-12	175	147	23
RRH06	225	147	24
RRH08P	244	147	24
RRH10P	264	150	27
RRH12P	299	150	27



Kits for conversion to trigger start operation

Model	Ordering No.
RRH04P-12	3520 0363 80
RRH06/08P	3520 0210 81
RRH10/12P	3520 0364 80

ACCESSORIES INCLUDED

Hose fitting
Flush set

OPTIONAL ACCESSORIES

Blank and flush rivet sets, see page 177.

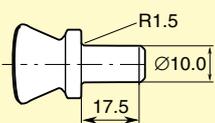
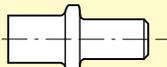
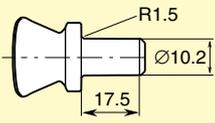
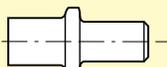
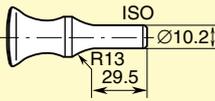
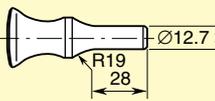
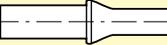
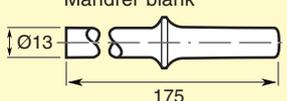
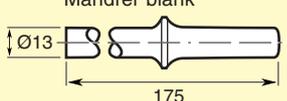
SELECTION GUIDE

Hammer model ^a	Nominal Max. Rivet Diameter Capacity						Bucking bar model required ^b	
	Dural		Steel		Titanium			
	mm	in	mm	in	mm	in		
RRH04	2- 5	3/32 - 3/16	1- 4	3/21 - 5/32			RBB04	RBB10
RRN11	2- 5	3/32 - 3/16	1- 4	3/32 - 5/32				
RRH06	4- 7	5/32 - 1/4	3- 6	1/8 - 1/4	2- 4	3/32 - 5/32	RBB10	RBB16
RRH08	5- 8	3/16 - 5/16	4- 7	5/32 - 1/4	3- 6	1/8 - 1/4	RBB10	RBB16
RRH10	5- 9	3/16 - 3/8	6- 8	1/4 - 5/16	4- 7	5/32 - 1/4	RBB16	
RRH12	8-11		7-10	1/4 - 3/8	6- 9	1/4 - 1/8	RBB16	

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

^b Bucking bar capacity is dependent on dolly weight.

RIVET SETS. RRH and RRN

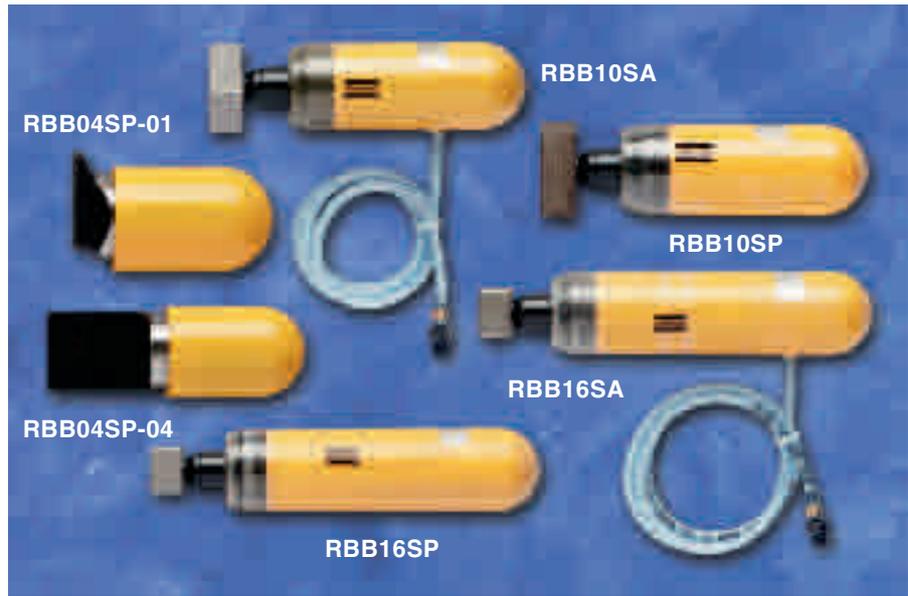
Hammer type	Model	Shank mm		Flush set Ordering No.		Blank rivet set Ordering No.
RRH04P-01 RRN11P-01	(-01)	10.0 spec		3085 0347 00		3006 0983 00
RRH04P-02 RRN11P-02	(-02)	10.2 spec		3085 0352 00		3085 0353 00
RRH04P-12 RRH06P RRH08P RRN18P RRN24P	(-12)	10.2 std		3085 0324 00		3085 0022 00
RRH10P/s RRH12P RRN34P		12.7 std		3085 0323 00		3085 0021 00
RRH04P-12 RRH06P RRH08P		10.2 std				3085 0212 00

BUCKING BARS

Vibration-damped

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

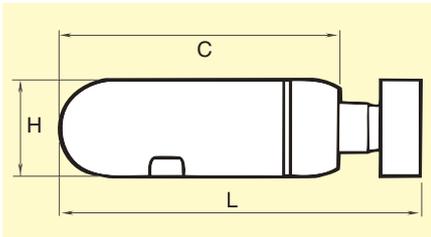
- ❑ **Self-adjustable** – RBB10SA and RBB16SA feature a self-adjusting damping system which requires a compressed air supply. RBB04SP, RBB10SP and RBB16SP use a spring as damping element and consequently do not require an air supply.
- ❑ **Flexible** – The bucking bars can be fitted with several different interchangeable dolly configurations via a quick change retainer for maximum flexibility.
- ❑ **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.



DIMENSIONS (mm)

Model	L	H	C
RBB10SA/SP	165	49	140
RBB16SA/SP	200	49	198

Dollies other than standard, see page 179.



Model	Weight		Diameter		Air consumption		Ordering No.
	kg	lb	mm	in	l/s	cfm	
Bucking bars with standard dolly^a							
RBB10SA	1.3	2.9	48	2.0	0.5	1.1	8426 9101 77
RBB10SP	1.1	2.4	48	2.0	–	–	8426 9101 74
RBB16SA	1.9	4.2	48	2.0	0.5	1.1	8426 9101 78
RBB16SP	1.7	3.7	48	2.0	–	–	8426 9101 76
Bucking bars without dolly and rod							
RBB10SA-U	1.0	2.2	48	2.0	0.5	1.1	8426 9101 73
RBB10SP-U	0.9	2.0	48	2.0	–	1.1	8426 9101 86
RBB16SA-U	1.7	3.7	48	2.0	0.5	1.1	8426 9101 75
RBB16SP-U	1.5	3.3	48	2.0	–	–	8426 9101 94
Mini bucking bars							
RBB04SP-01	0.8	1.8	46	1.8	–	–	8426 9101 10*
RBB04SP-02	0.8	1.8	46	1.8	–	–	8426 9101 11
RBB04SP-03	0.8	1.8	46	1.8	–	–	8426 9101 12
RBB04SP-04	1.3	2.9	46	1.8	–	–	8426 9101 13*
RBB04SP-05	1.4	3.1	46	1.8	–	–	8426 9101 14

^a Standard dolly Assy (3085 0335 93).

* Available directly from stock.

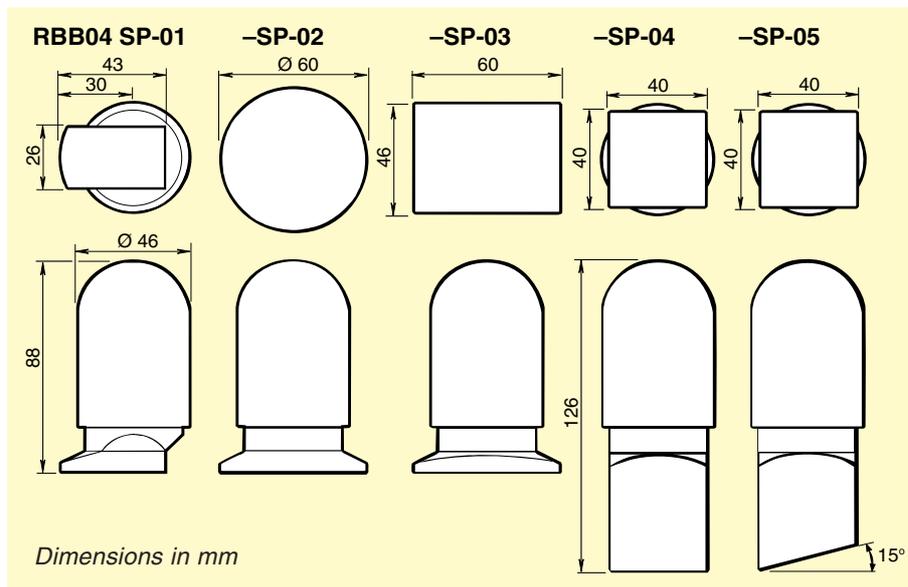
ACCESSORIES INCLUDED

All SA-models Hose and hose fitting
All 10/16 models Plastic cover

OPTIONAL ACCESSORIES

Designation	Ordering No.
Rod 5 mm	3085 0365 03
Rod 50 mm	3085 0365 04
Rod 100 mm	3085 0365 05
Swivel for SA models, complete kit incl hose	3520 0312 80
Plastic cover for	
RBB10SA	3520 0317 00
RBB10SP	3520 0315 00
RBB16SA	3520 0318 00
RBB16SP	3520 0316 00

Dollies other than standard, see page 179.



ACCESSORIES

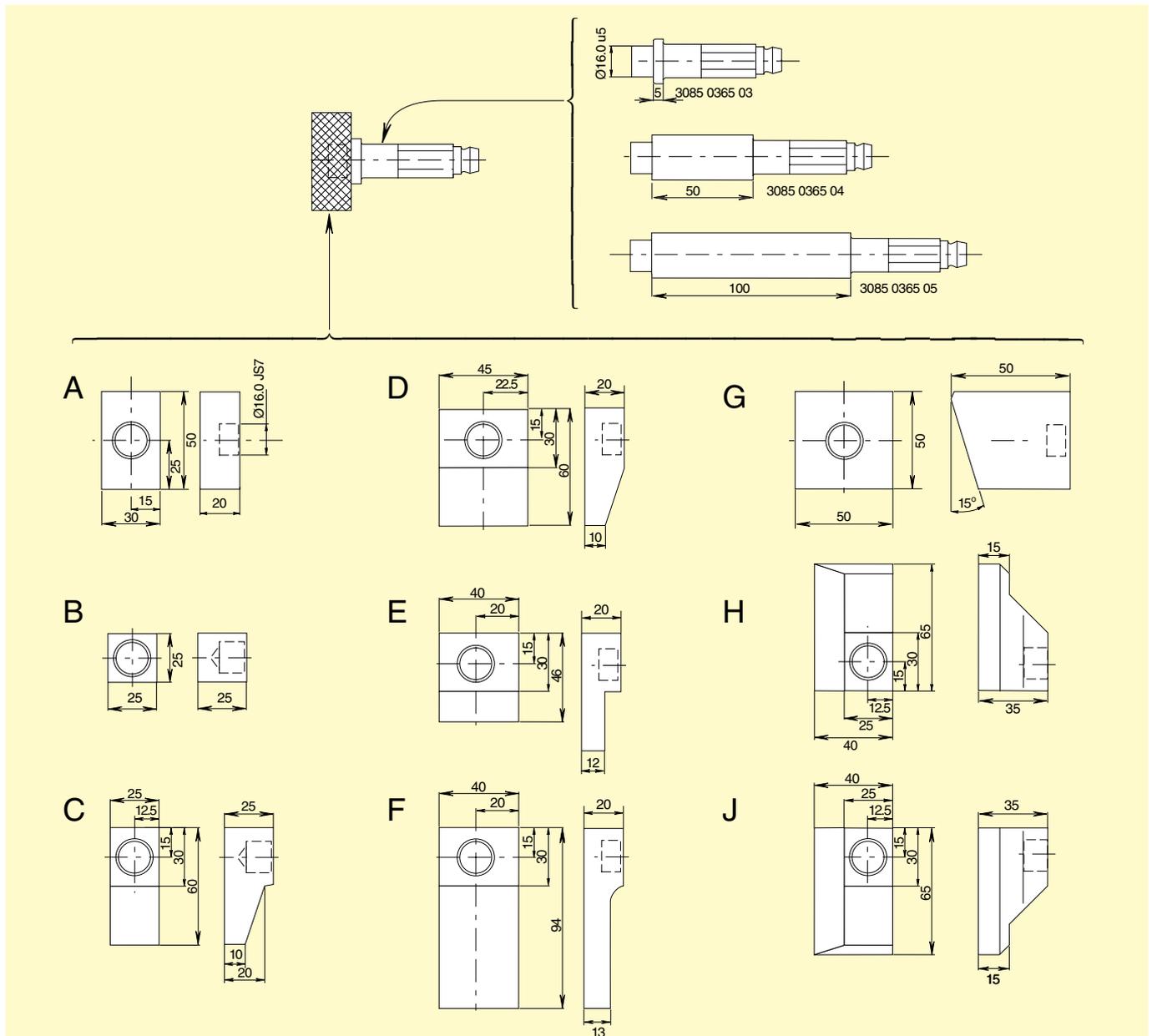
Dollies for RBB10 and RBB16, all models

Dolly type	Weight		Ordering No. With rod 5 mm	Weight		Ordering No. With rod 50 mm	Weight		Ordering No. With rod 100 mm
	kg	lb		kg	lb		kg	lb	
A	0.37	0.8	3085 0335 93 ^a	0.47	1.0	3085 0335 94	0.67	1.5	3085 0335 95
B	0.25	0.55	3085 0363 93	0.35	0.8	3085 0363 94	0.55	1.3	3085 0363 95
C	0.36	0.8	3085 0364 93	0.46	1.0	3085 0364 94	0.66	1.5	3085 0364 95
D	0.43	0.9	3085 0337 93	0.53	1.2	3085 0337 94	0.73	1.6	3085 0337 95
E	0.35	0.8	3085 0339 93	0.45	1.0	3085 0339 94	0.65	1.5	3085 0339 95
F	0.57	1.3	3085 0336 93	0.67	1.5	3085 0336 94	0.87	1.9	3085 0336 95
G	1.00	2.2	3085 0338 93	1.10	2.4	3085 0338 94	1.30	2.9	3085 0338 95
H	0.62	1.4	3085 0340 93	0.72	1.6	3085 0340 94	0.92	2.0	3085 0340 95
J	0.62	1.4	3085 0341 93	0.72	1.6	3085 0341 94	0.92	2.0	3085 0341 95

^a Standard dolly assy.

Other than Atlas Copco's dollies can also be used and press fitted onto a rod. Please see rod (i.e. hole) specification in the below drawing. Custom design dollies are recommended to be manufactured locally and fitted on to Atlas Copco rods.

DIMENSIONAL DRAWING of dollies available



RIVETING HAMMERS

Conventional type

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.



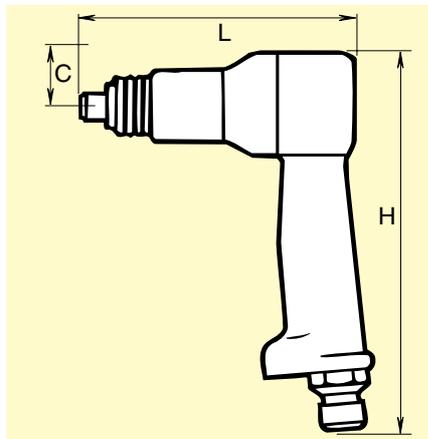
Model	Blows Hz	Nozzle		Piston dia		Stroke		Energy per blow		Weight		Air consumption		Hose size		Air inlet BSP	Ordering No.
		mm	in	mm	in	mm	in	J	ft lb	kg	lb	l/s	cfm	mm	in		
Riveting hammers																	
RRN11P-01	66	10.0	0.4	15	0.6	40	1.6	2.0	1.5	1.2	2.6	3.4	7.2	6.3	1/4	1/8	8426 1101 05*
RRN11P-02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

* Available directly from stock.

DIMENSIONS (mm)

Model	L	H	C
RRN11P	100	170	23



ACCESSORIES INCLUDED

RRN11P
Hose fitting and retainer

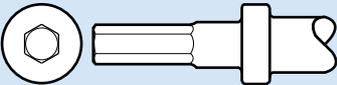
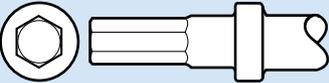
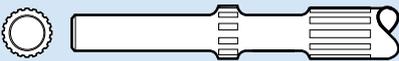
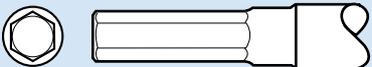
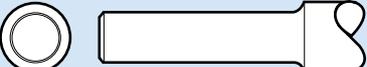
OPTIONAL ACCESSORIES

Blank and flush rivet sets, see page 177.

CHISELS

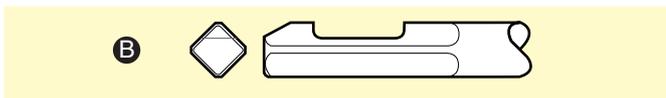
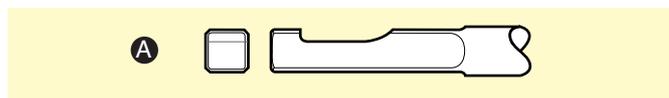


Chisels for Chipping Hammers. All chisels are normally through hardened. Otherwise, see tables.

Figure	Shank type	Tools	Table
	Square shank 13.0 mm	RRC13, RRC13B	1
	Extended square shank ISO, 12.7 mm	RRC15	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

1A. Chisels with square shank 13.0 mm

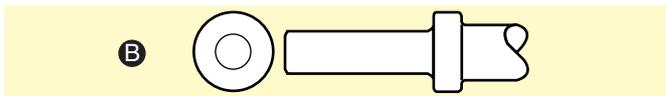
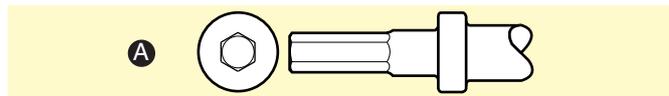
1B. Chisels with square shank ISO 12.7 mm



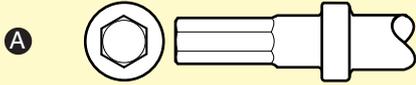
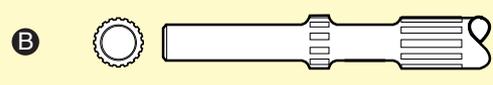
Chisel type	Designation	Width		Length		A	B
		mm	in	mm	in	Square 13 mm (1/2") Ordering No.	ISO Extended square 12.7 mm (1/2") Ordering No.
	Chisel blank	15	0.59	155	6.1	3085 0020 00	3085 0228 02
		15	0.59	200	7.9	3085 0020 01	
		15	0.59	300	11.8	3085 0020 02	
	Flat chisel	15	0.59	165	6.1	3085 0227 00	3085 0230 01
		15	0.59	200	7.9	3085 0227 01	
	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	
	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	

2A. Chisels with hexagon shank ISO, round collar 12.7 mm

2B. Chisels with round shank ISO, round collar 12.7 mm

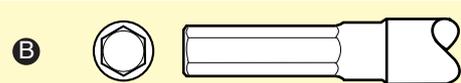


Chisel type	Designation	Width		Length		A	B
		mm	in	mm	in	Hex ISO 12.7 mm (1/2") Ordering No.	Round ISO 12.7 mm (1/2") Ordering No.
	Chisel blank	13	0.51	200	7.9	3085 0182 00	
		13	0.51	350	13.8	3085 0182 01	
		13	0.51	400	15.7	3085 0182 04	
		13	0.51	500	19.7	3085 0182 05	
	Flat chisel	13	0.51	200	7.9	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	

3A. Chisels with hexagon shank ISO, round collar 17.3 mm

3B. Chisels with round ISO shank with splines 17.3 mm


Chisel type	Designation	Width		Length		A		B		Round ISO with splines 17.3 mm (0.68") Ordering No.	
		mm	in	mm	in	Hex ISO 17.3 mm (0.68") Ordering No.	Width	Length			
	Chisel blank	22	0.86	335	13.1	3085 0220 00	22	0.86	250	9.8	3085 0242 00
		22	0.86	560	22.0	3085 0220 01	22	0.86	340	13.4	3085 0242 01
		22	0.86	1060	41.7	3085 0220 02	22	0.86	550	21.7	3085 0242 02
							22	0.86	800	31.5	3085 0242 03
							22	0.86	1200	47.2	3085 0242 04
	Flat chisel	22	0.86	200	10.2	3085 0221 00	22	0.86	215	8.5	3085 0236 00
		22	0.86	335	13.1	3085 0221 01	22	0.86	250	9.8	3085 0236 01
		22	0.86	560	41.9	3085 0221 02	22	0.86	340	13.4	3085 0236 02
							22	0.86	550	21.7	3085 0236 03
	Flat chisel	32	1.26	335	13.1	3085 0989 00	32	1.26	340	13.4	3085 0252 00
	Wide flat chisel	50	1.97	335	13.1	3085 0235 00	50	1.97	340	13.4	3085 0250 00
	Extra wide flat chisel	130	5.12	400	15.7	3085 0342 00	130	5.12	400	15.7	3085 0998 00
	Angle scraper chisel	50	1.97	335	13.1	3085 0349 00	50	1.97	335	13.2	3085 0350 00
	Moil point chisel	22	0.86	335	13.1	3085 0223 00	22	0.86	340	13.4	3085 0249 00
		22	0.86	560	15.7	3085 0223 01					
	Hollow chisel						33	1.36	340	13.4	3085 0354 00
	Shank rod for roughing head	-	-	180	7.1	3085 0257 00	-	-	195	7.7	3085 0254 00
	Roughing head for shank rod (tungsten carbide)	39	1.53	-	-	3085 0255 00	39	1.53	-	-	3085 0255 00
	Roughing head for shank rod	40	1.57	-	-	3085 0253 00	40	1.57	-	-	3085 0253 00

4A. Chisels with ISO shank without collar, round

4B. Chisels with ISO shank without collar, hexagon


Chisel type	Designation	Width		Length		A	B
		mm	in	mm	in	Round 17.3 mm (0.68") ISO Ordering No.	Hexagon 17.3 mm (0.68") ISO Ordering No.
	Chisel blank	23	0.91	200	7.9	3085 0150 00	3085 0140 00
		23	0.91	560	22.0		3085 0140 01
	Flat chisel	23	0.91	225	8.9	3085 0225 00	3085 0224 00

5. Chisels with special shank



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

RAMMERS

The Atlas Copco dependable and simple floor and bench rammers are intended for ramming of casting sand in cylinders, core boxes, large moulds and casting pits, or for stamping work, for instance with filling sand, and stamping of refractory furnace linings.



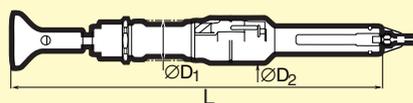
Model	Blows Hz	Piston dia		Stroke		Length mm	Weight		Air consumption		Hose size		Air inlet thread BSP	Ordering No.
		mm	in	mm	in		kg	lb	l/s	cfm	mm	in		
Rammers														
RAM06	20	20/10	0.8/0.5	84	3.3	415	2.5	5.5	3.0	6.4	6.3	1/4	1/4	8467 0105 29*
RAM12	11	27	1.1	102	4.0	457	4.2	9.3	6.0	12.7	12.5	1/2	1/4	8467 0106 51*
RAM20A	12	34	1.3	203	8.0	1315	10.9	24.0	10.5	22.2	12.5	1/2	special	8467 0108 18*

* Available directly from stock.

DIMENSIONS (mm)

Model	L	D ₁	D ₂	D ₃
RAM06	415	39	48	—
RAM12	480	51	51	—
RAM20A	1315	57	70	32

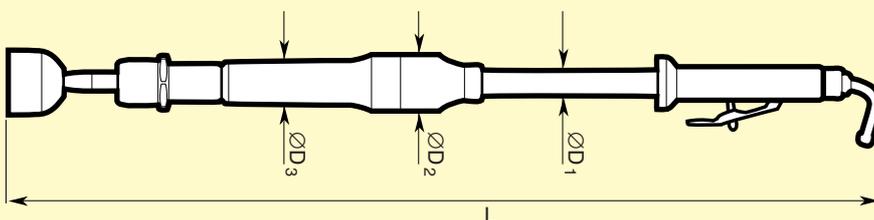
RAM06/12



ACCESSORIES INCLUDED

- RAM06** Cast iron butt, 60 mm dia, hose nipple
- RAM12** Rubber butt, 63 mm dia, hose nipple
- RAM20A** Cast iron butt, 75 mm dia, hose attachment

RAM20A



OPTIONAL ACCESSORIES

Model	Ordering No.	
RAM06	Rubber peen, 18x50 mm	3086 0006 00
	Rubber peen, 60 mm dia	3086 0009 00
RAM12	Rubber peen, 19x61 mm dia	3512 0216 00
RAM20A	Rubber peen, 75 mm dia	3086 0013 00

Drills

Pick up any Atlas Copco drill...

It fits snugly in your hand. The anatomic design of the grip keeps the arm and wrist straight, reducing the risk of injury. The perfect balance of the tool enables you to guide it smoothly and easily. The high power-to-weight ratio means maximum stock removal in the shortest possible time. The chuck guard protects fingers, allowing a two-handed grip and comfortable guiding of the drilling operation.

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SELECTION GUIDE

Quality and ergonomics

The classic wing of the pistol-grip drill was designed more than 30 years ago. Its many ergonomic features still make it outstanding on the market in terms of user benefits.

Wide range of speed alternatives offers the right model for every application.

Rugged and reliable design offers low service and maintenance costs.

The rubber covered housing provides a comfortable soft grip. Prevents the tool from slipping in the hand and it improves the insulation.

The design and angle of the pistol grip keeps the wrist and arm straight due to better precision and less risk of injury.

Chuck guard allowing two-handed grip, as well as protecting fingers and chuck sleeve during drilling operation.

Unique, lubrication-free design for a cleaner working environment.

Easy, sensitive trigger action, with built-in throttling capability, reduces the risk of "trigger finger" symptoms.

Efficient silencing for a quieter working environment.

Exhaust discharge can be aimed away from the operator in any direction, eliminating the risk of airborne chips or dust whirling near the operator's face.

The hose is connected inside the handle which makes it possible to keep the coupling on the floor and to use the tool in cramped spaces. The "Flex connect" is only available to LBB16.

Choose the right drill for the right material

Model		Material/cutting speed					
		Mild steel 20-30 m/min	Alloy steel 5-15 m/min	Cast iron 15-20 m/min	Aluminium and bronze 50-80 m/min	Wood and board 80-150 m/min	Com- posite 50-100 m/min
LBB16 EP/EPX	200	—	—	—	1.0- 2.0	1.0- 4.0	1.0- 4.0
	060	—	—	—	1.0- 5.0	2.0- 5.0	2.0- 5.0
	045	1.0- 2.5	—	1.0- 2.0	2.0- 8.0 ^a	4.0-10.0 ^a	4.0- 10.0 ^a
	033	2.0- 4.0	1.0- 1.5	1.5- 2.5	5.0- 10.0 ^a	5.0-12.0 ^a	5.0- 12.0 ^a
	024	2.5- 5.0	1.0- 2.0	2.0- 4.0	—	—	—
	010	6.0- 8.0	1.5- 5.0	5.0- 8.0	—	—	—
LBB34	H060	1.0- 2.0	—	—	2.5- 5.0	4.0- 8.0	1.0- 5.0
	H033	2.0- 4.0	—	1.5- 3.0	5.0- 10.0	8.0- 13.0 ^a	5.0- 10.0
	H026	2.5- 6.0	1.0- 3.0	2.0- 4.0	8.0- 13.0 ^a	8.0- 13.0 ^a	—
	H013	5.0- 10.0	1.0- 5.5	4.0- 8.0	—	—	—
	H007	8.0- 13.0	3.0- 8.0	7.0- 13.0	—	—	—
LBB36	H060	1.0- 2.0	—	—	2.5- 5.0	4.0- 8.0	1.0- 5.0
	H033	2.0- 4.0	—	1.5- 3.0	5.0- 10.0	8.0- 13.0	5.0- 10.0
	H026	2.5- 6.0	1.0- 3.0	2.0- 4.0	8.0- 13.0 ^a	8.0- 13.0 ^a	8.0- 13.0 ^a
	H013	5.0- 10.0	1.0- 5.5	4.0- 8.0	—	—	—
	H007	8.0- 13.0	3.0- 8.0	7.0- 13.0	—	—	—
	H005	14.0- 19.0 ^b	—	—	—	—	—
LBB45	H017	—	—	—	10.0- 16.0	16.0-50.0 ^a	10.0- 16.0
	H006	10.0- 16.0	4.0- 10.0	8.0- 16.0	16.0- 23.0 ^a	—	16.0- 23.0 ^a
	H004	16.0- 23.0 ^a	6.0- 16.0	13.0- 23.0 ^a	—	—	—

^a This bit size is larger than the standard chuck capacity of the machine.

^b To be used with No. 2 Morse socket adapter, see Optional Accessories.

DIMENSIONS LBB EP/EPX/H (mm)

Model	L	H	C	D	E	Model	L	H	C	D	E
LBB16 EP/EPX-200	177	131	16.5	31.4	13.8	LBB34 H013	238	156	23	41.5	50.0
LBB16 EP/EPX-060	177	131	16.5	31.4	13.8	LBB34 H007	238	156	23	41.5	50.0
LBB16 EP/EPX-045	177	131	16.5	31.4	13.8	LBB24 HF045165	156	25	35.9	14.8	
LBB16 EP/EPX-033	177	131	16.5	31.4	13.8	LBB24 HF020165	156	25	35.9	14.8	
LBB16 EP/EPX-024	177	131	16.5	31.4	13.8	LBB36 H060	217	157	23	41.5	16.5
LBB16 EP/EPX-020	177	131	16.5	31.4	13.8	LBB36 H033	217	157	23	41.5	16.5
LBB16 EP/EPX-010	190	131	16.5	31.4	27.0	LBB36 H026	217	157	23	41.5	16.5
LBB16 EP/EPX-005	190	131	16.5	31.4	27.0	LBB36 H013	256	157	23	41.5	64.0
LBB16 EP-003	190	131	16.5	31.4	27.0	LBB36 H007	256	157	23	41.5	64.0
LBB34 H060	199	156	23	41.5	16.5	LBB36 H005	256	157	23	41.5	64.0
LBB34 H033	199	156	23	41.5	16.5	LBB45 H006	360	185	33	60	113
LBB34 H026	199	156	23	41.5	16.5						

PISTOL-GRIP DRILLS

Atlas Copco pistol-grip drills are suitable for most drilling tasks in virtually every sector of industry.

- ❑ Comfortable grip for high precision.
- ❑ Cost-saving.
- ❑ Two-hand grip available.
- ❑ Lubrication-free.

The new LBB16 is the answer to market demands for:

- Improved ergonomics.
- Increased power.
- Smaller size.

LBB16 EP	290 W	(0.4 hp)^a
LBB16 EPX	340 W	(0.45 hp)^a
LBB34	400 W	(0.6 hp)^a
LBB36	700 W	(0.9 hp)^a
LBB45	700 W	(0.9 hp)^b

^a Lubrication-free motor.

^b Conventional motor (pistol-grip drill only).



Model	Free speed r/min	Chuck capacity mm	Weight		Air consumption at free speed		Hose size		Air inlet thread BSP	Sound level at free speed dB(A)	With chuck Ordering No.	Without chuck	
			kg	lb	l/s	cfm	mm	in				Model	Ordering No.
Non-reversible drills with air supply through handle													
LBB16 EP-200 ^a	20000	6.5	0.6	1.2	8.0	17.0	6.3	1/4	1/4	75	8421 0108 60*	200-U	8421 0108 61*
LBB16 EP-060 ^a	6000	6.5	0.6	1.2	8.0	17.0	6.3	1/4	1/4	75	8421 0108 50*	060-U	8421 0108 51*
LBB16 EP-045 ^a	4500	6.5	0.6	1.2	8.0	17.0	6.3	1/4	1/4	75	8421 0108 40*	045-U	8421 0108 41*
LBB16 EP-033 ^a	3300	6.5	0.6	1.2	8.0	17.0	6.3	1/4	1/4	75	8421 0108 30*	033-U	8421 0108 31*
LBB16 EP-024 ^a	2400	6.5	0.6	1.2	8.0	17.0	6.3	1/4	1/4	75	8421 0108 20*	024-U	8421 0108 21*
LBB16 EP-010	1000	10.0	0.7	1.5	8.0	17.0	6.3	1/4	1/4	75	8421 0108 10*	010-U	8421 0108 11*
LBB16 EP-005 ^b	500	10.0	0.7	1.5	8.0	17.0	6.3	1/4	1/4	75	8421 0108 06*	005-U	8421 0108 07*
LBB16 EP-003 ^b	300	10.0	0.7	1.5	8.0	17.0	6.3	1/4	1/4	75	8421 0108 01*	003-U	8421 0108 02*
LBB16 EPX-200 ^a	20000	6.5	0.6	1.2	9.5	20.0	6.3	1/4	1/4	78	8421 0108 82*	200-U	8421 0108 63*
LBB16 EPX-060 ^a	6000	6.5	0.6	1.2	9.5	20.0	6.3	1/4	1/4	78	8421 0108 52*	060-U	8421 0108 53*
LBB16 EPX-045 ^a	4500	6.5	0.6	1.2	9.5	20.0	6.3	1/4	1/4	78	8421 0108 42*	045-U	8421 0108 43*
LBB16 EPX-033 ^a	3300	6.5	0.6	1.2	9.5	20.0	6.3	1/4	1/4	78	8421 0108 32*	033-U	8421 0108 33*
LBB16 EPX-024 ^a	2400	6.5	0.6	1.2	9.5	20.0	6.3	1/4	1/4	78	8421 0108 22*	024-U	8421 0108 23*
LBB16 EPX-010 ^b	1000	10.0	0.7	1.5	9.5	20.0	6.3	1/4	1/4	78	8421 0108 12*	010-U	8421 0108 03*
LBB16 EPX-005 ^b	500	10.0	0.7	1.5	9.5	20.0	6.3	1/4	1/4	78	8421 0108 08*	050-U	8421 0108 09*
LBB34 H060 ^a	6000	10.0	1.1	2.4	9.5	20.0	10.0	3/8	1/4	77	8421 0308 47*	-H060U	8421 0308 96*
LBB34 H033 ^a	3300	10.0	1.1	2.4	9.5	20.0	10.0	3/8	1/4	77	8421 0308 39*	-H033U	8421 0308 88*
LBB34 H026 ^a	2600	10.0	1.1	2.4	9.5	20.0	10.0	3/8	1/4	77	8421 0308 21*	-H026U	8421 0308 70*
LBB34 H013 ^a	1300	10.0	1.5	3.3	9.5	20.0	10.0	3/8	1/4	77	8421 0308 13*	-H013U	8421 0308 62*
LBB34 H007 ^b	700	13.0	1.6	3.5	9.5	20.0	10.0	3/8	1/4	77	8421 0308 05*	-H007U	8421 0308 54*
LBB36 H200 ^a	20000	6.5	1.0	2.2	16.5	34.9	10.0	3/8	3/8	81	8421 0408 55	-H200U	8421 0408 53
LBB36 H060 ^a	6000	6.5	1.2	2.5	16.5	34.9	10.0	3/8	3/8	81	8421 0408 49*	-H060U	8421 0408 47*
LBB36 H033 ^a	3300	10.0	1.2	2.5	16.5	34.9	10.0	3/8	3/8	81	8421 0408 41*	-H033U	8421 0408 39*
LBB36 H026 ^a	2600	10.0	1.2	2.5	16.5	34.9	10.0	3/8	3/8	81	8421 0408 33*	-H026U	8421 0408 31*
LBB36 H013 ^a	1300	10.0	1.5	3.3	16.5	34.9	10.0	3/8	3/8	81	8421 0408 15*	-H013U	8421 0408 13*
LBB36 H007 ^b	700	13.0	1.6	3.5	16.5	34.9	10.0	3/8	3/8	81	8421 0408 07*	-H007U	8421 0408 05*
LBB36 H005 ^b	500	-	1.2	3.3	16.5	34.9	10.0	3/8	3/8	81	-	-H005U	8421 0408 03*
LBB45 H017 ^b	1700	16.0	4.2	9.3	10.0	21.0	10.0	3/8	1/4	85 ^c	8421 0501 32*	-	-
LBB45 H006 ^b	600	16.0	4.3	9.3	10.0	21.0	10.0	3/8	1/4	85 ^c	8421 0501 24*	-	-
LBB45 H004 ^b	400	16.0	4.3	9.3	10.0	21.0	10.0	3/8	1/4	85 ^c	8421 0501 16*	-	-
Reversible drills with drill chuck and quick change 1/4" bit holder													
COMBI24 HR36	3600	6.5	0.9	2.0	7.0	15.0	6.3	1/4	1/4	75	8431 0255 88	-	-
COMBI24 HR16	1600	10.0	0.9	2.0	7.0	15.0	6.3	1/4	1/4	75	8431 0255 79*	-	-
COMBI24 HR08	800	10.0	1.1	2.4	7.0	15.0	6.3	1/4	1/4	75	8431 0255 61	-	-
COMBI34 HR16	1600	10.0	1.0	2.2	8.0	17.0	10.0	3/8	1/4	79	8431 0311 36	-	-
COMBI34 HR08	800	10.0	1.3	2.9	8.0	17.0	10.0	3/8	1/4	79	8431 0311 34	-	-
COMBI34 HR04	400	13.0	1.5	3.3	8.0	17.0	10.0	3/8	1/4	79	8431 0311 32	-	-

^a Including chuck guard.

^b Including support handle.

^c 79 dB(A) with silencer set 4112 0863 80.

* Available directly from stock.

ACCESSORIES INCLUDED

Chuck, chuck key, hose nipple.

LBB16, 34 and -36 with suspension yoke and with chuck guard where possible.

16, 34 and -36-models have a 3/8" -24 UNF spindle thread LBB36 H005 has a 1/2" thread, LBB45 has a JT3 taper mount.

OPTIONAL ACCESSORIES

See page 190-191

MICRO STOP DRILLS

With integrated micro stop for higher accuracy

The LBS24 drill is equipped with an integrated micro stop intended for the aerospace industry where high precision drilling of rivet holes and other fasteners. Minimized spindle run out is induced by eliminating standard drill chuck.

- ❑ **Accurate** –The integrated micro stop function makes the LBS24 unique for high precision drilling of rivet holes and other fasteners. Minimized spindle run out is induced by eliminating standard drill chuck.
- ❑ **Ergonomic** –The handle is from our well-known Ergoline drills. 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** – A specially designed spot suction is developed for working in composite.
- ❑ **Lubrication-free** –For clean working environment and operator comfort.

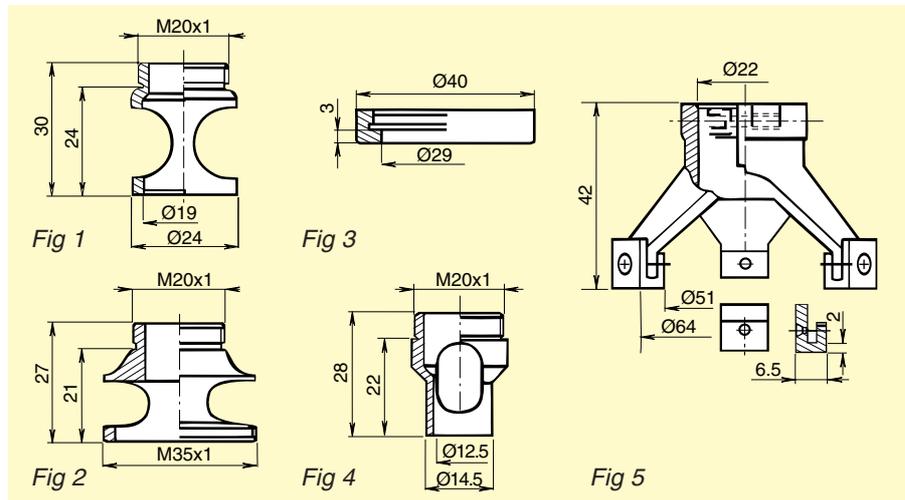
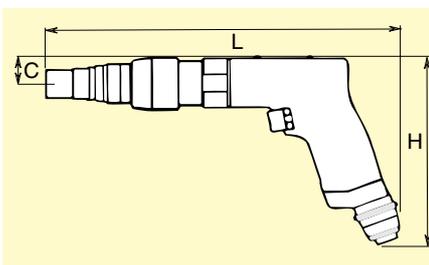


Model	Free speed r/min	Spindle thread in/mm	Stroke		Setting range ±		Weight		Hose size		Air consumption		Sound level dB(A)	Air inlet thread BSP	Ordering No.
			mm	in	mm	in	kg	lb	mm	in	l/s	cfm			
LBS24 H045-40M	4500	M6x1	40	1.6	6	1/4	1.1	2.4	6.3	1/4	5.9	12.5	74	1/4	8421 0220 10
LBS24 H045-40	4500	1/4"-28	40	1.6	6	1/4	1.1	2.4	6.3	1/4	5.9	12.5	74	1/4	8421 0220 30*
LBS24 H010-40M	1000	M6x1	40	1.6	6	1/4	1.2	2.8	6.3	1/4	5.9	12.5	73	1/4	8421 0220 50
LBS24 H010-40	1000	1/4"-28	40	1.6	6	1/4	1.2	2.8	6.3	1/4	5.9	12.5	73	1/4	8421 0220 70
LBS36 H033-40	3300	1/4"-28	40	1.6	6	1/4	1.2	2.6	10	3/8	16.5	34.9	81	3/8	8421 0220 80
LBS36 H013-40	1300	1/4"-28	40	1.6	6	1/4	1.5	3.3	10	3/8	16.5	34.9	81	3/8	8421 0220 90

* Available directly from stock.

DIMENSIONS LBS H (mm)

Model	L	H	C
LBS24 H045-40M	247	154	20
LBS24 H045-40	247	154	20
LBS24 H010-40M	278	154	20
LBS24 H010-40	278	154	20
LBS36 H033-40	281	157	21
LBS36 H013-40	314	157	21



ACCESSORIES INCLUDED

- Hose nipple
- 2x2 mm Allen wrenches



SERVICE KIT
4081 0005 90

OPTIONAL ACCESSORIES

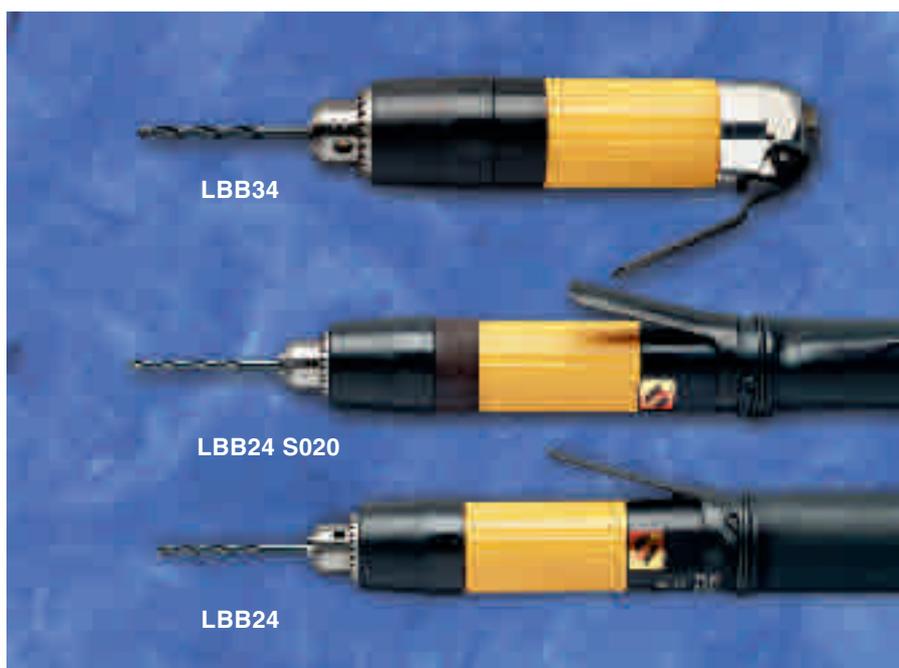
Designation	Attachment	Ordering No.
Plain base, dia 24 mm	Fig 1 M 20x1	4110 1521 00
Plain base for nylon ring (attached with thread M35x1)	Fig 2 M 20x1	4110 1522 00
Separate nylon ring for above base, outer dia 40 mm, thread M35x1	Fig 3 M 20x1	4110 1523 00
Plain base, dia 14.5 mm	Fig 4 M 20x1	4110 1520 00
Tripod, nylon supported	Fig 5 Dia 22 mm	4110 1524 00
Spot suction attachment for drilling in composite, to be used in combination with plain base, dia 24 mm	See photo above	4110 1529 90

STRAIGHT DRILLS

The straight drills are intended mainly for vertical drilling operations and for drilling in cramped and confined spaces.

- **Quiet** –They have a very low noise level, just like all our drills.
- **Side exhaust** (LBB34) –The air can be directed for your convenience.
- **Rear exhaust** (LBB24) –The air is piped away through a pliant hose and prevents whirls of dust.
- **Lubrication-free** –24- and 34-series of drills are lubrication-free for clean working environment and operator comfort.

LBB24 210 W (0.3 hp) Lubrication-free motor
LBB34 400 W (0.6 hp) Lubrication-free motor



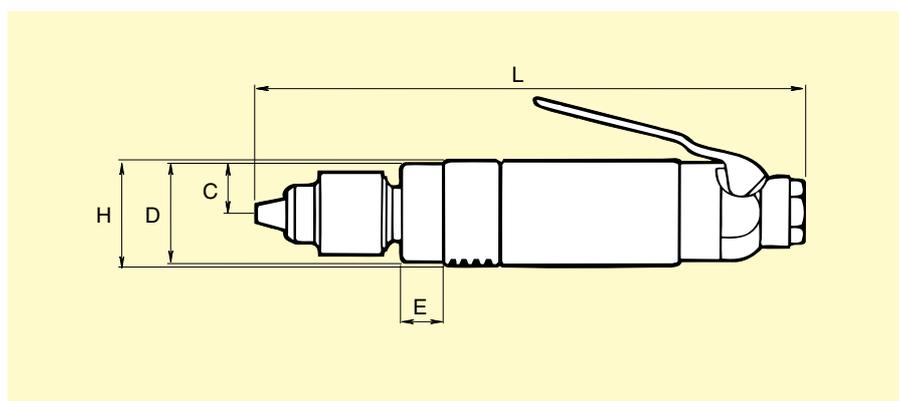
Model	Free speed r/min	Chuck capacity mm	Weight		Air consumption at free speed		Hose size		Air inlet thread BSP	Sound level at free speed dB(A)	With chuck Ordering No.	Without chuck	
			kg	lb	l/s	cfm	mm	in				Model	Ordering No.
Drills with rear exhaust													
LBB24 S200B	19000	6.5	0.8	1.7	6.0	13.0	6.3	1/4	1/4	75	8421 0205 15*	-S200U	8421 0205 56
LBB24 S060B	6000	6.5	0.8	1.7	6.0	13.0	6.3	1/4	1/4	75	8421 0205 17*	-S060U	8421 0205 19*
LBB24 S045B	4500	6.5	0.8	1.7	6.0	13.0	6.3	1/4	1/4	75	8421 0205 23*	-S045U	8421 0205 64*
LBB24 S033B	3300	6.5	0.8	1.7	6.0	13.0	6.3	1/4	1/4	75	8421 0205 31*	-S033U	8421 0205 72*
LBB24 S020B	2000	6.5	0.8	1.7	6.0	13.0	6.3	1/4	1/4	75	8421 0205 49*	-S020U	8421 0205 80
Drills with side exhaust													
LBB34 S060	6000	10.0	1.1	2.4	10.0	21.0	10.0	3/8	1/4	88	8421 0309 41*	-S060U	8421 0309 74*
LBB34 S026	2600	10.0	1.1	2.4	10.0	21.0	10.0	3/8	1/4	88	8421 0309 25*	-S026U	8421 0309 82*
LBB34 S013	1300	10.0	1.5	3.3	10.0	21.0	10.0	3/8	1/4	87	8421 0309 17*	-S013U	8421 0309 90*

24- and 34-models have a 3/8" -24 UNF spindle thread.

* Available directly from stock.

DIMENSIONS LBB S (mm)

Model	L	H	C	D	E
LBB24 S200	183	38	19	35.9	14.8
LBB24 S060	198	38	19	35.9	14.8
LBB24 S045	183	38	19	35.9	14.8
LBB24 S033	183	38	19	35.9	14.8
LBB24 S020	183	38	19	35.9	14.8
LBB34 S060	192	43	21	41.5	16.5
LBB34 S026	192	43	21	41.5	16.5
LBB34 S013	200	43	21	41.5	16.5



ACCESSORIES INCLUDED

- Chuck, chuck key, hose nipple
- Suspension yoke and chuck guard
- Push button set
- Exhaust hose (-24 models)

OPTIONAL ACCESSORIES

See page 190-191

OPTIONAL ACCESSORIES

Key chucks

Mount	Body diameter mm	Chuck capacity mm	Ordering No.		
			Chuck (key incl)	Key only	Key designation
3/8-24UNF	30	0.0- 6.5	4021 0283 00	4021 0293 00	S1
3/8-24UNF	36	2.0-10.0	4021 0416 00	4021 0449 00	S8
3/8-24UNF	46	2.0-13.0	4021 0289 00	4021 0465 00	S2
JT3	59	3.0-16.0	4021 0423 00	4021 0301 00	S3

Key chuck



Quick chucks

Mount	Chuck dia mm	Chuck capacity mm	Ordering No.
3/8-24UNF	34	0.0- 6.5	4021 0400 00
3/8-24UNF	34	0.0- 8.0	4021 0401 00
3/8-24UNF	36	0.0-10.0	4021 0402 00
3/8-24UNF	36	2.0-13.0	4021 0403 00

Quick chuck



Support handles

For model	Ordering No.
LBB16	4110 1355 92
LBB34/-36	4110 1355 82
LBV34	4110 1355 87
LBB45	4110 1355 84

Support handle



Chuck guards

For model	Max chuck dia mm	Ordering No.
LBB16 ^a	30	4110 1619 04
LBB34/-36 ^b	36	4110 1415 00

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

^b The guards do not fit 700 r/min models.

Chuck guard



Silencer sets

For model		Ordering No.
LBB34 H	Exhaust pipe away set	4210 2052 00
LBB45	External silencer	4112 0863 80

Silencer set



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			4110 0844 90
Collet nut			4150 0760 00	

Collet chuck and collets



Flex connect

For model	Ordering No.
LBB16	4110 1601 80

Flex connect



Spot suction attachment

For model	Hose size in	Spot suction kit Ordering No.	Hose kit Ordering No.
LBB34/-36	1 1/4	3780 4018 50	3780 2724 34

Other standard sizes of front nozzle available.

Spot suction attachment



Power feed arm for extra feed force –LBB36 H005

	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 –LBB45

Designation	Ordering No.
Feed screw	4110 0976 80
No. 2 Morse socket	4130 1080 00
Ratchet wrench for feed screw	4130 2000 00
Breast plate	4110 0974 80
Silencer set	4112 0863 80



SERVICE KITS

LBB16	4081 0271 90
LGB24	4081 0005 90
LBB/LGB/LBV34	4081 0035 90
LBB36	4081 0194 90
LBB45	4081 0139 90

ANGLE DRILLS

The perfect drill for cramped spaces

The angle drills are available in versions with 30°, 90° and 360° angle heads and are designed for drilling in confined and awkward spaces.

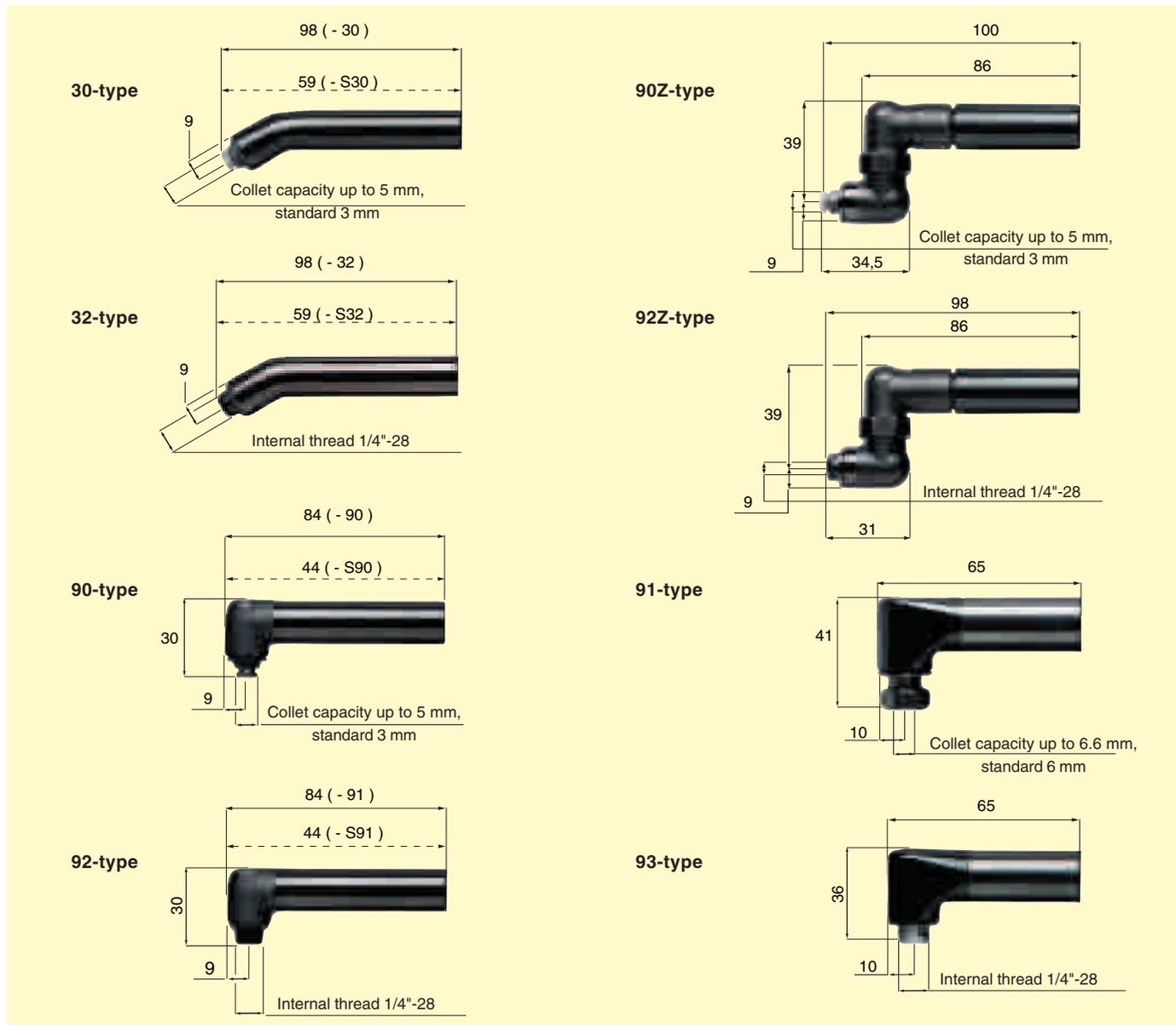
Just like other Atlas Copco hand drills, they are based on motors from the 25-, 34-, and 36-series.

The angle drills are operated with a lever throttle. The series feature:

- Low noise level.
- Low air consumption.
- Side exhaust/rear exhaust.
- Lubrication-free design.
- Collet chuck or threaded spindle.
- Multiple lever options.

LBV11	110W (0.16 hp)
LBV25 -30/32,-90/92,-91/93	210W (0.3 hp)^a
LBV34	400W (0.6 hp)
LBV36 -30,-90/92,-91/93	510W (0.73 hp)

^aMaximum power.



ANGLE DRILLS

Model	Free speed r/min	Setting range rpm	Collet or chuck capacity mm	Weight		Air consumption at free speed		Hose dimension		Air inlet thread BSP	Sound level at free speed dB(A)	Ordering No.
				kg	lb	l/s	cfm	mm	in			
30° angle head – Collet chuck models – small angle head												
LBV11 S027-S30	2700	–	5.0	0.5	1.1	3.2	6.8	5.0	1/8	1/4	71	8421 0108 70
LBV25 EA032-S30	3200	1500-4000	5.0	0.6	1.3	3.2	6.8	6.3	1/4	1/4	70	8421 0218 00*
LBV25 EA032-30	3200	1500-4000	5.0	0.7	1.5	3.2	6.8	6.3	1/4	1/4	70	8421 0218 01*
LBV25 EA032-S32	3200	1500-4000	^c	0.6	1.3	3.2	6.8	6.3	1/4	1/4	70	8421 0218 02
LBV25 EA032-32	3200	1500-4000	^c	0.7	1.5	3.2	6.8	6.3	1/4	1/4	70	8421 0218 03
LBV36 S030-30 ^d	3000	–	5.0	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 70
LBV36 S030-S30 ^d	3000	–	5.0	0.9	2.0	17.0	36.0	10.0	3/8	1/4	82	8421 0414 71
LBV36 S045-30 ^d	4500	–	5.0	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 72*
LBV36 S045-S30 ^d	4500	–	5.0	0.9	2.0	17.0	36.0	10.0	3/8	1/4	82	8421 0414 73
90° angle head												
LBV11 S025-S90	2500	–	5.0	0.5	1.1	3.2	6.8	5.0	1/8	1/4	71	8421 0109 79*
LBV25 EA032-S90	3200	1500-4000	5.0	0.6	1.3	3.2	6.8	6.3	1/4	1/4	70	8421 0218 04*
LBV25 EA032-90	3200	1500-4000	5.0	0.7	1.5	3.2	6.8	6.3	1/4	1/4	70	8421 0218 05*
LBV25 EA032-S92	3200	1500-4000	^c	0.6	1.3	3.2	6.8	6.3	1/4	1/4	70	8421 0218 06*
LBV25 EA032-92	3200	1500-4000	^c	0.7	1.5	3.2	6.8	6.3	1/4	1/4	70	8421 0218 07*
LBV36 S030-90 ^d	3000	–	5.0	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 60*
LBV36 S030-S90 ^d	3000	–	5.0	0.9	2.0	17.0	36.0	10.0	3/8	1/4	82	8421 0414 61
LBV36 S045-90 ^d	4500	–	5.0	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 62*
LBV36 S045-S90 ^d	4500	–	5.0	0.9	2.0	17.0	36.0	10.0	3/8	1/4	82	8421 0414 63
LBV36 S030-92 ^d	3000	–	^c	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 64*
LBV36 S030-S92 ^d	3000	–	^c	0.9	2.0	17.0	36.0	10.0	3/8	1/4	82	8421 0414 65
LBV36 S045-92 ^d	4500	–	^c	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 66*
LBV36 S045-S92 ^d	4500	–	^c	0.9	2.0	17.0	36.0	10.0	3/8	1/4	82	8421 0414 67
360° angle head												
LBV25 EA032-90Z	3200	1500-4000	5.0	0.7	1.5	3.2	6.8	6.3	1/4	1/4	70	8421 0218 08*
LBV25 EA032-92Z	3200	1500-4000	^c	0.7	1.5	3.2	6.8	6.3	1/4	1/4	70	8421 0218 09
90° angle head – Collet chuck models – large angle head												
LBV25 EA045-91	4500	1500-4500	6.6	0.8	1.7	5.4	11.4	6.3	1/4	1/4	73	8421 0218 10*
LBV25 EA020-91	2000	800-2000	6.6	0.8	1.7	5.4	11.4	6.3	1/4	1/4	72	8421 0218 11*
LBV25 EA010-91	1000	500-1000	6.6	0.9	2.0	5.4	11.4	6.3	1/4	1/4	71	8421 0218 12
LBV25 EA045-93	4500	1500-4500	^c	0.8	1.7	5.4	11.4	6.3	1/4	1/4	73	8421 0218 13
LBV25 EA020-93	2000	800-2000	^c	0.8	1.7	5.4	11.4	6.3	1/4	1/4	72	8421 0218 14*
LBV25 EA010-93	1000	500-1000	^c	0.9	2.0	5.4	11.4	6.3	1/4	1/4	71	8421 0218 15
LBV36 S030-91 ^d	3000	–	6.6	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 50*
LBV36 S060-91 ^d	6000	–	6.6	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 51*
LBV36 S030-93 ^d	3000	–	^c	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 52
LBV36 S060-93 ^d	6000	–	^c	1.0	2.2	17.0	36.0	10.0	3/8	1/4	82	8421 0414 53
90° angle head – Key chuck models												
LBV25 EA020	2000	800-2000	6.5 ^a	0.8	1.7	5.4	11.4	6.3	1/4	1/4	72	8421 0218 60*
LBV34 S040	4000	–	6.5 ^a	1.5	3.3	7.5	15.9	10.0	3/8	1/4	88	8421 0309 46 ^{ab}
LBV34 S010	1000	–	10.0 ^a	2.0	4.4	7.5	15.9	10.0	3/8	1/4	88	8421 0309 12 ^{ab}
LBV34 S005	500	–	13.0 ^a	2.1	4.6	7.5	15.9	10.0	3/8	1/4	87	8421 0309 04 ^{ab}

^a Spindle thread, male 3/8"-24 UNF.

^b Side exhaust.

^c Internal thread 1/4"-28.

^d Short lever as standard.

* Available directly from stock.

ACCESSORIES INCLUDED

Collet or chuck with key

Push button set

Hose nipple

3 mm collet (5.0 collet capacity head)

6 mm collet (6.6 collet capacity head)

OPTIONAL ACCESSORIES

Page 194-195

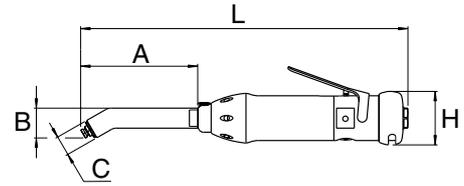
OPTIONAL ACCESSORIES

Angle drill dimensions –Drilling capacity

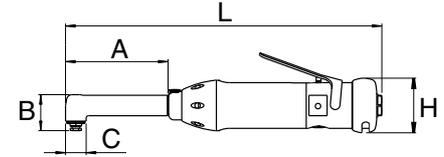
Model	Angle head mm					Drilling capacity mm	
	A	B	C	L	H	Mild steel	Aluminum and bronze
LBV11 S027-S30	59	25	18	224	30	4.0	5.0
LBV25 EA032-S30	59	25	18	236	45.5	4.0	5.0
LBV25 EA032-30	98	25	18	275	45.5	4.0	5.0
LBV25 EA032-S32	59	25	18	236	45.5	4.0	5.0
LBV25 EA032-32	98	25	18	275	45.5	4.0	5.0
LBV11 S025-S90	44	30	18	204	30	4.0	5.0
LBV25 EA032-S90	44	30	18	221	45.5	4.0	5.0
LBV25 EA032-90	84	30	18	261	45.5	4.0	5.0
LBV25 EA032-S92	44	30	18	221	45.5	4.0	5.0
LBV25 EA032-92	84	30	18	261	45.5	4.0	5.0
LBV25 EA045-91	65	41	20	239	45.5	3.0	6.6
LBV25 EA045-93	65	36	20	239	45.5	3.0	6.6
LBV25 EA020-91	65	41	20	239	45.5	5.0	6.6
LBV25 EA020-93	65	36	20	239	45.5	5.0	6.6
LBV25 EA010-91	65	41	20	271	45.5	6.6	6.6
LBV25 EA010-93	65	36	20	271	45.5	6.6	6.6
LBV25 EA032-90Z	100	48	18	276	45.5	4.0	5.0
LBV25 EA032-92Z	98	48	18	273	45.5	4.0	5.0
LBV25 EA020	68	82	15	239	45.5	5.0	6.5
LBV34 S045	92	97	20	255	43	3.0	6.5
LBV34 S010	92	114	20	290	43	10.0	10.0
LBV34 S005	92	120	20	290	43	13.0	13.0
LBV36 S030-91	92	41	10	252	43	4.0	6.6
LBV36 S060-91	92	41	10	252	43	2.0	6.6
LBV36 S030-93	92	36	10	252	43	4.0	6.6
LBV36 S060-93	92	36	10	252	43	2.0	6.6
LBV36 S030-30	122	26	9	281	43	4.0	5.0
LBV36 S030S-30	82	26	9	241	43	4.0	5.0
LBV36 S045-30	122	26	9	281	43	3.0	5.0
LBV36 S045S-30	82	26	9	241	43	3.0	5.0
LBV36 S030-90	112	30	9	272	43	4.0	5.0
LBV36 S030S-90	72	30	9	232	43	4.0	5.0
LBV36 S045-90	112	30	9	272	43	3.0	5.0
LBV36 S045S-90	72	30	9	232	43	3.0	5.0
LBV36 S030-92	112	30	9	272	43	4.0	5.0
LBV36 S030S-92	72	30	9	232	43	4.0	5.0

Angle head dimensions

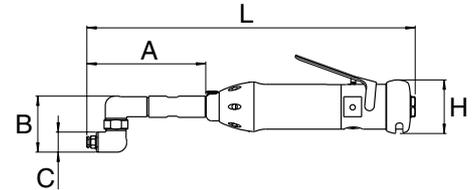
LBV11, -25
30°



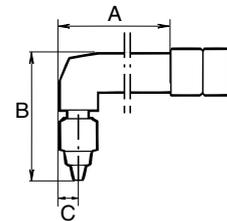
LBV11, -25
90°



LBV25
360°



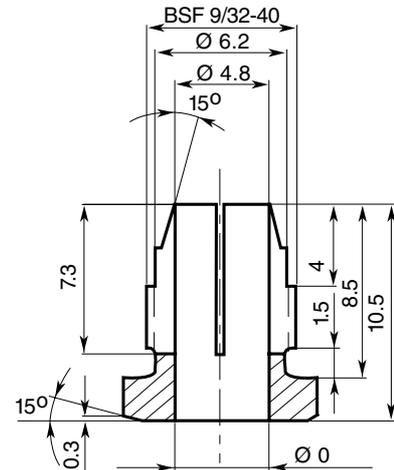
LBV34
90°



Collets for 5.0 mm capacity head LBV11, LBV25 S032 (-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)



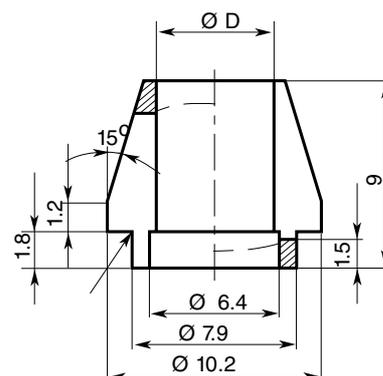
OPTIONAL ACCESSORIES

Collets for 6.6 mm capacity head LBV25 (-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

Collet nut 4110 1410 00, to be ordered separately.

Collets for 6.6 mm



Push button set

For model	Ordering No.
LBB24 S	4110 1427 90
LBV25 EA	4110 1427 90
LBB34 S	4110 1427 91
LBV34 S	4110 1427 91

Push button set



Safety levers

For model		Ordering No.
LBB24 S	Rear exhaust	4210 2306 80
LBB34 S		4150 1035 90
LBV25 EA		4210 2306 81
LBV34 S		4150 1035 90
LBV36		4150 1594 97

Safety lever



Short levers

For model	Ordering No.
LBV25	4210 2306 04
LBV36	4110 1581 01

Short lever



SERVICE KITS

LBB/LGB/LBV24	4081 0005 90
LBV25	4081 0272 90
LBB/LGB/LBV34	4081 0035 90
LBV36 (30, 90/92)	4081 0263 90
LBV36 (91/93)	4081 0251 90

TAPPERS

Atlas Copco tappers are designed for tapping and thread cleaning operations with thread taps. As standard, the tools are fitted with a tap chuck.

- ❑ **Comfortable and effective** –The ergonomic design of the handle gives you a comfortable grip and maximum performance.
- ❑ **Higher productivity** –Thanks to the double speed when you withdraw the machine.
- ❑ **Low noise level** –Rearward-directed exhaust gives a lower noise level.
- ❑ **Lubrication-free.**
- ❑ **Quick change system** –Equip 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 cost.



Model	Free speed		Tapping capacity mm	Weight		Hose dimension		Air inlet thread BSP	Air consumption		With chuck		Without chuck	
	Forward r/min	Reverse r/min		kg	lb	mm	in		l/s	cfm	Ordering No.	Model	Ordering No.	
Pistol-grip tappers with air supply through handle														
LGB24 H007	700	1400	6	1.1	2.4	6.3	1/4	1/4	5.5	11.5	8421 0210 67*	-U	8421 0210 69	
LGB24 H007Q ^a	700	1400	6	1.1	2.4	6.3	1/4	1/4	5.5	11.5	8421 0210 75*	-	-	
LGB34 H007	700	1400	10	1.8	4.0	10.0	3/8	1/4	7.5	15.9	8421 0311 66*	-U	8421 0311 68*	
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 0311 76*	-	-	
Pistol-grip tappers with air supply on top														
LGB24 HF007	700	1400	6	1.2	2.6	6.3	1/4	1/4	6.0	12.7	8421 0210 80	-	-	
LGB24 HF007Q ^a	700	1400	10	1.2	2.6	6.3	1/4	1/4	6.0	12.7	8421 0210 82	-	-	
Straight tappers														
LGB24 S007	700	1400	6	1.1	2.4	6.3	1/4	1/4	5.5	11.6	8421 0210 71	-U	8421 0210 73	
LGB34 S007	700	1400	10	1.8	4.0	10.0	3/8	1/4	7.5	15.9	8421 0311 72	-U	8421 0311 74	

^a Quick change system.

* Available directly from stock.

Taper: Jacob 1

DIMENSIONS LGB (mm)

Model	L	H	C
LGB24 H007	260	154	18
LGB34 H007	300	156	20
LGB24 HF007	235	200	20
LGB24 S007	253	38	19
LGB34 S007	293	43	21
LGB36 H007	335	157	20

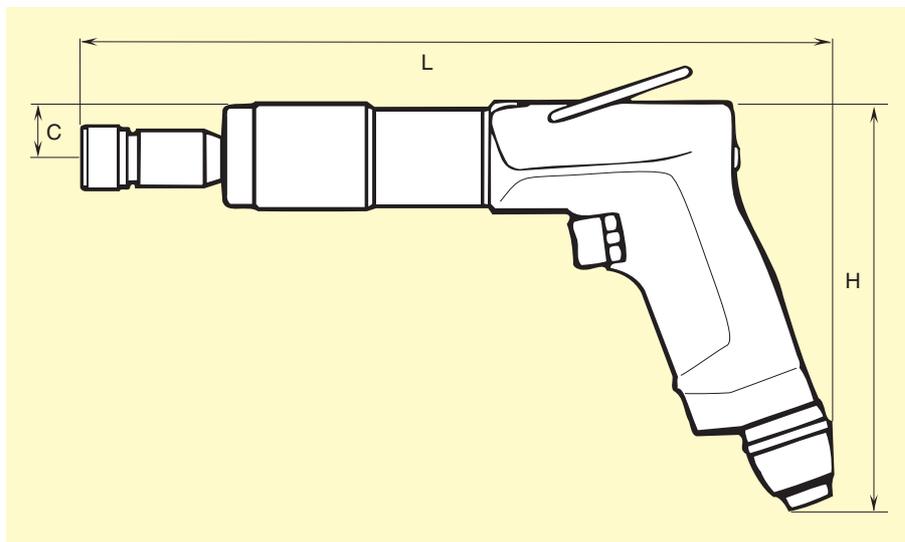
ACCESSORIES INCLUDED

Non Quick change system

LGB24	Chuck complete with collet 4.5-6.5 mm	4021 0410 00
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 mm	Ordering No.
LGB24	2.5- 4.5	4021 0412 00
	4.5- 6.5	4021 0413 00
LGB34	3.5- 6.5	4021 0337 00
	4.5- 8.0	4021 0336 00
	6.4-10.0	4021 0456 00

Collets for Quick change system

Collets for tap size mm	Shank dia mm	Ordering No.
M2.2/M2.5	2.8	4021 0414 01
M3	3.15	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	4021 0414 06
M5.5	5.6	4021 0414 07
M6	6.3	4021 0414 08
M6 (DIN)	6.0	4021 0414 13
M7	7.1	4021 0414 09
M8/M11	8.0	4021 0414 10
M9/M12	9.0	4021 0414 11
M10	10.0	4021 0414 12



SERVICE KITS

LGB24	4081 0005 90
LGB34	4021 0035 90
LGB36	4081 0194 90

Completing existing equipment with Quick change system

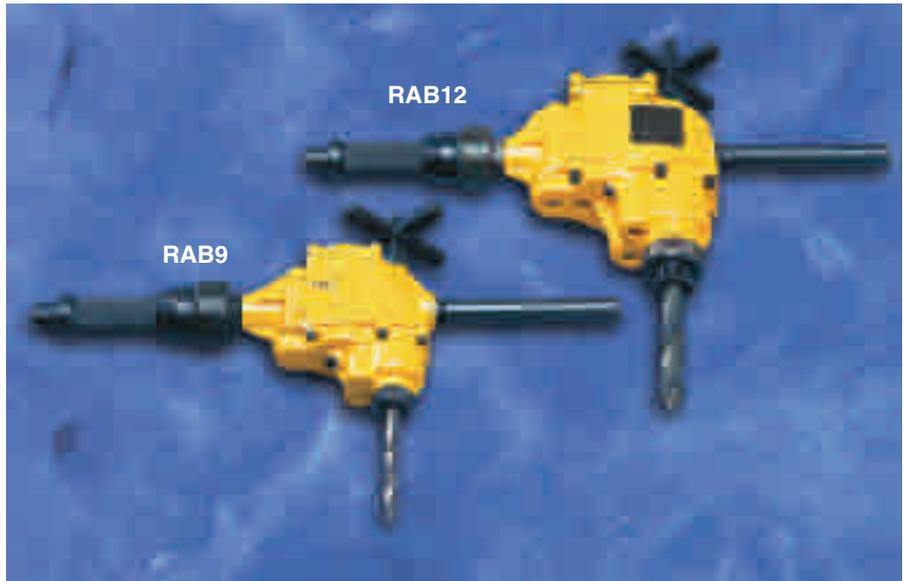
Accessories	Length mm	Ordering No.
Quick change chuck	47	4021 0406 90
Tap holder	58	4021 0408 00



SCREW-FEED DRILLS

Atlas Copco screw-feed drills are ideal for heavy-duty drilling operations requiring high feed forces. You can also use these drills for reaming and tube-rolling.

- ❑ **Reliable** –They have a simple and 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	0.85 kW (1.14 hp)	0.55 kW (0.74 hp)
RAB12	1.5 kW (2.0 hp)	1.1 kW (1.5 hp)

Model	Free speed r/min	Capacity			Morse taper No.	Length feed mm	Height		Weight kg lb	Hose dimension		Air consumption max output		Distance centre to side mm	Air inlet thread BSP	Ordering No.	
		Drill- ing mm	Ream- ing mm	Tapp- ing mm			mm	in		mm	in	l/s	cfm				
Reversible screw-feed drills																	
RAB9 VR006	600	23	23	12	2	75	265	10.4	9.5	20.9	13	1/2	23	49	40	1/2	8421 5109 45*
RAB9 VR003	300	23	23	16	2	75	265	10.4	9.5	20.9	13	1/2	22	47	40	1/2	8421 5109 37*
RAB12 L450	475	32	32	24	3	90	340	13.4	12.9	28.4	16	5/8	32	68	50	1/2	8421 5112 24*
RAB12 L250	240	51	40	30	4	90	385	13.2	14.9	32.8	16	5/8	33	70	50	1/2	8421 5112 16*
RAB12 L150	140	51	40	32	4	90	385	15.2	14.9	32.8	16	5/8	30	64	50	1/2	8421 5112 08*

* Available directly from stock.

ACCESSORIES INCLUDED

Hose nipple

OPTIONAL ACCESSORIES

Breast plate

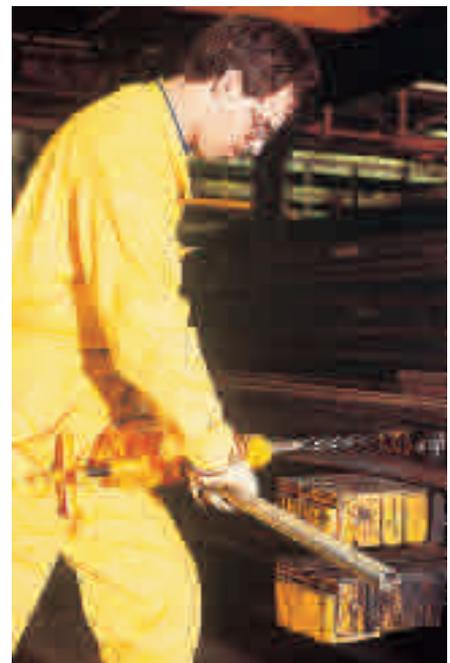


Model	Ordering No.
RAB9	4110 0974 82
RAB12	4110 0974 83

Square drive adapter



Morse taper No.	Square drive in	Ordering No.
3	1	4021 0394 00
4	1	4021 0395 00





Automatic drilling and tapping units

More mechanization in your drilling operations

Simple, 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.

Contents	Page
Automatic drilling and tapping units	200
Dimension sketches	204

AUTOMATIC DRILLING AND TAPPING UNITS

These units are available in three sizes, LBL25, LBL35 and LBL45, each size covering a specific diameter range, totally up to 20 mm in steel.

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- nium mm		kW	hp			kg	lb	Max output		Free speed		
										l/s	cfm	l/s	cfm	
Automatic drilling and tapping units														
LBL25E 220	1.2	2.0	350	0.22	0.3	80	21000	3	6.6	5.2	11	5.8	12	8421 9208 47
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 190	–	2.0	1050	0.33	0.5	80	19000	7	15.0	9.5	21	10.6	22	8421 9308 53
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
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 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 007	11.0 ^c	13.0 ^d	1050	0.33	0.5	80	700	16	15.0	9.5	21	10.6	22	8421 9308 04
LBL45E 025	–	10.0	2500	0.80	1.1	120	2500	16	35.0	20.0	44	9.0	19	8421 9408 52
LBL45E 015	7.0	14.0	2500	0.80	1.1	120	1500	16	35.0	20.0	44	9.0	19	8421 9408 45
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 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 005	16.0 ^d	22.0 ^e	2500	0.80	1.1	120	550	16	35.0	20.0	44	9.0	19	8421 9408 11
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

Recommended max tapping size: ^aM4 ^bM5 ^cM8 ^dM10 ^eM12 ^fM16

SELECTION GUIDE



Steel



Aluminium

LBL45

025	015	010	007	005	003
—	7.0	10.0	14.0 (M8)	16.0 (M10)	20.0 (M12)
10.0	14.0	16.0	22.0 (M12)	32.0 (M16)	

LBL35

190	054	030	014	007
—	3.0	5.0	8.0 (M4)	11.0 (M8)
2.0	5.0	7.0	10.0 (M5)	13.0 (M10)

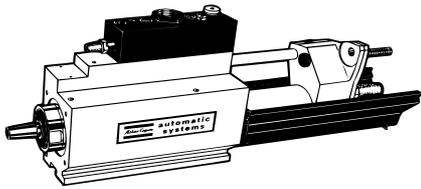
LBL25

220	049	022	011
1.2	3.2	5.0	8.0
2.0	5.0	6.5	10.0



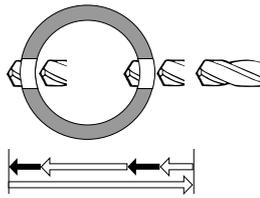
OPTIONAL ACCESSORIES

Chip removal attachments



Model	Ordering No.
LBL35	4130 1950 81
LBL45	4130 1950 82

Programmed damping device



Model	Ordering No.
LBL35, -45	4130 1961 80

To be used together with the hydraulic damper.

Hydraulic damper



Key chuck



Sleeve chuck



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

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, centre to centre 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

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, centre to centre adjustment range 19-95 mm	4130 1364 82
Other multiple heads on request	
Tapping unit, M15-M18	
SPD7, Taper socket, J3	4130 1940 00
Holder for tapping unit SPD7	4130 1773 00
Collet 6-10 mm	4023 1059 00

Morse taper socket



Tapping unit



Twin spindle head



ACCESSORIES

Collets for Twin head LBL35

Size mm	Ordering No.								
1.0	4130 1367 00	2.2	12	3.4	24	4.6	36	5.8	48
1.1	01	2.3	13	3.5	25	4.7	37	5.9	49
1.2	02	2.4	14	3.6	26	4.8	38		
1.3	03	2.5	15	3.7	27	4.9	39	6.0	4130 1367 50
1.4	04	2.6	16	3.8	28			6.1	51
1.5	05	2.7	17	3.9	29	5.0	4130 1367 40	6.2	52
1.6	06	2.8	18			5.1	41	6.3	53
1.7	07	2.9	19	4.0	4130 1367 30	5.2	42	6.4	54
1.8	08			4.1	31	5.3	43	6.5	55
1.9	09	3.0	4130 1367 20	4.2	32	5.4	44		
		3.1	21	4.3	33	5.5			
2.0	4130 1367 10	3.2	22	4.4	34	5.6			
2.1	11	3.3	23	4.5	35	5.7			

Collets for Sleeve chuck LBL35/45 Twin head LBL45

Size mm	Ordering No.								
2.0	4130 1561 00	3.6	16	5.1	31	6.7	47	8.2	62
2.1	01	3.7	17	5.2	32	6.8	48	8.3	63
2.2	02	3.8	18	5.3	33	6.9	49	8.4	64
2.3	03	3.9	19	5.4	34			8.5	65
2.4	04			5.5	35	7.0	4130 1561 50	8.6	66
2.5	05	4.0	4130 1561 20	5.6	36	7.1	51	8.7	67
2.6	06	4.1	21	5.7	37	7.2	52	8.8	68
2.7	07	4.2	22	5.8	38	7.3	53	8.9	69
2.8	08	4.3	23	5.9	39	7.4	54		
2.9	09	4.4	24			7.5	55	9.0	4130 1561 70
		4.5	25	6.0	4130 1561 40	7.6	56	9.1	71
3.0	4130 1561 10	4.6	26	6.1	41	7.7	57	9.2	72
3.1	11	4.7	27	6.2	42	7.8	58	9.3	73
3.2	12	4.8	28	6.3	43	7.9	59	9.4	74
3.3	13	4.9	29	6.4	44			9.5	75
3.4	14			6.5	45	8.0	4130 1561 60		
3.5	15	5.0	4130 1561 30	6.6	46	8.1	61		

TIP MOUNT

Model	Max stroke	Dimensions, mm				Ordering No.
		L	D	M		
LBL35	73	159	60	M56x1.5L	4140 0090 80	
LBL45	110	215	80	M56x1.5L	4140 0092 80	

DRILL GUIDE (Screw mount)

A	B	C	D	E	F	G	H	I	Ordering No.
4 ^a , 5, 6, 7, 8, 10, 12, 18, 22, 26	M56x 1.5L	60 (2.36)	39 (1.54)	25 (0.98)	6.2 (0.24)				4140 0044 04, -05, -06, -07, -08, -10, -12, -18, -22, -26

^a Dimensions mentioned under A refer to the outside diameter for drill guide bushings.

DRILL GUIDE (Bayonet mount)

A	B	C	D	E	F	G	H	I	Ordering No.
4 ^a , 5, 6, 7, 8, 10, 12, 18, 22, 26	M56x 1.5L	60 (2.36)	30 (1.18)	37 (1.46)			40h8 (1.57)	6.2 (0.31)	4140 0058 04, -05, -06, -07 -08, -10, -12, -18, -22, -26
		56 (2.20)	36 (1.50)	15 (0.59)	6.5 (0.26)	67 (2.64)	40F8 (1.57)		4140 0059 80

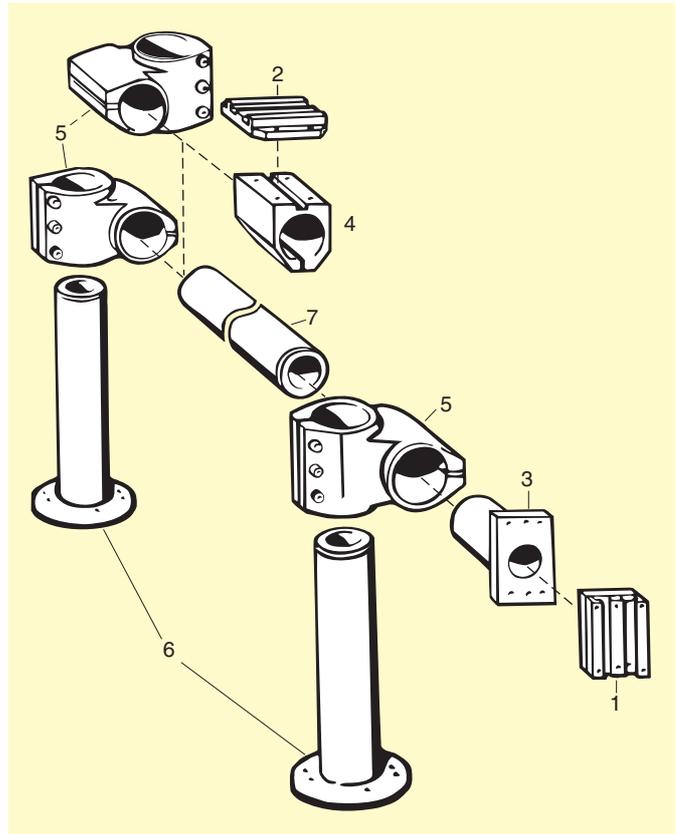
^a Dimensions mentioned under A refer to the outside diameter for drill guide bushings.

DIMENSION SKETCHES

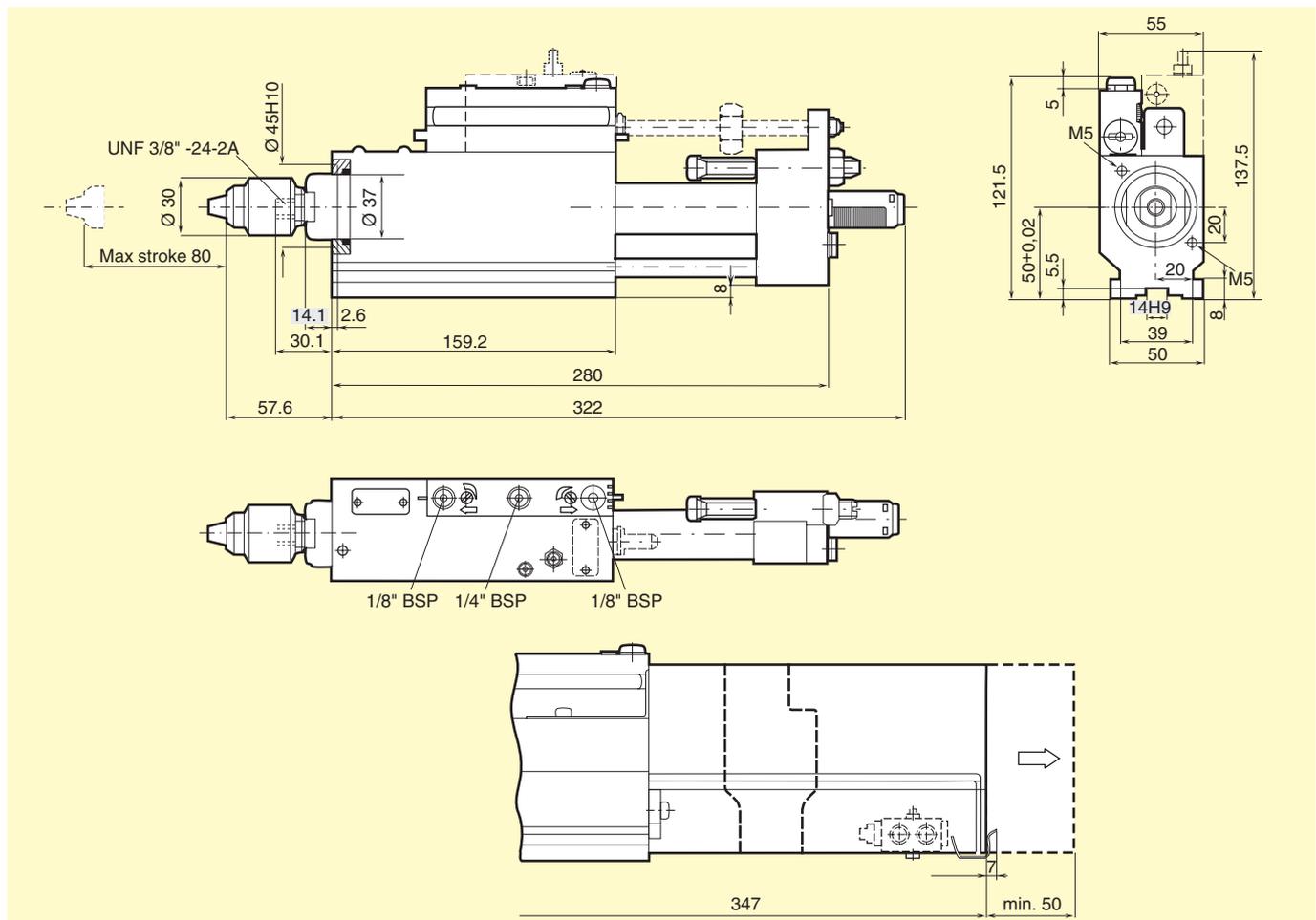
MOUNTINGS

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
3	Column mount	4140 0050 00	
4	Side mount	4140 0047 80	4140 0018 80
5	Crossmount	4140 0048 80	4140 0029 80
6	Column socket		
	500 mm long	4140 0051 01	
	250 mm long	4140 0051 02	
	600 mm long		4140 0019 02
	300 mm long		4140 0019 01
7	Column		
	500 mm long	4140 0052 01	
	600 mm long		4140 0020 02
	300 mm long		4140 0020 01
8	Locking bar	4140 0078 00 ^a	4140 0082 00 ^a
9	Locking bar	4140 0079 00 ^a	4140 0083 00 ^a

^a Two per unit.



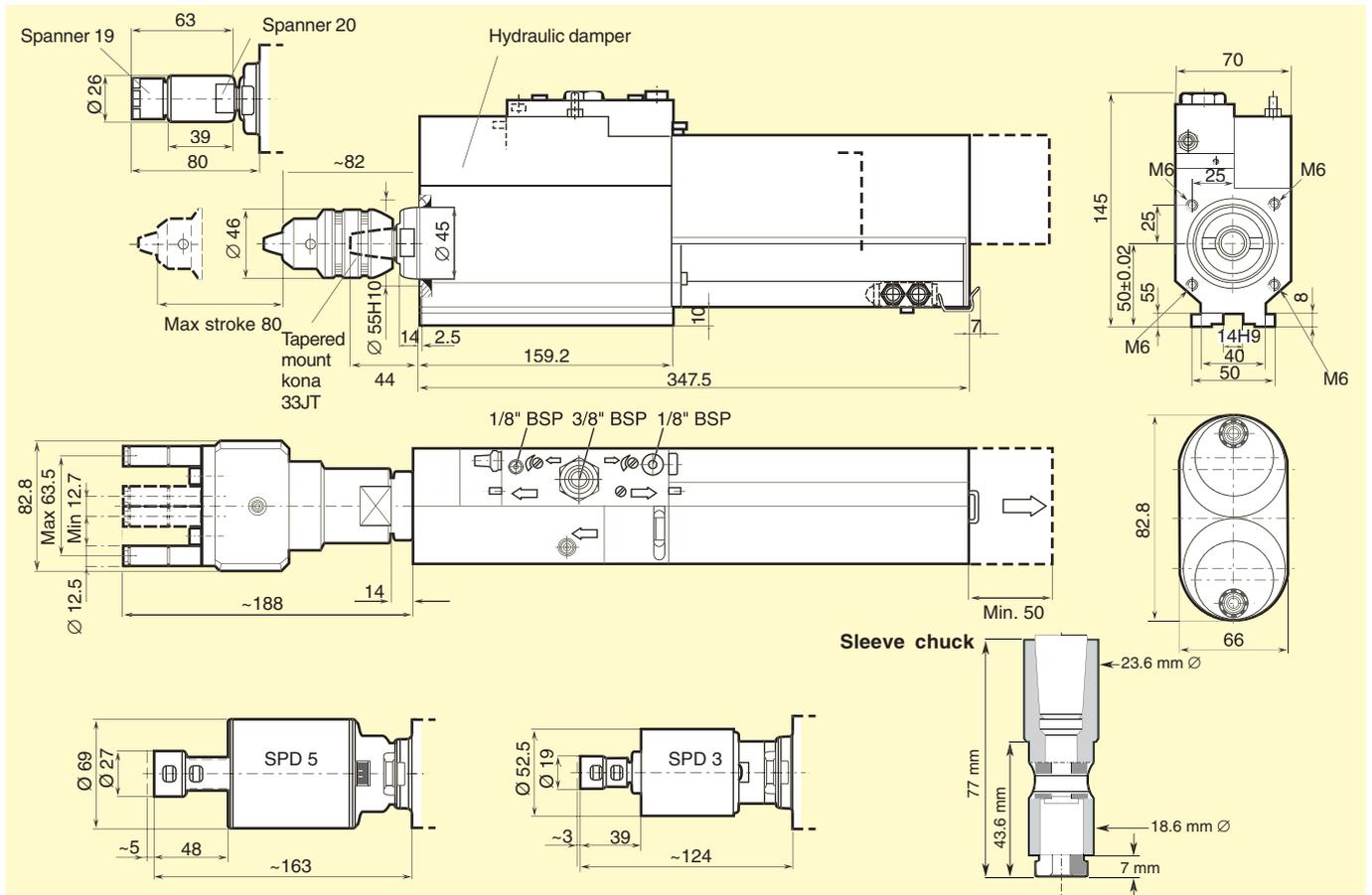
DIMENSION SKETCH – LBL25



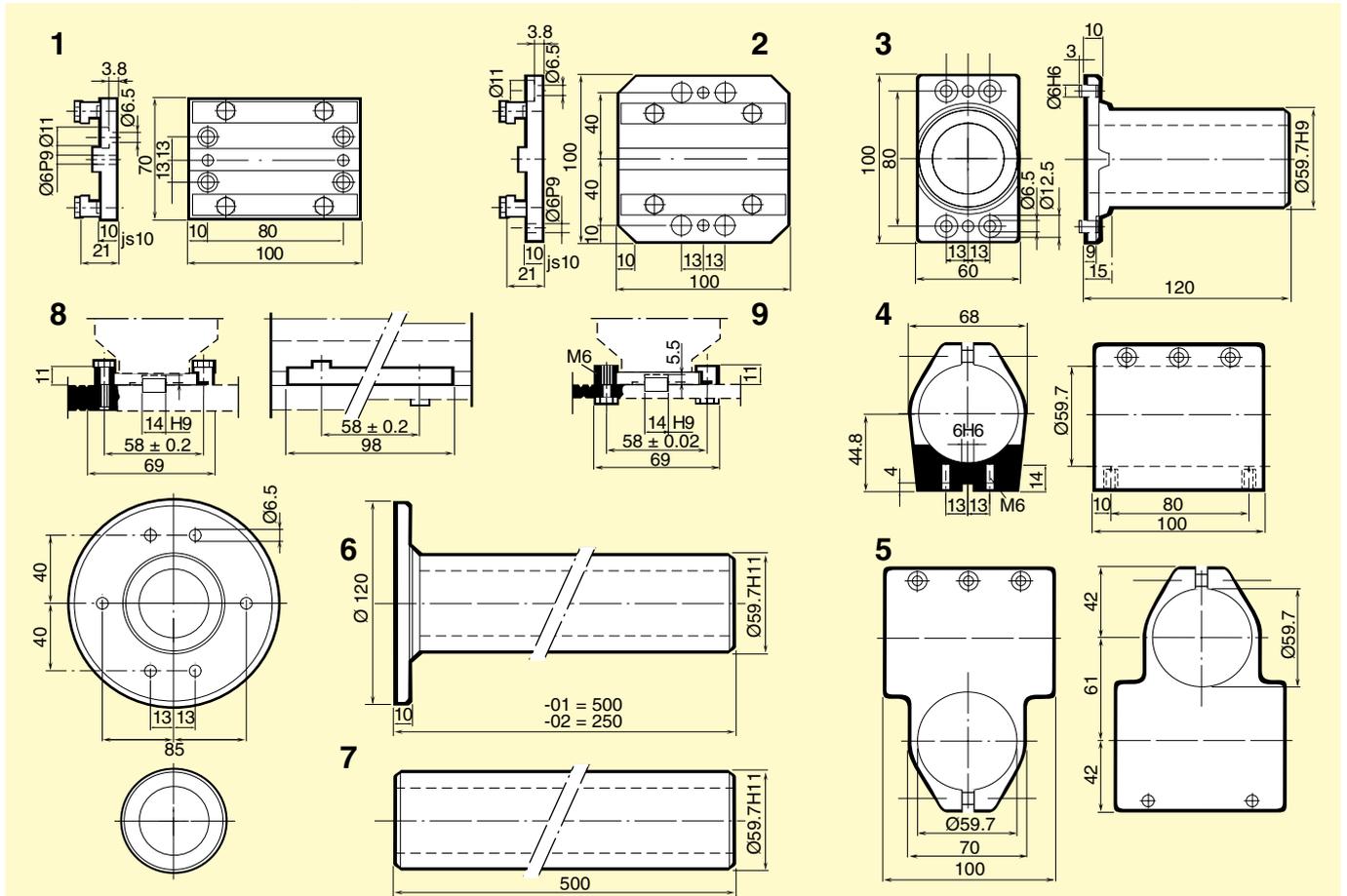
Dimensions available on Auto-Cad diskette. Please contact Atlas Copco.

DIMENSION SKETCHES

DIMENSION SKETCH –LBL35



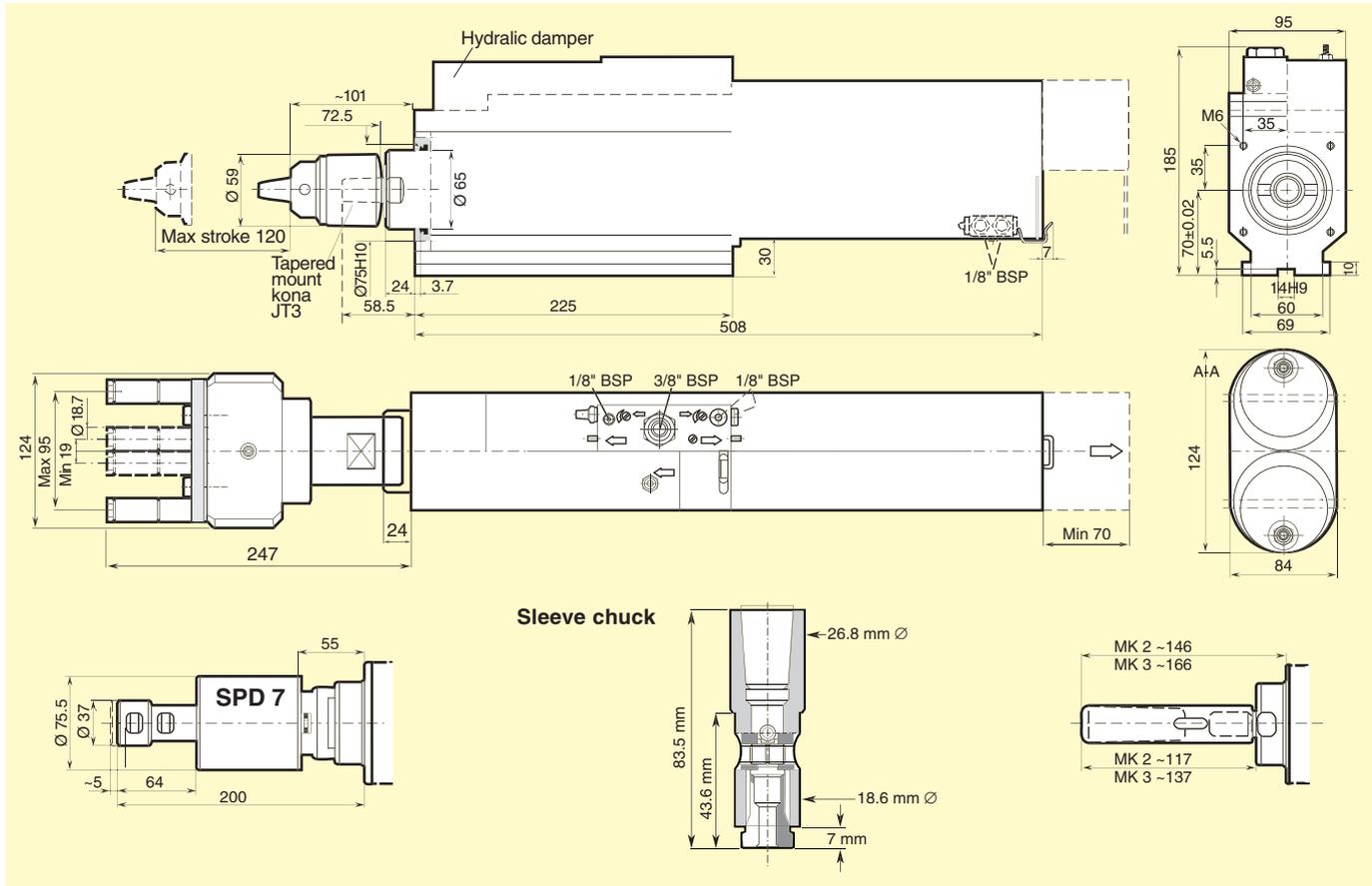
DIMENSION SKETCH –Mountings for LBL25E and -35E



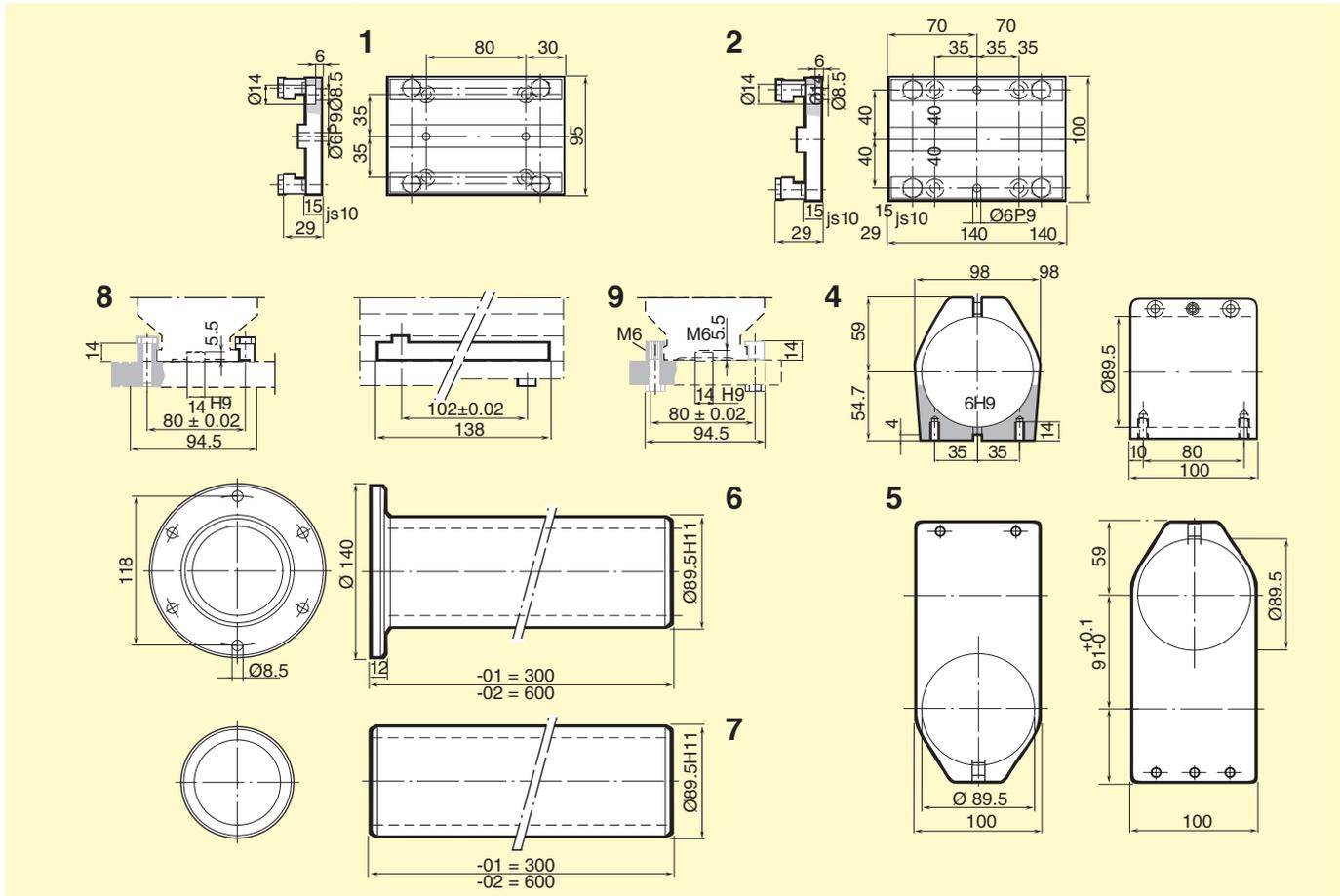
Dimensions available on Auto-Cad diskette. Please contact Atlas Copco.

DIMENSION SKETCHES

DIMENSION SKETCH –LBL45



DIMENSION SKETCH –Mountings for LBL45E



Dimensions available on Auto-Cad diskette. Please contact Atlas Copco.

Airline accessories

Get the best from your air tools

Atlas Copco airline accessories mean correct air pressure, whatever the conditions. Atlas Copco quick couplings ensure low pressure drop. Atlas Copco balancers take the weight off the operator and our high-performance hose is up to 50% lighter than conventional hoses.

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INSTALLATION GUIDE

AIR PREPARATION UNITS, MINI 1/4", MIDI 1/2" and MAXI 1"

The most common way to choose between these three types is to select MIDI wherever possible (this will cover approximately 90% of all the applications). MIDI is suitable for all kinds of assembly tools, percussive tools, drills, nibblers and saws. MIDI can also be used for small grinders.

MAXI can be used as an alternative when necessary. If the tools are major air consumers, large grinders for instance, 80 % require MAXI units, and it might be a good idea to install MAXI on all work sites.

MINI can be used as an alternative to the MIDI when using tools with low air consumption. MINI is also the usual system chosen for use with pneumatic components.

FILTER / REGULATOR

F/R units are recommended in every case where both filters and regulators are needed. Combined units work as well as separate units, filtering and regulating properties are almost the same as for individual units.

REGULATOR

The regulator (REG) is designed to ensure the right working pressure to the tool. A regulator is needed when high accuracy is required on the tools working pressure, this is normally the case when using torque controlled tools, i.e. assembly tools. Too high working pressure also means unnecessarily high air consumption.

OIL-FOG LUBRICATOR

The oil fog lubricator (DIM) is used to lubricate air tools which have a normal operation time and is the standard method of lubricating air tools. (It is not needed with lubrication-free tools.)



BALL VALVES

Ball valves are required when servicing air preparation units. When claw couplings are used, ball valves are the only way to shut off the air flow. There are two types available: BAL and BAL-1A.

Both are lubricated with silicone-free grease, which is important when spray-painting. BAL type valves can be used in any position from fully open to fully closed. BAL-1A is designed to operate either fully open or fully closed.

METAL BOWL GUARD

The metal bowl guard is recommended for extra safety when a polycarbonate bowl is used (MINI and MIDI only). The guard helps avoid accidents if the polycarbonate bowl is damaged under pressure. MAXI units have a metal bowl as standard.

INSTALLATION GUIDE

DIRECT LUBRICATOR

If the operation time is very short, direct lubrication at the tool is recommended. The direct lubrication unit (DOS) is connected to the air tool by a nylon tube which is placed inside the air hose. This makes it possible to supply oil at the precise point of operation.

BLOW PROTECTOR

When a fitting comes loose from a pressurised hose, the hose starts to blow compressed air in an uncontrolled way, whipping around. This can injure people, damage the work-piece and destroy the environment. A way to ensure this does not happen is to use blow protector BLOCK.



QUICK AND CLAW COUPLINGS

Six different types exist: ErgoQIC 08, ErgoQIC 10, QIC 08, QIC 10, QIC 15 and CLAW.

The ErgoQIC system is a ball valve coupling system offering a higher air flow than ordinary coupling systems. The QIC system is a normal quick coupling system with high air flows. The CLAW system 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 QIC 10 and ErgoQIC 08 is used, but for assembly tools and drills with higher air consumption than 20 l/s it is recommended that QIC 15 or ErgoQIC 10 are used.

For grinders and percussive tools it is recommended that the bigger sized couplings such as QIC 15, ErgoQIC 10 and CLAW are used. For smaller grinders with air consumption below 10 l/s ErgoQIC 08 and QIC 10 can be used.

HOSES

Choose hoses depending on the working environment. When it is hot, dirty and the hoses are laying on the floor, choose rubber hoses. For bench operations and a clean environment, use the CABLAIR. For all general operations, light grinding to heavy assembly, ordinary PVC or the POLUR hoses will do fine.

WHIP HOSES

Whip hoses are recommended for use on percussive tools such as impact wrenches, chipping hammers and on grinders with high levels of vibration. Couplings which are connected directly to a percussive tool will be in need of replacement sooner if a whip hose is not used.

FILTER

The filter (FIL) is used to remove water and dirt from the compressed air. Clean air prevents corrosion damage and wear of the air tools.

The usual type of drainage on filters is semi-automatic. All filters are accompanied by a kit enabling them to be converted from semi-automatic to manual drainage.

By manual drainage we mean drainage by hand when the filter bowl is full. Semi-automatic drainage takes place when the pressure in the bowl drops below 0.2 bar (providing the air supply is switched off regularly).

PRESSURE CLAMPS

A single lugged medium pressure clamp is recommended for use on CABLAIR. A medium pressure clamp with screw locking is recommended for PVC and POLUR hoses and smaller rubber hoses up to 16 mm. Heavy duty clamp is recommended for rubber hoses above 16 mm.

GUIDELINES ON IMPROVING SAFETY

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.
- Open all ball valves gently in order to discover improperly tightened devices.

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 in choosing 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 a metal bowl as standard.

Check that the bowls are properly tightened and that all units are fit together before switching on the compressed air with the ball valve.

QUICK COUPLINGS

- Use safety nipples if the hose is longer than 3 metres.

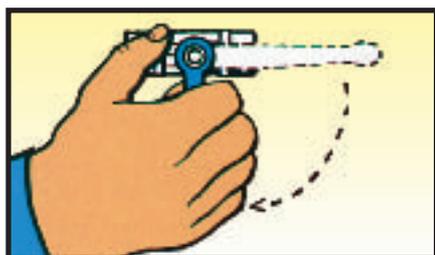
Quick couplings are normally very safe devices. The only time you need to improve the safety is when you are working with hoses from 16 mm diameter and upwards or if the hose is longer than 3 metres. In such cases we recommend that you use the safety nipples in order to ventilate the air from the hose in a controlled way. Never open a quick coupling with a screw-driver in order to ventilate the air.

CLAW COUPLINGS

- Be very careful.

Are always open and must be used very carefully. Follow this order when working with claw couplings.

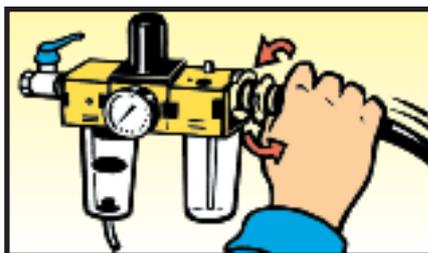
How to open a claw coupling:



- Close the ball valve.



- Run the tool so the air ventilates out.



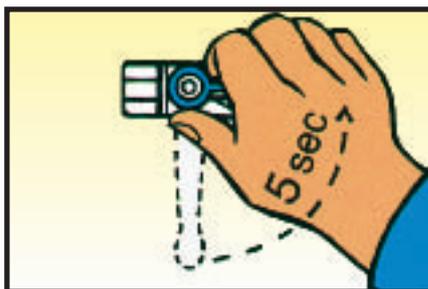
- Release the claw coupling.

How to close a claw coupling:



- 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.



- Open the ball valve gently.

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 then mount the clamp in a vice.

HOSES

When mounting hoses on hose nipples, use water and soap in order to make the hose slip on to the nipple.

Do not use oil. Water and soap will dry up. Remove leaking hoses. A small leakage can quickly become a big hole.

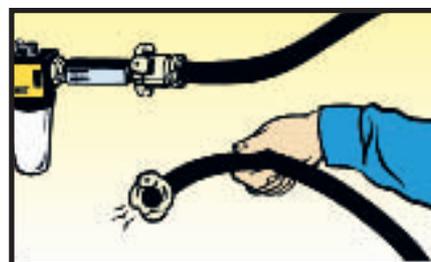
BLOW PROTECTOR

A dangerous situation can arise with a hose that is accidentally blowing compressed air in an uncontrolled way, causing it to whip.



- This dangerous situation can be avoided by using a blow protector.

- BLOCK blow protector shuts off the air flow so the risk of personal injuries is minimized.



- We strongly recommend the use of blow protector BLOCK when using claw couplings.

- When the hose has been repaired and the compressed air is switched on again the BLOCK is automatically reset.

BLOW GUNS

- Use the safety version. It eliminates the risk of high pressure coming into direct contact with skin.

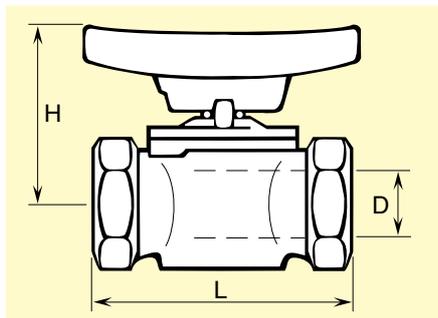
^a Polycarbonate has good chemical resistance to all solvents except chemicals containing acetone, benzol, glycerine, some hydraulic and synthetic oils, chloroform, methyl alcohol, carbon tetrachloride (and similar solvents), carbon disulphide, perchloroethylene, toluene, trichloroethylene, xylene (nitrocellulose, thinner), acetic acid.

BALL VALVES

VALVES –BAL AND BAL-1A

The Atlas Copco valves BAL and BAL-1A are both suitable for air, water and many other liquids and gases due to the choice of material.

- ❑ **Silicone-free grease** –Both are 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 aluminium.



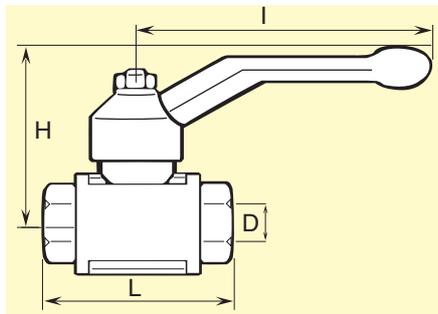
BAL –VALVES WITH NITRILE RUBBER SEALS

The BAL valves can be used in all settings between fully open and fully closed. The balls and the seals can be replaced without the body being removed from the piping.

Maximum working pressure: 16 bar. Working temperature range: -2 0°C to +90°C.

Model	Connection thread in BSP	Bore D mm	L mm	H mm	Ordering No.
BAL 08	1/4	9.5	50	41	8202 0301 05*
BAL 10	3/8	9.5	50	41	8202 0302 04*
BAL 15	1/2	12.5	60	43	8202 0303 03*
BAL 20	3/4	19	75	55	8202 0304 02*
BAL 25	1	24.5	90	64	8202 0305 01*

* Available directly from stock.



BAL-1A –VALVES WITH TEFLON SEALS

Intended for operating either fully open or fully closed.

Maximum working pressure 16 bar (BAL-1A 40 and 50: max. 16 bar up to +100°C).

Working temperature range: -30°C to +200°C. (BAL-1A 40 and 50: at +200°C max. working pressure is reduced to 8 bar).

Model	Connection thread in BSP	Bore D mm	L mm	H mm	I mm	Ordering No.
BAL-1A 08	1/4	8	43	44	73	8202 0306 03*
BAL-1A 10	3/8	10	50	47	73	8202 0306 11*
BAL-1A 15	1/2	15	61	53	94	8202 0306 29*
BAL-1A 20	3/4	20	70	57	94	8202 0306 37*
BAL-1A 25	1	25	83	67.5	122	8202 0306 45*
BAL-1A 32	1 1/4	32	100	83	150	8202 0306 52*
BAL-1A 40	1 1/2	38	107	87	150	8202 0306 60*
BAL-1A 50	2	50	129	103	193	8202 0306 78*

* Available directly from stock.

DOUBLE CONNECTION



Male taper thread – male taper thread

From thread in	To thread in	Ordering No.
1/8 BSPT	1/8 BSPT	9090 0100 00*
1/8 BSPT	1/4 BSPT	9090 0110 00*
1/4 BSPT	1/4 BSPT	9090 0120 00*
1/4 BSPT	3/8 BSPT	9090 0130 00*
3/8 BSPT	3/8 BSPT	9090 0140 00*
3/8 BSPT	1/2 BSPT	9090 0150 00*
1/2 BSPT	1/2 BSPT	9090 0160 00*
1/2 BSPT	3/4 BSPT	9090 0170 00
3/4 BSPT	3/4 BSPT	9090 0180 00
3/4 BSPT	1 BSPT	9090 0190 00
1 BSPT	1 BSPT	9090 0200 00*

BUSHING



Male thread – female thread

Male thread in	Female thread in	Ordering No.
1/4 BSP	1/8 BSP	9090 0799 00*
3/8 BSP	1/4 BSP	9090 0798 00*
1/2 BSP	1/4 BSP	9090 1469 00*
1/2 BSP	3/8 BSP	9090 0797 00*
3/4 BSP	1/2 BSP	9090 0796 00*
1 BSP	3/4 BSP	9090 0795 00*

GASKETS



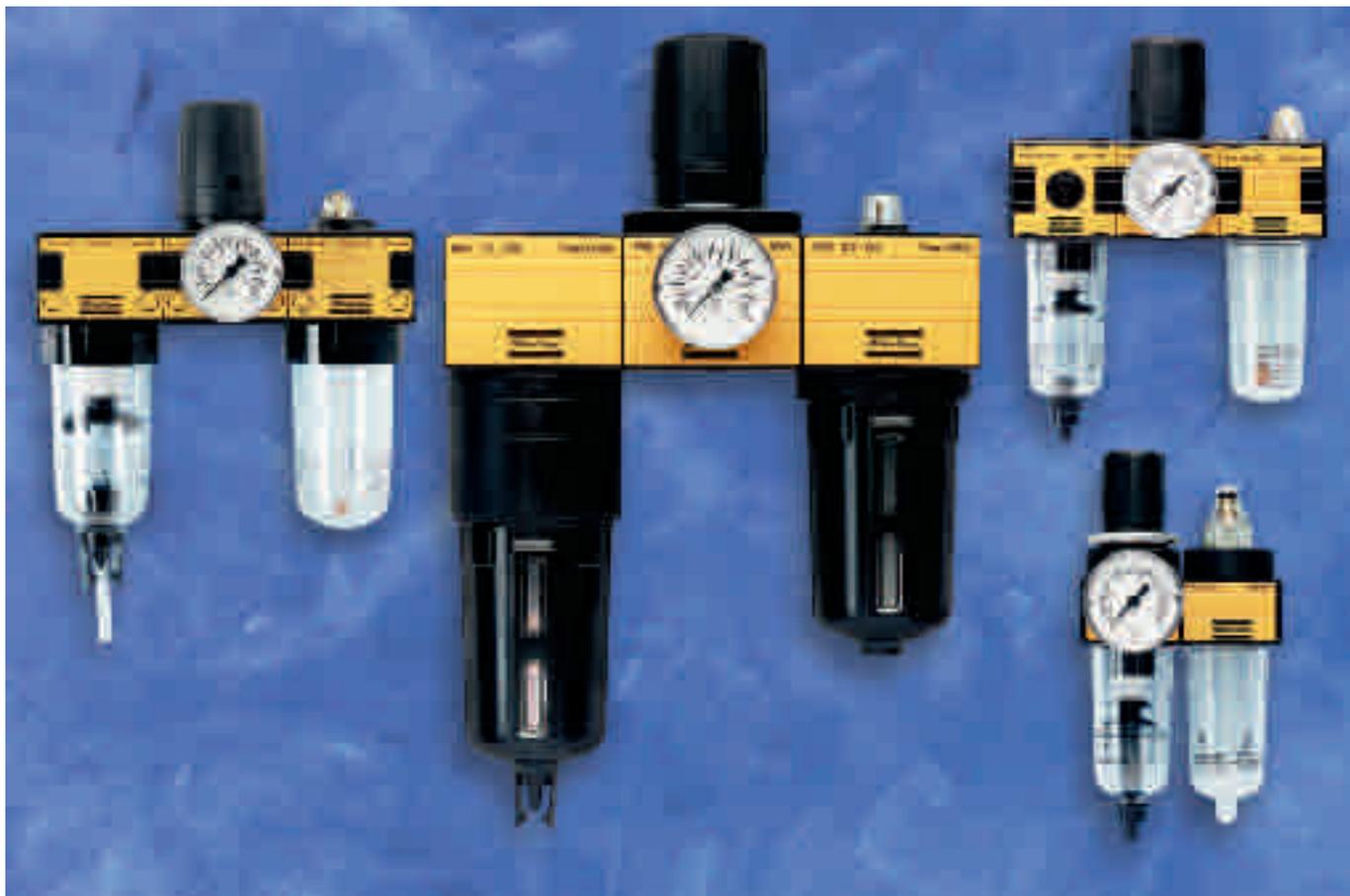
For coupling with thread in/mm	Fibre gasket between material and nipple Ordering No.
M5	0657 5710 00
1/8 BSP	0657 5742 00*
1/4 BSP	0657 5764 00*
3/8 BSP	0657 5785 00*
1/2 BSP	0653 0500 01*
3/4 BSP	0657 5823 00*
1 BSP	0657 5830 00*

* Available directly from stock.

For more fittings see page 228-229.

AIR PREPARATION UNITS

A correct air treatment guarantees a good total economy



The only way to ensure maximum capacity and increased service life for your compressed air equipment is to make sure that the air you use is correctly processed. This is where Atlas Copco's MINI, MIDI and MAXI air preparation units come in. They are designed to correctly process the air for all types of pneumatic equipment used in industry today. And a correct air treatment guarantees a good total economy of the system.

To guarantee that the machine at the end of the airline delivers its optimum power, each unit is designed to allow the smallest possible pressure drop.

- ❑ **Easy to install** – a modern compact design with small installation dimensions.
- ❑ **Direct assembly** – which eliminates bulky couplings.
- ❑ **Easy to handle** – simple installation and simple dismantling.

Catalogue symbols



Manual drainage



Pressure gauge
0-10 bar



Metal bowl



Semi-automatic drainage



Polycarbonate bowl



Oil free outlet



Automatic drainage



Polycarbonate bowl and bowl guard

Important standards for air preparation units

European standard EN 983 Safety of machinery

Atlas Copco fulfils all of these demands regarding air preparation units MINI-K, MINI-B, MIDI-C and MAXI.

International standard ISO 4414

The contents of ISO 4414 are the same regarding air preparation units as those of EN 983, which Atlas Copco fulfils for the following air preparation units MINI-K, MINI-B, MIDI-C and MAXI.

AIR PREPARATION UNITS



FILTER –FIL

Water and dirt in your compressed air system will cause extensive corrosion damage and wear.

- **Cleaner air** –Atlas Copco filters are designed to give clean air with minimal pressure loss and a very high degree of water separation.
- **Longer life for your tool** –Using air filters will result in a noticeable decrease in maintenance costs for the pneumatic equipment used.

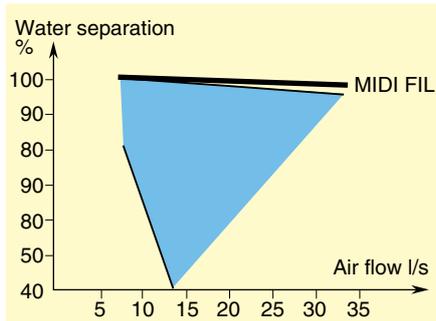


Fig. 1. MIDI FIL 15C –Water separation

The MIDI FIL 15C removes 97% of the water present in the air line at 6 bar and 33 l/s with a minimum pressure drop (see fig. 1 and 2). Competitors fall within the shaded field.

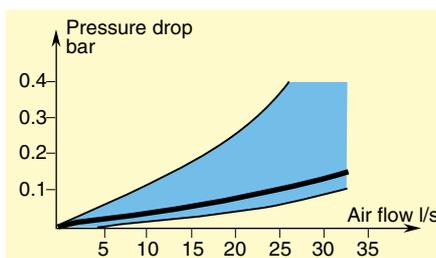


Fig. 2. MIDI FIL 15C –Pressure drop



REGULATOR –REG

Atlas Copco regulators reduce a variable primary pressure to a practically constant secondary pressure.

- **Good operation economy** –By installing a pressure regulator you can be assured of maintaining a good operating economy.
- **No unnecessary air consumption** – Many pneumatic applications do not require full airline pressure to operate efficiently.

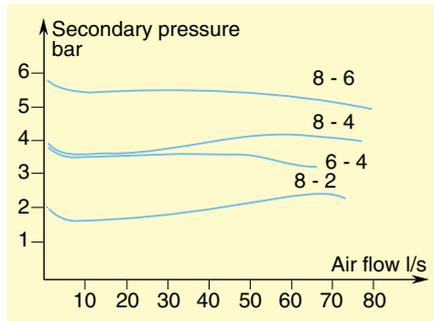


Fig. 3. MIDI REG 15C-S –Secondary pressure versus flow

Flow characteristic, if the regulator is set for a secondary pressure of 6 bar at a constant air line pressure of 8 bar with no air flow, the secondary pressure will drop when air consumption starts. At a flow rate of 10 l/s for instance, the secondary pressure will be 5.5 bar and will remain the same even if the air flow increases up to 50 l/s (see fig. 3).

The combination units MINI F/R, MIDI F/R and MAXI F/R have the same function as FIL and REG together.

Combined air preparation units.



LUBRICATOR –DIM

Atlas Copco oil-fog lubricators ensure a long, efficient and trouble-free life for your pneumatic tools and components.

- **Correct proportion oil to air flow** – Oil fog lubrication is recommended for tools in continuous operation. The lubricator automatically delivers oil to the working pneumatic unit in correct proportion to the air consumption.

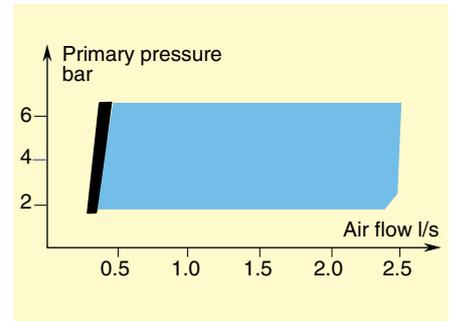


Fig. 4. MIDI DIM 15C –Oil delivery

The MIDI DIM 15C begins delivering oil when the air flow is as low as 0.3 l/s at 6 bar. Competitors fall within the shaded field (see fig. 4).

The figure shows that MIDI DIM 15C has the advantage of a very low pressure drop. Competitors fall within the shaded field (see fig. 5).

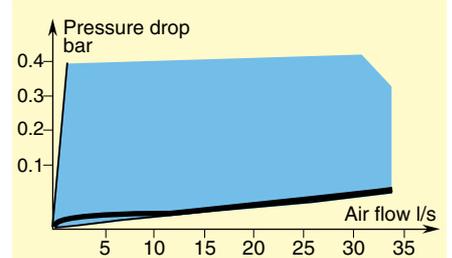


Fig. 5. MIDI DIM 15C –Pressure drop

MINI-K -1/4" BSP

Air preparation unit MINI-K main application is to prepare the air for pneumatic components. MINI-K has a 1/4" BSP connection thread and the housing is of plastic.

All separate units, mounting brackets, assembly kits and pressure gauges need to be ordered separately. Please refer to page 218 for accessories. Combination units are delivered complete.



MINI-K 1/4" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)	MINI-K 1/4" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)
	12 l/s	(M)				12 l/s	(M)		1/8" BSP
	10 l/s			1/8" BSP		9 l/s	(M)		
	9 l/s								

^a Accessories page 218.

^b Mounting bracket, assembly kit and gauge are included.

* Available directly from stock.

MINI-B -1/4" BSP

Air preparation unit MINI-B main application is to prepare the air for pneumatic components and can also be used as a complement for pneumatic tools with low air consumption, i.e. smaller screwdrivers. MINI-B has a 1/4" BSP connection thread and the housing is of metal.

All separate units, mounting brackets, assembly kits and pressure gauges need to be ordered separately. Please refer to page 218 for accessories. Combination units are delivered complete.



MINI-B 1/4" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)	MINI-B 1/4" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)		
	12 l/s					12 l/s					
	MINI FIL 08B-B ^a Ordering No. 9093 0032 11*					MINI DIM 08B ^a Ordering No. 9093 0033 31*					
	12 l/s					12 l/s					
MINI FIL 08B-C ^a Ordering No. 9093 0032 41*					MINI DIM 08B-D ^a Ordering No. 9093 0033 61*						
13 l/s						9 l/s			1/8" BSP		
MINI FIL 08B-D ^a Ordering No. 9093 0032 71*						MINI F/R 08B-B ^a Ordering No. 9093 0033 91*					
	9 l/s			1/8" BSP		9 l/s			1/8" BSP		
	MINI REG 08B ^a Ordering No. 9093 0033 01*						MINI F/R 08B-C ^a Ordering No. 9093 0034 21*				
	9 l/s			1/8" BSP			9 l/s				
Regulator with lock pin					MINI F/RD 08B-B ^b Ordering No. 9093 0034 51*						
MINI REG 08B-LP ^a Ordering No. 9093 0073 21*					9 l/s						
	8 l/s			1/8" BSP		9 l/s					
	Regulator, panel mounted						MINI F/RD 08B-C ^b Ordering No. 9093 0034 81*				
	MINI REG 08P ^a Ordering No. 9093 0000 31*						9 l/s				
					MINI FRD 08B-B ^b Ordering No. 9093 0062 11*						
					9 l/s						
					MINI FRD 08B-C ^b Ordering No. 9093 0062 41*						

^a Accessories page 218. ^b Mounting bracket, assembly kit and gauge are included.

* Available directly from stock.

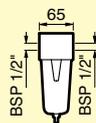
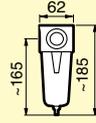
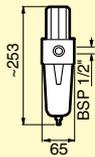
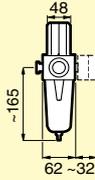
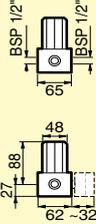
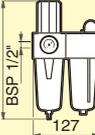
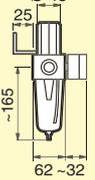
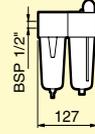
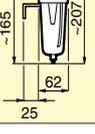
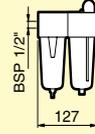
MIDI-C -1/2" BSP

Air preparation unit MIDI-C main application is to prepare the air for pneumatic tools. MIDI-C is suitable for all kinds of assembly tools, percussive tools, drills, nibblers and saw. MIDI-C can also be used for small grinders.

MIDI-C has a 1/2" BSP connection thread and the housing is metal.

All separate units, mounting brackets, assembly kits and pressure gauges need to be ordered separately. Please refer to page 218 for accessories. Combination units are delivered complete.

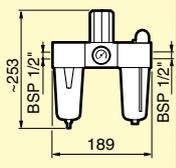
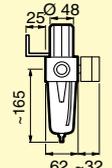


MIDI-C 1/2" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)	MIDI-C 1/2" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)	
 	38 l/s	A			 	30 l/s	A		1/4" BSP	
	MIDI FIL 15C-A ^a Ordering No. 9093 0008 11*	38 l/s	SA			30 l/s	SA		1/4" BSP	
	MIDI FIL 15C-B ^a Ordering No. 9093 0008 71*	38 l/s	M			30 l/s	M		1/4" BSP	
	MIDI FIL 15C-D ^a Ordering No. 9093 0009 31*	38 l/s	A	 + 		30 l/s	A	 + 	1/4" BSP	
	MIDI FIL 15C-AE ^a Ordering No. 9093 0008 41*	38 l/s	SA	 + 		30 l/s	SA	 + 	1/4" BSP	
MIDI FIL 15C-BE ^a Ordering No. 9093 0009 01*	32 l/s			1/4" BSP		32 l/s			1/4" BSP	
MIDI REG 15C-S ^a Ordering No. 9093 0009 91*	32 l/s			1/4" BSP			25 l/s	A		
Regulator with lock pin MIDI REG 15C-LP ^a Ordering No. 9093 0073 51	32 l/s			1/8" BSP				25 l/s	SA	
Regulator, servo controlled and mounting bracket MIDI REG 15A ^c Ordering No. 9093 0009 61* Pressure gauge 0-10 bar Ordering No. 9090 1172 00° Assembly kit Ordering No. 9090 2058 90°	43 l/s				 	35 l/s		SA	 + 	
MIDI DIM 15C-A ^a Ordering No. 9093 0010 51*	43 l/s						35 l/s	SA		
MIDI DIM 15C-D ^a Ordering No. 9093 0010 81*	43 l/s		 + 				MIDI FD 15C-B ^b Ordering No. 9093 0013 81*			
MIDI DIM 15C-E ^a Ordering No. 9093 0011 11*										

^a Accessories page 218. ^b Mounting bracket, assembly kit and gauge are included.
^c Accessories for MIDI REG 15A and to connect MIDI REG 15A with MIDI-C units.

* Available directly from stock.

MIDI-C - 1/2" BSP

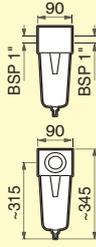
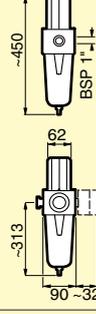
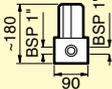
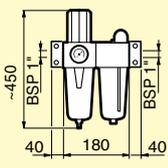
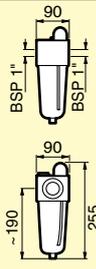
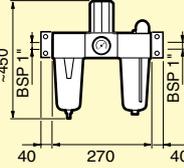
MIDI-C 1/2" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)	MIDI-C 1/2" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)
 ~253 BSP 1/2" 189 BSP 1/2"	43 l/s	A			 25 48 ~165 62 ~32	43 l/s	A	 + 	
	MIDI FRD 15C-AS ^b Ordering No. 9093 0014 71*	43 l/s	SA				MIDI FRD 15C-AES ^b Ordering No. 9093 0014 41*	43 l/s	SA
	MIDI FRD 15C-BS ^b Ordering No. 9093 0015 31*					MIDI FRD 15C-BES ^b Ordering No. 9093 0015 01*			

MAXI - 1" BSP

Air preparation unit MAXI main application is to prepare the air for pneumatic tools which are large air consumers. MAXI can be used for large air consumers, i.e. big grinders. MAXI has a 1" BSP connection thread and the housing is metal.

All separate units, mounting brackets, assembly kits and pressure gauges need to be ordered separately. Please refer to page 218 for accessories. Combination units are delivered complete.



MAXI 1" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)	MAXI 1" BSP Model	Max rec air flow	Filter drainage	Type of bowl	Pressure gauge (thread)
 90 BSP 1" BSP 1" ~315 ~345	105 l/s	SA			 ~450 BSP 1" 62 ~313 90 ~32	80 l/s	SA		1/4" BSP
	MAXI FIL 25A-B ^a Ordering No. 9093 0018 31*						MAXI F/R 25A-B ^a Ordering No. 9093 0019 51*		
 ~180 BSP 1" 90 BSP 1"	85 l/s			1/4" BSP	 ~450 BSP 1" 62 BSP 1" 40 180 40	67 l/s	SA		
	MAXI REG 25A ^a Ordering No. 9093 0018 91*	85 l/s				1/4" BSP	MAXI F/RD 25A-B ^b Ordering No. 9093 0019 81*		
 90 BSP 1" BSP 1" ~190 255	45 l/s				 ~450 BSP 1" 40 270 40 BSP 1"	67 l/s	SA		
	MAXI DIM 25A ^a Ordering No. 9093 0019 21*						MAXI FRD 25A-B ^b Ordering No. 9093 0020 11*		

^a Accessories page 218. ^b Mounting bracket, assembly kit and gauge are included.

* Available directly from stock.

MINI-K

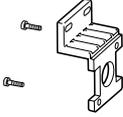
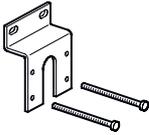
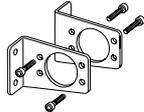
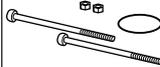
MINI-B

MIDI-C

MAXI

COMMON ACCESSORIES

Are included in combination units (FD, FTD, F/RD and FRD).
Common accessories have to be ordered separately for separate units.

 Mounting bracket kit 9090 1902 00*	 Mounting bracket kit 9092 0063 01*	 Mounting bracket kit 9090 1655 80*	 Mounting bracket kit 9090 1852 90*
 Assembly kit 9090 1901 90*	 Assembly kit 9092 0062 71*	 Assembly kit 9090 1654 00*	 Assembly kit 9090 1849 90*

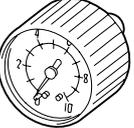
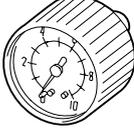
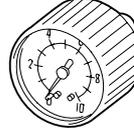
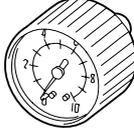
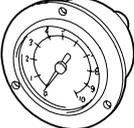
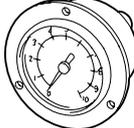
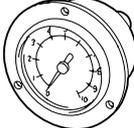
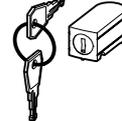
FILTER (FIL) ACCESSORIES

30 µm filter element is included with all filters.

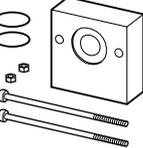
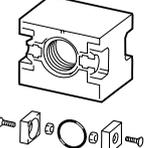
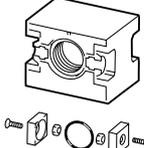
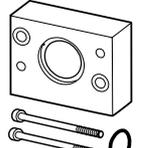
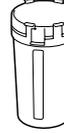
 30 µm filter element 9090 1898 00	 30 µm filter element 9092 0063 31  5 µm filter element 9092 0063 61	 30 µm filter element 9090 2064 00*  5 µm filter element 9090 2065 00*	 30 µm filter element 9090 1841 00*(FIL) 9092 0025 81*(F/R)  5 µm filter element 9090 1846 00*(FIL) 9092 0026 11*(F/R)
	 Bowl guard 9092 0063 91*	 Bowl guard 9090 1717 00*	

REGULATOR (REG) ACCESSORIES

Pressure gauge 0-10 bar is included in the combination units (F/RD and FRD).
Pressure gauge has to be ordered separately for separate units.

 Pressure gauge: 0-10 bar Ø 40 mm 9090 1907 00*	 Pressure gauge: 0-10 bar Ø 50 mm 9090 1907 00* 0-16 bar Ø 50 mm 9090 1657 00*	 Pressure gauge: 0-10 bar Ø 50 mm 9090 2052 00* 0-16 bar Ø 50 mm 9090 2053 00*	 Pressure gauge: 0-10 bar Ø 63 mm 9090 0238 00* 0-16 bar Ø 63 mm 9090 0239 00*
	 Panel mounting pressure gauge: 0-10 bar 9090 1173 00*	 Panel mounting pressure gauge: 0-10 bar 9090 1173 00*	 Panel mounting pressure gauge: 0-10 bar 9090 1173 00*
	 For regulator -LP Key lock 9092 0074 11*	 For regulator -LP Key lock 9092 0074 11*	 For regulator -LP Key lock 9092 0074 11*

LUBRICATOR (DIM) ACCESSORIES

 Air distribution block kit 9090 1900 90	 Air distribution block kit 9092 0064 51*	 Air distribution block kit 9090 1719 00*	 Air distribution block kit 9090 1851 90*
	 Bowl guard 9092 0063 91*	 Bowl guard 9090 1717 00*	
	 Glass sight dome 9090 1121 00*	 Glass sight dome 9090 1121 00*	 Glass sight dome 9090 1873 00

FIL/REG (F/R) ACCESSORIES

Please see filter (FIL) and regulator (REG) accessories for appropriate accessories.

* Available directly from stock.

DIRECT LUBRICATION UNITS

SINGLE-POINT LUBRICATOR DOSOL

Accurate lubrication for tools in intermittent service.

The Atlas Copco DOSOL system for direct lubrication is based on an injector pump which meters out the oil in exact doses, actuated by pulses of compressed air. The oil dosage can be regulated from a fraction of a drop to a full drop.

- ❑ **Exact amount** – Precision injector adjustable for exact amount of oil.
- ❑ **Adjustable dosing** – Counter allows lubrication every first, fifth or tenth start.
- ❑ **Oil directly at the tool** – The oil is conveyed through a capillary tube directly to the lubrication point.

For supplying lubricant to a single tool.

Counter included as standard.

A single-point lubricator (SPL) consists of an injector pump fitted to a valve body, converting interruptions in compressed air flow into pulses. In the majority of cases, an oil bowl is fitted on each lubricator. A possible arrangement also consists of a shared oil container for several lubricators, each of which supplies oil to one tool, for example on an assembly line.

Every DOSOL SPL-unit can be finely tuned to inject from 1 to 1/10 th of a drop



of oil in 40 steps (30 to 3 mm³). This helps to minimize the oil dose. Every DOSOL SPL unit includes as standard a counter with a switch that allows the lubricator to operate every first, fifth or tenth tool cycles.

The adjusting knob features a positive

stop at both maximum and minimum settings which means that a zero setting is not possible.

The preset quantity of oil is supplied to the tool through a smallbore nylon tube inside the air hose. 7.5 m of oil-filled nylon tubing is included as standard.

DOUBLE CONNECTION



Male taper thread – male taper thread

From thread in	To thread in	Ordering No.
1/2 BSPT	1/2 BSPT	9090 0160 00*
1/2 BSPT	3/4 BSPT	9090 0170 00*

For more fittings see page 228-229.

Single-point lubricator, DOS

Model	Connection thread BSP in	Air flow l/s		Working pressure bar		Temperature range °C		Ordering No.
		min	max ^a	min	max	min	max	
DOS 15B-C ^b	1/2	2.3	45	3.2	10	-30 °	+60°	8202 4201 73*
DOS 15B-CR ^c	1/2	2.3	45	3.2	10	-30 °	+60°	8202 4202 72*
DOS 20B-C ^b	3/4	2.3	53	3.2	10	-30 °	+60°	8202 4201 81*
DOS 20B-CR ^c	3/4	2.3	53	3.2	10	-30 °	+60°	8202 4202 80*

^a At 6 bar and DP = 0.2 bar.

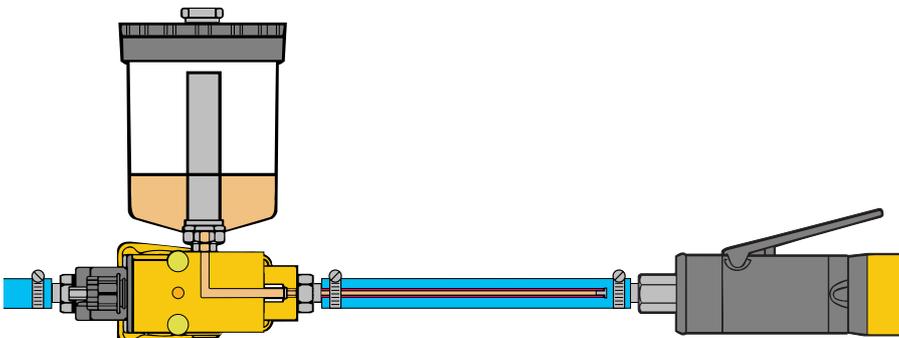
^b With counter and 7.5 m oil-filled nylon tubing.

^c With 0.3 l oil container counter and 7.5 m oil-filled nylon tubing.

* Available directly from stock.

OPTIONAL ACCESSORIES

Designation	Ordering No.
Nylon tubing 3.2 mm outside diameter	
-7.5 m, oil-filled	9090 1418 00*
-7.5 m, without oil	9090 1419 00*
-100 m, with oil	9090 1420 00*
Barbed nipple for joining of 3.2 mm tubes	9090 1423 00*
Check valve for outer end of nylon tubing dia ext. 3.2 mm	9090 2050 00



DIRECT LUBRICATION UNITS

MULTIPLE-POINT LUBRICATOR DOSOL

For supplying lubricant to an unlimited number of lubrication points on a machine or in a pneumatic system.

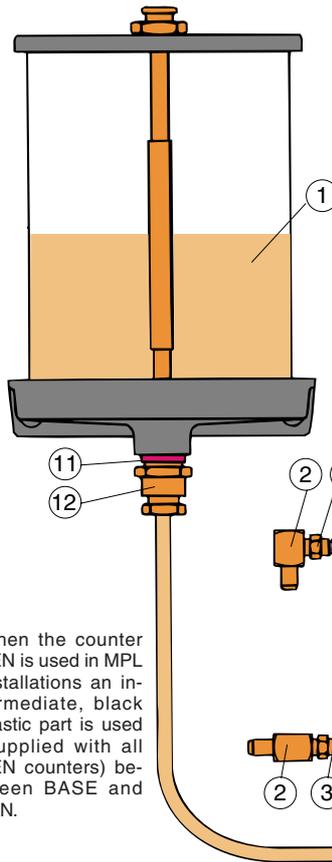
The DOSOL multiple-point lubricator (MPL) consists of a number of JECT 01 oil metering pumps assembled into a "package" with a common BASE baseplate. A stack may contain up to ten JECT 01 units. Several such assemblies may be used together.

All oil pumps are supplied with oil via the BASE from an oil container or central oil reservoir. A line for pneumatic signals from the equipment to be lubricated is also connected to the BASE.

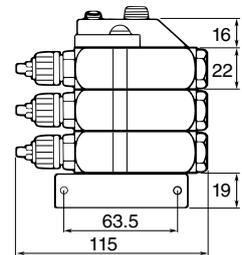
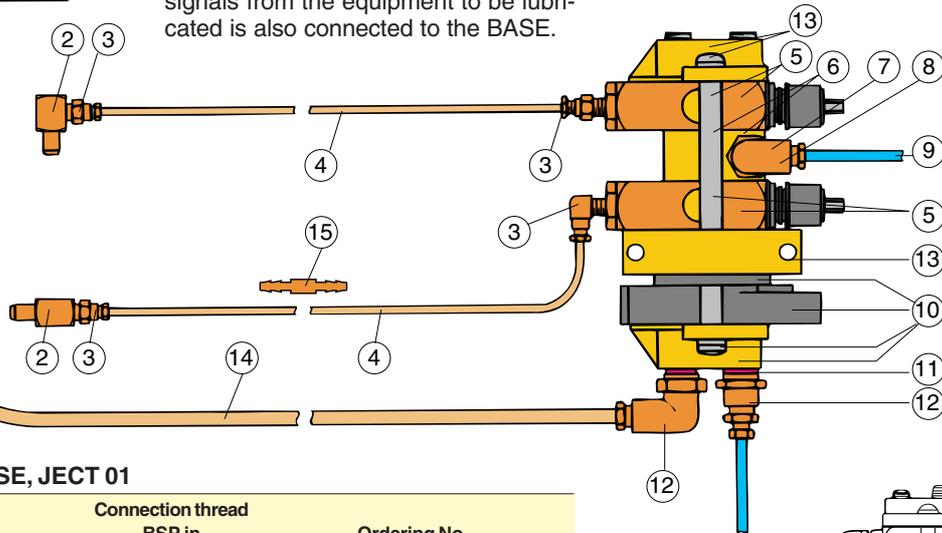
The lubricant is conveyed through small-bore nylon tubing which should be ended with check valves.

With the TEN counter the lubricator can be actuated every first, fifth or tenth tool cycle.

Every DOSOL MPL unit can be finely tuned to inject from 1 to 1/10 drop of oil in 40 steps (30 to 3 mm³). This helps to minimize the oil dose. The adjusting knob features a positive stop at both maximum and minimum settings, which means that zero setting is not possible.



NOTE: When the counter TEN is used in MPL installations an intermediate, black plastic part is used (supplied with all TEN counters) between BASE and TEN.



Dimensions in mm

Multiple-point lubricator, BASE, JECT 01

Designation		Connection thread BSP in	Ordering No.
BASE baseplate	Plate		8202 4205 04*
	–Oil port	1/4	
	–Air port	1/4	
	Clamp		
JECT 01 oil pump	–Oil port	1/4	
	–Air port	1/4	
JECT 01 oil pump	Oil delivery port	1/8	8202 4203 10*

OPTIONAL ACCESSORIES

Ref No. in figure	Designation	Ordering No.
1	Oil container 0.3 l for direct mounting	9090 1415 00*
1	Oil container 0.95 l for wall mounting (1/4" BSP female)	9090 1416 00*
1	Oil container 1.9 l for wall mounting (1/4" BSP female)	9090 1417 00*
2	Check valve 1/8" BSPT 90° elbow male x 1/8" BSP female	9090 1427 00*
2	Check valve 1/8" BSPT, straight male x 1/8" BSP female	9090 1426 00*
3	Male adapter 1/8" BSPT, straight for tube outer diameter 3.2 mm	9090 1425 00*
3	Male adapter 1/8" BSPT, elbow for tube outer diameter 3.2 mm	9090 1436 00*
4	7.5 m capillary tubing outer diameter 3.2 mm prefilled with oil	9090 1418 00*
4	7.5 m capillary tubing outer diameter 3.2 mm without oil	9090 1419 00*
4	100 m capillary tubing outer diameter 3.2 mm with oil	9090 1420 00*
5	JECT 01 kit ^a	8202 4203 10*
6	Side-ported air block kit	9090 1424 00*
7	Fibre packing for 1/8" BSP	0657 5742 00*
8	Male adapter 1/8" BSP, straight for tube outer diameter 5 mm	9090 0714 00*
9	Nylon tube outer diameter 5 mm (sold by the metre)	9030 0059 00*
10	Counter TEN kit	8202 4206 03*
11	Fibre packing for 1/4" BSP	0657 5764 00*
12	Male adapter 1/4" BSP, straight for tube outer diameter 8 mm	9090 0715 00*
13	BASE kit	8202 4205 04*
14	Nylon tube, outer diameter 8 mm (sold by the metre)	9030 0060 00*
15	Barbed nipple for joining of nylon tubes outer diameter 3.2 mm	9090 1423 00*

^a With high temperature Viton seals 8202 4203 15.

OPTIONAL ACCESSORIES

Designation	Ordering No.
TEN-counter	8202 4206 03*
When lubricating equipment with a very low air consumption or very short time in operation it may be difficult to set a sufficiently small dose of oil. In such cases a counter is connected underneath the base plate BASE. The oil pumps will then be actuated only on each, every fifth or every tenth air pulse. The air signal is connected to the clamp underneath the counter.	
Side-ported air block kit	9090 1424 00*
If all pumps are not to be actuated simultaneously, a signal block is installed between the oil pumps in the stack. The pumps below the signal block will then be actuated via the base plate BASE and those above it from a separate signal via the signal block.	

* Available directly from stock.

QUICK COUPLINGS

ERGOQIC and QIC

Quick couplings are the simple and definite answer whenever tools have to be changed or for making quick connections of hoses to an air outlet. Atlas Copco quick couplings are the outstanding alternative.

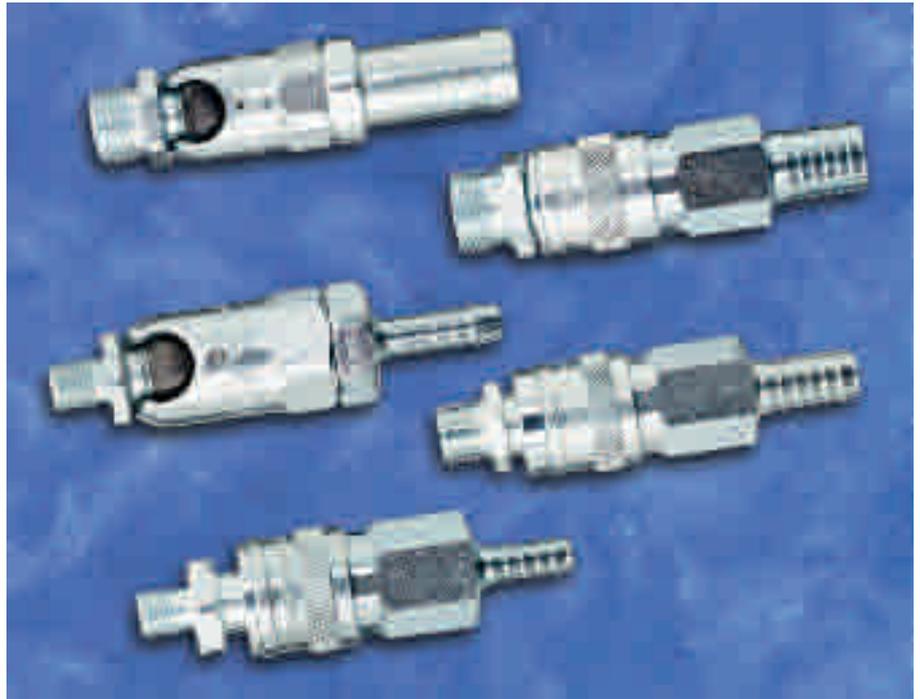
The valve in each individual coupling is tested for leakage prior to delivery.

Carefully selected material is used in the couplings. This permits the use of thin material which ensures maximum flow and slim outside dimensions.

Atlas Copco ErgoQIC full flow couplings are available in two different sizes and the QIC type in three, depending on the air flow rate. The couplings are made of steel and nipples of hardened and zinc-chromated steel.

All types and sizes feature

- Exceptionally high air flow with minimum pressure drop, a guarantee for high productivity.
- Built for heavy duty applications.
- Compact dimension and low weight.
- Long service life.
- One-hand operation for fast and easy tool changing.
- Many end connections.
- Safety feature – Safety nipples both for QIC and ErgoQIC give no bang or recoil when dismounting according to EN 983 and ISO 4414.



	ErgoQIC 10	ErgoQIC 08	QIC 15	QIC 10	QIC 08
Valve body steel hardened	X	X	X	X	X
One hand operation	X	X	X	X	X
Single shut off	X	X	X	X	X
Ergonomic design	X	X			
Full flow –no restrictions	X	X			
Extremely high air flow	X				

QUICK COUPLINGS

ERGOQIC

The ErgoQIC is a totally new approach to quick couplings. Upgrading any air system with ErgoQIC will give the benefit of more power. This leads to higher productivity and to energy savings.

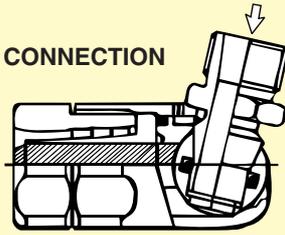
ErgoQIC is effective in operation and easy to handle. Flipping the air flow on or off is literally a pushover. The ball valve swivels through 75° for quick connection/disconnection and safe operation.

ErgoQIC 08
and ErgoNIP 08



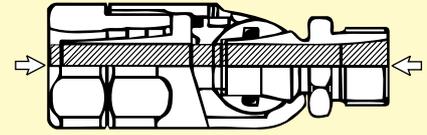
Four easy steps to connect and disconnect

CONNECTION

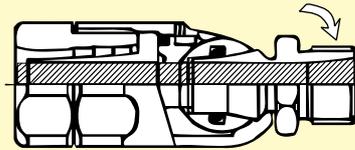


1 Slot in

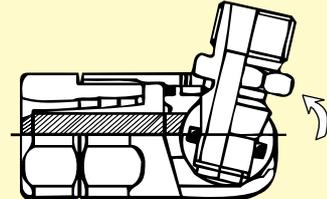
DISCONNECTION



3 Press together

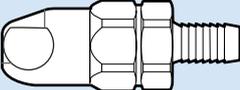
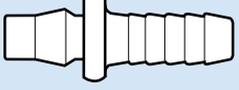
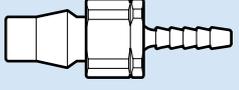
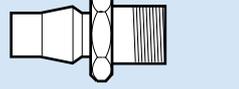
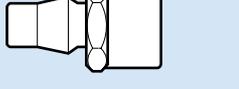


2 Straighten out



4 Bend back

ErgoQIC 08 and ErgoNIP 08, 18 l/s (recommended air flow at 6 bar pressure)

Connection type	Coupling ErgoQIC 08	Ordering No.	Size		Connection type	Nipple ErgoNIP 08	Ordering No.	Size	
			mm	in				mm	in
	H06	8202 1110 04*	6.3	1/4		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
	H13	8202 1110 40*	12.5	1/2		H13	8202 1210 54*	12.5	1/2
					SH – Safety Hose ^a				
						SH06	8202 1210 39*	6.3	1/4
				SH08		8202 1210 47*	8	5/16	
				SH10		8202 1210 50*	10	3/8	
				SH13		8202 1210 55*	12.5	1/2	
	M08	8202 1110 61*	1/4	BSP		M06	8202 1210 03*	1/8	BSP
	M10	8202 1110 79*	3/8	BSP		M08	8202 1210 11*	1/4	BSP
	M15	8202 1110 87*	1/2	BSP		M10	8202 1210 29*	3/8	BSP
						M15	8202 1210 31*	1/2	BSP
	F08	8202 1110 90*	1/4	BSP		F08	8202 1210 60*	1/4	BSP
	F10	8202 1110 95*	3/8	BSP		F10	8202 1210 62*	3/8	BSP
Protective cover		9090 1940 00*							
									

^a For joining hoses longer than 3 metres.

* Available directly from stock.

QUICK COUPLINGS

ERGOQIC also feature

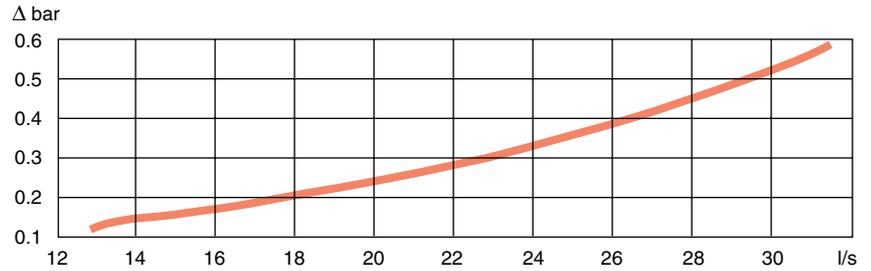
- ❑ Full flow with no restrictions in the coupling, which saves energy.
- ❑ Ergonomic design, minimized connection force.
- ❑ Automatic venting as a tool connector.
- ❑ Safety nipple for automatic venting when disconnecting hoses.
- ❑ Protective cover as optional accessory to avoid scratches.



TECHNICAL DATA ErgoQIC 08 and ErgoQIC 10

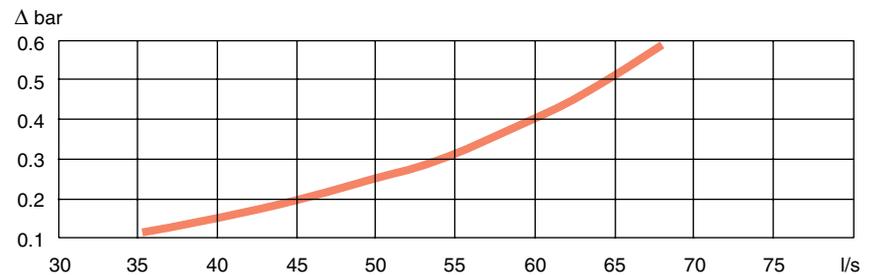
Temperature range°C		Max working pressure bar
min	max	
-10	+70	16

FLOW CHART. ErgoQIC 08 M15 and ErgoNIP 08 M10



Air flow at an inlet pressure of 6 bar.

FLOW CHART. ErgoQIC 10 M15 and ErgoNIP 10 M15



Air flow at an inlet pressure of 6 bar.

ErgoQIC 10 and ErgoNIP 10, 47 l/s (recommended air flow at 6 bar pressure)

Connection type	Coupling ErgoQIC 10	Ordering No.	Size		Connection type	Nipple ErgoNIP 10	Ordering No.	Size	
			mm	in				mm	in
	H06	8202 1120 30*	6.3	1/4		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
						SH06	8202 1220 37*	6.3	1/4
						SH08	8202 1220 45*	8	5/16
						SH10	8202 1220 52*	10	3/8
						SH13	8202 1220 70*	12.5	1/2
						SH16	8202 1220 74*	16	5/8
						SH20	8202 1220 75*	19	3/4
	M08	8202 1120 85*	1/4 BSP			M08	8202 1220 01*	1/4 BSP	
	M10	8202 1120 93*	3/8 BSP			M10	8202 1220 19*	3/8 BSP	
	M15	8202 1120 97*	1/2 BSP			M15	8202 1220 27*	1/2 BSP	
	F08	8202 1121 00*	1/4 BSP			F08	8202 1220 84*	1/4 BSP	
	F10	8202 1121 05*	3/8 BSP			F10	8202 1220 86*	3/8 BSP	
						F15	8202 1220 88*	1/2 BSP	
Protective cover		9090 1931 00*							

* For joining hoses longer than 3 metres.

* Available directly from stock.

QUICK COUPLINGS

QIC

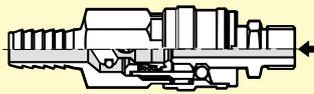
QIC couplings are the traditional but sure answer when hoses have to be changed from one air tool to another or for making fast connections to an air outlet. The small size of the QIC couplings makes them easy and convenient to work with in combination with air tools.

QIC 08 and NIP 08

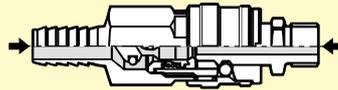


Four easy steps to connect and disconnect

CONNECTION

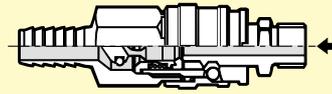


1 Slot in

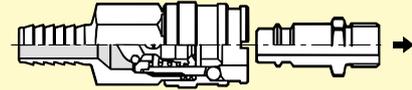


2 Press together

DISCONNECTION



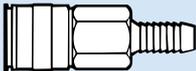
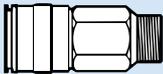
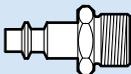
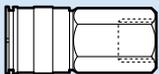
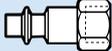
3 Pull locking sleeve back



4 Disconnect gently

QIC 08 standard according to American Military Standard MIL-C 4109C, interchangeable with ARO, HANSEN, etc.

QIC 08 and NIP 08, 11 l/s (recommended air flow at 6 bar pressure)

Connection type	Coupling QIC 08	Ordering No.	Size		Connection type	Nipple NIP 08	Ordering No.	Size	
			mm	in				mm	in
H –Hose 	H06	8202 1300 04*	6.3	1/4	H –Hose 	H06	8202 1205 18*	6.3	1/4
	H08	8202 1300 12*	8	5/16		H08	8202 1205 26*	8	5/16
	H10	8202 1300 20*	10	3/8		H10	8202 1205 34*	10	3/8
M –Male thread 	M08	8202 1300 38*	1/4	BSP	M –Male thread 	M06	8202 1205 42*	1/8	BSP
	M10	8202 1300 46*	3/8	BSP		M08	8202 1205 59*	1/4	BSP
							M10	8202 1205 67*	3/8
F –Female thread 	F08	8202 1300 53*	1/4	BSP	F –Female thread 	F08	8202 1205 83*	1/4	BSP
	F10	8202 1300 61*	3/8	BSP		F10	8202 1205 91*	3/8	BSP

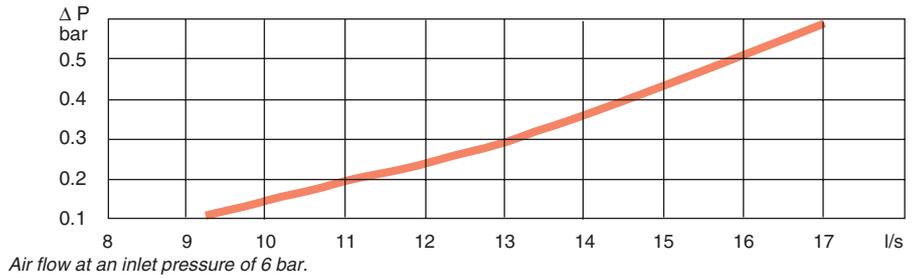
*Available directly from stock.

QUICK COUPLINGS

QIC 10 and NIP 10

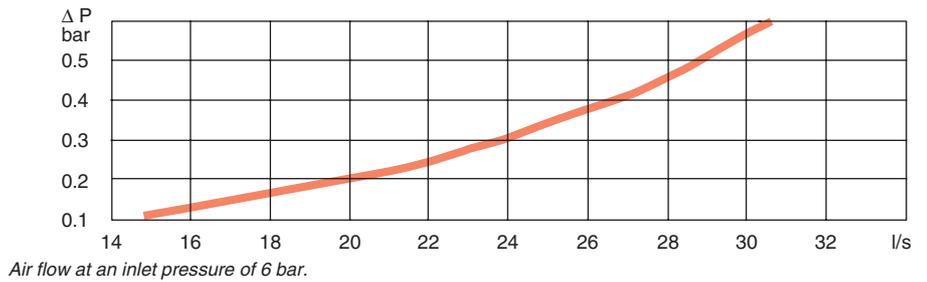


FLOW CHART. QIC 08 M08 and NIP 08 F08



The QIC 10 is the most commonly used system in the coupling range.

FLOW CHART. QIC 10 M10 and NIP 10 M10



**TECHNICAL DATA
QIC 08 and QIC 10**

Temperature range°C		Max working pressure bar
min	max	
-20	+80	16

QIC 10 and NIP 10, 20 l/s (recommended air flow at 6 bar pressure)

Connection type	Coupling QIC 10	Ordering No.	Size		Connection type	Nipple NIP 10	Ordering No.	Size	
			mm	in				mm	in
 H –Hose	H06	8202 1302 02*	6.3	1/4	 H –Hose	H06	8202 1202 11*	6.3	1/4
	H08	8202 1302 10*	8	5/16		H08	8202 1202 94*	8	5/16
	H10	8202 1302 28*	10	3/8		H10	8202 1202 29*	10	3/8
	H13	8202 1302 34*	12.5	1/2		H13	8202 1202 34*	12.5	1/2
					 SH –Safety Hose ^a	SH06	8202 1203 10*	6.3	1/4
						SH08	8202 1203 36*	8	5/16
						SH10	8202 1203 28*	10	3/8
 M –Male thread	M08	8202 1302 36*	1/4	BSP	 M –Male thread	M06	8202 1202 37*	1/8	BSP
	M10	8202 1302 44*	3/8	BSP		M08	8202 1202 45*	1/4	BSP
						M10	8202 1202 52*	3/8	BSP
 MT –Male taper thread	MT15	8202 1302 51*	1/2	BSPT	 MT –Male taper thread	MT08	8202 1202 60*	1/4	BSPT
						MT10	8202 1202 78*	3/8	BSPT
						MT15	8202 1203 02*	1/2	BSPT
 F –Female	F08	8202 1302 69*	1/4	BSP	 F –Female	F08	8202 1202 86*	1/4	BSP

^a For hoses longer than 3 metres.

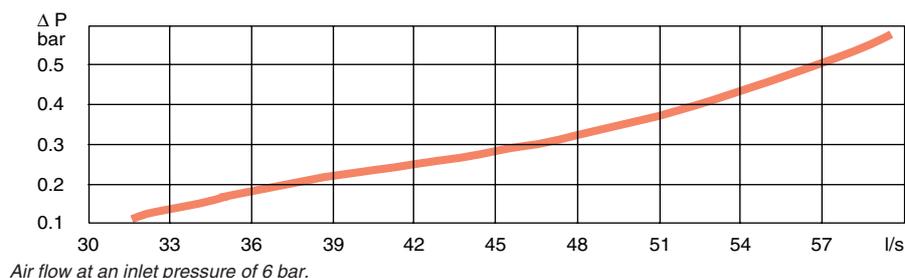
* Available directly from stock.

QUICK COUPLINGS

QIC 15 and NIP 15



FLOW CHART. QIC 15 M15 and NIP 15 F15



Important standards for quick couplings

European standard EN 983 Safety of machinery

Atlas Copco fulfils all these demands regarding quick action couplings QIC 10/NIP 10, QIC 15/NIP 15, ErgoQIC 08/ErgoNIP 08 and ErgoQIC 10/ErgoNIP 10.

International standard ISO 4414

The contents of ISO 4414 are the same regarding quick action couplings as those of EN 983, which Atlas Copco fulfils for the following quick couplings QIC 10/NIP 10, QIC 15/NIP 15, ErgoQIC 08/ErgoNIP 08 and ErgoQIC 10/ErgoNIP 10.

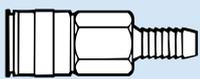
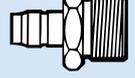
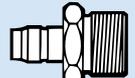
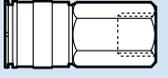
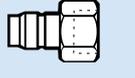
Military Specification MIL-C-4109C

Atlas Copco fulfils all these demands regarding QIC 08/NIP 08 and is interchangeable with ARO, HANSEN, etc.

TECHNICAL DATA QIC 15

Temperature range°C		Max working pressure bar
min	max	
-20	+80	10

QIC 15 and NIP 15, 37 l/s (recommended air flow at 6 bar pressure)

Connection type	Coupling QIC 15	Ordering No.	Size		Connection type	Nipple NIP 15	Ordering No.	Size	
			mm	in				mm	in
 H - Hose	H10	8202 1304 00*	10	3/8	 SH - Safety Hose ^a	H06	8202 1251 03*	6.3	1/4
	H13	8202 1304 18*	12.5	1/2		H08	8202 1252 28*	8	5/16
	H16	8202 1304 26*	16	5/8		H10	8202 1251 11*	10	3/8
						H13	8202 1251 29*	12.5	1/2
				H16		8202 1251 37*	16	5/8	
 M - Male thread	M08	8202 1304 34*	1/4	BSP	 M - Male thread	M10	8202 1251 45*	3/8	BSP
	M10	8202 1304 42*	3/8	BSP		M15	8202 1251 52*	1/2	BSP
	M15	8202 1304 59*	1/2	BSP					
					 MT - Male taper thread	MT08	8202 1251 60*	1/4	BSPT
				MT10		8202 1251 78*	3/8	BSPT	
				MT15		8202 1251 86*	1/2	BSPT	
 F - Female thread	F15	8202 1304 67*	1/2	BSP	 F - Female thread	F08	8202 1251 94*	1/4	BSP
						F10	8202 1252 02*	3/8	BSP
						F15	8202 1252 10*	1/2	BSP

^a For hoses longer than 3 metres.

* Available directly from stock.

CLAW COUPLINGS

CLAW couplings made of dropforged, hardened steel which can withstand rough treatment and ensures a long life even under difficult conditions.

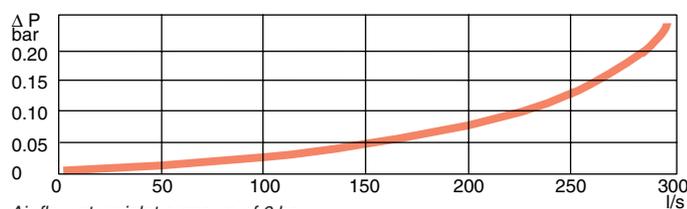
The coupling head is the same for all sizes, which can therefore be freely combined.

The recommended maximum working pressure is 10 bar.

- ❑ **Large bore** –machined surfaces give low air resistance and minimum pressure drop.
- ❑ **Robust claws** –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



ORDERING INFORMATION

The coupling head is the same for all sizes, which can therefore be freely combined. One packing is required for each coupling.

Improved working safety

1. The LNH-type (CLAW coupling with lock nut) will always give a safe locking. Use one LNH coupling with either H, M or F type of coupling

OR

2. Use safety lock spring for safe locking of H, M and F type. For each pair of couplings one safe lock spring is required.

CLAW

Connection type	Coupling CLAW	Ordering No.	Size		Bore B, mm
			mm	in	
H –Hose	H06	9000 0308 00*	6.3	1/4	5.0
	H10	9000 0309 00*	10	3/8	8.0
	H13	9000 0310 00*	12.5	1/2	10.5
	H16	9000 0311 00*	16	5/8	13.5
	H20	9000 0312 00*	19	3/4	17.0
	H25	9000 0313 00*	25	1	22.0
LNH –Lock nut, Hose	LNH10	9000 0260 00*	10	3/8	8.0
	LNH13	9000 0261 00*	12.5	1/2	10.5
	LNH16	9000 0262 00*	16	5/8	13.5
	LNH20	9000 0263 00*	19	3/4	17.2
	LNH25	9000 0264 00*	25	1	22.0
M –Male thread	M10	9000 0300 00*	3/8	BSP	11.2
	M15	9000 0301 00*	1/2	BSP	14.8
	M20	9000 0302 00*	3/4	BSP	19.0
	M25	9000 0303 00*	1	BSP	25.5
F –Female thread	F10	9000 0304 00*	3/8	BSP	15.0
	F15	9000 0305 00*	1/2	BSP	18.6
	F20	9000 0306 00*	3/4	BSP	24.0
	F25	9000 0307 00*	1	BSP	25.0
Extra packing for CLAW couplings	For type H, M and F For LNH10, -13 and -16 For LNH20 and -25	9000 0000 00* (+80°C), 9000 0000 01* (+200°C) ^a 9000 0015 00* 9000 0268 00* (+80°C), 9000 0319 00 (+200°C) ^a			
Safety lock spring		3176 8640 90		25 pieces	

^a Viton-green.

* Available directly from stock.

FITTINGS

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*

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 RUBAIR	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 RUBAIR	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*

HOSE CONNECTION



Male thread –hose nipple

Thread in	Hose size		Ordering No.
	mm	in	
1/8 BSP	3.2	1/8	9000 0523 00*
1/8 BSPT	5	3/16	4010 0031 00*
1/8 BSPT	6.3	1/4	9000 0240 00*
1/4 BSP	3.2	1/8	9000 0524 00*
1/4 BSPT	6.3	1/4	9000 0241 00*
1/4 BSPT	8	5/16	9090 1715 00*
1/4 BSPT	10	3/8	9000 0247 00*
3/8 BSPT	10	3/8	9000 0242 00*
3/8 BSPT	12.5	1/2	9000 0248 00*
1/2 BSPT	12.5	1/2	9000 0243 00*
1/2 BSPT	16	5/8	9000 0244 00*
1/2 BSPT	20	3/4	4150 0429 00*
3/4 BSPT	20	3/4	9000 0245 00*
1 BSPT	25	1	9000 0246 00*

GASKETS



For couplings with parallel thread	Fibre gasket between material and nipple Ordering No.
M5	0657 5710 00*
1/8" BSP	0657 5742 00*
1/4" BSP	0657 5764 00*
3/8" BSP	0657 5785 00*
1/2" BSP	0653 0500 01*
3/4" BSP	0657 5823 00*
1" BSP	0657 5830 00*

* Available directly from stock.

FITTINGS

REDUCING NIPPLE



In brass

Female thread in	Male thread in	Ordering No.
1/4 BSP	1/8 BSP	9721 4000 94*
3/8 BSP	1/4 BSP	9721 4000 92*
1/2 BSP	3/8 BSP	9721 4000 93*

BUSHING



Male thread – female thread

Male thread in	Female thread in	Ordering No.
1/4 BSP	1/8 BSP	9090 0799 00*
3/8 BSP	1/4 BSP	9090 0798 00*
1/2 BSP	1/4 BSP	9090 1469 00*
1/2 BSP	3/8 BSP	9090 0797 00*
3/4 BSP	1/2 BSP	9090 0796 00*
1 BSP	3/4 BSP	9090 0795 00*

SWIVELS



Recommended flow max 10 l/s

Air inlet	Air outlet Male BSP	Max Swivel bend from centre line	Ordering No.
1/4 BSP ^a	1/4	45°	4210 3135 00*
5/16" hose	1/4	30°	4210 3134 80*

^a Female thread.

* Available directly from stock.

HOSE CONNECTION WITH CLAMP NUT AND SPRING GUARD



Clamp nut, brass. See fig. 1

Hose diameter Outside/Inside mm	Male thread in	Ordering No.
10/8 ^a	1/4 BSP	9721 4002 89*
10/8 ^a	3/8 BSP	9721 4002 90*
12/9	1/4 BSP	9721 4000 86
12/10 ^b	3/8 BSP	9721 4000 88
15/12.5 ^c	1/2 BSP	9721 4000 89*

Male threaded hose nipple with clamp nut should be used with female threaded quick couplings.

DOUBLE CONNECTION



Male taper thread – male taper thread

From thread in	To thread in	Ordering No.
1/8 BSPT	1/8 BSPT	9090 0100 00*
1/8 BSPT	1/4 BSPT	9090 0110 00*
1/4 BSPT	1/4 BSPT	9090 0120 00*
1/4 BSPT	3/8 BSPT	9090 0130 00*
3/8 BSPT	3/8 BSPT	9090 0140 00*
3/8 BSPT	1/2 BSPT	9090 0150 00*
1/2 BSPT	1/2 BSPT	9090 0160 00*
1/2 BSPT	3/4 BSPT	9090 0170 00*
3/4 BSPT	3/4 BSPT	9090 0180 00*
3/4 BSPT	1 BSPT	9090 0190 00*
1 BSPT	1 BSPT	9090 0200 00*

Spring guard in steel. See fig. 2

Hose diameter Outside/Inside mm	Ordering No.
10/8 ^a	9721 4002 88*
12/10 ^b	9721 4000 91
15/12 ^c	9721 4002 85*

The spring guard should be used with the clamp nut above.

^a CABLAIR 08

^b CABLAIR 10

^c CABLAIR 13

DOUBLE ADJUSTABLE CONNECTION



Male thread – male thread

From thread in	To thread in	Ordering No.
1/2 BSP	1/2 BSP	9090 0806 00*
1 BSP	1 BSP	9090 0810 00*

SEALING RINGS



For coupling with thread in	Rubber spare sealing ring for adjustable connections Ordering No.
1/2 BSP	9090 0884 00*
1 BSP	9090 0886 00*

* Available directly from stock.

BLOW PROTECTOR

BLOCK

When a fitting comes loose from a pressurized hose, the hose starts blowing compressed air in an uncontrolled way. The blow protector shuts off the airflow and thus minimizes the risk of personal injuries and any damage of the workpiece and surrounding.

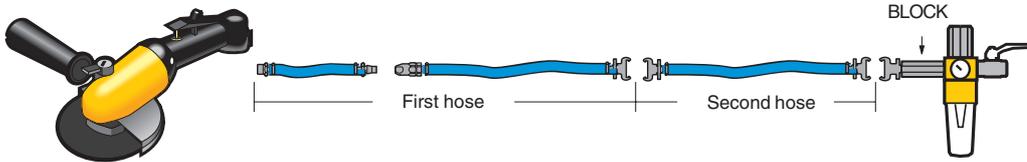
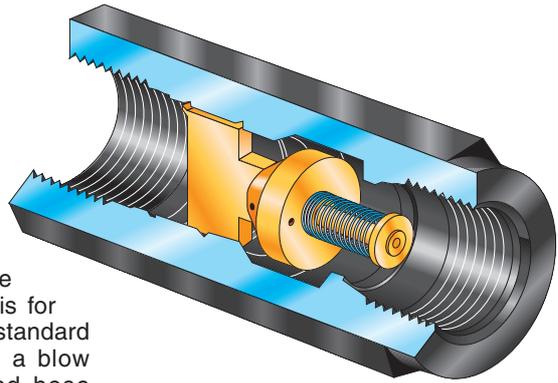
The selection parameters are the air pressure and the air flow. For proper function the air pressure should be set on 7 bar in order to reach 6 bar at the air tool. The air flow is determined by the air consumption of the tool and the hose length.

When working with **impact wrenches and pulse tools** care must be taken in the choice of blow protector. **The value of air flow under full load must be increased**

by 50% when selecting blow protector of impact wrenches and pulse tools as there will otherwise be a risk for shut-off at free running.

BLOCK has automatic reset. When the air is switched on again the valve in BLOCK opens and is automatically reset.

Selection from the tables; There are two tables below, the first is for choosing a blow protector for standard hoses, the other for choosing a blow protector for spiral hoses and hose balancers.

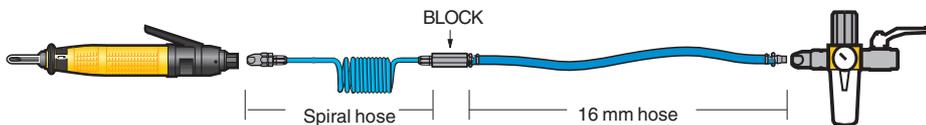


Selecting table using standard hoses

The air flow, hose length and hose sizes must all be within the recommended range in order to choose the right model of blow protector. The second hose is only used when hoses longer than 20 m are used. The second hose will always be 20 m and the first hose will be cut to the right length.

Use couplings in your installation with high air flow capacity such as QIC 10, QIC 15, ErgoQIC 08, ErgoQIC 10 and CLAW or similar couplings to ensure proper use of the blow protector.

Air flow air tool l/s	First hose		Second hose		Shut off air flow l/s	Product	Female thread BSP in	Ordering No.
	length m	size mm	length m	size mm				
0- 5	1- 5	6.3	0	-	7.8	BLOCK 08L	1/4	8202 0100 50*
0- 5	6-10	8	0	-	13	BLOCK 08H	1/4	8202 0100 52*
0- 8	1- 5	8	0	-	13	BLOCK 08H	1/4	8202 0100 52*
0- 8	6-10	10	0	-	13	BLOCK 08H	1/4	8202 0100 52*
0-10	1-10	10	0	-	13	BLOCK 08H	1/4	8202 0100 52*
0-10	11-20	12.5	0	-	13	BLOCK 08H	1/4	8202 0100 52*
0-14	1- 5	10	0	-	18	BLOCK 10L	3/8	8202 0100 54*
0-14	6-10	13	0	-	18	BLOCK 10L	3/8	8202 0100 54*
0-15	11-20	16	0	-	32	BLOCK 10H	3/8	8202 0100 56*
0-25	1- 5	12.5	0	-	32	BLOCK 10H	3/8	8202 0100 56*
0-25	6-10	16	0	-	32	BLOCK 10H	3/8	8202 0100 56*
0-35	1- 5	12.5	0	-	45	BLOCK 15H	1/2	8202 0100 58*
0-35	6-10	16	0	-	45	BLOCK 15H	1/2	8202 0100 58*
0-35	11-20	19	0	-	45	BLOCK 15H	1/2	8202 0100 58*
0-60	1-10	19	0	-	75	BLOCK 20H	3/4	8202 0100 60*
0-60	1-10	19	20	25	75	BLOCK 20H	3/4	8202 0100 60*
0-70	1- 7	19	0	25	86	BLOCK 25H	1	8202 0100 62*
0-70	8-20	25	0	25	86	BLOCK 25H	1	8202 0100 62*
0-70	1-20	25	20	25	86	BLOCK 25H	1	8202 0100 62*



Air flow air tool l/s	Spiral hose or balancer				Shut off air flow l/s	Product	Female thread BSP in	Ordering No.
	Model	Hose length m	Hose size mm					
0- 4	SPI 06-3	2.5	6		8.3	BLOCK 08L	1/4	8202 0100 50*
0- 6	HRIL 3	1.4	-		8.3	BLOCK 08L	1/4	8202 0100 50*
0- 6	SPI 1S	2.0	6		8.3	BLOCK 08L	1/4	8202 0100 50*
0- 6	SPI 2L	6.0	8		8.3	BLOCK 08L	1/4	8202 0100 50*
0- 8	HRIL 4	1.1	-		14	BLOCK 08H	1/4	8202 0100 52*
0- 8	SPI 09-3	2.5	9		14	BLOCK 08H	1/4	8202 0100 52*
0- 8	SPI 2M	4.0	8		14	BLOCK 08H	1/4	8202 0100 52*
0-11	SPI 2S	3.0	8		14	BLOCK 08H	1/4	8202 0100 52*
0-11	SPI 2L	6.0	11		14	BLOCK 08H	1/4	8202 0100 52*
0-15	SPI 3M	4.0	11		19	BLOCK 10L	3/8	8202 0100 54*
0-20	SPI 3S	3.0	11		32	BLOCK 10H	3/8	8202 0100 56*

* Available directly from stock.

HOSES

PVC HOSES

Strong for heavy-duty applications

The PVC hose has high resistance to abrasion, which makes it the ideal hose for tough working conditions such as workshops, factories, garages, etc. It is mainly recommended for indoor use.

The PVC hose is available in 9 diameters ranging from 3 mm to 25 mm (1/8" to 1" inside diameter) to suit a wide variety of fittings.

- ❑ **Transparent** – facilitates inspection.
- ❑ **Pliable** – easily follows working movements.
- ❑ **Long service life.**
- ❑ **Inside diameter** according to ISO 4397.
- ❑ **Working temperature** between -25 °C and +60°C.
- ❑ **Easy to handle** – supplied in 30 metre coils.
- ❑ **Blue colour** – The international identification colour for compressed air.

The PVC hose can also be used in many other fields to carry fluids.

Complete hose sets, see installation proposals page 241-247.



PVC hose

Model	Inside dia		Outside dia mm	Max working pressure ^a bar	Max rec air flow ^b l/s	Weight per 30 m coil kg	Ordering No.
	mm	in					
PVC 03	3.2	1/8	7	20	0.7	1.4	9093 0037 21
PVC 05 ^c	5	3/16	9	18	2.1	1.9	9093 0037 51
PVC 06 ^d	6.3	1/4	11	18	4	2.5	9093 0037 81*
PVC 08	8	5/16	12	18	7.5	2.9	9093 0038 11*
PVC 10	10	3/8	14	14	13	3.7	9093 0038 41*
PVC 13	12.5	1/2	18	13	21	5.9	9093 0038 71*
PVC 16	16	5/8	22	12	43	7.2	9093 0039 01*
PVC 20	19	3/4	25	12	75	8.3	9093 0039 31
PVC 25	25	1	32	11	125	12.5	9093 0039 61

CABLAIR HOSES

Superlight flexible PVC-hose

CABLAIR is made of high-strength, high-performance PVC-material in combination with optimum braid angle polyester-reinforced fibres. CABLAIR can withstand the same pressures and temperatures as standard hoses. CABLAIR is recommended for indoor use.

- ❑ **Low weight** – Extremely low weight, 30-50% less than conventional hoses – in combination with low-weight tools this makes an ideal ergonomic solution.
- ❑ **Soft and flexible** – Extremely flexible – softer than ordinary PVC-hoses.
- ❑ **Easy to handle** – supplied in 30 metre coils wrapped in shrink film.
- ❑ **Working temperature** -25 °C to +60°C.
- ❑ **Inside diameter** according to ISO 4397.
- ❑ **Patents pending.**
- ❑ **Blue colour** – The international identification colour for compressed air.

Complete hose sets, see installation proposals page 241-247.



CABLAIR hose

Model	Inside dia		Outside dia mm	Max working pressure ^a bar	Max rec air flow ^b l/s	Weight per 30 m coil kg	Ordering No.
	mm	in					
CABLAIR 06	6.3	1/4	9	18	4	1.2	9093 0035 11*
CABLAIR 08	8	5/16	10.5	18	7.5	1.7	9093 0035 41*
CABLAIR 10	10	3/8	13	14	13	2.1	9093 0035 71*
CABLAIR 13	12.5	1/2	16.5	13	21	3.0	9093 0036 01*
CABLAIR 16	16	5/8	21	11	43	5.4	9093 0036 31
CABLAIR 20	19	3/4	24	11	75	5.8	9093 0036 61
CABLAIR 25	25	1	31	10	125	10.4	9093 0036 91

^a Working temperature range: -25 °C to +60°C. With a safety factor of 3 at 20°C (at the max temp of +60°C the working pressure should be reduced by 50%).

^b The pressure drop will be 0.2 bar on a hose length of 5 m, including 2 nipples and at an inlet pressure of 7 bar.

^c PVC 05 –100 m, Ordering No. 8202 0501 05.
^d PVC 06 –ESD, (Antistatic hose, see page 74) Ordering No. 8202 0501 06.

* Available directly from stock.

HOSES

RUBAIR –RUBBER HOSE

A double reinforced strong hose

RUBAIR is a special developed rubber hose for compressed hand-held air tools. The hose fulfils all general heavy duty demands. RUBAIR is recommended for indoor and outdoor applications e.g. in foundries, shipyards, engineering workshops as well as on construction sites. The wall thickness is thin which makes RUBAIR light and flexible to work with.

- Double-reinforced** makes it extra strong and tough.
- Durable** –for rugged environmental conditions.
- The hose is antistatic.**
- Supplied in 20 metre coils wrapped in shrink film.**
- Long service life.**
- Working temperature** between -40 °C and +90°C.
- Inside diameter** according to ISO 4397.



RUBAIR rubber hose

Model	Inside dia		Outside dia mm	Max working pressure ^a bar	Max rec air flow ^b l/s	Weight per 20 m coil kg	Ordering No.
	mm	in					
RUBAIR 06	6.3	1/4	11.3	16	4	2.0	8202 0401 06*
RUBAIR 10	10	3/8	16.0	16	13	3.6	8202 0402 10*
RUBAIR 13	12.5	1/2	19.1	16	21	4.7	8202 0403 13*
RUBAIR 16	16	5/8	23.0	16	43	6.1	8202 0404 16*
RUBAIR 20	20	3/4	26.6	16	75	7.8	8202 0405 20*
RUBAIR 25	25	1	34.0	16	125	11.8	8202 0406 25*

^a Working temperature range: -40 °C to +90°C. With a safety factor of 5 at 20°C.

^b The pressure drop will be 0.2 bar on a hose length of 5 m, including 2 nipples and at an inlet pressure of 7 bar.

* Available directly from stock.

TURBO –RUBBER HOSE

Super-light flexible rubber hose

TURBO is recommended for indoor and outdoor use.

- The ideal hose for a wide variety of applications, such as foundries, shipyards, engineering workshops as well as on construction sites.**
- Supplied in 20 metre coils wrapped in shrink film.**
- Extremely low weight**, 30-40% less than conventional rubber hoses.
- Soft and flexible** –Extremely flexible, softer than ordinary rubber hoses.
- The hose is antistatic.**



TURBO rubber hose

Model	Inside dia		Outside dia mm	Max working pressure ^a bar	Max rec air flow ^b l/s	Weight per 20 m coil kg	Ordering No.
	mm	in					
TURBO 13	12.5	1/2	18.6	16	21	3.9	9093 0057 91*
TURBO 16	16.5	5/8	22.5	16	43	4.8	9093 0057 31*
TURBO 20	20.1	3/4	26.1	16	75	5.4	9093 0057 61*

^a Working temperature range: -40 °C to +90°C. With a safety factor of 4 at 20°C.

^b The pressure drop will be 0.2 bar on a hose length of 5 m, including 2 nipples and at an inlet pressure of 7 bar.

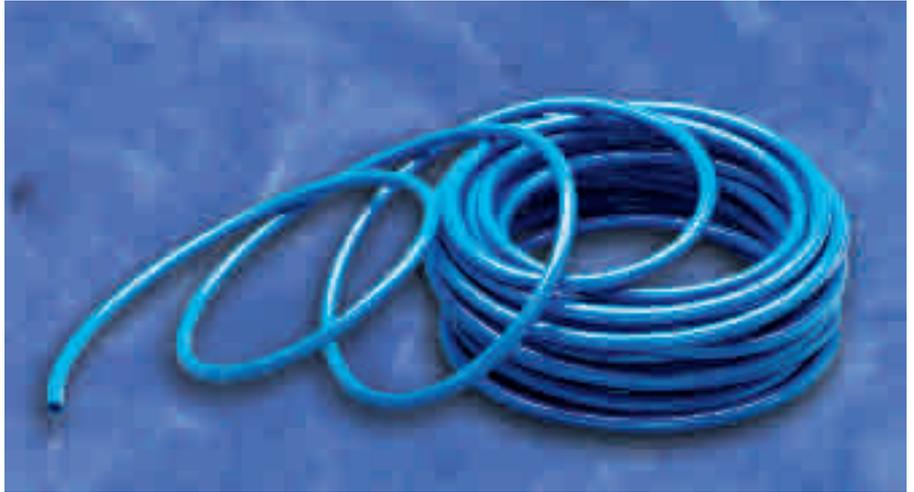
* Available directly from stock.

HOSES

POLUR –POLYURETHANE

POLUR has high resistance to abrasion. The hose is oil-resistant. POLUR has a much longer lifetime compared with PVC hoses. The polyurethane hose is an ideal hose in tough working conditions such as workshops, factories, garages, ship-yards and construction sites. The POLUR is recommended for indoor and outdoor applications. The POLUR is also very flexible and it keeps its flexibility even when working at minus degrees. The hose will when stressed, always retract to its normal shape and keeps its performance during its entire life.

- ❑ **Working temperature** between -30 °C to +80° C.
- ❑ **Easy to handle** –supplied in 25 m coils.
- ❑ **Hardness** –68/90 Shore A.
- ❑ Tested according to ISO 1402.



POLUR polyurethane hose

Model	Hose diameter			Working pressure bar	Burst pressure bar	Recommended air flow for 5 m hose ^a l/s	Weight per 25 m coil kg	Ordering No.
	inside mm	in	outside mm					
POLUR 08	8	5/16	12	20	60	7.5	2.2	8202 0601 08*
POLUR 10	10	3/8	14	16	50	13	2.5	8202 0602 10*
POLUR 13	13	1/2	18	13	40	21	4.0	8202 0603 13*

^a The pressure drop will be 0.2 bar on a hose length of 5 m, including 2 nipples and at an inlet pressure of 7 bar.

* Available directly from stock.

SPIRAL HOSES

SPIRAL HOSES –SPI

The elastic hose for vertical and horizontal applications

The 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. As the hose is flexible, the two smallest sizes can be connected directly to the tool.

When used with hand tools, self-storage principle ensures that the hose is kept off the floor and out of the way of the operator. This boosts productivity and reduces the accident hazard. The SPI is the ideal hose in combination with a balancer.

- ❑ **Self-retractable.**
- ❑ **Safer** –Makes the worksite safer and congenial.
- ❑ **Easy to install** –SPI hose is supplied complete with connections and is thus very easy to install.



Materials performance guide

Material	Keeps measurements in length	Spiral size	Direct connected to tool	Temperature range°C		Max.working pressure bar
				min.	max.	
Soft Polyurethane	Good	Small	Yes	-30	+60	10
Hard Polyurethane	Better	Small	Yes	-40	+80	10
PEBAX	Better	Medium	Yes	-30	+50	10
Nylon	Best	Big	No	-30	+70	15

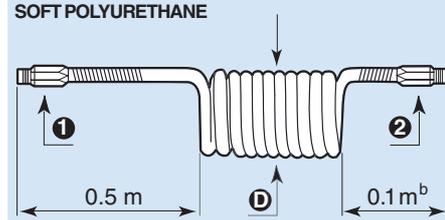
SOFT POLYURETHANE



Description	Model	Hose inside dia. mm	Hose outside dia. mm	Max. rec. Air flow ^a l/s	Working range		Max. spiral dia. \varnothing mm	Male threads in BSP		Ordering No.
					rec. m	Max m		①	②	
SOFT POLYURETHANE	SPI 1SP-S	6.5	10	7	< 2.0	2.5	45	1/4	1/4	8202 0508 70*
	SPI 1SP-M	6.5	10	5	< 4.0	4.5	45	1/4	1/4	8202 0508 72*
	SPI 2SP-S	8	12	13	< 2.0	2.5	50	3/8	3/8	8202 0508 74*
	SPI 2SP-M	8	12	10	< 4.0	4.5	50	3/8	3/8	8202 0508 76*
	SPI 2SP-L	8	12	9	< 6.0	7.0	50	3/8	3/8	8202 0508 78*
	SPI 2SP-XL	8	12	6	< 8.0	9.0	50	3/8	3/8	8202 0508 80*
	SPI 3SP-S	11	16	25	< 2.0	2.5	80	3/8	3/8	8202 0508 82*
	SPI 3SP-M	11	16	22	< 4.0	4.5	80	3/8	3/8	8202 0508 84*
	SPI 3SP-L	11	16	17	< 6.0	7.0	80	3/8	3/8	8202 0508 86*
	SPI 3SP-XL	11	16	13	< 8.0	9.0	80	3/8	3/8	8202 0508 88*
	SPI 4SP-XXL	13	19	25	<10.0	11.0	85	3/8	3/8	8202 0508 90*

^a At inlet pressure 6 bar and pressure drop 0.5 bar.

^b 0.5 m for SPI 4SP-XXL.



Extra fittings

Description	Ordering No.
Spring guard and fittings for SPI 1SP	9090 2083 00*
Spring guard and fittings for SPI 2SP	9090 2084 00
Fittings for SPI 3SP	9090 2085 00
Fittings for SPI 4SP	9090 2086 00

* Available directly from stock.

SPIRAL HOSES



HARD POLYURETHANE

Hard polyurethane is supplied with scratching protection.

Description	Model	Hose inside dia. mm	Hose outside dia. mm	Max. rec. Air flow ^a l/s	Working range		Max. spiral dia. Ø mm	Male threads in BSP		Ordering No.
					rec. m	Max m		①	②	
	SPI 1 HP-S	6.5	10	6	1.5-2.0	2.5	48	1/4	1/4	8202 0508 50*
	SPI 2 HP-S	8	12	11	1.5-3.0	4.0	65	1/4	1/4	8202 0508 52*
	SPI 2 HP-M	8	12	9	2.0-4.0	6.0	65	1/4	1/4	8202 0508 54*
	SPI 2 HP-L	8	12	6	3.0-6.0	8.0	65	1/4	1/4	8202 0508 56*
	SPI 3 HP-S	11	16	20	1.5-3.0	5.5	90	3/8	3/8	8202 0508 58*
	SPI 3 HP-M	11	16	15	2.5-4.0	6.0	90	3/8	3/8	8202 0508 60*
	SPI 3 HP-L	11	16	11	4.0-6.0	10.0	90	3/8	3/8	8202 0508 62*

^a At inlet pressure 6 bar and pressure drop 0.5 bar.

PEBAX



NYLON



Description	Model	Hose inside dia. mm	Hose outside dia. mm	Max. rec. Air flow ^b l/s	Max. spiral dia. Ø mm	Max. working range A m	Male threads in BSP		Ordering No.	
							①	②		
	PEBAX									
	SPI 06-3	6	8	4	75	3	1/8	1/4	8202 0508 06*	
	SPI 09-3	9	12	11	120	3	1/4	1/4	8202 0508 14*	
	NYLON									
	SPI 12-3	12	16	18	190	3	1/4	3/8	8202 0508 22*	
	SPI 12-6	12	16	14	190	6	1/4	3/8	8202 0508 30*	
	SPI 19-6	19	25	50	295	6	3/4	3/4	8202 0508 48*	

^b At inlet pressure 6 bar $\Delta P = 0.4$ bar.

REDUCING NIPPLE



In brass

Female thread in	Male thread in	Ordering No.
1/4 BSP	1/8 BSP	9721 4000 94*
3/8 BSP	1/4 BSP	9721 4000 92*
1/2 BSP	3/8 BSP	9721 4000 93*

BUSHING



Male thread –female thread

Male thread in	Female thread in	Ordering No.
1/4 BSP	1/8 BSP	9090 0799 00*
3/8 BSP	1/4 BSP	9090 0798 00*
1/2 BSP	1/4 BSP	9090 1469 00*
1/2 BSP	3/8 BSP	9090 0797 00*
3/4 BSP	1/2 BSP	9090 0796 00*
1 BSP	3/4 BSP	9090 0795 00*

For more fittings see page 228-229.

* Available directly from stock.

BALANCERS

COLIBRI BALANCERS

The Colibri range –COL 1, 2, 3 and 4 – provides weightless suspension for loads from 0.7 up to 55 kg.

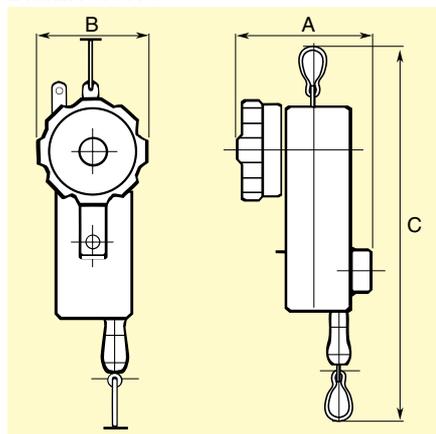
Colibri is a unique range of balancers. Colibri holds the load weightless throughout the entire cable length –at all levels, thanks to the unique counterpoised cones in the balancer which provide constant tension throughout the entire cable length.

The load is not pulled back when released and the environment is protected from accidental hoisting of the load.

Safety aspects are underscored through several built-in functions

- ❑ The cable locks in the event of spring failure (downward braking power).
See also COL 2/3 S below.
- ❑ The cable locks if the load drops or if the cable breaks (upward 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 load.
- ❑ For the large COL 4 balancers a separate activation Cable-Pullout mechanism is available, making it easy to hook on the load or to unload the balancer.
- ❑ The spring tension can easily be pre-set for COL 1, 2 and 3 by turning the adjustment wheel. Nothing more than an ordinary wrench is required for the large COL 4 balancers.

DIMENSIONS



OPTIONAL ACCESSORIES

Safety chain for	Ordering No.
COL 1	4391 4045 90
COL 2 and 3	4391 4046 90
COL 4	4391 4047 90

COLIBRI WITH BUILT-IN EXTRA SAFETY BRAKE

The Colibri balancer is available in a model with built-in extra safety brake mechanism for applications with extremely high safety requirements.



Colibri standard

Model	Capacity range				Cable length m	Weight		Dimensions			Ordering No.
	kg	lb	kg	lb		A mm	B mm	C mm			
COL 1 01	0.7- 1.3	1.5- 2.9	1.7	0.5	1.1	108	72	245	8202 0750	01*	
COL 1 01R	0.7- 1.3	1.5- 2.9	1.7	0.5	1.1	108	84	245	8202 0773	12	
COL 1 02	1.0- 2.0	2.2- 4.4	1.7	0.5	1.1	108	72	245	8202 0750	19*	
COL 1 02R	1.0- 2.0	2.2- 4.4	1.7	0.5	1.1	108	84	245	8202 0773	20	
COL 2 03	1.7- 3.5	3.7- 7.7	2.4	2.3	5.1	155	116	427	8202 0750	27*	
COL 2 04	3.0- 6.0	6.6- 13.2	2.4	2.3	5.1	155	116	427	8202 0750	35*	
COL 2 05	4.7- 7.0	10.4- 15.4	2.4	2.5	5.5	155	116	427	8202 0750	43*	
COL 3 07	5.5- 9.0	12.1- 19.8	2.4	3.3	7.3	196	116	427	8202 0750	50*	
COL 3 10	8.0-13.0	17.6- 28.7	2.4	3.4	7.5	196	116	427	8202 0750	68*	
COL 3 15	12.5-17.0	27.6- 37.5	2.4	3.8	8.4	196	116	427	8202 0750	76*	
COL 4 18	14.0-22.0	30.9- 48.5	2.4	13.2	29.1	244	193	620	8202 0774	11*	
COL 4 18P	14.0-22.0	30.9- 48.5	2.4	14.1	31.1	244	193	620	8202 0774	29	
COL 4 22	17.0-28.0	37.4- 61.7	2.4	13.9	30.6	244	193	620	8202 0750	84*	
COL 4 22P	17.0-28.0	37.4- 61.7	2.4	14.8	32.6	244	193	620	8202 0751	26	
COL 4 30	24.0-38.0	52.9- 83.8	2.4	14.5	32.0	244	193	620	8202 0750	92*	
COL 4 30P	24.0-38.0	52.9- 83.8	2.4	15.4	34.0	244	193	620	8202 0751	34	
COL 4 42	36.0-49.0	79.4-107.8	2.4	14.9	32.8	244	193	620	8202 0751	00*	
COL 4 42P	36.0-49.0	79.4-107.8	2.4	15.8	34.8	244	193	620	8202 0751	42	
COL 4 50	43.0-55.0	98.4-121.3	2.4	15.3	33.7	244	193	620	8202 0751	18*	
COL 4 50P	43.0-55.0	98.4-121.3	2.4	16.2	35.7	244	193	620	8202 0751	59	

R = With indicator for fast weight adjustment.

P = With pull-out mechanism.

Colibri with built-in extra safety brake

Model	Capacity range				Cable length m	Weight		Ordering No.
	kg	lb	kg	lb				
COL 2 03S	1.7- 3.5	3.7- 7.7	2.4	2.3	5.1	8202 0775	93*	
COL 2 04S	3.0- 6.0	6.6-13.2	2.4	2.3	5.1	8202 0776	01*	
COL 2 05S	4.7- 7.0	10.4-15.4	2.4	2.5	5.3	8202 0776	19*	
COL 3 07S	5.5- 9.0	12.1-19.8	2.4	3.3	7.3	8202 0776	27*	
COL 3 10S	8.0-13.0	17.6-28.7	2.4	3.4	7.5	8202 0776	35*	
COL 3 15S	12.5-17.0	27.6-37.5	2.4	3.8	8.4	8202 0776	43*	

* Available directly from stock.

BALANCERS

BALANCER –RIL

RIL balancers always keep the tool in place, handy and easily accessible. There are also many other advantages:

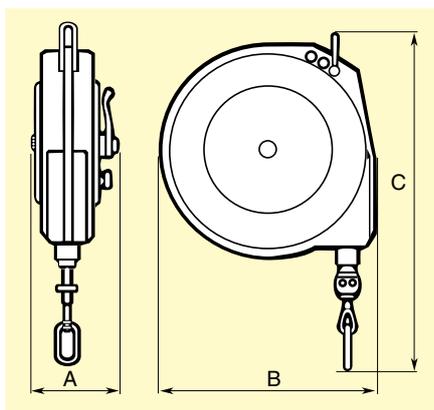
- ❑ **Flexible** with a wide range for loads from 0.0 kg to 107 kg.
- ❑ **Rugged** and very strongly made to withstand rough treatment.
- ❑ **Adjustable wire stop** helps to obtain the most convenient height of the tool.
- ❑ **Required torque easily set**, by only one standard tool.

Types RIL 1C, 2C, 4C, 5C, 5, 10C, 15C and 22C are the small to medium-size balancers intended for small tools.

Types RIL 20, 30, 40, 50A, 60A, JA, KA and LA are larger heavy duty balancers intended for medium-size and large tools, and have a compact and sturdy design with high-tensile aluminium alloy casing. Worm gear adjustment provides the torque required. An automatic safety lock prevents load dropping in the event of a main spring failure. The wire rope drum can be locked at any position for ease and safety when changing tools or cable. Forged safety hooks at top and bottom.



DIMENSIONS



OPTIONAL ACCESSORIES

Safety chain for	Ordering No.
1C, 2C, 4C and 5C	4391 4045 90
10C, 15C and 22C	4391 4156 00
5, 20, 30, 40	4391 4046 90
50A and 60A	4391 4047 90
JA, KA and LA	4390 1543 00

Model (Standard design)	Capacity range		Cable length m	Weight		Dimensions			Ordering No.
	kg	lb		kg	lb	A mm	B mm	C mm	
RIL 1C	0.0- 0.5	0.0- 1.7	1.5	0.6	1.3	51	106	238	8202 0700 02*
RIL 2C	0.4- 1.0	0.9- 2.2	1.5	0.6	1.3	51	106	238	8202 0701 19*
RIL 4C	1.0- 2.0	2.2- 4.4	1.5	0.6	1.3	51	106	238	8202 0702 18*
RIL 5C	1.4- 2.3	3.1- 5.1	1.5	0.6	1.3	51	106	238	8202 0703 25*
RIL 5	0.4- 2.3	0.9- 5.1	2.4	2.0	4.4	70	157	308	8202 0703 09*
RIL 10C	2.0- 5.0	4.4-11.0	2.4	2.7	6.0	84	190	369	8202 0704 16*
RIL 15C	5.0- 7.0	11.0-15.4	2.4	3.2	7.1	84	190	369	8202 0705 15*
RIL 20 ^a	5.0- 9.0	15.4-19.8	1.8	7.2	15.9	178	203	495	8202 0707 05*
RIL 22C	6.0-10.0	13.2-22.0	2.4	3.2	7.1	84	190	369	8202 0706 14*
RIL 30 ^a	9.0-14.0	19.8-30.9	1.8	7.2	15.9	178	203	495	8202 0708 04*
RIL 40 ^a	13.0-18.0	28.7-39.7	1.8	7.2	15.9	178	203	495	8202 0709 03*
RIL 50A ^a	18.0-23.0	39.7-50.7	1.8	7.5	16.5	178	203	495	8202 0728 00*
RIL 60A ^a	23.0-30.0	50.7-56.7	1.8	7.5	16.5	178	203	495	8202 0729 09*

Model (Extra robust, design)	Capacity range		Cable length m	Weight		Dimensions			Ordering No.
	kg	lb		kg	lb	A mm	B mm	C mm	
RIL 50JA ^a	18- 25	40- 55	2.1	15	33	191	305	711	8202 0713 07
RIL 60JA ^a	24- 29	53- 64	2.1	15	33	191	305	711	8202 0714 06
RIL 70JA ^a	24- 32	53- 71	2.1	15	33	191	305	711	8202 0715 05
RIL 80JA ^a	31- 39	68- 86	2.1	15	33	191	305	711	8202 0716 04
RIL 90JA ^a	36- 41	79- 90	2.1	15	33	191	305	711	8202 0717 03
RIL 100JA ^a	40- 45	88- 99	2.1	15	33	191	305	711	8202 0718 02
RIL 110KA ^a	38- 52	84-115	2.1	24	53	260	305	711	8202 0719 01
RIL 120KA ^a	52- 57	115-126	2.1	24	53	260	305	711	8202 0720 08
RIL 130KA ^a	56- 61	123-135	2.1	24	53	260	305	711	8202 0721 07
RIL 140KA ^a	61- 66	135-146	2.1	24	53	260	305	711	8202 0722 06
RIL 150KA ^a	65- 70	143-154	2.1	24	53	260	305	711	8202 0723 05
RIL 160KA ^a	70- 75	153-165	2.1	24	53	260	305	711	8202 0724 04
RIL 170KA ^a	72- 79	159-171	2.1	24	53	260	305	711	8202 0725 03
RIL 190KA ^a	79- 88	174-194	2.1	24	53	260	305	711	8202 0726 02
RIL 200KA ^a	86- 91	190-201	2.1	24	53	260	305	711	8202 0727 01
RIL 230LA ^a	95-107	209-236	2.1	37	82	359	292	711	8202 0731 05

^a Balancer equipped with automatic safety drum lock in case of spring failure.

* Available directly from stock.

HOSE REELS

HOSE REEL BALANCER –HRIL

The HRIL range of hose reel balancers are specifically designed for use with small pneumatic hand tools.

The integrated air hose and support cable ensures 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		Recom- mended air flow ^a l/s	Hose travel m	Weight		Max working pressure bar	Dimensions			Ordering No.
	kg	lb			kg	lb		A mm	B mm	C mm	
HRIL 1	0.2-0.5	0.4-1.1	3.5	1.40	1.2	2.6	10	92	132	173	8202 0600 03*
HRIL 3	0.5-1.4	1.1-3.1	5.5	1.40	1.2	2.6	10	92	132	173	8202 0600 11*
HRIL 4	0.7-2.4	1.5-5.3	6.5	1.10	1.4	3.1	10	92	132	173	8202 0600 29*

^a At inlet pressure of 6 bar pressure drop is 0.4 bar.

Air line fittings

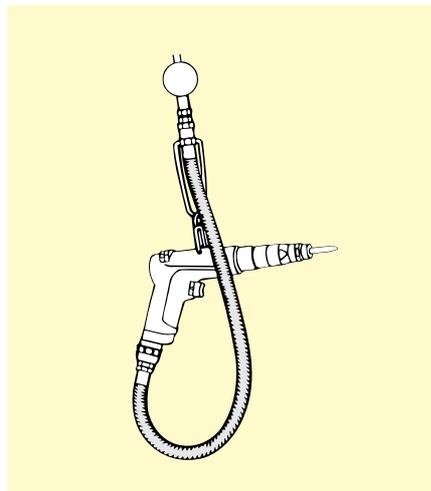
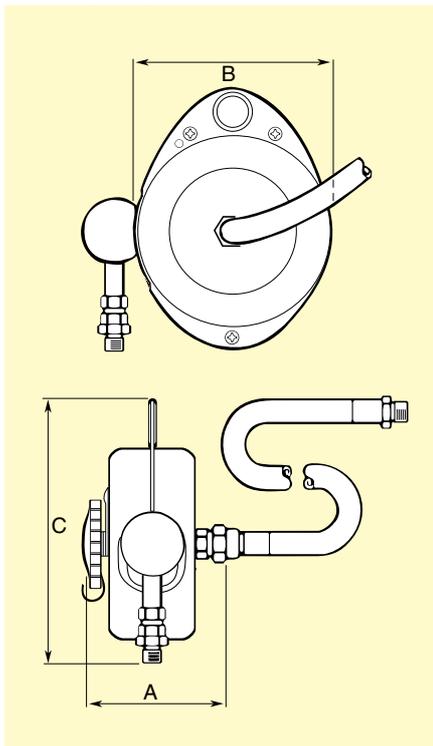
All models have a BSP 1/4" inlet fitting.

HRIL 1 supplied with M5 and BSP 1/8" outlet fittings.

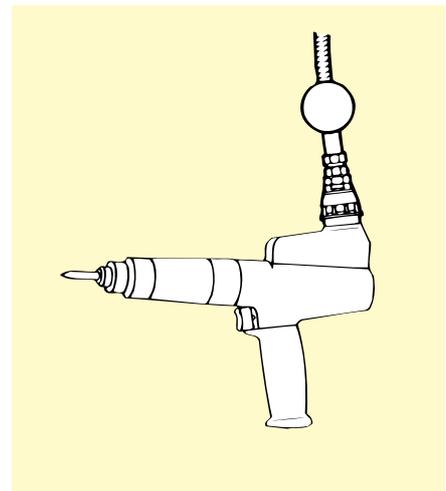
HRIL 3 supplied with BSP 1/8" and BSP 1/4" outlet fittings.

HRIL 4 supplied with BSP 1/4" outlet fitting.

DIMENSIONS



Conversion kit for air inlet from below.



Air inlet from above.

OPTIONAL ACCESSORIES

Designation		Ordering No.
Conversion kit for air inlet from below	- HRIL 3, HRIL 4	4390 1687 90*
Safety chain		4391 4045 90*

* Available directly from stock.

HOSE REELS

HOSE REEL –HM

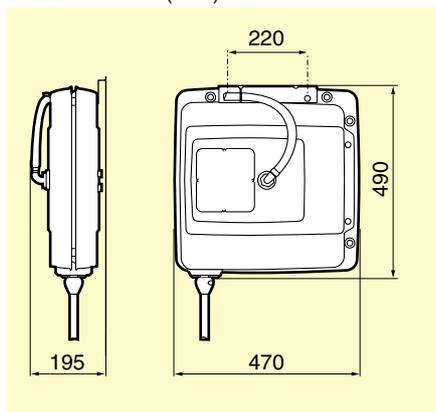
The HoseMaster hose reel has a high quality compound hose (externally PVC, internally Polyurethane) for handling of air and water. Movable brackets give a choice between wall, floor and ceiling mounting.

Other advantages are:

- Safer, smooth and kink-free reeling.
 - Reduces hose wear.
 - Improves the working environment.
- Max working pressure is 15 bar.
Working temperature: -10 °C –+60 °C.



DIMENSIONS (mm)



Hose reel

Model	Hose dimensions Inside dia		Length m	Max recommended air flow ^a l/s	Weight		Ordering No.
	mm	in			kg	lb	
HM 10	10	3/8	10	12	17	37	8202 1181 40*
HM 13	12.5	1/2	8	22	16	35	8202 1181 57*

^a Air flow at an inlet pressure of 6 bar and a pressure drop of 0.5 bar.

OPTIONAL ACCESSORIES

Designation	Ordering No.
Pivoting wall bracket, 120°	4390 1676 90*
Spring for max 15 m 3/8" hose or 10 m 1/2" hose	4390 1751 00

* Available directly from stock.



Do you need more information?
Ask your Atlas Copco representative
for a copy of our Airline Accessories
Catalogue.

BLOW GUNS



BLOW GUN –GUN

For safer and more efficient cleaning
The Atlas Copco blow gun GUN is available in different models.

- ❑ **GUN F06A** –the bare blow gun.
- ❑ **GUN F06A-S** –with a safety nozzle.
- ❑ **GUN F06A-SS** –with a combined safety/silencer nozzle.

The safety nozzle reduces the danger of high pressure air coming into direct contact with the skin.

The safety nozzles deflect the air sideways if the forward air flow is blocked. In this way they meet the U.S. OSHA standard which specifies a maximum of 2 bar in case of direct contact.

The combined safety/silencer nozzle also greatly reduces the noise caused by the air current.

- ❑ For cleaning operations.
- ❑ Sturdy design with a light ergonomic and convenient pistol-grip. The trigger mechanism allows you to vary the air flow to suit the job you are doing.

- ❑ **Max working pressure 10 bar.**
- ❑ **Max working temperature +50°C.**
- ❑ **Internal connecting thread 1/4" BSP.**

BLOW GUN –B2602

- ❑ Ultra-slim “star-tip” design that reduces noise level.

- ❑ The “Star-tip” nozzle reduces the danger of high pressure air coming into direct contact with the skin. In this way B2602 meets the U.S. OSHA standard which specifies a maximum of 2 bar in case of direct contact.

- ❑ Bent tube reaches extremely tight areas.

- ❑ Adjustable trigger regulates flow.

- ❑ Handy, built-in hook for hanging.

- ❑ Ribbed handle for better grip.

- ❑ Brass button and inlet insert for added strength at key stress points.

- ❑ Internal connecting thread 1/4" BSP.

Blow guns –GUN, B2602

Model	Back pressure at 6 bar when the nozzle is blocked bar	Blow force N	Sound level at 6 bar dB(A)	Air flow l/s	Weight kg	Ordering No.
GUN F06A-SS with safety/silencer nozzle	0.8	2	82	3.8	0.16	8202 1005 69*
GUN F06A-S with safety nozzle	0.8	4	90	7.0	0.15	8202 1005 51*
GUN F06A without nozzle	6	4	90	7.0	0.14	8202 1005 28*
B2602	0.0	1.8	79	2.9	0.13	8202 1006 01*

Transparent guard



Holder for suspension



Star-tip nozzle –B2602



ACCESSORIES FOR GUN

Designation	Ordering No.
Transparent guard	9090 1886 90*
Holder for suspension	9090 1808 80*
Hose nipple	9000 0241 00*
Safety/Silencer nozzle	9090 1809 81*
Safety nozzle	9090 1809 80*

* Available directly from stock.

INSTALLATION PROPOSALS

Saving you time and trouble

Choosing the correct couplings, hose and clamps can be a troublesome digging into details. To save your time and to ensure correct capacity of the airline installation, from the tapping point to the tool, we offer you installation proposals for each tool.

The installation proposals, IP, are divided into material

removal tools and assembly tools and they are marked with the maximum air flow for the installation. When you have found the installation proposal for your tool, there is only an ordering number for the air preparation units, hose kit and whip hose kit required. Ordering airline accessories for your tools has never been easier.

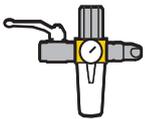
IP1 Installation proposals

This allows you to order all the parts needed for an efficient installation of the actual tool, using two or three ordering numbers.

Material removal tools

IP1

Installation proposal for LSO / LST / LBB24 / LBS24 / LBB34 / LBB45 / LGB24 / LGB34 / LBV25 / LBV34. Filtered and regulated air for a maximum air flow of **10 l/s**.



BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48



ErgoNIP 10 5 m PVC 10 ErgoQIC 10
+ ErgoNIP 10 M08
8202 1180 18*

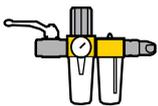


ERGO NIP 10 0.7 m CABLAIR 10 Nipple
Male 1/4" BSPT
8202 1180 19*

Optional for LSO and LST.

IP2

Installation proposal for LSF17 / LSV17 / RVM07B / RRC22 / RP1 / RP3. Filtered, regulated and oil fog lubricated air for a maximum air flow of **10 l/s**.



BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0829 11



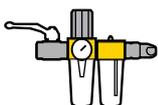
ErgoNIP 10 5 m PVC 10 ErgoQIC 10
5 m RUBAIR 10 + ErgoNIP 10 M08
8202 1180 18* / 8202 1180 43*



ErgoNIP 10 0.7 m CABLAIR 10 Nipple
0.7 m RUBAIR 10 Male 1/4" BSPT
8202 1180 19* / 8202 1180 42*

IP3

Installation proposal for LSV27 / LSF27 / LSR27 / RRF21/31 / RRC13 / RRC13B / RRC13N / RRC22 / RP1 / RP3. Filtered, regulated and oil fog lubricated air for a maximum air flow of **15 l/s**.



BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0829 11



ErgoNIP 10 5 m RUBAIR 10 ErgoQIC 10
+ ErgoNIP 10 M10
8202 1180 20*



ErgoNIP 10 0.7 m RUBAIR 10 Nipple
Male 3/8" BSPT
8202 1180 44*

Whip hose included in the 27 series.

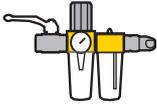
* Available directly from stock.

INSTALLATION PROPOSALS

Material removal tools

IP4

Installation proposal for RRC34 / RRC65 / RRC75 / RRD37 / RRD57.
Filtered, regulated and oil fog lubricated air for a maximum air flow of **15 l/s** (1/2" tool nipple).



BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 10
8202 0829 11



ErgoNIP 10 5 m RUBAIR 13 ErgoQIC 10



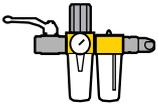
ErgoNIP 10 0.7 m RUBAIR 13

Nipple is included with the tool.

8202 1180 21*

IP5

Installation proposal for LSS53 / LSR53 / LBB36 / LSV37 / LSF36 / LSR43 / RAB9 / RAB12.
Filtered, regulated and oil fog lubricated air for a maximum air flow of **31 l/s**.



BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 10
8202 0829 11



ErgoNIP 10 5 m RUBAIR 13 ErgoQIC 10

8202 1180 22*



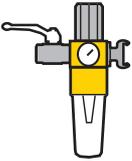
ErgoNIP 10 0.7 m RUBAIR 13 Nipple
Male 1/2" BSPT

8202 1180 23*

*Whip hose for LSS53, LSR53 and LSR43.
Whip hose included in LSV37.*

IP6

Installation proposal for GTG40 / GTR40 –When the inlet pressure to the F/R unit is below 6 bar.
Filtered and regulated air for a maximum air flow of **60 l/s**.



BALL VALVE +
MAXI F/R 25 +
CLAW
8202 0845 55



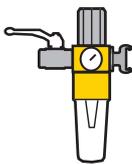
CLAW 5 m TURBO 16 ErgoQIC 10

8202 1181 80*

Whip hose included in the 40 series.

IP7

Installation proposal for GTG40 / GTR40 –When the inlet pressure to the F/R unit is below 6 bar.
Filtered and regulated air for a maximum air flow of **60 l/s**.



BALL VALVE +
MAXI F/R 25 +
CLAW
8202 0845 55



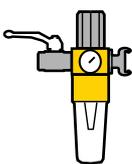
CLAW 20 m TURBO 20 ErgoQIC 10

8202 1181 75*

Whip hose included in the 40 series.

IP8

Installation proposal for GTG40 / GTR40 –When the inlet pressure to the F/R unit is below 6 bar.
Filtered and regulated air for a maximum air flow of **60 l/s**.



BALL VALVE +
MAXI F/R 25 +
CLAW
8202 0845 55



CLAW 5 m TURBO 16 Nipple
Male 1/2" BSPT

8202 1181 95*

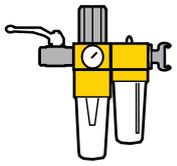
* Available directly from stock.

INSTALLATION PROPOSALS

Material removal tools

IP9

Installation proposal for LSS64 / LSR64.
Filtered regulated and oil fog lubricated air for a maximum air flow of **60 l/s**.



BALL VALVE +
MAXI F/RD 25 +
CLAW
8202 0845 58



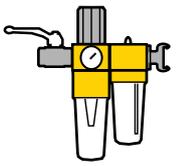
CLAW 5 m RUBAIR 20 ErgoQIC 10
8202 1180 24*



ErgoNIP 10 0.5 m RUBAIR 16 Nipple
Male 1/2" BSPT
8202 1180 28*

IP10

Installation proposal for LSS84.
Filtered, regulated and oil fog lubricated air for a maximum air flow of **65 l/s**.



BALL VALVE +
MAXI F/RD 25 +
CLAW
8202 0845 58



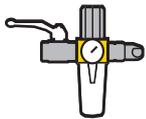
CLAW 5 m RUBAIR 20 CLAW
8202 1180 29*



CLAW 0.5 m RUBAIR 16 Nipple
Male 1/2" BSPT
8202 1180 37*

IP11

Installation proposal for GTG21.
Filtered and regulated air for a maximum air flow of **30 l/s**.



BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48

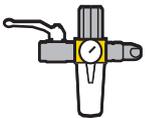


ErgoNIP 10 10 m TURBO 16 ErgoQIC 10
8202 1180 46*

Whip hose included in the 21 series.

IP12

Installation proposal for GTG21.
Filtered and regulated air for a maximum air flow of **30 l/s**.



BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48

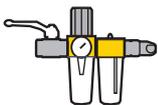


ErgoNIP 10 5 m RUBAIR 13 ErgoQIC 10
8202 1180 22*

Whip hose included in the 21 series.

IP13

Installation proposal for LSS53 / LSR53 / LBB36 / LSF36 / LSV37 / LSR43 / RAB9 / RAB12.
Filtered, regulated and oil fog lubricated air for a maximum air flow of **31 l/s**.



BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 10
8202 0829 11



ErgoNIP 10 10 m TURBO 16 ErgoQIC 10
8202 1180 46*



ErgoNIP 10 0.7 m RUBAIR 13 Nipple
Male 1/2" BSPT
8202 1180 23*

*Whip hose for LSS53, LSV50, LSR53 and LSR43.
Whip hose included in LSV36 and LSV27 series.*

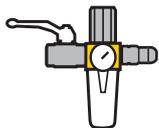
* Available directly from stock.

INSTALLATION PROPOSALS

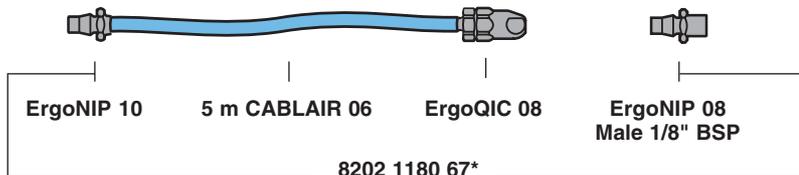
Assembly tools

IP21

Installation proposal for LUM10 / LUM12 / LUM21 / LUF10 / LUF20 / LTV08.
Filtered and regulated air for a maximum air flow of 5 l/s.

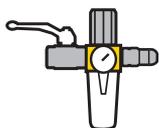


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48

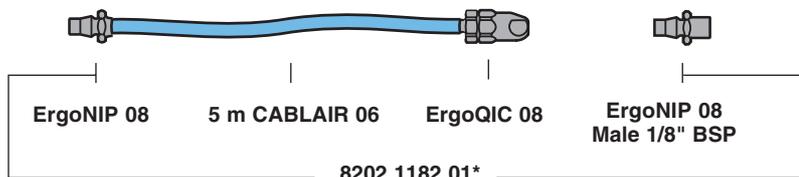


IP21A

Installation proposal for LUM10 / LUM12 / LUM21 / LUF10 / LUF20 / LTV08.
Filtered and regulated air for a maximum air flow of 5 l/s.

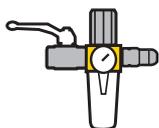


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 08
8202 0845 49

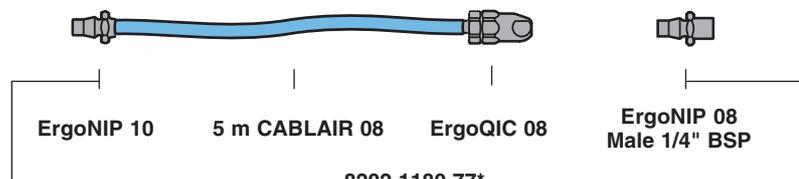


IP22

Installation proposal for EP5 / EP6 / EP8 / EP10 / LUM25 / TWIST / LMS06 / LTV08 / LTV18.
Filtered and regulated air for a maximum air flow of 8 l/s.

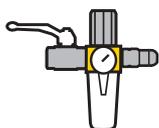


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48

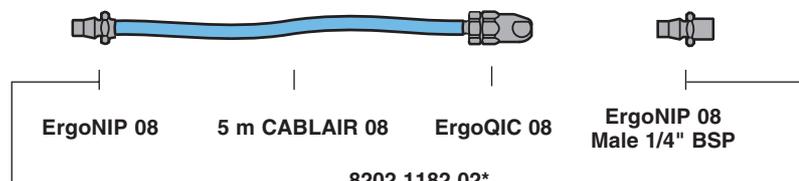


IP22A

Installation proposal for EP5 / EP6 / EP8 / EP10 / LUM25 / TWIST / LMS06 / LTV08 / LTV18.
Filtered and regulated air for a maximum air flow of 8 l/s.

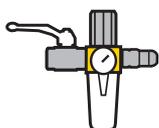


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 08
8202 0845 49

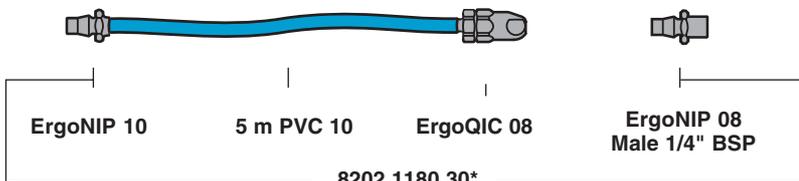


IP23

Installation proposal for EP7 / EP8 / EP10 / EP12 PT / EP12 XS / LUF34 / LMP24.
Filtered and regulated air for a maximum air flow of 14 l/s.



BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48



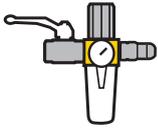
* Available directly from stock.

INSTALLATION PROPOSALS

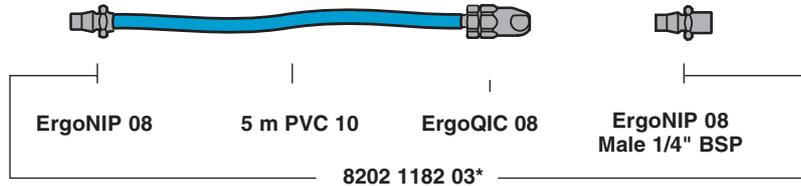
Assembly tools

IP23A

Installation proposal for EP7 / EP8 / EP10 / EP12 PT / EP12 XS / LUF34 / LMP24.
Filtered and regulated air for a maximum air flow of 14 l/s.

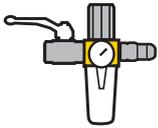


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 08
8202 0845 49

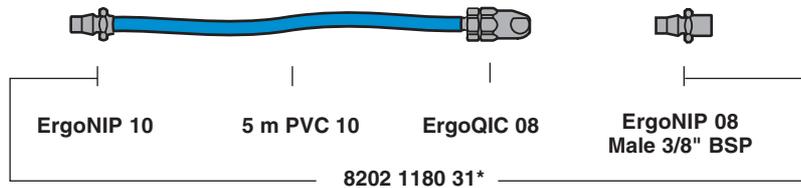


IP24

Installation proposal for EP14 XS.
Filtered and regulated air for a maximum air flow of 14 l/s.

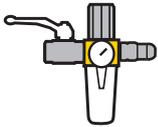


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48

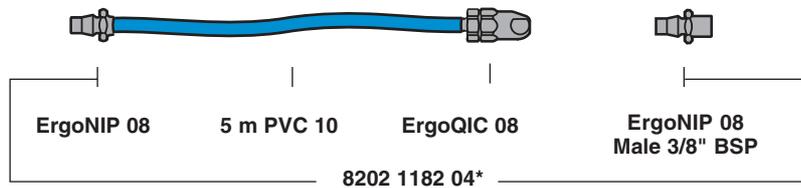


IP24A

Installation proposal for EP14 XS.
Filtered and regulated air for a maximum air flow of 14 l/s.

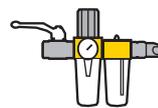


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 08
8202 0845 49

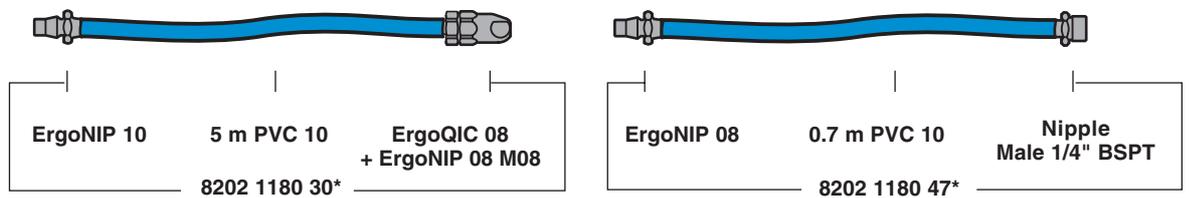


IP25

Installation proposal for LTS17 / LTS27 / LTS37 / LTS57.
Filtered, regulated and oil fog lubricated air for a maximum air flow of 14 l/s.

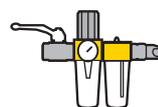


BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 10
8202 0829 11

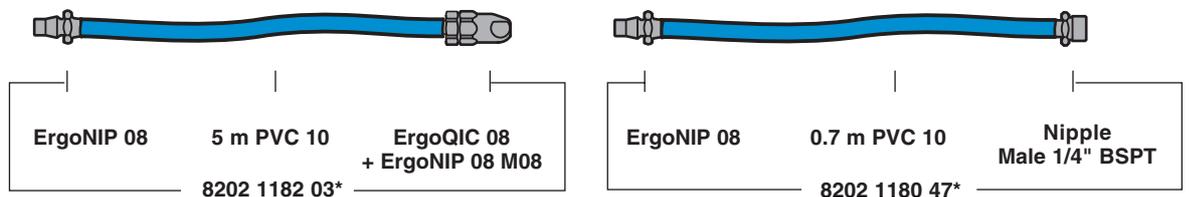


IP25A

Installation proposal for LTS17 / LTS27 / LTS37 / LTS57.
Filtered, regulated and oil fog lubricated air for a maximum air flow of 14 l/s.



BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 08
8202 0829 13



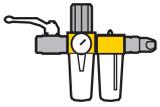
* Available directly from stock.

INSTALLATION PROPOSALS

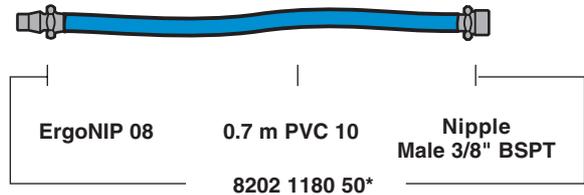
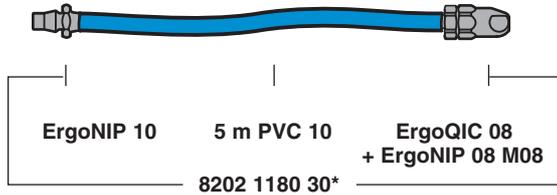
Assembly tools

IP26

Installation proposal for LMS17 / LMS27.
Filtered, regulated and oil fog lubricated air for a maximum air flow of 14 l/s.

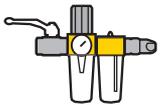


BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 10
8202 0829 11

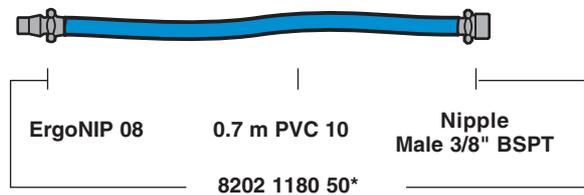
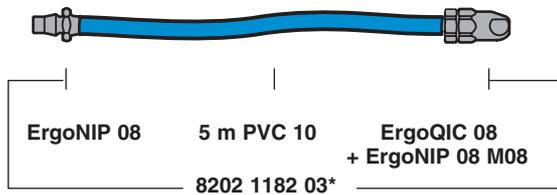


IP26A

Installation proposal for LMS17 / LMS27.
Filtered, regulated and oil fog lubricated air for a maximum air flow of 14 l/s.

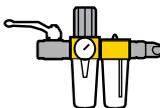


BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 08
8202 0829 13

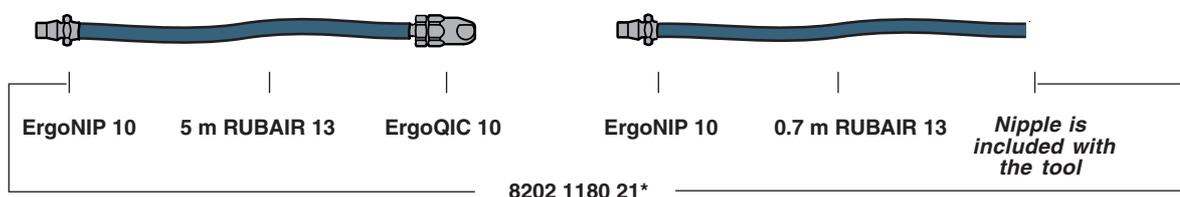


IP27

Installation proposal for LMS37 / LMS47 / LMS57 / LMS61 / LMS64.
Filtered, regulated and oil fog lubricated air for a maximum air flow of 22 l/s.

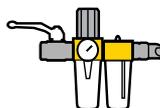


BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 10
8202 0829 11

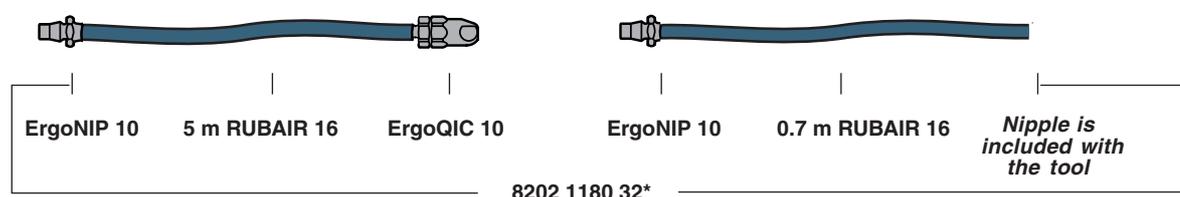


IP28

Installation proposal for LMS86.
Filtered, regulated and oil fog lubricated air for a maximum air flow of 30 l/s.

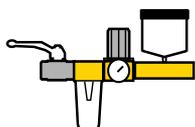


BALL VALVE +
MIDI F/RD 15 +
ERGOQIC 15B
8202 0829 11

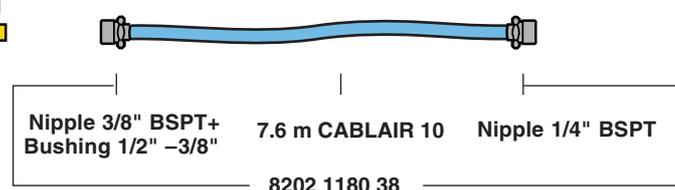


IP29

Installation proposal for LTV28.
Filtered, regulated and injection lubricated air for a maximum air flow of 10 l/s.



BALL VALVE +
MIDI F/R 15 +
DOS 15B
8202 0845 66



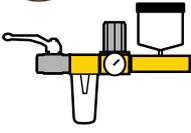
* Available directly from stock.

INSTALLATION PROPOSALS

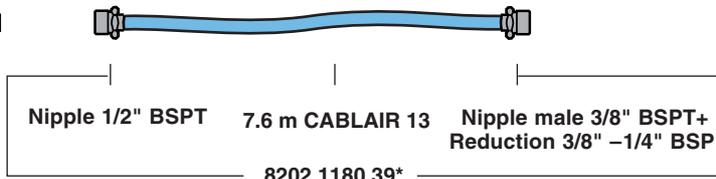
Assembly tools

IP30

Installation proposal for LMP51 / LTV38.
Filtered, regulated and injection lubricated air for a maximum air flow of **19 l/s**.

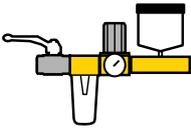


BALL VALVE +
MIDI F/R 15 +
DOS 15B
8202 0845 66

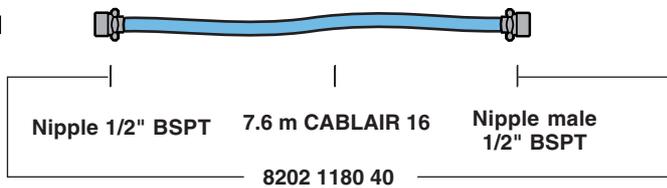


IP31

Installation proposal for LTV46 / LTV48.
Filtered, regulated and injection lubricated air for a maximum air flow of **30 l/s**.

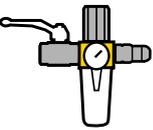


BALL VALVE +
MIDI F/R 15 +
DOS 15B
8202 0845 66

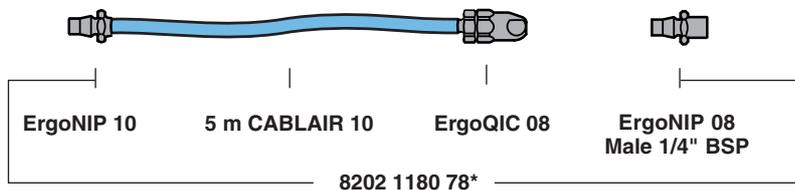


IP33

Installation proposal for EP8 / EP10 / EP12.
Filtered and regulated air for a maximum air flow of **14 l/s**.

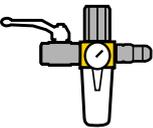


BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48

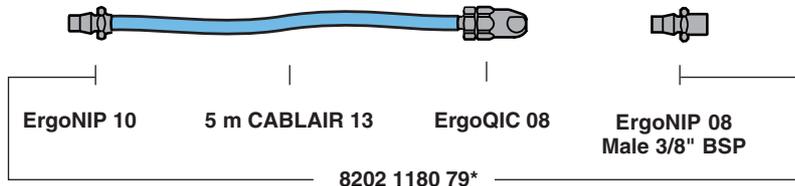


IP34

Installation proposal for EP12 PTS / EP14 / EP16 / EP20.
Filtered and regulated air for a maximum air flow of **22 l/s**.



BALL VALVE +
MIDI F/R 15 +
ERGOQIC 10
8202 0845 48



* Available directly from stock.

TEST EQUIPMENT



PRESSURE CONTROL UNIT

The unit consists of a quality pressure gauge and the necessary couplings for checking the air pressure at the air inlet of the machine.

Ordering No. 4145 0699 81*.



AIR TOOL SIMULATOR

In order to check whether the pressure or the flow is sufficient the air tool simulator can be connected instead of the tool. The simulator is delivered with different connections.

Ordering No. 4145 0698 81*.

Air motors

The right choice for demanding applications

Since Atlas Copco air motors are unaffected by, and generate no electrical interference, they are ideal for hazardous environments. Lubrication-free and stainless steel versions are available for applications where hygiene is crucial or the environment is corrosive.

Contents	Page
Vane air motors	250
LZB vane air motors	251
LZL vane air motors	251
Air motor support	252

VANE AIR MOTORS

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.



Unique 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.

LZB AND LZL VANE AIR MOTORS

0.1 –1.2 kW

The LZB vane air motors are compact in design, light in weight and available in a host 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.



Model	Max output		Speed at max output r/min	Torque at max output		Min start torque		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	0.22	330 - 9100	0.17 - 4.7	0.12 - 3.4	0.26 - 7	0.19 - 5.1	690 - 19500	5	27	1.1
LZB22	0.25	0.34	235 - 9600	0.25 - 9.9	0.18 - 7.3	0.45 - 17	0.33 - 12.5	510 - 21500	7	36	1.4
LZB33	0.39	0.52	10 - 9400	0.40 - 340	0.30 - 251	0.76 - 680	0.56 - 501	21 - 20000	17	42	1.6
LZB42	0.65	0.87	25 - 10500	0.59 - 236	0.44 - 174	1.10 - 430	0.80 - 315	50 - 21000	12	46	1.8
LZB46	0.84	1.13	25 - 10800	0.74 - 300	0.55 - 220	1.20 - 490	0.88 - 360	50 - 21000	12	46	1.8
LZB54	1.20	1.60	65 - 9300	1.20 - 175	0.88 - 129	1.80 - 250	1.30 - 180	125 - 18000	10	60	2.4
Reversible											
LZB14	0.10	0.14	230 - 6500	0.15 - 4.1	0.11 - 3.0	0.19 - 5	0.14 - 3.7	460 - 13000	5	27	1.1
LZB22	0.16	0.22	5 - 6500	0.24 - 10.8	0.18 - 8	0.35 - 13.4	0.26 - 9.9	5 - 13800	9	36	1.4
LZB33	0.24	0.32	7 - 7000	0.34 - 305	0.25 - 225	0.46 - 412	0.34 - 304	5 - 14000	21	42	1.6
LZB42	0.53	0.71	19 - 8100	0.62 - 250	0.46 - 184	0.70 - 270	0.52 - 200	37 - 16000	12	46	1.8
LZB46	0.62	0.83	20 - 8600	0.68 - 275	0.50 - 200	0.75 - 300	0.55 - 220	40 - 17000	12	46	1.8
LZB54	0.82	1.10	45 - 6800	1.20 - 165	0.88 - 122	1.20 - 165	0.88 - 122	90 - 13000	10	60	2.4

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.

1.6 –5.2 kW

The 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	Max output		Speed at max output r/min	Torque at max output		Min start torque		Free speed r/min	No. of gear ratios
	kW	hp		Nm	ft lb	Nm	ft lb		
Motor only									
LZL05	1.6	2.1	4670	3.2	2.4	5.3	3.9	9300	–
LZL15	2.6	3.5	3380	7.3	5.4	12.2	9.0	7100	–
LZL25	3.7	5.0	2800	12.7	9.4	20.8	15.3	5900	–
LZL35	5.2	7.0	2380	20.5	15.1	32.0	23.6	4800	–
With helical gear unit									
LZL05	1.6	2.1	19 - 495	28 - 730	20 - 538	40 - 1090	30 - 804	37 - 990	11
LZL15	2.6	3.5	17 - 375	62 - 1360	46 - 1000	105 - 2330	78 - 1720	35 - 785	11
LZL25	3.7	5.0	14 - 305	112 - 2430	82 - 1800	185 - 4050	138 - 3000	29 - 635	11
LZL35	5.2	7.0	18 - 470	100 - 2540	75 - 1870	160 - 4110	120 - 3035	37 - 950	9
With worm gear unit									
LZL05	1.2	1.6	65 - 515	22 - 140	16 - 100	–	–	125 - 1020	7
LZL15	2.2	3.0	54 - 395	54 - 325	40 - 240	–	–	110 - 840	7
LZL25	3.4	4.6	43 - 350	91 - 624	67 - 460	–	–	85 - 730	7

For more information on Atlas Copco vane motors see our air motor catalogue, Ordering No. 9833 8998 01.

AIR MOTOR SUPPORT

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.

Ordering No. 9833 9093 00



Air motor drawing library

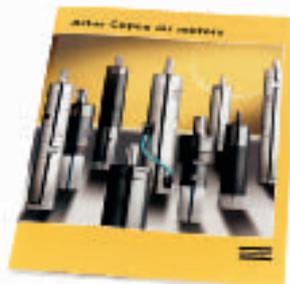
CAD-drawings of any of the hundreds of different Atlas Copco air motors are available to designers on CD or to download from Internet (in both .DXF and .IGS formats) from the Atlas Copco Air Motor Draw Library. These CAD-drawings can then be quickly and easily inserted into the designer's machine drawing.

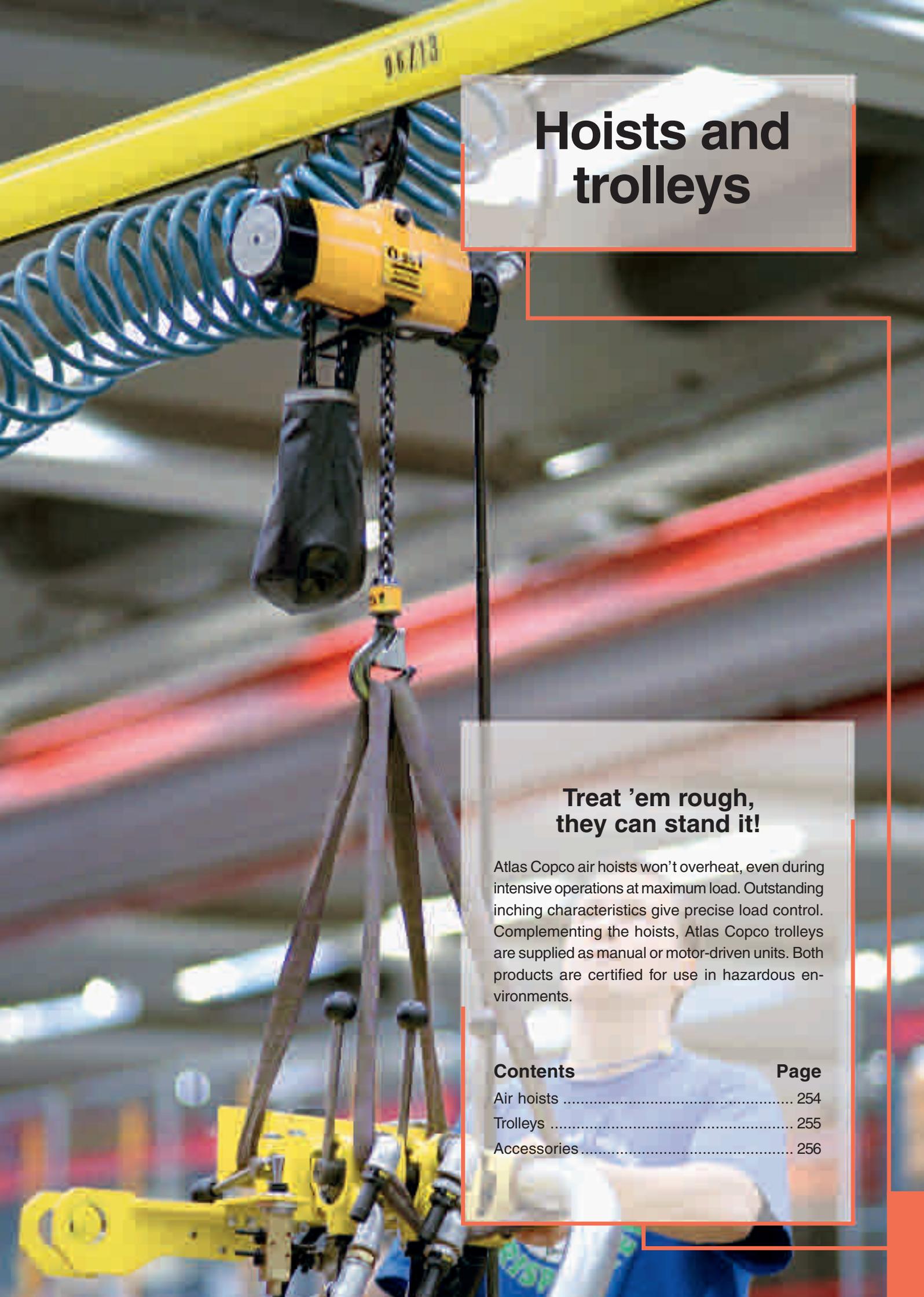
Ordering No. 9833 1139 00



When more information is required

For further information on Atlas Copco vane motors please ask for a copy of our Air Motor catalogue, **Ordering No. 9833 8998 01**.





Hoists and trolleys

Treat 'em rough, they can stand it!

Atlas Copco air hoists won't overheat, even during intensive operations at maximum load. Outstanding inching characteristics give precise load control. Complementing the hoists, Atlas Copco trolleys are supplied as manual or motor-driven units. Both products are certified for use in hazardous environments.

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Accessories	256

AIR HOISTS

Explosion proof for safe operation

Our air hoists and trolleys are ideal for lift applications in hazardous environments, where sparks or high outer temperatures could ignite explosive gases, vapour or dust. 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 200 kg to 5 tons. All hoists and trolleys are certified to level Ex II 2G T5 II B D100°C. The SR types are even certified to Ex II 2G T5 IIC D100°C.

- ❑ **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 loadsink 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.



Model	Max lifting capacity		Lifting speed at full load		Chain strands	Weight excl chain		Chain weight		Required chain-length metre	Sound level dB(A)	Air consumption		Hose dia		Hose fitting thread	Ordering No.
	kg	ton	m/min	ft/min		kg	lb	kg/m	lb/ft			l/s	cfm	mm	in		
LLA200 EX	200	0.2	20.2	66.3	1	12.7	28.0	0.9	0.6	Lifting height + 0.5	84	38	81	12.5	1/2	1/2	8451 1540 02*
LLA250 EX	250	0.25	18.6	61.0	1	12.7	28.0	0.9	0.6	Lifting height + 0.5	84	37	78	12.5	1/2	1/2	8451 1540 10*
LLA500 EX	500	0.5	12.6	41.3	1	12.7	28.0	0.9	0.6	Lifting height + 0.5	83	38	81	12.5	1/2	1/2	8451 1540 28*
LLA1000 U EX ^a	1000	1.0	6.3	20.7	2	14.5	32.0	0.9	0.6	2 x lifting height + 0.5	83	38	81	12.5	1/2	1/2	8451 1540 69*
LLA1000 EX ^b	1000	1.0	6.3	20.7	2	14.5	32.0	0.9	0.6	2 x lifting height + 0.5	83	38	81	12.5	1/2	1/2	8451 1540 36*
LLA2500 EX ^b	2500	2.5	3.2	10.5	1	42.5	93.7	2.9	1.9	Lifting height + 0.6	79	40	85	20.0	3/4	1/2	8451 1540 44*
LLA5000 EX ^b	5000	5.0	1.6	5.2	2	65.5	144.4	2.9	1.9	2 x lifting height + 0.9	79	40	85	20.0	3/4	1/2	8451 1540 51*
Spark-resistant model																	
LLA250-SR	250	0.25	17.0	55.8	1	12.7	28.0	0.9	0.6	Lifting height + 0.5	83	45	95	12.5	1/2	1/2	8451 1510 08
LLA500-SR	500	0.5	8.5	27.9	2	14.5	32.0	0.9	0.6	2 x lifting height + 0.5	83	45	95	12.5	1/2	1/2	8451 1510 16
LLA1250-SR	1250	1.25	5.0	16.4	1	42.5	93.7	2.9	1.9	Lifting height + 0.6	79	50	106	20.0	3/4	1/2	8451 1510 24

^a Without overload protection device, not to be used within the European Community.

* Available directly from stock.

^b Overload protection device included as standard.

NOTE: The load chain and pull chain must be ordered separately.

DIMENSIONS

Model	A		B		C		D	
	mm	in	mm	in	mm	in	mm	in
LLA200 / 250 EX	377	14.8	122	4.8	390	15.4	29	1.1
LLA500 EX / 250-SR	377	14.8	122	4.8	390	15.4	29	1.1
LLA1000 U EX / 500-SR	445	17.5	122	4.8	390	15.4	29	1.1
LLA1000 EX	495	19.4	122	4.8	390	15.4	29	1.1
LLA2500 EX / 1250-SR	575	22.6	212	8.3	546	21.5	50	2.0
LLA5000 EX	785	30.9	249	9.8	546	21.5	60	2.4

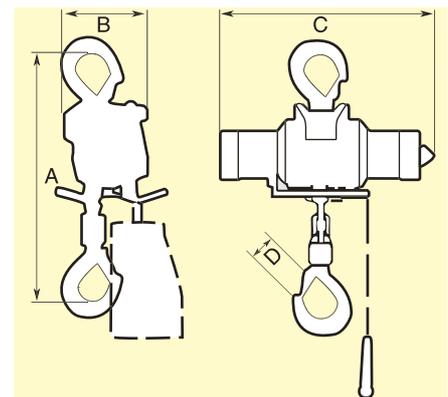
ACCESSORIES INCLUDED

Wooden handle for pull chain hose nipple
BSP 1/2"

Suspension hook and load hook

OPTIONAL ACCESSORIES

Page 256



TROLLEYS

Atlas Copco trolleys are available in 3 sizes, for maximum loads of 1, 2.5 and 5 tonnes. All models can be offered with air motor drive. The 1 tonne trolley includes motor without pedant control. The 2.5 and 5 tonne includes handle for control chain (control chain must be ordered separately). The 1 and 2.5 tonne trolleys are also available in manual versions.

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.



Model	Max capacity		Max speed with full load		Air consumption		Beam width standard		Beam width optional		Curve radius min		Weight		Ordering No.
	kg	ton	m/min	ft/min	l/s	cfm	mm	in	mm	in	mm	in	kg	lb	
Manual															
TLT1000	1000	1	-	-	-	-	50-165	2 - 6.5	134-265	5.3-10.4	1250	50	9.4	21	8451 1520 06
TLT2500	2500	2.5	-	-	-	-	136-334	5.2-13.1	60-172	2.3- 6.7	2200	88	32.0	70	8451 1520 55
LLT1000-SR	1000	1	-	-	-	-	54-173	2.1- 6.8	140-273	5.5-10.7	1200	47	9.5	21	8451 1500 00
LLT2500-SR	2500	2.5	-	-	-	-	133-332	5.2-13.1	58-170	2.3- 6.7	1400	55	24.5	54	8451 1500 26
Motor-driven															
TLT1000M ^a	1000	1	14.0	45.9	4.0	8.5	50-155	2 - 6.1	134-255	5.3-10.0	1250	50	11.0	24	8451 1520 14
LLT2500M ^b	2500	2.5	17.8	58.4	42.0	89.0	133-306	5.2-12.0	58-144	2.4- 5.7	1400	55	41.0	90	8451 1491 19
LLT5000M ^b	5000	5	16.2	53.1	42.0	89.0	145-300	5.7-11.8	70-148	2.8- 5.8	1800	71	91.0	200	8451 1491 27
LLT1000(M)-SR ^{bc}	1000	1	14.0	45.9	4.5	9.5	54-153	2.1- 6.0	140-253	5.5-10.0	1200	47	11.0	24	8451 1500 42
LLT2500M-SR ^{bc}	2500	2.5	17.8	58.4	42.0	89.0	133-306	5.2-12.0	58-144	2.3- 5.7	1400	55	41.0	90	8451 1500 34

^a Pendant control must be ordered separately.

^b Includes handle for control chain. Control chain must be ordered separately.

^c The pendant controls are not spark resistant.

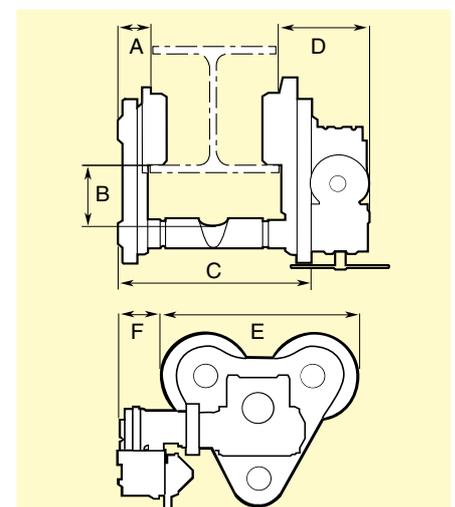
Sound level: TLT1000M and LLT1000(M) = 85 dB
LLT2500M and LLT5000M = 81 dB

Performance figures are at 6 bar working pressure.
Motor-driven trolleys have 1/2" BSP air connection.
12.5 mm (1/2") hose size recommended for LLT1000M,
20 mm for LLT2500M and 5000M.

NOTE: Suspension yoke for optional beam width must be ordered separately. See page 256.

DIMENSIONS

Model	A		B		C standard		C (opt)		D		E		F	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
Manual														
TLT1000	22.0	0.9	52	2.0	212	8.3	312	12.2	-	-	264	10.4	-	-
TLT2500	37.0	1.5	75	2.9	400	15.7	238	9.4	-	-	370	12.8	-	-
LLT1000-SR	23.5	0.9	55	2.2	212	8.3	312	12.3	-	-	250	9.8	-	-
TLT2500-SR	37.0	1.5	57	2.2	400	15.7	238	9.4	-	-	364	14.3	-	-
Motor-driven														
TLT1000M	22.0	0.9	52	2.0	212	8.3	312	12.2	224	8.8	264	10.4	-	-
LLT1000(M)-SR	23.5	0.9	55	2.2	212	8.3	312	12.3	225	8.9	250	9.8	-	-
LLT2500M/-SR	39.0	1.5	82	3.2	400	15.7	238	9.4	161	6.3	364	12.8	126	5.0
LLT5000M	61.0	2.4	118	4.6	424	16.7	282	11.1	181	7.1	422	16.6	79	3.1



ACCESSORIES INCLUDED

LLT2500M/5000M Wooden handle for pull chain

OPTIONAL ACCESSORIES

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ACCESSORIES FOR HOISTS AND TROLLEYS

OPTIONAL ACCESSORIES. Hoists

Designation	Ordering No. LLA200/250/500/1000 EX	Ordering No. LLA2500/5000 EX	Ordering No. LLA250/500-SR	Ordering No. LLA1250-SR
Load chain, zinc plated, per m	4310 2293 00	4310 2296 00		
Load chain, stainless steel, per m			4310 2211 00	4310 2219 00
Control chain, zinc plated, per m	4310 0748 00	4310 0748 00		
Control chain, stainless steel, per m			4310 2221 00	4310 2221 00
2 button pendant control				
Handle and actuators only	4310 2261 90	4310 2262 90	4310 2261 90	4310 2262 90
Hose set per m	4380 0576 91	4380 0576 91	4380 0576 91	4380 0576 91
4 button pendant control				
Handle and actuators only	4310 2263 90	4310 2264 90	4310 2263 90	4310 2264 90
Hose set per m	4380 0576 94	4380 0576 93	4380 0576 94	4380 0576 93
Twist rod control				
Complete (1.1-2.0 m)	4310 0774 91	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	4310 0780 91
Articulating link	4310 0876 91	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 2291 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		4310 2102 80
-18 m		4310 2109 80		4310 2109 80
Overload protection device				
LLA200 EX / 250 EX / 250-SR	4310 0812 83		4310 2233 90	
LLA500 EX / 500-SR	4310 0812 84		4310 2233 91	
LLA1000 U EX	4310 0812 85			
LLA1000 EX / 1250-SR / 2500 EX / 5000 EX	incl as standard	incl as standard		incl as standard
Safety hooks, zinc plated	4310 0739 01			
Chain stop, zinc plated	4310 0740 91	4310 2097 91		
Chain stop, stainless steel			4310 2231 90	4310 2232 90

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-SR the order should be **12 x 4310 2211 00**.

When ordering load chain, follow the recommendations on chain given in the technical data for LLA hoists.

OPTIONAL ACCESSORIES. Trolleys

Designation	Ordering No. TLT1000/LLT1000-SR	Ordering No. LLT2500-SR	Ordering No. TLT1000M/LLT1000(M)-SR	Ordering No. LLT2500M/M-SR	Ordering No. LLT5000M
Suspension yoke	4380 0640 02	4380 0608 00	4380 0640 02	4380 0608 00	4380 0628 00
Zinc plated control chain per m				4310 0748 00	4310 0748 00
Stainless steel control chain per m				4310 2221 00	
2 button pendant control					
Handle and actuator only			4310 0835 91	4310 2262 90	4310 2262 90
Hose kit per m			4380 0576 92	4380 0576 91	4380 0576 91

Air hoist selection program

The fastest way to choose correct hoists and accessories is by using the Windows based computer program available on CD-rom.

Ordering No. 9833 1087 00



To order your hoist or trolley with accessories factory fitted, simply list all items required and add the

Ordering No. 8990 0001 00, to order.

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 EX 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	TLT1000M Motor driven trolley
1 x 4310 2263 90	4 button handle + hoist actuator
5 x 4380 0576 94	Hose set for 4 button pendant control
1 x 8990 0001 00	Instruction to assemble above items

Subject to alteration without prior notice.

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